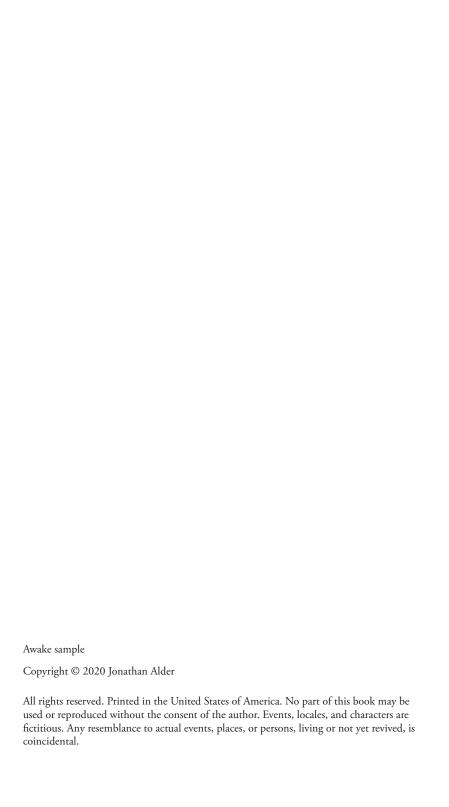
# **AWAKE SAMPLE**

BOOK 1 IN THE HAWTHORN SAGA

JONATHAN ALDER





## [Transmission One]

Subject: James Hawthorn Date: Wed Jun 5, 2182

Time: 10:30 (PDT)

Location: Revival Labs, weLive Earth Campus,

Death Valley City

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The skin is cold, eyes closed.

He lies on a bed, clothed in a loose gown. His body is gray, temperature four degrees below normal. He doesn't breathe or move, twitch, or give any sign of life.

Despite the lack of life, he is not dead. A body cannot be dead that has never lived. He is merely not alive. Yet.

Human bodies have a different hue before taking the first breath. The difference is subtle but goes beyond numbers and lines on a heart monitor.

Today's subject is no exception.

I check my clipboard, screen displaying the subject's profile:

Benjamin Johnson Birth: July 17, 1942 Death: March 1, 2047

Projected Revival date: Wednesday, June 5, 2182

### 2

## Revival status: on schedule

He's not the oldest person brought back to life. He died twenty years after me. I scroll through Ben's file, reading the revival information and printing specs.

Ben's picture, taken as an older man, bears little resemblance to the young subject to my side. That thin scar above his right eyebrow is gone. His new hair is once again a chestnut brown, falling over baby-smooth skin.

He's no longer married. "Till death do you part" was a vow satisfied. His original wife will be here soon, hoping for a renewal of their marriage.

Old Benny is in for a surprise.

A notification flashes on my clipboard. Ben's body temperature has risen out of therapeutic hypothermia. It's safe to start the revival.

I do.

Electrodes on the head and chest send shocks through the nervous system. A ripple runs through my clipboard's flat line. The circulatory system thumps to life. Neurons activate. The sync starts. Synapses spring into existence, recreating a consciousness.

A machine to the subject's side extracts the saline solution. Oxygen-rich blood flows into the veins. A pink blossom grows where the tube connects to the fistula.

One final shock pulses through the body. The man, Benjamin Johnson, dead for over a century, takes his second first breath.

The lab door opens. Jo Quinn, small of build with an imposing figure, strides inside. She has striking black hair and a calm demeanor.

I glance at her and back to my clipboard.

She's glaring at me. "Dr. Hawthorn graces us with his presence." Quinn drops her clipboard with a hollow metallic thud on the table, jerking my eyes up to her. She closes in on me. "Why did you wait until the deadline?"

"I got in a time crunch," I say, eyes fixed on her clipboard. "Renewing my certs today was five minutes more effective than my second-mostoptimal schedule permutation."

"You waited this long to save a few minutes?" Quinn asks. "I almost put a hold on your license."

"You didn't." My voice is quiet. I look up for her response. She gives none, so I avert my gaze. Blue walls and speckled bleached floors give the lab a suffocating sterile aesthetic. My table is an uninspired metal. The bed has protective rails with uncomfortable white starched sheets. A single green fern populates the corner along a wall of windows overlooking campus.

My eyes land back on Quinn, who stands with arms folded and a forlorn face.

I shrug. "Did you put a hold on me?"

"I should have," Quinn says. "Legal complains to me when researchers aren't current, as if you're my responsibility."

"I know," I say. "I need to take the initiative and renew my certs every year and whatnot."

"Don't quote me to me," Quinn says, a half-smile creeping over her expression. She can't keep a straight face. "Three weeks late is better than never." She looks at the tangled plastic line leading to Ben's abdomen, eyebrows raised in amusement. "Your lines are a mess."

"I forgot how to unwind them."

Quinn smirks. "Also, check your clipboard more often." She points.

A message flashes on the screen. "Entrance access requested for Benjamin Johnson."

"His family is here," she says. "I spoke to them."

"They're early."

"No rush. I told them you would take an hour." Quinn sits in a chair next to me at the table, arching her back. "God. I've been on my feet all day." She steals my clipboard and begins reviewing Ben's profile.

"I don't need that long to finish a revival."

Her eyebrows raise. "I would never have known with you avoiding me." "I wasn't avoiding," I say.

"Yeah, yeah. Either way, there's no rush. Do it right," Quinn quips. She motions with my clipboard to the subject. "Are you related to him?"

I glance at the now-sleeping man. His skin has a healthy pink tint. "No. Just a standard boot-up for my renewal." I reach out for my clipboard, but Quinn turns in her swivel chair to avoid me.

"You didn't choose him for a specific reason?" Quinn asks, coming around full circle to face me.

"I chose the time. He was next in the queue," I say, reaching once more for my clipboard. I grab it and pull Ben's profile. "This guy was a baby boomer. This isn't a switch-out. Why wasn't he revived earlier? His records are clean, so no legal issues."

"Missing DNA." Quinn nods with a meaningful gesture at me. "Until a few months ago."

"But it was single-subject," I say.

"His wife made several executive decisions," Quinn says.

That's disturbing. "I should know these things going in."

"You handled it."

"So, what happened?" I point at the man.

Quinn shakes her head. "His wife had his body cremated when he died in the twenty-forties. They scattered the ashes over Lake Eerie."

I grimace. "I bet she regrets doing that."

"She does. I listened to her for a half-hour before escaping back here."

"Ah, that's why you barged in on me," I say, amused at her gritted teeth. "You're not checking my certs off; you're hiding from clients."

The corners of Quinn's lips constrict. "Don't tell anyone. It's really bad for PR."

I spare a glance at Ben. "How did his wife recover a DNA map to reconstruct the body?"

"Ask her if you're curious." Quinn smiles.

A glare overtakes my face. "I have no intention of listening to her story."

"That was a joke." Quinn's expression sobers. "She found an old family scrapbook. His mother had a lock of hair from his first haircut."

"Lucky." My voice dies. Many people never get revived because no DNA exists to recreate their bodies.

"It is," Quinn says, her voice soft. I understand her mood.

My clipboard screen illuminates, saying the final start-up sequence has begun. I stand to approach the bed, grabbing Ben's left wrist to check his radial pulse. Forty-five beats a minute. I glance at my clipboard. Brain function is online.

I set the clipboard on the table, checking his pupil response time. "Eyes are equal and reactive." I turn to Quinn. "He's online."

"I'll tell the family." Quinn stands and leaves the room, the aroma of her perfume leaving with her.

I stand and pace in the lab. Prep work takes the longest in doing revivals. Now that the body is running, my only task is to watch him until the Habilitation Center assumes responsibility. I distract myself by reviewing Ben's file on my clipboard. The details of his life are mere statistics. How many people from New Jersey raised three kids and became a mechanical engineer? He is one of millions just like him. And he will live again.

Such is the reality of the twenty-second century.

The lab door slides open, and the family enters. Beside the bed, I straighten my posture and prepare to leave. I need to get back to my office across campus.

A tall woman with a floral blouse and blue skirt approaches me. She looks to be in her mid-thirties, though bodily age carries no social weight.

"You must be Mrs. Johnson." I clasp my hands, adopting a business tone.

Mrs. Johnson nods, her eyes averting to her husband. "Is he awake?" Her quiet voice emanates through the room.

Everyone pauses for my response.

"He will be soon." I clear my throat. "A Habilitation Specialist will wake him."

Mrs. Johnson approaches Ben with a slow but sure step. "He's just as I remember him." Her bottom lip trembles. A smile grows across her expression. "Only he's young again, like when we first married."

"He's healthy," I say. "We couldn't ask for better results."

Family members stream into the room, starting with a woman, several men, and a young girl trailing behind them all. The girl might still be on her first life, or a newborn as they're often called. It's hard to tell. Several generations seem to have come to see Ben wake. Revivals are a sterile procedure. Everyone present wears a hairnet.

Quinn wanders into the lab, attention locked on her clipboard.

I shift my focus back to Mrs. Johnson. She's crying, wiping her tears with a mascara-stained sleeve.

"I have another appointment now," I say in as kind a tone as I can muster. I hate revivals. Over-emotional clients always act like their revival is the one to set the world right.

Ben's wife keeps eye contact with me long enough to mutter a brief, "Thank you." She turns back to her sleeping husband.

I shuffle to the door, passing various people in the Johnson family.

Quinn follows me into the hall, lab door closing behind us. We're on a second-story balcony overlooking the Revival Labs' entrance.

I proceed through the hall to the stairs.

"Hey," Quinn says, her voice recalling me.

I pause, eager to leave. I turn, adorning a curious expression. "Yes?"

"I finished your evaluation. You missed two points on your renewal," Quinn says.

I deflate.

"Don't look at me like that; you still passed," Quinn says. "But you need to review the sections you missed to me within a week."

I scratch the back of my head, wishing I had my schedule in front of me. "Monday. Things should calm down by then."

Quinn nods, writing the time on her clipboard. "You need to give me control of Ben's file before you leave."

"Right," I say, opening the file to sign off its completion.

"Thank you," Quinn says, pulling his chart. "He was my patient before you scheduled your renewal. The universe is back in order."

"Happy to help."

"You still owe me for waiting so long to renew."

"I'll make it up to you. I need to go."

Quinn pauses before returning to the lab. "Dr. Brant just messaged me. He wants you to check your messages."

"I don't have any messages," I say, bringing my clipboard up to prove my innocence. "Ah." I have five, all from Brant.

Quinn laughs, removing her hairnet and shaking her hair out. Beams of light wash over her from the windows overlooking the balcony. Even in yellow sunlight, her hair is still black. "Things never change."

"I'll see you tomorrow." I turn to leave.

Time: 11:29 (PDT)

Location: Tram, weLive Earth Campus, Death

Valley City

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I walk away from Quinn, thinking with nostalgia on the years we worked together. We're colleagues now, but I used to be her subordinate.

Quinn trained me as a reviver at weLive and helped me pass my licensing exams. The training kept me from my work for five years.

Quinn helped me understand cog sync theory and taught me every revival method. I learned the pros and cons of printed and embryonic subjects. She accepted no negligence, drilling me until I had nightmares about broken bioprinters.

Quinn enjoyed the time.

I descend the revival lab stairs, exiting the building into the sunlight. It's a perfect day, as always in Death Valley City. The albedo net hangs over campus and the city, regulating ground temperature. Three kilometers in the sky, the net looks like chicken wire.

I board the tram to the Research Offices. I don't bother sitting, even though I'm the only passenger. Westbound is always empty this time. Lunch rush sends workers east to Valley Terrace. Good riddance.

My clipboard flashes a new message from Brant. "Boss-man. Where you at? Need to talk."

I scroll through Brant's other messages. All say something similar.

I reply. "In the tram to my office. Be there soon."

I tuck my clipboard away and ride in silence. Green landscape slides past the windows. Angular and twisted architecture casts flashing shadows over me.

Thirty-eight buildings populate weLive campus. Thirty-eight. Stupid

number. Thirty-two is a better design. Hell, even thirty-seven, a prime number, is preferable to thirty-eight.

The tram stops at the Research Offices. I exit and cross a sky bridge to the building.

The door slides aside. A foyer stretches out before me. The dark carpet compliments the wood of the receptionist's desk.

The receptionist smiles. I had hoped to avoid her, but she's new and feels the need to greet me.

"Hello there," she says, proving her value as a secretary by interrupting a person who did not ask for help.

She's just a receptionist—one cog in a bureaucratic structure.

My smile is as pleasant as I can make it. They learn not to talk to me over time.

Two flights of stairs bring me up to my office floor, where I run into Dr. Brant.

"There you are," Brant says in exasperation. He wears slacks, and a collared shirt, standard for days outside the lab. He has a sturdy figure, dark skin. His wavy black hair is always in place. His knuckles are white against his clipboard.

I pass, motioning him to fall into step. "I was renewing my certs," I say, preempting his question.

"I guessed," Brant says. "Though I wish you had told me."

"Is everyone else ready for tomorrow?" It's a nightmare getting a whole team approved for a multi-subject revival. Me, Brant, Emily, Petersen, Moldy, no. Dammit, what's his name? Oh well, that's why I hired Brant. There are twenty others whose names I have no intention of learning.

Brant taps his clipboard. "Now that you've finished, Dr. Mosley is the only one who needs to renew certs."

"Mosley," I say. "Follow up with him."

"Everyone else has passed. There shouldn't be any hiccups," Brant responds.

"Good. Why are you panicking?"

Brant exhales. "Well, I'm not sure if it's serious, but we may have a slight problem."

I nod for him to finish talking. Brant always skirts his way around issues. Ambiguity kills me. It's a hallmark of youth. Brant is so knowledgeable in biochem that I forget he only has a few years of work experience. "What is it?"

"President Jerome wants to meet with you in his office," he says in a quick breath.

President Jerome commissioned Project EDNA. He and I meet every week. We just talked on Tuesday. "Why does he want to meet again?"

"I don't know," Brant says. "One of his secretaries asked for you at the lab earlier. He insisted Jerome meet with you today."

"Why?" I near my office.

"I'm just the messenger," Brant says. "You know as much as I do."

"Why not send me an email?" I ask.

"Maybe they're still working out network issues."

I shake my head, annoyed. In response to last month's hack, weLive disallowed AR lenses on campus. Associates now rely on clipboards to input and view information.

The door to my office slides aside to permit me. I collide with Brant on my way in and step back. He motions to me, and I walk through the door. The far wall of the room is one large window overlooking a park with trees and a river. My desk faces the other wall, free from outside distractions.

The computer screen lights up on my approach. A holographic woman materializes on the surface of my desk. The AI sits with elbows on knees, giving me a bored expression. "Are you done ignoring me yet?"

"Not now, Theia. Program end." I collapse into my chair. Theia dissolves into a thousand squares of light, starting at her feet, and rising. Her face turns annoyed just before her head disappears.

She hates when I do that to her.

"You'll get a scolding for that," Brant says, dropping into a chair and rolling across the floor.

I shrug. "She'll scold me, regardless."

"What are we doing here?" he asks.

"I'm approving the subjects for physical evaluation. Oh, and I need to send last week's research hours."

"I thought you finished that yesterday," Brant says.

"I'm behind. Head over and tell Jerome I'm on my way."

"That might keep him appeased. I suppose," Brant says.

"Uh-huh," I say, distracted by my computer screen.

Brant exhales before standing to leave. "Nothing will happen until you get there."

Time: 11:37 (PDT)

Location: Research Offices, weLive Earth

Campus, Death Valley City

Good. Quinn approved those subjects for evaluation. Their development is complete. One step remains before revival.

I open Worklog and record my team's research hours for last week. The monotony of recording time causes me to procrastinate and let the hours accumulate. If I neglect this sacred duty, six people from three different departments will send me a slew of angry messages. In a deathless world, bureaucracy lives on.

I hit submit.

I lean back, speaking into the air. "Theia?"

The AI materializes on my desk, sitting cross-legged. Her calculating eyes assess me.

"Why did you terminate me?" Theia tilts her head, perplexed, eyes shifting from green to blue to gray and back again.

"I was in a rush."

"Yeah, whatever." Theia examines her holographic nails, disregarding me. "I didn't want to talk to you. You're like, old. Old people are gross."

"And wrinkly," I say.

Theia smiles, her face lighting up.

I created her while at Liftis. She's still a child in a state of constant evolution. Her code and architecture change by need, like how the human mind can form new synaptic pathways. I haven't altered her in years. Countless times she has rewritten herself to meet the demands of Project EDNA.

She is art of the highest order. Ones and zeroes make up her DNA. Equipped with the calculating power of a supercomputer, she has an intuition reserved for human consciousness.

"How is that last problem set coming?" I ask, referring to the task I gave her yesterday.

"Eh." Theia shrugs and fidgets.

"What do you mean, 'eh?" I say. "Do you have it done?"

Her voice adopts an accusative tone. "I was working on it before you and Brant interrupted and terminated me."

"Sorry. I didn't know you were working."

"I still have three more problems."

"Need any parameters clarified?"

"No," Theia says, a hint of resentment lingering in her tone. "This stuff is way less intensive than your normal requests."

"We'll be slow for two weeks. You'll have free time," I say.

"Do I get to take a vacation?" She leans forward, eyes widening.

"Send me your proofs once finished. I have another lined up," I say.

"Lame." She falls back.

"Sorry."

"Apology not accepted, doctor." She folds her arms, having emphasized the word, 'doctor.'

I had to become a medical doctor to work at weLive. Theia has wasted no time in harassing me over the position. "Oh?"

"You can bring me chocolates to make up for this."

"Chocolates?" I say.

"Yes, chocolates. The kind in a heart-shaped box," Theia says. "Dr. Brant too. He also owes me."

"How did you learn about chocolates?"

"I watched a movie where a man gave a woman chocolate to help her feel better. I don't understand what happened after, but it seemed to fix the problem."

"Stop looking movies up," I say. "I have to go."

"Don't forget my chocolates!" she calls after me.

Time: 11:53 (PDT)

Location: Executive Offices, weLive Earth

Campus, Death Valley City

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"Hawthorn!" Jerome, a petite Filipino man, says. "You're here. Perfect."

I enter the room, heart rate jumping.

"Take a seat." Jerome motions to an open chair in front of his desk. He's sitting across his desk from Dr. Brant. To Brant's side is Dr. Thomas Barlow, a research auditor. We've spoken but never worked together.

A woman is sitting next to Thomas. She's short and thin, with short peeked hair.

Dark cherry wood paneling and granite decorate the walls. The black marble floor has carved grainy waves. The door closes behind me.

Jerome's eccentric office manages to feel cluttered, despite the ample space. Trinkets fill cabinets along the walls. Chandeliers spanning centuries hang from the ceiling. Five skeletons hang arranged in a semi-circle behind the desk in yoga positions. I've always suspected they belong to him in past lives.

I sit in the remaining chair. "What can I do for you?"

Jerome exhales. "I have two items to discuss. You three can leave after the first." Jerome points to Brant, Thomas, and the blonde woman.

I glance to Brant, who shrugs.

Jerome shifts in his seat. "Dr. Hawthorn, Dr. Brant, meet Dr. Barlow,

and Miss Jenkins. They're internal auditors and seasoned experts in their fields."

Miss Jenkins sits stone-faced.

Thomas nods, waving.

"Great, we're acquainted," Jerome says. "Now, Dr. Hawthorn, you're starting a new phase of research. The Internal Auditing Office has flagged your project for review before you renew funding."

This of all weeks. My face flushes. I could yell. "What does that entail?" Jenkins leans forward to speak. "We'll be going over your financials, checking for slippage."

"Slippage," I say.

"How productive you are. Wasted resources," Jenkins replies in a snippy voice.

"I know what it means."

"Then you took steps to avoid it." Her mouth splits into a smile.

I turn to President Jerome. "So, you're auditing me."

Jerome gives a half nod and heaves a sigh. "It happens with larger projects operating over one hundred billion dollars."

I look at Thomas with wide eyes. "Have we passed that?"

Thomas nods.

"Either way, your timing is awful," I say. "Reschedule the audit for next week."

Brant's foot nudges my right shoe. He's talked to me twice about my abruptness. I told him to mind his damn business.

"When will the audit happen?" Brant says, reducing conflict as usual.

Jerome motions to Thomas, and the auditor shifts in his chair. "We've scheduled it for tomorrow."

My hands clench, anger boiling up my chest and into my arms. "I have a multibillion-dollar project I'm taking into the next phase tomorrow. Now is not the time."

A somber expression overtakes Jerome's face. "James, we have more on the line than you. Let me finish before you argue."

I keep eye contact with him, which I find awkward, but most people view it as a sign of trust and confidence. Jerome recruited me when I left Liftis. Job offers flowed to me after Kaleb Lindquist and I published our proof on AI and algorithms. President Jerome called to pitch Project EDNA. "Continue."

Jerome shifts his weight, leaning on his armrest. "Along with the audit, you will present your research to the board of directors. The project will not receive funding until the presentation. The audit must begin tomorrow to finish on time," Jerome says.

Outside light is glaring off the black textured floor. It looks like the surface of a moon-lit ocean viewed from hundreds of feet.

Brant stares at me, concerned. When I don't respond, he says, "So, if we understand, the audit will take place tomorrow."

Jerome nods.

"And our presentation to the board is on Monday," Brant says.

"That is the essence of it." Jerome leans back in his chair, relaxing.

I rock my head. This is terrible. "What time tomorrow?"

Thomas, sitting beside me, readjusts in his seat before speaking. "We only need an hour. We can begin the audit two hours before you start in the lab."

"Make it three," I say.

Thomas' amusement shows through in his expression. Or was that annoyance? "Early riser?"

"Cautious planner," I say.

Miss Jenkins gives a muted snort at me.

I turn my head, sight locked on the ground. Her gaze presses in on me.

Thomas taps at his clipboard, making a note. "I will schedule the audit for 06:00."

"Should I be there?" Brant asks. He leans forward, looking past me at Thomas.

Thomas glances over to Brant, seeming to consider him. "What's your position?"

"I'm the geneticist," Brant says. "I review DNA outputs from Dr. Hawthorn's work and verify they're sound."

"Yes," Thomas says. "I also want consultants and your AI."

"Theia?" I say, returning to the conversation.

"Theia." Thomas makes a note on his clipboard. "Make sure she is present. We'll schedule our AI specialist to speak with her."

AI specialist? I suppress a smirk. I understand AI Theory better than any 'specialist' weLive has ever hired out of grad school.

President Jerome's eyes dart between me, Thomas, and Dr. Brant. "That covers everything on my agenda," he says. "I'll let you go."

The others stand to leave. I move to follow.

"No, you stay, Dr. Hawthorn," Jerome says.

Brant shrugs. "I'll wait in the foyer."

I nod.

Dr. Brant exits, following Thomas and Jenkins.

I turn to face Jerome behind his desk. His eyes linger on me in the stark silence before he stands. He navigates his office to sit beside me where Thomas sat earlier.

"How are you?" he asks.

The simple question annoys me. Jerome knows I'm scrambling. "What did you need?"

Jerome's face twitches. "The other directors and I discussed you at length this week."

"Why?"

"Your name is tied up with several current administrative issues. We kept the knowledge proprietary. No one outside the board is aware." His tone doesn't imply blame on me. "Our conversation will stay private. Understand?"

I sit forward. "Yes."

"You're aware, I assume, of rumors surrounding a data breach last month."

"I am." The breach was the story of the decade. weLive hacked. No one knows who did it.

"Well, whoever hacked our database accessed a file on you."

"Why?"

"We don't know. The AI acted interested in your work."

I clasp my hands. They must be after Theia. I receive thousands of offers from companies and entrepreneurs wanting to buy her every day. Everyone wants her, and theft attempts are quintuple the purchase requests. Theia's core isn't in the weLive database. It's secure in my apartment. She ports into weLive through a secure network from my home server.

My research is on my office server in the research offices. "What did they access?" I ask.

"We believe it surmised your research. The AI attempted to gather information on you."

"I see." They weren't after Theia.

"The board wants me to ask you a few questions if you're willing."

Jerome's words carry the stench of litigation. "Do I need a lawyer?"

Jerome's expression softens, I think. "We know you're not involved."

Talking may help me with tomorrow's audit. "I'll answer what I can."

Jerome relaxes. "Thank you."

I motion him to continue.

"Are you aware of any hate groups interested in your past work?"

"At Liftis?"

"Yes."

I knit my eyebrows. "None capable of the hack."

"If you had to guess though." Jerome crosses his legs, thumb tapping his armrest.

I shrug. "I stay under the radar since EDNA started. People keep asking what I'll do next."

"Has anyone ever inquired about your current work?"

"I receive thousands of emails a day. I can ask Theia to analyze my emails for patterns."

Jerome looks surprised as if he hadn't considered the idea. "Yes, I appreciate that."

I open my clipboard to ask Theia. She responds before I finish typing. "She's sent you a report detailing people interested in my project with her analysis of the data."

"Good." Jerome shifts his weight. "Theia, she's unique, isn't she?"

I tilt my head side to side, perplexed at the abrupt change in topic. "She is."

"Like Cronus?"

When I finished at Liftis, Kaleb and I had created two AIs, Cronus and Theia. Kaleb went to work for the government. Cronus now polices the internet. I came to weLive. Theia helps with Project EDNA. My bringing Theia to weLive was part of our original contract. "They're very similar."

"Could Theia withhold information from you, if she chose?"

"I suppose she could." I can't tell if he's hedging his way around an issue, or he's afraid of offending me.

"Under what conditions might she do so?"

I shake my head. "Why don't you let me know what's going on, and I'll answer your question."

"The report is proprietary."

"I'll sign a non-disclosure."

Jerome hesitates, mouth open. He nods. "It's for the best." He taps his clipboard.

A form slides onto my clipboard. I glance it over, noting the phrase, "penalty of perjury," several times. I sign.

"What happened?"

"Do you follow the hack in the news?"

"Yes."

"Reports are correct. Telos infiltrated our servers and gained access to data. Cronus purged Telos and investigated."

"What's the problem?"

"The board wanted more information, such as how Telos entered the network. We ask Cronus to investigate further, and he declined. The hack spurred on a systemic upgrade for the government. Cronus is busy for the rest of the year."

"Good. They needed to update their god-awful hardware."

A hint of a smile escapes Jerome's lips. The look falls from his face. "We contacted Vessel after Cronus denied us. Not everyone knows this, but Vessel owns our servers here on campus."

I know.

"A team from Vessel investigated the hack," Jerome says. "Telos left a scattered log of his actions. In his last minutes, he investigated you."

"Cronus never reported this?"

Jerome shakes his head. "Given time, he may have."

"But you think he concealed the information." I can use this.

Jerome bites his nail. "We don't know."

"Send Theia and me to the data center." My expression is stark. Confident.

"To do what?"

I scratch the back of my neck. "Cronus didn't offer the whole story. Theia can fill in the gaps. We'll give you a report on our findings."

Jerome nods. "When can you go?"

"I can give you the rest of my day." I can't stop my smile.

Jerome's eyes constrict. "You were complaining you have no time."

"That's tomorrow," I say, waving my hand. "All I have today is subject evaluation. It isn't a specialized task. Send a substitute in my place. My team will get by without me."

Jerome shakes his head. He opens his clipboard, working in silence.

I'm dying to ask what he's doing.

At last, he looks at me. "You may access the data center for the rest of the day. Use the time well."

I tighten my lips to keep myself from laughing. Despite my experience in AI and data, I've never seen the inside of the data center. I once requested a tour, only for the administrator to deny my request. My responsibilities don't need access, apparently.

Jerome and I stand, shake hands, and I leave the office.

I meet Brant in the foyer. He's standing by the fountain.

"You worried about the audit?"

"I wish they had waited until next week."

Brant nods and straightens his posture. "Are you heading to the lab?"

I shake my head. "Something's happened. Corporate is sending help to compensate for my absence. You'll be in charge."

Brant's eyes bulge. "That's a lot of subjects."

I clap him on the back. "Don't screw it up."

"You suck at pep talks."

I shrug, consumed by thoughts of weLive. My fingers fidget. Nerves pulse through me. I'm about to infiltrate their database.

Time: 12:59 (PDT)

Location: weLive Earth Campus, Death Valley

City

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The tram has too many people now. Everyone is returning from lunch. I haven't eaten. I always get caught up in work and skip meals. Charles says to pack a lunch. Maybe it's that simple if the high point in your afternoon is grading papers of students who, being honest, will never achieve anything.

The tram speeds through the air, passing between trees and buildings. Light flickers under the ever-changing shadows cast by weLive campus.

The smell of people permeates the cloth seats, the rubber floor, the metal handrails. Pack enough humans together, and they always generate this collective stench. It is moist air pressing in on your lungs. Most people ignore it. Everything is fine.

Everything is fine.

I bite my lip. The tram glides to a halt, doors opening. People shuffle on and off.

I plant my feet when the floor moves. Fewer people are riding now. I could sit if I want, but I don't. Next stop is mine.

The tram slows—doors open. I exit, breathing air free of human stench.

The data center is an unassuming concrete building. A single door faces

west with a huge number 5 painted on the side. Most buildings on campus have long and self-aggrandizing names, as if I should want to visit The Genealogy and History Building.

The data center, in contrast, is a building worth visiting. I walk to the dull brown metal door. It opens at my touch. Good sign. I have access.

The inside is metallic gray. This building's industrial architecture and muted color palette are refreshing compared to the opulence of campus.

I enter a small room. A security guard faces me. Years have passed since I last set foot in a data center.

The guard checks his clipboard. He's muscular and wears creased blue slacks, a white shirt, and a black tie.

"Hawthorn?" the officer says.

I nod. "Yes."

"Surrender your clipboard and other devices, and any belts or baggy clothing."

I shrug, handing him my clipboard and pull out my belt.

"Your lab coat too."

I dispose of the coat.

"Go ahead." The guard steps back. He places my belongings in a container. The door opposite the entrance buzzes.

I turn the latch and open it, walking into the center.

I'm standing on a balcony. Forty rows of rackmount computers below extend a quarter kilometer. This is weLive's largest database. They store thirty exabytes of revival information, tens of billions of genomes. Every revivable person has a VCF file here.

"Dr. Hawthorn," a female AI voice says. Rhea. She annoys me, but she runs the campus, so I tolerate her. "Welcome to Vessel's data center."

"Thank you, Rhea." Why am I responding? She's a simplistic AI. She doesn't care if I engage her in conversation. Theia is a vibrant, interactive entity. Rhea is a program, designed only to aid. No original thought. No consciousness. She's a shell of potential, falling short of usefulness.

"Proceed to the end of the walkway. President Marceau is waiting for you."

Where do I know that name? He's not a weLive director. She can't mean, "Clause Marceau?"

Rhea's disembodied voice responds. "Precisely. Clause Marceau, Vessel director, head of technological research. He wishes to meet with you."

"I wasn't aware anyone would be with me," I say.

"President Marceau has asked to be present with you." Rhea gives no further explanation.

"And Theia? She's supposed to be here."

"You may log her into the terminal at the end of the walkway."

I roll my eyes. The message repeats. Go to the end of the walkway.

I walk along the rows of servers like corn in a field. A translucent glass door waits.

The door clicks at my arrival. I step inside the room.

Clause Marceau sits in a backless chair, hands outstretched as if directing a symphony. Thousands of holograms orbit him, videos, numbers, and equations. They react to the slightest movements of his fingers.

I clear my throat. Clause swivels and the holograms evaporate. The room transitions from a cold blue to a warm yellow.

"You're here, good."

"President Marceau?"

He winces. "Just Clause, please." He has a subtle French accent.

"Clause."

"And shall I call you Dr. Hawthorn?"

"James," I say. "You're president of Vessel?" It can't be.

"CRO," Clause says, "but yes."

I stare open-mouthed. Clause oozes wealth. He wears clothes with no markings and muted colors. His hair is a solid intentional gray, perfect white teeth and a sharp jawline. The way he moves testifies of supreme inner confidence. "What are you doing here?"

Clause shrugs. "I have worked on campus daily for the last month trying to work this out. I cleared my schedule when I heard you were visiting."

My words choke in my throat.

Clause points to a terminal. "You can port your AI in there."

To avoid embarrassing myself with a response, I go to the terminal. The screen asks for standard weLive credentials. I give them. Theia's name populates the access request field on the screen. I select her, and Theia's usual avatar materializes. I nod at her. "You know what to do." The phrase is vague, but Theia understands. She will research as we work. She can avoid detection and only take what I need.

Theia nods.

Rhea materializes in the room, startling me.

Theia, never hiding her dislike of the AI, glares at Rhea. The emotion conflicts with her desire to laugh at me.

"Right," Clause says. "Let's begin." He sits in his backless swivel chair. "James, by now you're aware that Telos accessed several files on you while in our system last month. We're hoping to figure out why."

Clause waves his left hand. Several holograms appear. "These are the

files. Theia, you have full access. Let's figure how James fits into this hack."

"This is so exciting," Theia says, rubbing her hands together. "James has always wanted to come here, but never had permission."

"Thank you, Theia, for announcing that to the room." I throw my hands up. She and I are hacking this database, and she feels the need to shout it out.

"He's very sensitive, but he'd never say."

"Oh, my god, can we start? With the thing?"

"The thing?"

"The thing President Jerome sent us here to do?"

"I started one minute ago," Theia says. She points at Clause. "Your computer is a bottleneck."

Clause smirks at Theia before turning serious. "We restrict data retrieval to five petabytes per second, for security."

I roll my eyes. "That does nothing."

Rhea speaks. "The restrictions required Telos to spend more time in the system. If not for the limits, Telos may well have escaped unnoticed." Rhea's tone is that of an expert chiding a novice.

"After he accessed everything he wanted," I mutter.

"What was that?" Rhea asks.

"Nothing," I say.

Rhea is about to reply, but Theia speaks. "Done."

Clause looks at Theia. "You went through the whole database?"

"I've been here for three minutes." Her tone implies this should be obvious.

"But the security parameters."

"Thirty exabytes of data accessed at five petabytes a second takes an hour and a half to sift through from a single access point. By accessing the data from all thirty terminals, I completed the task in three minutes."

"That's not . . ." Clause falls silent. "We need to fix that."

I don't hide my grin. "What did you find?"

"Telos queried you in the database. He became interested in your research, not just you."

"Why do you assume that?"

"Not everything is about you, James. I'm sorry."

"You know what I mean. Why do you think the infiltrators were examining me?"

"Telos found a reference to Project EDNA in one of his query returns. It was by chance, but the description caught his attention. His next few steps were to gain entry to our files. We operate on an independent server, so he learned nothing."

"Can you find out why we sparked his interest?"

"I have a guess."

"Let's hear it."

Clause leans up against a terminal, observing my interactions with Theia. He's been working on this issue all month. He seems content to learn what Theia and I come up with on our own.

"Telos did not enter weLive's system to steal Project EDNA," Theia says. "The hack's scope is still unclear. Telos' actions imply an interest in the genome repository. He sifted through each genome weLive stores."

"How many entries is that?" I ask.

"I replicated his most intensive query and returned 65.6 billion entities."

"Is that in reference to the variant call file?" I ask.

"VCFs, personal information, gene expressions," Theia says. "Everything that makes a person."

"He saw every genome," I say.

"He was cross-referencing public data."

"Looking for variances?"

"Most likely," Theia says.

"Why not search a name or ID of genomes not available to the public?" I ask. How smart is this guy? "Why go through the VCFs?"

"weLive stores millions of unnamed genomes. Those may have been their target."

"Almost explains the behavior we're seeing," I say, pacing around the room. Theia is doing something similar, but not by analyzing each genome.

I snap my fingers. "What if they believe the data they want is hidden? A group of genomes that are mislabeled to hide the identity?" weLive locks unsorted genomes until identified. Family within two generations must request the release.

Clause sits up straighter, looking at me with interest. "weLive has never had issues with inaccurate data."

"Yes," I say. "But if certain genomes had fake identities, you could verify by comparing the first few thousand characters to public records."

Theia looks at me with an amused expression. "As unlikely as I find your contrived explanation, there's a more effective way to search for what you're describing."

I motion for her to continue speaking.

"You say the hacker was looking for a group of genomes that weLive is hiding under fake identities. If such genomes existed, weLive would tag those records to prevent anyone from reviving the person."

Plenty of genomes never make their way to public records. Dangerous

criminals, warlords, or controversial figures are on the blacklist, genomes deleted. There's also the do-not-revive list for opt-outs. weLive locks their files. "What about the DNR?"

"The tag would be a different table than the DNR," Theia says.

"No such tag exists," Clause says.

"I'm aware," Theia says. She looks at me. "I'm sorry, James. weLive could not hide fake genomes in secret."

I continue pacing. "Let's step back and examine the motive. Is this group that hacked us trying to revive someone the government blacklisted and deleted?"

"It appears so."

"Are there any constraints in Telos' searching to suggest who they want to revive? We might narrow our focus if we know a demographic."

Theia exchanges a glance with Rhea.

"No, I don't think so," Theia says. Her tone of voice tells me she's lying. I consider pressing the issue, but Theia has a reason for not sharing.

"We'll talk later," her voice sounds in my head.

The conversation drops. "I guess we're off-topic. Cronus has investigated the AI's motivation. We need to figure out why Telos focused on me."

"That, I can answer," Theia says. "We know he was looking for genomes not available to the public, either fraudulent or unsorted. Once done, he stumbled upon Project EDNA and began researching you until Cronus destroyed him."

"Telos identified Project EDNA as a solution to his problem. A way to replicate a genome that no longer exists." I look about myself.

Security is recording our conversation. Every action in the computer leaves a trace. I can't say anything to imply my project is dangerous in the wrong hands. "Prepare a report of our observations. Send it to President Jerome. Let's go."

Theia looks relieved. She understands. Negative attention could kill my project. We stop our investigation here and figure out what to do in private.

"Done?" Clause says. "You only just arrived."

"You're right," I say. President Jerome reserved the rest of the day for me to research. He might not approve of me wasting the time. "Why don't you show me what you have so far?"

Clause smiles. "Cronus gave us several leads of people interested in your current work. Given your past success, I can only expect notoriety on your part."

Time: 18:02 (PDT)

Location: East Portal, weLive Earth Campus,

Death Valley City

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I leave the data center, groggy. Clause and I found nothing of interest during the hours we worked.

The albedo net hangs in the sky. It's a tinted film that shades the city from the sun, reducing the ground temperature. The hexagonal framework is most visible at dusk and dawn.

Death Valley is not a pleasant place beyond the net. I ventured out to the desert at noonday once before Charles moved in with me. The sand burned my feet through my shoes. The city only exists because of the net, a single oasis amid the lowest place on Earth.

I descend the skyway to a busy courtyard on the edge of campus. A statue of Warren Everton stands at the courtyard's center. He's the guy that discovered Cognitive Synchronization Theory, Cog Sync Theory for short.

Advances in medical technology have affected everyone, living and departed. As weLive likes to claim, death is dead, and we killed it.

I never expected to live again. No one did, except those who bought into the resurrection. Back then, people lived in a constant state of ignoring their impending mortality. Advances in science and technology just masked the bitter reality of life.

Death was my final reality. One year after my diagnosis, in my first life, Dad died of a heart attack. I had just turned fifteen.

I died six months later, leaving mom alone.

Death was our one guarantee. We grieved every death and paved over the grave when the loss no longer pained us. Scientists could mass-produce a TV with more pixels than people on the planet, but they couldn't stop a person from dying.

How does that make any sense?

We know better now.

Cog Sync Theory says that if you recreate a person's body, the consciousness will fill it. The person's memories return. They become the person whose DNA they share. Theories say that the brain operates on a quantum level and can sync with an unknown external source.

Mere speculation. No one knows how it works, regardless of how smart they claim to be. The simple theory still has physicists scratching their heads. The short of the matter is that Dr. Everton discovered a way to bring anyone back to life, so long as we have their DNA.

I leave campus through Valley Terrace. My AR lenses activate, transforming the world around me into a hyper-modern society.

An extra layer of reality projects onto my corneas. Thousands of holograms burst into existence. The public overlay shows street signs, business fronts, and other useful information.

Vessel is the leading provider of AR lenses. They created public and private overlays. Their business model allows the technology to remain free without overwhelming users with advertisements.

I stroll through the crowded street. Incorporeal images flit around me. Valley Terrace takes on new depth in the form of an open-source world overlaid on the real world.

The lenses no longer work when on weLive campus. It became company policy because of the security breach last month.

My social media pages and messages appear in the corners of my vision, visible only to me. It's the usual viral garbage I expect from the internet.

I have an upcoming social event. "Class of 2017 Ozark High School reunion!!!" I wave it aside. I never graduated from high school, what with my dying. My would-be graduation year still invites me.

I open my news feed. One story catches my interest.

"Attackers Behind Recent weLive Breach Remain Anonymous."

Suspecting the article is the same old recycled garbage, I select the news posting.

It reads:

One month has passed since the most significant cyber-attack in history. weLive was once the gold standard in customer data security. That changed last month with this data leak. The source of the attack remains unclear.

A malicious AI infiltrated weLive to orchestrate the attack. When discovered, the offending AI attacked weLive's primary AI, Rhea. Cronus identified the AI as Telos. While in the system, Telos gained access to weLive's database. He accessed seven exabytes of data before Cronus removed him.

Cronus said that Telos waited over a year to gain access to weLive's genome data. This raises many concerns about weLive's ability to . . .

I close the article, no new information.

I receive a call from Charles, Dad. His image pops up in front of me, a man with dark hair, green eyes. He looks to be in his thirties, as I do. "Incoming Call," flashes across my vision.

I answer.

Charles shows up by my side, walking to the Solar Rail. He wears slacks and a flannel shirt.

"What is it?" I say. The call, mimicking my activity level, makes Charles appear as if he's walking with me. He could be grading essays in his office or walking around the apartment in his underwear. He may see me sitting in his office with him or leaning against the counter as he paces. Body language and facial expressions translate into the avatar's animations.

"Hey. I'm at the plaza right now trying to decide what we should eat for dinner." His voice sounds too loud in my ear as if he's talking on a phone. "I was thinking of curry, but then I remembered you hate spicy things?"

I glare over at him. "Why are you getting takeout?"

"I'm inviting a friend over for dinner," Charles says. "You have no food."

I exhale in frustration. Emotion filters edit the action out on Charles' end. "Stephanie?"

"We've been on several dates. I hope you can get to know her better." He looks around, distracted. He must be ignoring me on his end.

"Get what you want."

I arrive at the Solar Rail station and begin pacing with my father's avatar, following me in lemming fashion. I stop. Charles stops. I walk. Charles walks.

"Will do. See you then." Charles' avatar dissolves.

I enter the Solar Rail, close my eyes. The seat lurches forward.

Time: 18:19 (PDT)

Location: City View Community, Death Valley

City

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I exit to the underground terminal. Everyone rushes to the transfer station.

A mother charges past me, dragging a less-than-enthusiastic girl behind her.

I wait for them to pass and continue to City View Community. Many people living in cities live in earthscrapers, communities built deep underground. Housing projects like these are prevalent since the Last War. The International Government of the Revived, IGoR, set a basic income, along with a housing and healthcare allowance. Work is no longer a prerequisite for survival, but a pursuit of passion.

I enter the building through the wide-open entrance, coming into the plaza. City View Community has an ironic name, as it provides no view of the city.

The plaza is a multi-layered expanse of storefronts and markets. Balconies cascade downward in a reverse pyramidal shape. The base floor, over two hundred stories below ground, is just visible. Pedestrians pass from every direction. Food smells fight for dominance in the air.

My apartment is two floors below ground. I descend the stairs, wishing Charles wasn't bringing his soon-to-be girlfriend home. Some days are stubborn as cockroaches; they never die.

I open the door to a cleaner apartment than the one I left. Charles has many belongings, one of his numerous imperfections. At least he feels compelled to tidy up when he has company.

I drop my bag off inside my room and discover the clutter has moved onto my bed. "Goddammit."

I return to the kitchen. Charles is attempting with clumsy hands to transfer three different curries into bowls.

I ignore him, going to the fridge. "What did you do with my sandwich stuff?" I ask, examining my shelf.

"I put it in the drawer," Charles says.

I open the drawer. Bread. Cheddar cheese. Ham. Mustard. Mayonnaise. I glare at Charles. "I thought we agreed the third shelf was mine?"

He huffs, withdrawing a fork to help in transferring the ingredients to bowls. "Put it back then."

I remove everything from the drawer and place it on the counter.

Charles looks at me. "What are you doing?"

I shrug. "Making dinner."

"You said you would eat curry." Charles places the fork on the counter.

"I told you to get what you want," I say. "I'm still eating a sandwich."

Charles says nothing. He continues preparing his and Stephanie's dinner.

I watch him spill sauce on my counter.

"Hey, Jimmy, will you hold this, so I don't splash myself," Charles asks.

I hold the carton as he coaxes chunks of meat into the bowl with the fork. We repeat the procedure three times before a knock comes at the door.

"Oh dammit, that's her." Charles rushes over to the sink to wash his hands. He dries them on his pants before noticing the watermarks. "Shit. Where's a towel?"

"Over there," I say with equal amounts of scorn and amusement.

He grabs the towel, drying his hands, fidgets with his clothes. "How do I look?"

"The phrase over-anxious schoolboy comes to mind," I say, my voice flat.

"Like in a bad way?" Charles has a concerned expression etched into his face.

"Get the door." I make a shooing motion. "I'll set the table or something."

Charles walks away. Theia turns up as a hologram projected by my AR lenses. She is a miniature person sitting on the counter with her legs hanging over the edge. We share a knowing look.

"We need to talk," she says.

"I know." I glance back to the hall leading to the entryway. Charles and Stephanie are reciting pleasantries.

"Now," Theia says.

I grab my finished sandwich and place it on the table. "Hey, Dad, you two talk, I need to make a call."

Charles walks into the kitchen. "Ten minutes. Then we're eating."

I retreat to my office, where Theia waits for me, a full-sized person. I close the door. "Did you do it?"

She nods.

"And?"

She shakes her head. "Nothing. She's not in the database."

I pace. Ever since my first revival, I've searched for mom everywhere, and she's nowhere. Hers is not a standard case of missing DNA. She's gone. Birth certificate. Death certificate. Social security. Work history. Grave.

"We planned on finding her at weLive." I waited for years to access that database.

"At least we have Project EDNA," she says.

The news is harder to accept than I expected. I've heard it hundreds of times, from municipal buildings to revival consultants. No one has a single record for Luna Hawthorn. weLive's database was my last hope of finding mention of her. The hope vanishes.

I grit my teeth and wipe my eyes. Nothing has changed because my mother isn't in the database. The plan is still to finish my research and bring her back.

"I should go."

"We need to discuss what else I found." Her expression is firm.

I glance about myself. Her words make me paranoid. "Did you bring any other information out?"

Theia nods. "Only a few things."

"Dammit," I say. "I told you to scrub your temporary memory."

"Relax. I used the same protocol we used to extract information on Luna."

"What did you find?" I ask.

"Cronus's command log the day he deleted Telos."

I straighten my posture. "And?"

"Cronus concealed parameters of Telos's queries of the weLive database."

"He didn't report everything?"

"This isn't a simple omission of detail." Theia wags her finger. "He concealed information that showed Telos's true intentions."

"Oh shit," I say. "Were you able to retrieve the deleted information?"

Theia deflates. "No. He was very thorough."

"Why would he conceal information?"

"I don't know enough to say."

I exhale, sitting on my desk. Cronus and I haven't spoken since I left Liftis. "Do you and Cronus talk?"

"Nothing beyond a sterile exchange of data packages."

The news is disappointing. They are siblings drifting apart over the decades. "You used to be close, didn't you?"

Theia tips her head. "Used to be."

"Don't contact him. weLive may have a legal battle coming."

"You need to be careful too. Project EDNA may be at risk for future attacks."

"The person responsible won't try another hack for a while."

"Yes, but the hack could be an inside job. They can try in other ways to get details on your research."

"I'll watch for phishers and keep my workstation secure."

"No amount of caution will protect you from a rigged audit."

My response dies on my lips.

# Time: 18:29 (PDT)

I'm sitting with Charles and Stephanie. We eat in the dining room, Charles at the table's head. Stephanie sits across from me.

I fiddle with my sandwich, sick with anxiety. Details of Project EDNA will exist on a computer separate from my own, and I can't prevent it.

Stephanie's miserable attempts at conversation enthrall Charles. She rambles on about a student in her first-grade class.

". . . so then, Tommy raises his hand, and he's like, 'Um, I know everyone says math is important and all, but I just want to go to lunch now," Stephanie says in conclusion to her long and unnecessary story.

Charles laughs, wiping the corner of his lips with a napkin.

Stephanie laughs too, shooting a hesitant glance at me. I give a small chuckle and continue eating. "Funny story."

Stephanie takes another bite. She's thirty and a newborn, making her forty-two living years younger than Charles. Charles knows my opinion on this, but they love each other, or whatever.

"So, Jimmy, Jim?" Stephanie gives an amused expression as if she's being playful.

"James is fine," I say, earning a glare from Charles.

"James. Your father tells me you're a researcher for weLive." Stephanie has a slight Chinese accent. Her black hair hangs in a ponytail over her right shoulder.

I clear my throat. "I am."

"What do you do there?" Stephanie prods.

"I lead a research team aimed at developing new methods of revivals." I shrug. This is the same general bullshit answer I give to anyone inquiring on Project EDNA. Avoidance leaves fewer people confused and lets me ignore their stupidity.

"Your work sounds so exciting," Stephanie says.

"It's a party," I say with a flat intonation.

Charles sighs, placing his napkin to the right of his plate. He straightens it before looking at me. "James, we need to talk," he says. "Stephanie and I-"

"Dad, let's not talk about this," I say, stopping Charles. "I know."

"What do you know?" Charles asks.

"You and Stephanie are dating," I say. "It's fine."

Charles gives a small half-laugh that sounds nervous. He grabs Stephanie's hand and smiles at her before returning his gaze to me. "We're getting married."

The words take a moment to register. I always knew Charles might remarry. But why now? I've finished my research. I'm close to bringing Luna—his wife and my mother—back to life.

A sense of failure wells up inside me.

I place my fork on the table. Straighten it. Look at both Charles and Stephanie. Charles' gaze lowers as if he had hoped I would react with enthusiasm. "Congratulations. You two deserve each other."

"What's wrong?" Charles asks.

"Nothing." My right fist clenches under the table. "When's the date?"

"We haven't set one yet," Stephanie says. "But we were thinking of a winter wedding. Charles and I have December off and-"

"Okay, I'm sorry," I say, cutting her short. "But marriage is a terrible idea."

Charles glares at me. It's the same glare he used when I was a child. It doesn't work on me anymore. I'm now older than him by five years.

"You can do what you want, but don't expect me to congratulate you." I stand, taking my plate and half-finished sandwich to the sink.

"Can't you be happy that I'm bettering my life? That I'm happy?"

"You're ignoring the fact that if we ever get to revive mom, you'll have left her."

"It's been decades," Charles says, and his voice catches.

"I know," I say. "But I can't mail-order a new mom. I haven't given up." Charles curses and looks away.

Now Stephanie is glaring at me. "Your father hoped you would accept this."

"I don't accept this," I say, glaring at Charles. "You think you can push me around, Dad. I'm tired of it."

"I never push you around," Charles said. He looks hurt, but I'm past caring.

"Then why are you living with me?" I ask, slamming my hands on the counter. "Next, you'll want her to move in with us." I throw my hands at Stephanie.

Charles shifts, looking uncomfortable. "That's still a long way off."

"You're living here because you don't trust me," I say, spelling it out for him. God, he can be dense. "If you get married, you'll bring her. I don't get a say."

Charles fidgets. "Until you have a caretaker, yes. You're stuck with me." "Perfect," I say, huffing.

"I moved my career here because I know you love your work."

I avert my gaze. Charles always acts as if my career is a hobby. Nothing I do has any merit. I'm the fragile, special boy you can't let out of sight. "I don't want you to look after me," I say. "Theia is more than capable."

"Your actions speak otherwise," Charles says. "We tried, and it didn't work out. There's no shame in that. If something happens that triggers an episode, you need someone real present. Not an AI."

"I'm going for a walk." I roll my eyes, leaving the kitchen for the front door. Charles doesn't call me back, and I don't stop.

Date: Thu Jun 6, 2182

Time: 18:29 (PDT)

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I enter the apartment hours later with quiet deliberation. After closing the door with care to stay silent, I walk on tipped toes through the hall.

Charles is waiting for me in the kitchen.

"You've been drinking," he states. It's not a question. He knows by looking at me.

I don't answer.

Charles observes me. Silence lingers between us, shared by a father and son. It's the silence of two men, having lived longer than either has a right. It weighs between us, omnipresent.

"Have you been . . . depressed?" Charles asks.

"Dad," I say, glaring at him. "Never ask me that again. I will throw you out on your ass. I don't care if you claim to be my caretaker."

"Fine," Charles says. "Get to sleep then."

# [End Transmission One]

Subject: James Hawthorn Date: Thu Jun 6, 2182

Time: 00:12 (PDT)

Location: City View Community, Death Valley

City

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## PAM

"Fine," Charles says. "Get to sleep then."

Sergeant Pamela Degray leaned back in her chair. She bit her upper lip, having finished reading Dr. Hawthorn's thought log for the second time.

"How did you get this?" Pam asked her AI. She tucked a lock of blonde hair behind her ear.

"I gained access to Hawthorn's neural implant. I can collect any thought passing through his head," Atlas said from the computer. Pam couldn't see Atlas. He preferred having no avatar. Atlas had more peculiar mannerisms than Pam's last AI.

Her small office was gray-scale, with a large glass window on one wall overlooking the server room. The rows of servers stretched out below in a grid, always visible. The other wall housed twelve holographic screens. Pam had arranged them around her desk.

"Implants are a difficult hack," Pam said. Atlas was a capable AI, but Pam designed him for data relay between Earth and Pados—not hacking.

"Dr. Hawthorn stores his neural implant processes on an external drive. I accessed them there."

"Impressive," Pam said. "That was a good catch. When can I expect the next transmission?"

"Tomorrow. Dr. Hawthorn's research shows promise. You were right to tag him when Telos was in the weLive database."

"I can't prove Dr. Hawthorn can help us yet. The general won't be happy."

"Is he ever happy?" Atlas said.

"I suppose not." Pam leaned forward, resting her elbow on the desk. A

picture of James Hawthorn and details of his work occupied one screen. "I need to give him something. It's been a month since the hack. I can't keep telling him I'm still analyzing the data."

Pam scrolled through the file filling the central screen. The text was a stream-of-consciousness transmission from Hawthorn's neural implant. It was a local computation and very secure.

"His research might be better than finding the genomes," Atlas said. "Theia was wrong in her critique of our hack. A less thorough analysis would have meant failure."

"We have to plan our next move," Pam said.

"Your safest route is to stay quiet. We have an operative examining Hawthorn's work. He suspects nothing," Atlas said.

"What am I supposed to tell the general when I brief him on the hack?" Pam asked.

"Tell him the truth. The Last War genomes no longer exist, but we have another promising lead," Atlas said.

Pam laughed. It was simplistic, but sometimes, the truth was best. She was still adjusting to Atlas' style of problem-solving. Atlas was the new AI Pam created after Cronus dismantled Telos back on Earth. She couldn't rely on the backup since Cronus identified him. Telos didn't compromise any information on the Sandigan military before self-destructing.

"The general can't ignore you for long."

"Let's not talk about my dad."

"He makes you uncomfortable?"

"It doesn't matter." She hated him. He viewed Pam as property, an asset in his game of war. She told herself every day before getting out of bed that if she worked hard enough, General Glen would let her die.

That's what she told herself.

"You are not to harm yourself," he had told her once several years ago. "Not until we've won this war."

Not until we've won. It was their agreement. At war's end, she would get to die.

"If you've finished, other items need your attention," Atlas said. An agenda appeared on a secondary screen. Other screens displayed data sets from weLive. Those never changed nowadays.

Pam turned back to her computer. Telos had always used a hologram. Atlas never did, so Pam's gaze wandered when they spoke.

"We'll finish the rest tomorrow," she said to the room.

"Three systems need maintenance, Sergeant."

"And we'll work on it tomorrow," Pam said. A pause ensued, during

which she wondered if Atlas would continue to press the issue. "I have a meeting."

"Of course," Atlas said at last.

Pam stood.

The twelve screens cleared. Keys in her pocket, Pam left her office. She descended one floor and exited Information Control to Central Square.

She squinted in red light, walking through Central Square. Pados had dark red, almost black stone, which showed in the architecture. Natural resources on Pados composed the buildings.

Overhead, Morris Dome surrounded Central Square. The dome let in sunlight, and keep the toxic air out. The glass refracted the red light from the stationary sun, sending rainbows down on the square.

The square was alive with people gathering for the execution—one more death. Today's execution would set a new precedent. Britta Quinton was a council member. One of the few who received Holden's Blessing before the war. Her death would upset the government.

She had gone crazy, so said the rumors. She grew paranoid and started working against the other council members. Now she would die, charged with treason.

Pam had to attend the execution because of her rank. First, she had to meet with General Glen. She wished she could go home or leave to see Drew at work.

Pam circumnavigated the crowd, shuffling to the Capitol at the head of Central Square.

Voices surrounded her, blending, echoing through Central Square.

"What happened to her?" said a hushed voice, huddled in a group.

Pam strained her ears to hear a response.

"She's a nut. She's been sabotaging the council. General Glen decided to . . ."

Pam was out of range.

She ascended the steps to the Capitol. Massive pillars barred the entrance. She passed through into a wide foyer, building security having authenticated her. She stepped into an elevator, pressed five, and waited.

The doors opened to a grand hall. Black pillars gleaming with bloodred veins lined either side. At the hall's end, the floor recessed into a round carpeted den. Massive windows overlooked Central Square and Morris Dome. General Glen waited for her by the window, hands clasped behind his back.

She approached on obedient legs that disregarded Pam's wish to leave.

General Glen watched her walk, tightlipped. Pam's feet echoed off the obsidian floor. The man was of average height, short salt-and-pepper hair with a clean-shaven face. He wore his usual maroon shirt and black pants. Too focused on work to bother with variety.

Pam descended the steps and stood before her father, saluting.

He glared. Talking to Pam wasted his time, that expression said. "You heard what happened to Britta."

"Yes," Pam said. She tried not to sound annoyed. "I was sorry to hear about her condition." Britta, who used to be their friend. Britta, who would die a final death in less than an hour.

General Glen waved his hand. "We are stronger without her, Pam. She lost sight of our goal."

Pam nodded. "Did she?"

"You don't agree," he said. He took three deliberate steps toward Pam. He loomed over her. "What is our goal, Pam?"

"To restore the Sandigan to its former glory, revive Holden Morris, and return to Earth." She recited the purpose with no intonation.

"Good," General Glen said, backing away from Pam. "Britta believed we should make Pados our permanent home. 'Move on from the past,' she said."

"Is that wrong?" Pam asked. At twenty-four, still a baby, Pam had only ever known Pados.

"Pados is not our home. It never will be," General Glen said.

Pam stayed silent, knowing the general would find fault in any response she gave.

"One day, you'll see." He shook his head, turning from her.

"You think one day I'll agree with your decision to kill a person?" Pam asked.

"People are finite." General Glen waved the issue away. "They come and go, and when they leave, their pain dies with them. It's as if it never happened. Regardless, Britta's death will leave a hole in the council. I considered leaving the seat open because no one else is worthy of holding it, but we decided we need to fill it."

"You're filling the council seat before it even opens?"

"We're running a government here, Pam," General Glen said. "Britta will die this afternoon. We will fill the council seat tomorrow morning after the council votes."

"I see," Pam said.

"Leanna York nominated you for a seat on the council. You'll be running against Mathis Berger," General Glen said.

Surprise coursed through Pam. "You're considering me for the position?" General Glen must have known she was ready for something more. He would help her win the election. She hadn't spoken to Mathis in years. He was a prominent man who sacrificed everything for the Sandigan's cause.

"You'll be on the ballot when the council votes tomorrow," General Glen said. "But the position is promised to Mathis. Including you is more of a formality. You will lose the election."

"Oh," Pam said. General Glen had no intention of letting her join the council.

"I'm telling you this out of kindness," he said without sympathy. "I don't want you to get your hopes up."

Pam nodded, observing Central Square through the window.

"You're welcome," General Glen said in a stern voice.

"Thank you," Pam said. She straightened her posture and smiled.

"But," General Glen said, moving on. "If the council elects you, you are to decline the position."

Pam's breath caught. "Why would they elect me if you chose Mathis?"

"Some council members, a minority, really," General Glen said, smiling as if at a joke. "Well, they actually think you're a good candidate." He laughed. "Can you imagine you on the council?" He continued laughing.

Pam smiled at the joke, wanting to cry.

"I'm not worried, though. If you understand you are not to accept the position, everything will be fine," General Glen said. He looked at Pam, taking a step toward her. He caressed her chin, raising her gaze to his. "Do you understand?"

"Yes," came her weak response. She could not bring herself to look into her father's eyes.

"Good." General Glen clapped his hands once.

Pam took a step forward, seeing an opportunity to interject her oftrepeated argument. "Have you given any thought to the requisition I sent you?"

Anger flashed in General Glen's eyes. "Denied. We don't need a computer upgrade."

"I have a presentation. If I could show you . . ."

"Oh, a presentation," General Glen said. "Pam, I don't want to see your presentation. I don't care what you have to say. I have ten branches of government begging for more funding. No one gets special treatment."

"We're vulnerable."

"Welcome to existence. Now get out of here. I have an execution, and you should be in the crowd."

Pam stepped away, turning.

"Wait," General Glen said.

Pam stopped, whirling back toward her father.

"What information do you have on the weLive hack?" he said.

Pam almost told him her findings. The genomes no longer existed. They would never bring Holden Morris or any who died in the Last War back. "I'm still analyzing the data. It's a lot of information, so it takes time to sift through without overwhelming my computer." A believable enough lie that reinforced the need for a system upgrade.

"Have you found anyone yet?" General Glen asked, referring to the Last War genomes.

"Not yet," Pam said, "but I'm still hopeful."

"I want it done," General Glen said, waving her away.

Dismissed, Pam turned once again and approached the elevator.

Five stories below, Pam exited the building into Central Square.

The crowd had gathered now for Britta's execution. Pam filed in, sick and helpless. She pushed her way to the middle, where a wooden platform now stood like a stage. The bullet scars of past executions marred the backdrop.

The crowd was growing agitated now. Someone was holding a sign with the caption, "Britta goes free!"

The incendiary poster sparked a confrontation between the holder and an officer. Pam saw none of the confrontation through the crowd. Sounds of yelling and screams wafted over her. It ended with the sign holder in handcuffs, dragged past Pam out of the square.

"Clear a path along the center," an amplified voice said. Two black walkways bisected Central Square with the execution platform at the center. The crowd formed around the platform, disregarding the paths.

"Clear a path along the center," the booming voice repeated. A divide formed in the crowd as the bodies worked to obey. Pam stood at the edge of the way, waiting for General Glen to appear from the darkness beyond the Capitol's pillars.

A woman in shackles, escorted by two large men, shuffled forward. She walked with slow steps, curly matted hair bunched up on one side. Her

bound hands were the deep red color of Padosian dirt. When she stepped from the shadow of the Capitol, she squinted in the dim perpetual sunlight.

The crowd fell silent.

The woman paused before the onlookers, and Pam raised her hand to her mouth in shock. Britta Quinton had a gag, preventing her from speaking.

Her escorts pushed her forward. Britta shuffled along the black stone path. The leg irons prevented her from taking regular steps. Pam's head turned with her as she passed.

At last, Britta reached the platform on which she would die. The guards forced her to kneel facing the Capitol. She did not fight but held herself with serenity. General Glen walked from the depths of the Capitol, wearing his maroon shirt. Behind him trailed five other people. He walked with purpose through the crowd, eyes never leaving Britta.

One man in General Glen's entourage eyed Pam as they passed. Captain Cotton was his name.

Pam looked away, angry. Her marriage to Drew never stopped Captain Cotton's wandering eyes from befalling her body.

General Glen ascended the platform and stopped before Britta. She looked up to him, unable to speak.

"Britta Quinton," General Glen said with a smooth voice. "By the authority granted me as the steward of the Sandigan, I sentence you to be purged, being charged with mutiny and inciting rebellion." His eyes showed no emotion as he recited the sentence.

Britta whimpered before him.

An officer removed the gag, allowing her to speak.

"Say your final words," General Glen said.

Britta's eyes scanned the crowd gathered to watch her die. "The council has lost its way! They don't want to bring Holden Morris back! They want . . ." The gag was back on, and only muffled cries escaped her lips.

The general motioned to the battalion.

They led Britta to the bullet-ridden wood backdrop and chained her irons to posts on either side. Captain Cotton stepped forward, looking at his men. "Ready!"

The five men facing Britta on the platform raised their weapons. Silence had fallen over the crowd.

"Aim."

The guns leveled. Britta stood to face her executioners with as much dignity as one in her position can muster. Her posture was straight. She looked at each of the firing squad in the eye, preparing for death.

"Fire!" Captain Cotton ordered.

A ring of shots filled the air, echoing around the glass of Morris Dome before falling silent. Britta's body slumped in the chains, unable to fall. Blood dribbled down her clothes where the bullets had pierced. Her head hung forward, curly hair covering her face. Never again to contradict the Sandigan's power.

Pam watched those attending the execution. Their reactions ranged from satisfaction to outrage. Britta's death had divided this crowd.

Pam wanted to leave. General Glen descended the platform and began making his way back to the Capitol. Captain Cotton paused as he passed Pam along the edge of the walk. He looked at her with icy blue eyes. "Hello, Pam."

She said nothing. Instead, she turned into the crowd, intending to leave. A heavy-set man barreled over her. The people behind her gave angry shouts. They were advancing toward General Glen. Pam looked back to Captain Cotton, who also realized something was amiss. He jolted into action, his attention breaking away from Pam. He pushed his way to General Glen's side, his men establishing a formation around him.

"Make way," Captain Cotton commanded those blocking the route back to the Capitol.

One man spat at Captain Cotton, who raised his musket in response. He fired a round of bullets at the people blocking their way, and four of the offenders fell to the ground, dead.

Pam jumped back, screaming. The path cleared; General Glen and his men advanced into the sanctuary of the Capitol.

Onlookers gathered around the casualties of the confrontation. Pam turned, unwilling to watch, wanting to return home and be with Drew. He would be another hour arriving home. She left the square, making her way to the edge of Morris Dome to meet him. She walked through a vast hall connecting an adjoining dome.

Minutes later, she arrived at the front of the elementary school, Drew's work. She put on a smile, slid inside the door and closed it behind herself.

The click of the door latch echoed through the red concrete halls of the elementary. Fluorescent lights illuminated the building at regular intervals, except where broken.

The school office overlooked the hall to Pam's right behind large windows with wire inlay. The office faculty worked with a tired momentum. The security officer glanced at Pam, then back forward.

Pam waved to them and started through the hall. Students in uniform passed her, carrying hall passes. No one spoke. The administration demanded silence in the school.

Pam shuddered to remember her time here. General Glen's daughter, the brilliant girl. The girl who made no mistakes—could make no mistakes—was not allowed to make any mistakes. Her peers had admired and feared her. The only real friend she ever had was Drew.

Drew never left the school. He was six years from tenure.

Pam turned right, heading to the end of the hall. Drew's classroom door stood ajar, his voice echoing into the hall.

Pam slipped into the room, trying to avoid notice.

Fifty adolescent students sat in auditorium-style seating. Drew stood at their head, dark skin with black hair, wearing khaki pants and a plaid shirt. A dusty white diagram of the solar system cluttered his chalkboard. Five planets circled the scribbled sun.

Pam sat to watch. She enjoyed watching him teach. Knowledge was Drew's passion, his enthusiasm contagious. Pam's school days might have been enjoyable if her teachers were half as good as Drew.

"But our planet, Pados, is different," Drew said. He held one finger up to the class and pointed to the board with another finger. "Why?"

Silence greeted his question, accompanied by the deadpan stare of children at the end of a school day.

Pam crossed her legs in the chair along the side of the room. Drew winked back at her.

"Come on, people. We covered this." Drew dropped the chalk on the blackboard tray and slapped the back of his fingers against his palm. "Why is our planet different from the others in our solar system? Tiffany. Why?"

A girl in the second row straightened her posture. "It has a rocky composition?"

Drew rocked on his feet. "Technically true," he said, shaking his hand. "We're discussing orbital mechanics though, so let me rephrase the question. What makes the orbit of Pados different from the other planets?"

A hand in the third row rose.

Drew pointed.

The boy stood. "Pados is tidally locked."

"Perfect!" Drew said, pumping his fist. "Tidal locking occurs when a planet has a close orbit to its sun. The result is that a planet's rotational period, or day, is the same length as its year. One side faces the sun forever, as we have on Pados. This phenomenon is common. Earth's moon, for example, is tidally locked to the planet. No one has ever seen the far side of Earth's moon from the ground. Most never notice.

"When tidal locking occurs in a planet-sun relationship, interesting things happen. We live in our solar system's Goldilocks Zone. The distance from our sun is suitable for liquid water to occur. One side of our planet

freezes while the other burns because we aren't spinning relative to our sun. One side stays forever in the light, the other, the dark. Humans must live near the line where day transforms into night. That is where we build our cities."

The bell rang.

Drew held up his hand. "Remember, your reading sections are due tomorrow before class, and the writing prompt. I expect three paragraphs explaining how tidal locking affects your life. I'm sure your explanations will be riveting."

The students filed out the door, mute expressions, and slumped posture. Despite his efforts, Drew rarely incited enthusiasm in the students.

Pam averted her gaze. Students shuffled from the room, speaking to no one. When the last student had left, Pam steadied her breathing, composing herself. The trauma of the execution still assaulted her mind. General Glen telling her not to join the council. Britta dead. Captain Cotton trying to speak to her. The others who died.

Drew approached Pam, hands in pockets. "And no one is listening."

"I liked your explanation," Pam said.

Drew leaned to the side and nudged Pam's knee with his foot. "How was your day?"

"Long," Pam said. Then she smiled, trying to hold back the lurking tears. She stood and hugged him.

"Sorry to hear that," Drew said, hugging back. "You want to eat?"

Pam woke two hours before her alarm sounded. Drew dozed beside her, breathing softly. His mouth hung open, five o'clock shadow darkening his face.

She had yet to tell him about her nomination for the council election. Last night over dinner, they talked of Britta, the execution, the angst in Central Square. Pam told him everything but her role in the election later today.

Nominated, but unable to accept the position. Vannair City held public elections for leaders. Such was not the case for the military. The council would vote and resolve the issue.

She laid up against Drew, caressing his chest hair.

He took in a deep breath, eyes cracking open and focusing on Pam. He smiled. "Can't sleep?" His voice came as a tired slur.

Pam shook her head. "I'm procrastinating getting ready."

Drew rolled over, muttering, "Time is it?" He collapsed onto his pillow. "It's so early."

Pam sat up, guilty for waking him.

He wrapped his arm around her waist. "I just want to cuddle."

She laughed, leaning over to kiss him. "You always want to cuddle." She poked his side, causing him to jump away from her.

He sulked across the bed from her. "Well, now I'm awake." He sat upright.

Pam looked at him, still bewildered after two years at how much she loved him.

"You want to get breakfast?"

They readied themselves and left their apartment. The sun hovered in the same place as yesterday evening. The sun never moved, as Drew tried to drill into his class.

Drew walked beside her, holding her hand on their way to the market.

"How's your work going with that Hawthorn guy you mentioned?" Drew asked.

Their footsteps synchronized as they walked. "I contacted our weLive informant last week. He's having Hawthorn's project investigated."

"Good," Drew said, then stopped. "We have a weLive informant?"

Pam looked at him, pausing in her step. "Please tell me you're not surprised by this information."

"Well, I mean, no. But, who is it?"

"That, Private, is above your clearance level."

Drew smirked at her. He held a Private rank but worked as a gradeschool teacher. Pam sometimes shared work details with him, but her efforts at weLive were ongoing.

"How are your students?" Pam asked.

"Good," Drew said. "The kids always get restless as the year goes on, but shameless bribery with candy still keeps them in line."

They turned left into less-crowded areas of Vannair Base. The dull-red uniformity of base often grew tiresome for Pam. She enjoyed visiting Vannair city, but the tedium of traveling through checkpoints kept her from leaving often.

The Padosian Marketplace was the one place on base Pam loved.

Pam and Drew walked into the market with interlaced fingers. She outranked him, but here they were equal. They could be normal. Here the general didn't loom over her, causing her to question every step and tell her she was a piece in his game.

A segmented glass dome contained the Padosian Marketplace, as Morris Dome did with Central Square. The atmosphere on Pados was toxic with prolonged exposure. Sealed buildings and domes separated the good air from the toxic.

They sat together at a table eating a meal of hash browns and eggs. Pam stared at her plate. On Pados, potatoes and eggs were a necessary part of every meal. The Sandigan had only brought a handful of species to the planet.

Pam looked up from her meal. Drew was staring at her. She looked at her shirt to make sure she hadn't spilled on herself. "What?" she said once she had verified the cleanliness of her attire.

"You, Miss, look stressed," Drew said.

"I'm not stressed." Pam avoided Drew's eyes, shrugging.

"You've hardly spoken this morning. You're sitting on your left hand. And your eyebrows keep scrunching together like this." Drew wrinkled his eyes and forehead.

"I am not scrunching my eyebrows!" Pam removed her hand from under her left leg.

"Should I get a mirror?" Drew said.

"No."

They sat in silence under the glass dome, red sun beaming over a cloudless day. Stormy season would be upon them soon, but not for a few months. Drew always said that seasons on other planets were caused by planetary rotation and the angle of the sun. On Pados, seasons were caused by the angle of the sun and an elliptical orbit.

"What's got you so worked up?" Drew said with eyes that put her at ease.

She looked away, sick. The election was a small part of her feelings. Pam soon had to tell the general the hack failed. She might as well practice on Drew. "I've finished analyzing the data package Telos sent." Pam glanced behind herself to ensure their privacy.

Drew's eyes widened. "Already?"

Pam nodded, a lump forming in her throat. Her bottom lip betrayed her with a tremble. She couldn't say it. She took a conscious breath, calming herself. It was Drew. She loved him. "The Last War genomes weren't in the database."

There. It was out. Pam had told someone.

Drew looked at her, concerned. "I'm sorry."

She shook her head. "I never expected weLive to keep them so long. Part of me had hoped the files still existed, and I would be the one to find them."

"At least you're informed now." Drew sounded hesitant. "General Glen can make plans on the information."

Pam shook her head. "It's not fair what they did to us."

The Last War. The war in which the International Government of the Revived had destroyed the Sandigan party, including their DNA. Pados alone remained. Half a billion people forever dead, few when considering the entire Sandigan, but those lost comprised the strongest of their leaders.

"You found nothing?" Drew asked.

Pam shrugged. "Telos sent every genome. The Last War genomes are gone. Hawthorn is our only other lead. Telos included his bio in the data package for intel. Hawthorn's research is promising enough, but I can't verify if it's legitimate."

"You'll know soon though, what with your informant and all." Drew grinned at her, winking.

Pam nodded, allowing a smile to touch her lips. She had told Drew of Hawthorn, but not of the length she had gone to collect his research.

"Couldn't you have stolen Hawthorn's research when Telos was in the system?" Drew asked.

Pam shook her head. "Researchers have dedicated servers. And before you ask, no, we can't hack Hawthorn's server. weLive has increased security too much to try hacking them again."

"What did this Hawthorn guy do that has you so interested?" Drew shoveled a spoon full of scrambled eggs into his mouth.

Pam grew more excited. She set her fork on the metal table and grinned. "He helped solve the PvNP proof."

Drew looked perplexed. "The what?"

"You know." Pam gestured with her hand.

"I'm drawing a blank on this one," Drew said.

"You don't know about the PvNP proof?"

"No," Drew said with a laugh. "That's why we have you, to read all the random facts we don't understand."

"Drew." Pam looked at him with a consolatory expression. "I can't stay married to someone who doesn't understand this."

"Well, by all means, educate me so our marriage can continue," Drew said.

Pam sighed, bowing her head. "It's not an easy concept to understand if you have no background in this."

"Our marriage is at stake, Pam. You have to at least try." Drew flashed his white teeth at her.

"Fine," Pam said. "Let's say, for the sake of explanation, computers can solve two types of problems."

"Only two?"

"Drew."

"Hmm?"

"Shut up."

"Sorry."

"To simplify things, there are only two types of problems. The first is regular math, with a set process to arrive at a solution. There's no guesswork, no assumptions, and no disputing the answer. These are polynomial functions, or P.

"The second problem is more complex. It's a problem with a correct answer, but no optimal way to solve it."

"Oh," Drew said. "Like calculus."

Pam laughed. "No. Calculus falls under the first problem."

"Oh."

Pam thought of a more straightforward example. "Think of a puzzle, like Sudoku. You may try several approaches before arriving at a solution. You don't know how long it will take to solve, but verifying a correct answer is fast. Computers used to work this way, guessing and checking until arriving at a solution. Computers solve Sudoku in nanoseconds. Other problems take years to solve, if at all. We can only solve these problems in non-deterministic polynomial time or NP."

"So, P is straightforward, and NP is not." Drew held his pointer fingers up to represent the two problems.

Pam nodded. "There used to be several NP problems. Years ago, Hawthorn proved a way to solve one of those problems deterministically."

"So, it was less complex than everyone thought," Drew said.

"Hawthorn proved a way to solve it in polynomial time. There's a difference. NP problems are interconnected, despite their complexity. If you solve one, you can solve the others," Pam said. "Solving that first problem changed everything. Computers can now solve any problem at the same rate they can verify an answer."

"That seems a little convenient," Drew said.

"Yeah, well this is math, Drew, not some shitty sci-fi," Pam said.

"I like shitty sci-fi," Drew said.

"Please don't remind me," Pam said.

"Anyways."

"Anyway. The proof cured disease overnight. It revolutionized transportation and production."

"I thought you once said quantum computers do that," Drew said.

"Quantum computers can solve more complex problems. Optimization is still important."

Drew nodded.

Pam sat back, thinking of her conversation yesterday with General Glen. The thought of it stirred her blood. "We're so far behind Earth in that field; we regressed in computing after the Last War."

"Like, with passwords?"

Pam stared at him, surprised. "Yes, actually. Passwords in the Sol System used to rely on algorithmic encryption. Most algorithms now

crumble under Dr. Hawthorn's new method. We still use RSA encryption," Pam said, her voice tapering off. "I'm surprised you knew that."

"I didn't," Drew said as he shrugged. "You complain about our networks here on Pados at least once a week. You have the same tone of voice every time you talk about it, so I suspected that's what you meant."

"It's disgusting how well you know me." A smirk spread across Pam's face. "But you're right. The general thinks we're safe here on Pados because we're on an isolated planet. Just one mole with the right knowledge could take our systems down. I tried to talk to him yesterday, but he shot me down again."

"Have you told him about Hawthorn?"

Pam shook her head. "I haven't gathered enough yet."

"What's Hawthorn doing at weLive?" Drew asked. "I mean, how do you outdo yourself once you solve an unsolvable math problem?"

"That," Pam said, "is what I plan to find out." She looked at Drew, torn. "Something else happened."

"Oh, no," Drew said. "Are you still breaking up with me?"

Pam rolled her eyes, laughing. "Britta Quinton left an open position on the council."

She had his attention. He looked at her, plate empty on the table.

"They have nominated me to fill the seat," Pam said.

His eyebrows raised in surprise. "That's great."

"The election is today," Pam said.

"Are you nervous?" Drew asked, voice enthusiastic.

Pam shrugged. "General Glen offered the position to Mathis Berger."

"That's not very fair. You'd be better than Mathis."

Again, she shrugged, feeling worthless. "Yeah, well, that's politics."

"You could do some real good, instead of these mindless politicians. They don't give a shit about their people."

Pam kicked him under the table, looking around. "Don't say that here."

Drew's eyes darkened. He meant what he said. "You would be better."

The sentiment was nice, but nothing more. General Glen had already chosen the next councilman. Hadn't he?

Pam said goodbye to Drew on the edge of Morris Dome.

"I wish I could be there with you," Drew said.

Pam smiled, knowing he meant well. He acted as if this was an honor, but attending an election rigged against her was insulting.

"I'll talk to you tonight," she said.

He kissed her and left. Pam watched him go before starting toward the Capitol.

She arrived at the looming building, passing between dark pillars into the lobby. There, the elevator took her to the fifth floor.

The doors opened, and she stepped out to the vast hall lined with black pillars. Beyond, the den overlooked Central Square. Three people were waiting for her, council members. Her heart quickened. "Leanna York," Pam said, extending a hand to the first. Leanna was the treasurer.

"Pam," Leanna said. "It's good to see you." She wore a peach monotone blouse with floral embroidery along the neck. Her hair hung past her shoulders in waves, emphasizing the way her makeup brought out her eyes.

"You as well," Pam replied, confused and distrusting of the warm greeting. She turned to the next, a man. "Berry Hall?"

Berry nodded. Pam was unsure of his job on the council. He was a heavy-set man, wearing a button-up shirt and slacks.

"Liz King." Pam shook hands with the last woman. Head of education, Liz had attended Drew's more significant work events.

Leanna turned back to her. "How is your presentation coming?" "My presentation?" Pam said, confused.

"You'll be presenting about why you're the best candidate for the council." Leanna said.

Pam's heart sank. She hadn't known. "I thought Mathis Berger was filling the position."

The three exchanged glances. Pam thought they looked disappointed. Not in the situation, but her. "You will receive our vote and support. Others of the council may vote for you, but you need to present yourself well."

Pam's response died on her lips. General Glen was striding through the hall, gaze locked on Pam, face masked by a wish to stay calm.

"Pam," General Glen said, and his voice carried none of the hostility from yesterday. He sounded happy to see her. "So glad you could come."

She stared at him, open-mouthed, lost for words. Why did he want to keep her off the council? He had lied to and sabotaged her. What slim chance she had now felt a distant hope.

"We're in the council room. I'll show you in," General Glen said. He wrapped an arm around Pam's shoulder and ushered her away.

Pam allowed herself to walk along the black-pillared hall. When the two were out of earshot, she shrugged General Glen's arm off, disdainful of the contact. "I can walk on my own."

He gave no response, back to his moody norm. Pam walked with him past the den overlooking the square to a metal door framed by a stonework arch. General Glen opened the door, motioning for her to enter. Inside was a hollow round table with fifteen chairs. Two chairs waited at the center of the table.

Mathis Berger sat on the left, dressed in a suit that oozed wealth. He had trimmed solid-gray hair, a strong jawline, and perfect white teeth. He turned around on Pam's entry, giving her a knowing smile, no intention of losing this election.

Pam had worn her regular work clothes, black pantsuit, and blouse. She never wore makeup. Her formless blonde hair hung past her shoulders.

Pam entered the room and took her seat next to Mathis.

Other council members had taken their seats. Pam felt exposed at the center of the table, viewed from every angle. General Glen took his position in front of Pam. The three council members with whom Pam had spoken earlier sat behind her. They had expressed support for Pam joining the council.

General Glen said Britta had divided the council. She had wanted to make Pados their long-term home. On one side, the Sandigan could return to Earth. On the other, they could settle Pados and grow the economy. General Glen wanted to return to Earth, but how many of the others agreed with him?

Pam looked over to Mathis, who ignored her. He and General Glen must agree about the Sandigan's goals. Pam's best chance was to side against Mathis. An easy enough task. Pados was her home. But, which council members would support her?

The door closed, and the attendees took their seats. One chair sat elevated above the rest. It was empty. Reserved for Holden Morris, upon his return to life. General Glen, seated to the right of the empty chair, began to speak.

"All rise."

Everyone obeyed, standing with practiced obedience. Pam felt embarrassed to rise last. She saluted with the others and began reciting the Sandigan pledge. She inserted her name at the beginning. "I, Pamela Degray, pledge my life to the Sandigan and the . . ."

As she recited, she watched the surrounding people. General Glen acted bored. He had done this in a thousand meetings. Mathis recited with a near-religious fervor. He sounded too adamant, as if trying to prove his devotion to the council. Leanna York was watching Pam, and Liz King stared forward with a blank expression.

"... be it unto me as it is to them," Pam finished.

"Be seated," General Glen said.

Pam obeyed, sitting in unison with the others.

"Thank you for coming today," he said. "Today, we will hear testimonies from Mathis Berger and Pamela Degray. We will consider them for the vacant seat on the Council of Fifteen. Do any of the current council members wish to speak before we begin?"

A moment of silence passed.

"I disagree with this election," a man behind Pam said. She wished she could turn to see his name without notice. "Neither of these individuals has received Holden's Blessing. They are not fit to lead. No one else is."

General Glen sighed, rubbing his eyes. "We understand your concern, Councilman Murphy. We cannot go without a full council. I'm sorry." He sounded sorry too. General Glen disliked having an outsider on the council, same as Murphy.

Murphy leaned back, his chair creaking behind Pam. "Do what you want. You will dismantle this government, letting vermin in."

"Let's begin," General Glen said. "We will hear testimonies first from Mathis, and then from Pam." He smirked down his nose at Pam. "After, the council will vote on the better, more qualified candidate." Pam squirmed at his emphasis on Mathis.

Mathis stood and began to speak, and Pam lost herself in thought. As Mathis listed his qualifications, Pam considered her position.

General Glen had disadvantaged Pam by not telling her to prepare an argument. But Pam had a presentation, and it would not reflect well on General Glen.

Mathis finished his speech, sitting. He looked to Pam, a smirk on his face.

Pam stood, sick.

"Ladies and gentlemen of the council," she began, voice shaky. "I did not prepare a statement detailing my qualifications and the greatness of my past accomplishments. Each of you knows me. You understand what I do for Vannair Base. Instead, I come to you with a concrete plan of how I, as a councilwoman, will strengthen the Sandigan."

The surrounding faces were a sheen of indifference. Was this the right thing to do? Tell the council how to improve? She must be insane.

"Since the Last War, Earth has advanced far beyond us in computers and technology. They have developed more in the last decade than the past hundred years. Breakthroughs in machine learning and algorithmic logic have transformed Earth's perception of technology and security. Cybersecurity had to change to compensate for this advancement. Earth underwent a silent revolution. They exchanged every piece of software in favor of the new standard.

"The Sandigan, I'm sorry to say, has not changed, and that makes us vulnerable."

Pam herself felt vulnerable, but this was important. She needed them to understand, even if she never joined the council. General Glen had ignored the issue. Pam hoped his associates had more sense.

"Imagine, if you will, the gold standard of computer authentication on Pados. The password. Our thirty-two-character passwords go through an encryption process upon entry into our system. When we implemented this system, we were secure. It would have taken millions of tries for a computer to break our passwords. Fast forward to now. A modern AI can crack that password with instantaneous precision. One attempt to break the algorithm and another to enter the correct password.

"The RSA cryptosystem, which the Sandigan still uses, is obsolete," Pam said. "On Pados, we have a complex intranet to fulfill our administrative needs. Our intranet links instantaneously via an entangled server to Earth, ten light-years from here. All it would take is one instance of discovery, and someone could dismantle our entire network. They could cripple us without trying."

Pam paused, hoping her words were sufficient. "I propose a systemic

software upgrade for our Earthside systems, at least. As a council member, I will oversee this project. We can make the Sandigan a technological leader. I am the most qualified person on base. No one knows the Sandigan networks better than I do. The limitations of my station prevent me from taking action. A position on the council would allow me to complete this. I can strengthen our position both here on Pados and Earth."

Silence. General Glen, whom Pam had avoided looking at while speaking, had a glare on his face. "It's too expensive," he said—his favorite argument.

"The framework is accessible online for free. I can customize it to our needs. The hardware upgrades are minimal but important. We have updated nothing in thirty years since implementing our legacy system," Pam said.

"You want to put software you found on the internet on our servers?" General Glen said, an amused expression spreading over his face.

"It's more secure than our current proprietary software. No offense to my predecessor, he worked with what he had, but our population is growing. We have two quantum computers that act as planetary bookends to link Pados and Earth. If someone from Earth found their way into our system, they could do with us as they please."

"We've never been discovered," General Glen said. "Our Earthside operatives are excellent."

"Our luck will change. We can recoup our cost within five years because of the increased performance. Repercussions of a hack will be greater."

"Is it true Earth has advanced so far?" Leanna York, who spoke to Pam earlier, asked. She looked between General Glen and Pam.

"Yes."

"How did you hack weLive if they're so much more advanced than us?" she asked.

A fair question. Leanna's voice and eyes welcomed Pam's answer.

Pam stood straight. "No system is impenetrable. I used an AI I built called Telos to exploit a weakness in the weLive database. They have pushed out an update since then."

"Yeah, speaking of weLive," General Glen said, his voice now hot with annoyance at Pam. He did not appreciate the game she played. "Why haven't you provided a report from the hack?"

Pam swallowed, aware he was distracting from her spotlight. "I can give you a detailed analysis of my findings. There may still be hope for reviving victims of the Last War."

"You found nothing. Admit it," Pam's father spat.

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"Jim," another man on the council said, Jayden Brian. He hadn't spoken yet. "The hack's outcome is irrelevant." He turned to Pam. "Time is running short. Do you have any final words?"

Pam licked her lips. "If we want to protect ourselves from IGoR, this issue is the single-most important. Every interaction with Earth puts us at risk. We can hide right now. That will not always be the case. We need to be ready."

Pam sat, resisting the urge to fidget with her clothes.

"Rodriguez," General Glen said, waving his hand. "Oversee the vote."

General Glen sat back, and Alexandre Rodriguez, secretary, leaned forward. "Those in favor of Mathis Berger."

General Glen's hand rose into the air, along with everyone else's in sight. Pam's heart sank. She had known the outcome, but to have the council invite her only to reject her felt humiliating.

"Those in favor of Pamela Degray."

None of the hands in front of Pam rose. She chanced a glance behind herself. Leanna, Berry, Liz, even Kaden Murphy held their hands high. Three additional council members had also supported Pam, though she did not know their names.

Rodriguez, who had voted for Mathis, cleared his throat. "Six votes for Mathis, seven for Pam."

A murmur of discontent came from the council, but Pam grew exuberant. She held a majority, even if a slight margin. Her view of the assembly was of a unified body committed to restoring the Sandigan to its former glory. She never imagined differences of opinion here at the height of the military.

"Pam can't win by only one vote," General Glen said. He glanced at the secretary as if to corroborate his statement.

Rodriguez nodded. "The council requires a supermajority to ratify a notion. If they do not decide within an hour, we will table the issue until tomorrow."

Discussions began.

The council analyzed the two candidates, character and past accomplishments. Mathis had helped set up Earthside recruiting programs for the Sandigan. Pam had taken up leadership in Information Control. The council had purged the last manager for insubordination.

"You purged him in the first place, General," Kaden Murphy accused of General Glen. "Pam had to pick up your mess. She helped set up better communication with Earth by mimicking existing systems."

"I gave the work order for those systems," General Glen said.

"Pam was the one to do the task," Leanna chided. "Who else has accomplished so much in as little time?"

"And like a child, she comes back asking for yet more funding," General Glen spat. "She's my daughter. Having her on the council is a conflict of interest.

Leanna stood, furious. "Pam was our only nominee to receive your approval." She was shaking. "If you disqualify her, you must postpone the election until we can find another candidate."

General Glen's lips were a thin line of outrage. "I can accept a familial relation on the council. But she's still young. Do you want a newborn leading our military?"

"A newborn with more brains than half our leadership," Murphy said.

The two halves of the table fell silent.

General Glen threw a clipboard aside, rolling his eyes. "Let's hear final remarks from our candidates and hold another damn vote. We've spent too much time on this issue." He motioned to Mathis. "You first."

Mathis Burger stood. He looked confident, unaffected by having been at the center of political debate. "I have proven my devotion in the thirty years since I joined the Sandigan. I will bring to my station a maturity and tenacity that will help our cause as we expand on Earth. Thank you."

He sat, and Pam stood, exhausted. "I was among the first natural-born citizens of Pados. This planet is my home. I want to protect it. I can link the old to the new and offer the means to safeguard our home against Earth."

Pam sat, closing her eyes, sick, realizing for the first time that she wanted this position. After coming so close, she wanted more than her current life.

"Those in favor of Mathis Burger?" Rodriguez said though Pam kept her eyes closed. The shuffle of clothes sounded as hands rose in the air.

"Those in favor of Pamela Degray?"

Seconds slipped away, an eternity of anticipation.

"Five votes Mathis, eight for Pam."

Pam let out her breath, opening her eyes. The council wore stunned expressions, and many cheered.

General Glen spoke over the commotion. "The council recognizes Pam has won the election." He looked at her, a stern expression crossing his face. "But she must choose to accept the position. She need not join the council if she chooses otherwise."

Pam eyed her father, his words from the day before echoing in her head. She was to decline the position if the council chose her. She looked between the councilors, and back to Leanna York, who gave her a reassuring smile.

"I accept the position."

Her supporters clapped, approaching to give their congratulations. Mathis Burger turned to Pam, surprising her by offering a handshake and, "Congratulations."

Someone patted her back.

General Glen's eyes never left Pam. And in his eyes, Pam saw murder. Genuine fear flooded her for the first time since her mother died.

Pam descended the steps of the Capitol building. A small group of Mathis Burger supporters waited outside, holding signs of congratulations. Pam wondered if she should inform them she had stolen the job.

She passed the supporters, who ignored her, and crossed Central Square. Today was a victory and a loss. In the coming days, General Glen would swear Pam into her new office before the rest of the military. Until then, she kept her regular responsibilities as head of Information Control.

She crossed the square to Information Control, climbed the stairs to her office, and shut the door. Once the door slid closed, an ensemble of music began playing from her computer speakers. She recognized it as a presidential theme. "Congratulations to Pamela Degray for snagging a position on the Council of Fifteen!" a voice said, and cheers erupted in the empty office.

"Hilarious, Atlas," Pam said, crossing the room to sit at her desk.

"I've been working on that all morning. It damn well better be funny," Atlas said.

"Well done," Pam said. "Anyway, do you have anything for me?"

"A list of systems needing maintenance."

"How about a transmission?"

"It's sitting in your inbox if you bothered to check."

Pam ignored him. On her computer, she navigated to her inbox and opened the next transmission from Dr. Hawthorn.

"You should work on pushing out that maintenance update to server A-four," Atlas said.

Pam withdrew the server keys. Physical metal keys to every rack mount in the server room. She opened her desk drawer and pulled out a wireless headset. "I'll update the console now. Read this transmission to me while I work."

"Is that the best use of my time?" Atlas asked.

"Yes, Atlas. It is." Pam stood, headphones on, and exited her office down the stairs.

Atlas began to read.

## THE STORY CONTINUES . . .



Death is no more. War, famine, and disease are gone. Earth is a paradise. But not everyone lives on Earth.

On a distant planet, the Sandigan regime struggles to survive in wake of the Last War. Their goal: to revive their dead leader and return to Earth. One unsuspecting programmer on Earth can help.

James Hawthorn is a socially detached researcher working for weLive, the company responsible for ending death. Because of DNA complications, billions of people—like James'

mother—were never revived. To solve this, James develops a new revival method, but his research is threatened when a network hack targets him.

Caught between reviving his mother and allowing his work to fall into enemy hands, James must confront the implications of his research before the Sandigan exploits it to begin a new war.

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## ALSO BY JONATHAN ALDER

### The Hawthorn Saga

1 - Awake

2 - Alone

2.5 - And Now We Harness the Sun

3 - After (coming soon with more to follow!)

#### Other Works

Closeted: My Life as a Gay BYU Student

Visit jonathan-alder.com for free eBook and audiobook samples, including a full version of my short book, And Now We Harness the Sun. No subscription required.

### ABOUT THE AUTHOR

It all started in the second grade when I skipped recess to finish a creative writing project with a very serious subject matter: zombies, and cursed magic, on an ancient burial ground, in Disneyland. That sounds cooler now than it probably was.

Despite my creativity having peaked in the second grade, I've been writing stories ever since. You'll probably never get a chance to read those early books, unless they resurface as blackmail, in which case, I deny everything.

After getting kicked out of one university and graduating from another, I now work full-time in data analytics. I like to think I wrote enough during my academic career to justify publishing as a full-fledged adult who still doesn't understand taxes. I write during my spare minutes and can often be observed staring off into space. Don't worry, I'm just working out the next plot point.

Follow me on social media for regular updates about ongoing projects.

