# Los Angeles

They slipped from an office building in Shanghai to a hill overlooking Los Angeles in the blink of an eye. Jamie was used to it by now, and John, as usual, said nothing, being John.

The hot dry air was a shock after the too-cold air conditioning, and together they walked up the hill to the road, Jamie leaning on John for support. Jamie said nothing. He knew John would have a hard time parsing the words. John, who used to pun and play with words like a kitten with a feather, had paid dearly for this simple talent, to slip from place to place.

Jamie sometimes wondered if John thought it was worth it. If he wished for that part of his brain to work again. If he would trade back. Jamie knew there was one thing both of them would trade for. They had both lost her.

The sun was low, but the heat of the day was still baked into the rocks, and shimmered above the black road. The breeze from each passing car was welcome in the still air. Jamie rocked his left leg forward by pushing from the right, keeping cadence with John’s rhythm. His useless left side would hold him up – he had that much control.

If he hadn’t killed Pei Win, he wouldn’t have the limp. Every step he took reminded Jamie of the price he had paid for that. He would trade for that. He wished he could trade for that. He leaned against John, and they continued down the road, the cripple and the mute. Jamie brought his cell phone from his pocket, and called a cab.

“Cab,” he said to John. John nodded, then said “Hotel shower food eat hot sheets tired bed eat hot.” Jamie smiled. “Yes,” he said, adding a long pause so John would understand that the thought was complete. Then he said “pizza”. John shook his head. “Steak.” Jamie laughed. “Ok, steak.”

The part of John’s brain that handled syntax no longer had that duty, but John was still the smartest man Jamie had ever known. But no one else would know. The loss of language is such a wall in front of the world.

They kept walking, Jamie’s numb left side supported on his friend in a way that had grown natural. They needed each other. The cab would find them whether they walked or not, and difficult as it was, Jamie needed to walk. John did not seem to mind. They walked.

The key to sliding was altitude. Gravity ruled in otherspace, and they could slip from one place to another effortlessly if the two places had the same gravity. Moving uphill was an effort, moving downhill was dangerous if done too fast. The high-rise in Shanghai, the hill in Los Angeles, both had the same gravity. John knew how to control the slide for Coriolus effects, but he could not explain it to Jamie. Jamie could feel around in otherspace, and could make his way through it by touch, but John understood it at the most basic level, in a way Jamie never would. So they walked down the road, downhill towards the city.

Cars passed, ignoring the two travelers. Jamie watched a hawk circling in the ridge lift, looking for dinner. They walked for another half hour before the cab found them.

“Car break down?” asked the cabby, as they got in. “I guess ya don’t got triple A or y’da called them. I got a buddy does engine work if ya need it, he’s real reasonable.”

“We were just walking,” said Jamie. “What’s a nice hotel near the airport? Something with a good steak place nearby.”

“Kobe,” John said.

“A really nice restaurant,” Jamie added, “that serves Kobe beef.”

“That’s that Japanese thing where they give the cow a massage every day? They got that stuff at that penthouse place, top uh the Towers. That’s like a hundred bucks a plate or somethin’ though.”

“No problem,” said Jamie. “Take us to the best hotel near it; we’ll need to wash up a bit.”

“That’d be the Towers then. The hotel’s what’s holding up the restaurant.”

The cabby chattered as he drove down into the city. John ignored him. Jamie made polite noises at intervals, but was not paying attention. He dug into his pocket for the cell phone, and held it in his lap, looking at it. It had been almost an hour since he had called the cab. Plenty of time for the call to have rung alarms in Virginia, triggering contingency plans. Jamie looked out the window as the traffic became denser and noisier, and the cab slowed.

John was looking up at a helicopter, but did not look worried. Jamie leaned over to look up at it, and John said “Traffic”. The cabby agreed, and began a monolog in driving habits in Los Angeles. He was barely through the first twenty minutes of what promised to be a topic of some length when they arrived at the Towers. John got out and stood in front of the building, and Jamie leaned up towards the cabby, awkwardly fishing bills from his left pocket with his right hand. He palmed two bills, and held out another.

“This is for the ride and the conversation,” he said, handing the cabby a one hundred bill. He opened his hand and two more fell into the cabby’s palm. “And those are so you can take the missus out for a Kobe beef dinner.” The cabby did not protest, but the surprise was enough that he finally had nothing to say. Jamie got out and joined John, not looking back. The cabby would remember them well, and remember exactly which restaurant and which hotel. Jamie hoped three hundred dollars would make up for the night of questioning the man was about to go through.

As they walked up to the wide entrance, Jamie dropped the cell phone into a large concrete cylinder marked “Keep Los Angeles Beautiful”. Everything was set.

# San Diego

Decades ago, Jamie had hardly known John for two weeks when he first met Pei Win Chen. John had answered the ad for a roommate, and took the small room and the bathroom off the hall, as Jamie had already moved in to the master bedroom with its attached half bath. The apartment complex was just off campus, and nearly all of the tenants were students. Jamie had met most of them already, down by the pool, since he had made a habit of setting out a big bowl of cookies next to him as he read textbooks in one of the dangerously flimsy poolside lounging chairs.

It was his twenty first birthday, and he had forgotten all about mentioning it when Susan and her roommates came down to the pool with a cupcake and a candle, and several bottles of alcoholic fruit drinks. They called out to groups around the pool and on the upstairs walkway, and the party quickly gathered and the noise level rose.

Susan lit the candle and they all sang, and Jamie pretended to wish as he blew at the flame. Someone handed him a bottle of something sweet and fizzy, scented with strawberries and at least ten percent alcohol and he sipped a little and put it down. Jamie was always careful not to lose control.

“Who’s the birthday boy?” said a voice from over his shoulder. He half rolled over to look up at her. Pei Win was in a small dark blue string bikini, and Jamie made an effort to make eye contact. She was slim, but filled the top nicely, and the fabric clung to her like liquid. Jamie couldn’t speak.

“Pei Win, meet Jamie,” said Susan, handing her a bottle and making room next to her on the long chair. She sat, and reached over to pick up the book beneath Jamie’s chair.

“Psych major?” she asked.

“Computer Science,” he said, “that’s just some GE crap I have to read for Monday.”

“Microbiology,” she said, putting the book back down, “but I might change to Molecular Genetics, micro is getting kind of dull.” Jamie took his gaze from the bikini top as she straightened up, and met her eyes again.

“Do you live in the complex?” Jamie asked.

“Oh, no, I just came for the party. I had to see the guy Susan’s been talking about all week.”

“Pei Win!” said Susan, hitting her on the shoulder.

“Gotta go,” said Pei Win. “These people need to be shown what real wine is. And I just happened to have brought three bottles of a very nice Kabinet.”

Jamie watched her carefully out of the corner of his eye as she got up and walked away, focusing closely on the long legs and how the tiny bikini looked from behind. Susan moved closer and casually put her hand on Jamie’s arm. “She’s been my best friend for years, and she loves to tease.” Jamie smiled, and noticed that the hand stayed on his arm.

The party began to grow by slow accretion, as residents heard the noise levels rise, and the bottles started coming out of cupboards and refrigerators and migrated down to the pool. Susan kept her place beside Jamie, and introduced everyone she saw to him, whether she knew them or not. “Our guest of honor – he’s twenty one today!”

The morning turned into afternoon, and the party began to thin out into the die-hard drinkers and those who had made some progress in the early stage mating rituals. Someone suggested taking the party to the beach.

“Which one?” someone asked.

“There’s only one beach worth going to,” said Pei Win loudly. Susan mouthed something at her that Jamie could not make out. “South Torrey,” she finished.

The suggestion met with mixed response. Some had not had enough to drink yet to consider a nude beach as an option. Others were weighing whether they had the nerve, against the chance of seeing much more of their current preoccupations.

“You know that’s the beach where…“ Susan started to say.

“I’ve been there,” Jamie said. “It does have great waves for body surfing.”

In the end, Pei Win managed to talk about a dozen of the partiers into the trip, and drivers were selected from those who seemed the least impaired. Jamie ended up driving Susan’s big car, with Susan and Pei Win in the front next to him, and five more crowded into the back.

The trip was short and loud, with people singing along to the radio, or trying to talk over it. The climb down the cliffs to the beach was equally noisy, with squeals and giggles and laughter. Once on the sand, the blankets were barely spread out when Pei Win fluidly slipped off the bikini, and started to run towards the waves, shouting for the rest to join her. Jamie removed his clothes as smoothly and nonchalantly as he could, and waited a moment for a few others to set off for the waves before he looked over at Susan. She seemed to be still deciding whether or not to remove her suit.

“You can keep it on if you like,” offered Jamie. “Lots of people are in suits.”

She looked over at him and smiled. “Help me with this,” she said, and turned around, her hand feeling for the clasp on her bikini top. Jamie could tell she would have had no trouble undoing it herself, but was happy to help. She pulled it off, and slipped out of the bottoms, placing both under a towel, and took his hand as they walked to the waves.

The water was cold, and Susan squealed as a wavelet climbed up her ankles, but Jamie held her hand and pulled her farther out. “You just have to get in quickly, and you’ll get used to it. Dive into the waves. Don’t make it last any longer than it has to.” He demonstrated on the next wave, diving under it as it broke. He came up on the other side, and saw that Susan still had dry hair, and was still uncertain about the water. He ducked under the next wave, and swam out past where they were breaking, then turned around, treading water, and called to Susan. “Come on out! Once you’re all wet, it’s great!”

Pei Win swam over to him, and called to Susan to join them. Susan was gradually walking in, getting into deeper water, and the waves were now getting her head wet. Another few yards, and she was swimming freely, although she still wasn’t ducking under the waves. She joined the other two just past where the waves were breaking.

“Wait for a big one,” Pei Win told her, “then swim as fast as you can with it, and tuck your head down and ride it all the way in.” They waited out a few waves, and when one of a decent size came in, Pei Win and Jamie started swimming hard, and caught the wave. Jamie rode the wave in until his chest was sliding against sand in a few inches of water, then stood up and looked back. Pei Win had lost the wave a few yards back, and Susan was still out beyond the breakers, treading water. He caught up with Pei Win, and they walked through knee high waves towards deeper water.

Jamie looked sideways at Pei Win, taking in as much as he could without turning his head. She was muscled and lean, and her nipples were very dark against the untanned skin around them, and taut from the cold. She took his hand.

“I’m not hitting on you,” she said, “Susan’s my best friend, and I would never do that to her. But we’re on a nude beach, and it’s perfectly OK to stare at my tits.” She moved in front of him and turned around, walking backwards into the waves. Jamie kept his eyes on her face, embarrassed, not knowing what to say. “Down here,” she said, pointing at her breasts. Jamie looked, and smiled. She grinned back. “Now, come stare at Susan’s,” she said, and turned around and dove under a wave. Jamie dove behind her.

It took several waves before they had taught Susan how to catch one and get any kind of ride, but she would lose them by raising her head instead of keeping it tucked down. Still, Jamie kept with her, and they both enjoyed the afternoon. She was nothing like the incredible, unattainable Pei Win, but she was attractive, and Jamie found her interest in him was exciting. He took Pei Win’s advice, and admired what he had, and Susan found excuses to hold onto him as waves broke over them.

# Los Angeles

The restaurant was busy and noisy, but Jamie and John did not speak much anyway, and the Kobe beef was excellent. John had that look on his face, the one Jamie knew meant that half his brain was in otherspace, sensing for the inevitable approach. Jamie considered the dessert menu with no real interest – the dinner was more than he normally ate these days. Without the ability to exercise like he used to, staying fit meant being careful with calories.

“Car,” said John. “Men three armed one big bald handgun holster jacket.”

Jamie’s left hand jerked as he felt around in otherspace, finding the elevator and then the stairs. He was ready for either approach, or both. The building was tall. Would a hit man take the stairs for surprise, and be winded from a long climb, or take one of the elevators, and arrive where everyone would see?

“Car two,” said John. Was there a second car? Or did John mean two men saying in the car? Jamie shot a glance at John, eyebrow raised. “Car two,” repeated John. Then, after a pause, he said “one elevator”.

Jaime felt for the elevators, and found which one was moving. He waited for it to get to the restaurant level, and then felt inside, and found the man and the gun. He pulled together two pieces of otherspace, and one by one the bullets in the clip fell into the ocean south of Hawaii. There was one bullet in the chamber, and Jamie nudged it a few inches, into a pocket of gas in the man’s large intestine. The wallet was next, and Jamie slid it out of the man’s pants pocket, and pulled it out of otherspace onto the table in front of him.

Two men in the car, waiting, unarmed. One man leaving the elevator, still thinking he was armed.

Jamie and John were sitting so that both of them could easily see the entrance to the restaurant, and they both watched the tall bald man enter the room. He was large across the shoulders, lean at the waist, and the suit he was wearing hid the evidence of hours at the gym, but his walk gave him away. The suit cut was perfect, and no sign of a bulge betrayed the shoulder holster. They watched as he scanned the room.

When he saw them, he started walking towards their table, at the same time fluidly reaching under the jacket to fit the gun into his large hand and thumb off the safety. He was six feet from the table when the gun came out, aimed at John and clicked twice, then aimed at Jamie and clicked again. The move had been practiced and unthinking, and when the two merely sat there, and the conversations in the room continued without pause, the man quickly checked the safety, and looked around the room at the oblivious diners.

Jamie reached through otherspace and stopped the flow of blood in the large arteries feeding the assassin’s brain.

“Why don’t you join us?” he said, gesturing to the empty chair whose back was to the entrance. The man put the gun back into the holster and stood there, looking confused. His knees began to buckle, and John pushed the chair away from the table with his foot. The man held onto the chair back for balance, and then almost fell half onto the chair. Jamie opened the blood flow again, and waited for the man to regain clear vision.

“We’ve been expecting you. Have a drink of water.” Jamie pushed a glass of ice water towards him. The man did not take it, but looked from Jamie to John, assessing the situation. Jamie opened up the wallet and pulled out a California driver’s license and studied it.

“Aren’t you a little old for this kind of work, Walter?” he asked the man.

The man felt for his back pocket, and stared at the wallet. Jamie took out a large stack of hundred dollar bills, and stuffed them into the wallet, and handed it to the man.

“Is there anyone at home at 1632 Parkside Lane that you might want to notify? That’s the first place they’ll go when they suspect you’ve received a better offer. It might be nice if there were no wife and kids there to be hostages.”

“Empty,” said John, the half-vacant look still on his face.

“Well, then, that simplifies things,” said Jamie. “We’ll feed the goldfish if there is one, we’ll be there dropping off a rather large package of bills, just so they know what’s going on here. But don’t worry; there will be another large package of them where you’re going. Someplace nice, maybe Bermuda or New Zealand, someplace where that money will do someone without a passport a lot of good.”

The man looked at Jamie, but didn’t speak. “They didn’t tell you squat about this job, did they?” Jamie asked.

The man shook his head, studying Jamie.

“Think how easy your job would be if you could make bullets disappear out of guns, or wallets jump into your hands. Or if you could simply remove someone’s heart as easily as the wallet and bullets. And what if you could do that from anywhere in the world? I can do that, Walter,” Jamie said, picking up a spoon and dipping it into his ice water. He lifted the spoon level with his eyes, and tipped the water out. The water fell an inch, and disappeared. Walter sat up straight and inhaled suddenly as ice cold water poured down the back of his neck.

“The people that hired you, Walter, want to know how I do it. They want to put you out of business. Of course, I want you out of the business too, but I’m willing to pay you. I’ll pay you more than you’d ever make with that gun in your whole life. But if you don’t stay bought, pieces of you might go missing. Tell me you understand, Walter.”

“I understand.”

“Who are the two men in the car outside?”

Walter said nothing.

“John, I think it’s time we left,” said Jamie, dropping several more hundred dollar bills on the table. John stood up, and Walter began to rise, but Jamie put a hand on his shoulder.

“You’ll want that chair in a moment,” he said. John put his hand on Walter’s other shoulder. A moment later, they were standing on the hill where they met the cab, Walter seated on the chair. He looked around quickly, taking in the new surroundings without a word.

Jamie held the glass of ice water in his hand.

“Nice view from here, isn’t it, Walter?” Jamie said. “Imagine if I’d left you just a few yards outside the restaurant, say just over the car that brought you here. You’d fall a few hundred feet, and probably kill the two gentlemen in the car when you landed on their roof. That’s still an option. Why don’t you tell me what you know about them?”

Walter stayed silent, but looked around for escape.

“Have you ever had an ice-cream headache, Walter? You know -- the brain-freeze you get when the cold ice cream sits too long on the roof of your mouth? Doesn’t that hurt?” Jamie poured the ice water into the air where it vanished. Walter stood up suddenly gasping and coughing as the ice water poured through his sinuses. He gripped the back of the chair and snorted through his nose.

The light changed suddenly, and the three men were standing in the men’s room of the restaurant. Jamie pulled down a paper towel and handed it to Walter.

“Let’s go down and talk to your friends,” said Jamie, placing a hand on Walter’s back, steering him towards the door, but using him for support as well. “I’m just not good at this interrogation stuff -- I’ve got no heart for hurting people.”

The three of them took the elevator down, but when it reached the ground level, Jamie reached into otherspace and they were on the sidewalk next to the car. John reached out and touched the car, then looked at Jamie, who nodded. A moment later, the car fell loudly onto coral sand on a long stretch of empty beach, the three men landing outside it, and two more sitting inside. Jamie moved the gasoline from the tank into the front seat, and the two men in the car quickly got out, clothing soaked and reeking.

Jamie had their wallets in his hand.

“George,” he said, dropping one wallet on the ground. “And Roger,” he said, looking into the second wallet. Roger started to run, but tripped as his pants suddenly fell to his ankles.

“I can see Roger knows what he’s dealing with,” said Jamie, studying the wallet more closely. “Walter has decided to join us, Roger. I’m sure that comes as no surprise to you, knowing what we can pay him. Walter, pull out that gun and make sure our guests sit quietly and talk nice.”

Walter looked at Jamie for several seconds, then pulled out the gun and aimed it towards George and Roger. George sat down in the sand next to Roger, crossing his legs and resting back on his arms. It had been well after dark in Los Angeles, but the sun was high in the sky here. The surf pounded on coral boulders a few yards away – this island was nothing more than a sand bar, a few yards across and perhaps a few hundred yards long. There were small weeds here and there, but no trees or large vegetation, and no shade except under the car.

“We like this place for a quiet chat,” said Jamie. “Ships hardly ever pass by, or planes for that matter. Too bad this is the only fresh water,” he said, pouring the remains of the ice water onto the sand. He took a photo from the wallet. “Nice family, Roger. Nice neighborhood too, you must make good money. What time are they expecting you home? Because all I need is a few names, and then you can all go home. Or I can leave you here for a few days, and come back to see if you remembered anything. Nasty sun, though, looks like a heck of a sunburn here with no shade.”

# San Diego

Jamie and John were both good students. For John, it seemed to come effortlessly. For Jamie, it was work – constant study, hours of reading, more hours at the computer, and all night study group sessions before tests. John was outgoing, popular, with a confidence that attracted attention. Jamie had no such confidence, but used bait and planning as social tools to make up for natural talent. He worked hard at everything.

Susan had attached herself to Jamie like a barnacle, and it made much of his social life easier. He could delegate to her all responsibility for arranging weekend plans or parties, and he could study up until the last minutes before attending those gatherings. It was Susan who had arranged that night’s outing, and it was Susan who had insisted that John join them, as all of her roommates would be there, and it was only right that Jamie’s roommate came along. John seemed slightly amused at being swept along, and did not seem to begrudge any lost study time.

Jamie didn’t see what the big deal was – a new pizza place had opened a few miles away, just another chain restaurant serving greasy cheese on cardboard. But John seemed intuitively to understand that the excuse could have been anything, and that the whole idea was to get away from the apartments and away from study, with a large enough group of people that the conversations would have a chance to keep going. Jamie sat in the front seat as Susan drove, with John and two giggling girls in the back seat, trading innuendos and risqué puns for the whole trip.

Susan commandeered a large round table in a corner in the back, and was organizing food orders when Pei Win arrived. “You made it!” Susan shouted over the restaurant din, and pointed to the chair next to John. “You sit there. John Rakity, this is Pei Win Chen. Pei Win, this is John, Jamie’s roommate.” Pei Win was stunning, long black hair shining as it fell behind her shoulders, a simple knit dress fitting her curves gracefully above long tanned legs. Jamie wondered if she had anything on underneath it.

Pei Win smiled at John, and sat down beside him, and leaned over to read his menu. She said something to him that made him laugh, and Jamie took his eyes away to answer Susan’s menu questions. Susan had a handful of coupons clipped from the newspaper, and the choice of what to order had become a complex optimization problem. Jamie sorted the coupons and Susan’s list of preferences in front of him, and studied them, head cocked to the side. John looked over and said “Six by five matrix; three unknowns.” Jamie looked up at him, and then grabbed a napkin and a pen, and drew out the matrix, solved it, and took two of the coupons off the table and handed them to Susan. “Keep these for next time,” he said. “$6.85 each, if we divide it six ways.”

John leaned in his chair and pulled his wallet from his back pocket. “My father the judge insists on covering tonight’s tab,” he said, and dropped a fifty dollar bill on the table with a flourish. “And he tips well,” he said, winking at the waitress standing next to Susan. She smiled and took Susan’s list back to the kitchen.

The conversations meandered from school subjects to teacher preferences, then on to gossip about who was doing what with whom. The pizza was predictably ordinary, and Jamie amused himself at the all-you-can-drink soda bar, mixing different flavors, to the disgust and amazement of his companions. John and Pei Win occasionally joined in on the general topics, but seemed to have mostly quiet private conversations that were apparently highly amusing, but none of which were even slightly audible to Jamie.

When it came time to leave, John left in Pei Win’s car, and Jamie drove Susan and her roommates back to the apartments in Susan’s big car. Susan spent the night at Jamie’s, and she was asleep when Jamie heard John get home, apparently alone, several hours later.

# Los Angeles

John and Jamie walked through Walter’s small apartment, gathering personal items and clothing, and dumping them into a large cardboard box. There was no goldfish. The apartment was barely more than a hotel room, having the look of a place barely lived in. Walter must travel a lot, Jamie thought.

In the center of the room was another cardboard box. This one was filled with hundred dollar bills. Getting money had turned out to be much more difficult than they had expected back in the early days of exploring otherspace. They could easily slip into bank vaults or the Federal Reserve and take what they wanted, but neither Jamie nor John was comfortable with that idea. What they both really wanted was to take cash from the people who were chasing them, but those people never used cash in large amounts.

It had taken a long time, and a lot of detective work on the part of a lot of smart hired help, but they had eventually compiled a list of drug dealers, arms merchants, and arms importing organizations, and with some luck and a lot of persuasion, they had built up a large inventory of hard cash in a number of currencies, stored in safe places around the globe. This particular box also contained a large amount of cocaine, but since it was being left for Walter’s former employer, that was not a problem. The important thing was the small GPS device hidden in one of the stacks of bills.

# San Diego

Pei Win drove the long way north to Cardiff-by-the-Sea every Sunday morning. As the highway neared the coast, the weather cooled, and the marine overcast hinted at an aroma of seaweed and salt. The radio was off, and she was alone with her thoughts, wandering from what her grandmother might want to do after church, to what her friends might be doing today back in Manila. Entering town, she left the freeway and drove through quiet streets until she got to the big old house with the big elm in the front yard, still complete with the rope swing her mother had used as a child.

“You know you don’t have to come all this way just to take me to church,” her grandmother said. “Lucy Grabel is happy to let me ride with her family – they have that enormous car, there’s plenty of room.”

“Don’t be silly – why do you think I came all the way to California to go to school? I know *you* would be fine riding in the back of some neighbor’s car, I’m just protecting my own interests.” She smiled and winked, and Sadie laughed.

“So, did you think about what I said last week? Isn’t he a cutie?”

“Gramma, he’s a priest!”

“He’s a minister. They can fool around, or get married, I forget which.”

“You just pretend to forget things, so you can get away with stuff.”

“Wait until you get old-timer’s, see what you can get away with.”

“Gramma, Ronald Reagan had Alzheimer’s. You just left your car keys in the refrigerator once.”

“Isn’t he a nice boy though?”

“You’re not going to hook me up with your pastor, Gramma.”

“Minister,” Sadie corrected.

“He could be prime minister, and it wouldn’t matter.” She didn’t add “anymore”, but Sadie picked up on the slight pause at the end of the statement.

“Something has changed? Tell me about him.”

“About who? Who has time for boyfriends with all this homework?” She gestured at the pile of books on the floor under Sadie’s feet. “I’ll be doing statistics homework during the sermon. If anyone asks, tell them I was practicing shorthand by recording every word of the sermon to study later.”

“No one will ask,” Sadie said.. “Half the church will be asleep. The other half is only there because they forgot what else you could do on a Sunday morning. You are the youngest person to enter that place in ten years.”

Pei Win thought for a moment, and then grinned. “Your math doesn’t add up. Mr. Cutie Pie isn’t ten years older than me.”

“He’s only been the minister for three years. I don’t know if that helps the arithmetic though.”

“Actually, it does, just barely. Why does he have two first names and no last name?”

“What do you mean? Michael is his first name, and Duncan is his last name.”

“Duncan is a first name. He’s got two first names.”

“Look who’s talking, Pei Win Chen. Trust your Chinese father to give my granddaughter some funny foreign name.”

“Dad was half Dutch, Gramma. His grandfather was Chinese, from Ohio. And Mom picked the name.”

“She never told me that. What does it mean?”

“It doesn’t mean anything, it’s just a name. She wanted something to go with ‘Chen’, and she was reading a Chinese menu one day, and there I was. It probably means ‘soup of the day’.”

“Nobody tells me nothing. She got that from her father.”

In the church, Pei Win put off doing her statistics homework by calculating the average age of the congregation, computing the mean, the median, and the mode mentally by guessing ages. She was indeed the youngest person in the church, by quite a margin. Her presence moved the average, but the median and the mode were both firmly stuck in place.

Michael Duncan had not gotten any sleep that night. He had been working on this sermon since delivering the last one, with barely any thought for meals or sleep. His thoughts had suddenly started to coalesce last week, thoughts he had stored in the back of his mind for years. But the thought of actually delivering this sermon, putting it out in the public, on record, was frightening and intimidating, and sleep had been impossible. Still, he saw no other way.

He stood in front of the sparsely filled room, and began.

Faith – is a belief without proof. We can’t prove everything – some things we just trust to be true, because it is convenient to do so, even when there is no evidence. For most things, there is evidence, and we use that evidence in the place of a proof. We trust that the friendly dog won’t bite, or that the red light will turn green, because that is what has been the case in the past, and there is no reason to think things won’t continue to work the same way now.

In most of these cases, the cost of a misplaced faith is small. We might lose some time in traffic, or we may have to jump away from the dog in a hurry. What is the cost of a misplaced religious faith? Some would have you believe the costs are infinite. But of course they have no evidence, no proof. They just believe. Some others, using only logic, would show you that the cost is nothing.

Pei Win looked up from her book. The epistemology of dog bites and traffic was competing with causal Bayesian networks for her attention.

Michael Duncan continued.

Consider all the faiths that exist. Some assert that there are many gods, some that there is one, and some pretend that both can be the same. Those who believe in an all powerful god can only believe in one god at a time. There are those who believe in no gods at all, with no more evidence than the others.

People convert from one faith to another, since all it takes is changing beliefs, and the old belief had no proof or evidence. Why they do so is never because someone proved the new faith was true.

A baseball pitcher on a winning streak may choose not to change his socks, afraid of losing the streak. A gambler might have similar superstitions. Is there harm in believing these things, in having faith without proof? There is great harm.

Parents have sent their children off to war to protect or distribute beliefs that have no proof, fighting other beliefs with no more evidence than the first. People have died by the millions for millennia.

Altruism is a basic part of human nature. We want to be good. It does not matter which faith we have, or whether we have any. Helping our neighbors has survival advantages for our descendants and kin, and it is natural that our species would protect such an attribute. So do we need faith to provide a reason to be kind? No. In fact, it is better to be kind with no reason, so we aren’t able to reason our way out of being kind. Faith allows us to reason our way into doing terrible things. If the only reason for being good is to please our god, then we can declare open season on those who worship a different god. If we do good because we are human, then to fail to do good is to be inhuman.

Pei Win looked around the church. No one was asleep yet. Dirty socks and genocide seemed to have everyone’s attention. She tried to concentrate on statistics, but the sermon was different today than on past days. The formula wasn’t there. The cadence was different. The language and choice of words were not the standard church fare. She followed the minister’s words as she wrote in her notebook, trying to work problems with one ear to the sermon. It took her twice as long to do the homework, and it was over an hour later when she put down the notebook, and sensed a change in the rhythm of the words.

If we are to make the best decisions, we must know what our assumptions are. We must know what can be proved, and what has come to us by faith alone. We must always be open to new proofs and new evidence, and we must not believe in things that have no proof or evidence.

It is in that last part that I have struggled for many days now. We in this room share a belief that has no proof. As long as I refuse to doubt that belief, refuse to accept that it is no more valid than any other belief for which there is no evidence; my mind would be shut to alternative explanations. To have an unshakable belief is to be unable to learn.

And so I come to my decision. I cannot stand here and preach that there is one truth you must believe without proof. Only in mathematics do we have such certainty, because there we have proofs. But religion is not mathematics. There is no proof – there is no truth. There are only old men telling stories. I can no longer teach what I no longer believe.

Pei Win looked up. The sermon was over. She looked around the room, but saw no special recognition that today was different than last week. The people stood up, talked to one another about back trouble and kindergartens, or something someone said.

Michael Duncan stood by the door and shook hands as the congregation filed out of the building.

“That was a wonderful sermon, as always.”

“See you next week, we’ll bring my daughter’s kids, they’re visiting next week.”

“Can we maybe get Bingo? Tuesday nights would be best for me.”

Pei Win watched the minister, who seemed as puzzled as she was. Didn’t they know he’d just quit, after an impassioned personal crisis of faith? Or was this just their way of not letting him off the hook, not letting him leave them?

“I’m definitely coming back here next week,” Pei Win said to Sadie.

“Isn’t he a nice boy?” Sadie replied.

# Colorado

“One of these days, they’re just going to shoot you, you know. High powered rifle from a mile away. You’ll never see it coming.” Dora said, nursing a hot chocolate by a snow encrusted window.

“It’s a possibility. We take precautions, but we can’t see everything.” Jamie looked out the window at the blowing snow. At this altitude, there was always snow.

“I worry about you two.”

“I worry too. That’s why we have to erase everything. That’s the only way it will stop.”

“But not people.” Dora’s eyes searched Jamie’s tired face, looking for doubt.

“No. We can’t ‘erase’ people. That’s what we’re fighting against. It would be meaningless if we used their tactics.”

“If you don’t kill them, they’ll never stop.”

“They’ll stop when we make it clear to them they won’t succeed.”

“And finding all the data will convince them?”

“Without the data, they can’t reproduce the experiment. But no, that alone won’t convince them. We have to show them that pursuing it is not in their best interests.”

“Killing them sounds easier.”

“It always does. That’s why we’re in this mess.” Jamie took a noisy slurp from his own hot chocolate, and then put it down.

“How do the books look?” he asked her.

“You’re still filthy rich. Michael doesn’t know how to spend money.”

“Maybe we should get him some help there.”

“You need a dozen Michaels. He focuses too much on the schools, and doesn’t have time for the medical work, or the libraries, or the infrastructure projects. He needs someone with executive abilities, someone used to planning large projects.”

“Someone like you.”

“God no, I’m a bookkeeper. But I know some people, I could talk to them.”

“People who won’t ask where the money comes from?”

“That’s not a problem. Francisco has it all washed and pressed. He’s very good. If he’d been at Enron those guys would have gotten away with it.”

“Get me a list, with background checks. Use the folks in Hamburg, they’re thorough, and they can sniff out influence from Virginia. But we won’t be letting them in on anything hard, just the philanthropic stuff.”

“I’ll do that. The rest of the furniture for the hole arrived. You’re going to need a forklift – Lenny offered to drive it.”

“He’s been dying to see the project. Tell him to meet us in an hour, and we’ll get it all unloaded.”

The ‘hole’ was what Dora called the safe-house. A bunker blasted in the heart of a mountain overlooking Cusco, with no entrances or exits. Only John and Jamie could get there, through otherspace. A place where the pair could sleep, knowing no one could bother them. To get there, they needed to first get to 12,000 feet above sea level. That’s why the Colorado office was up here above the ski resort.

The workers who built the safe-house had no idea they were anywhere but in a mine in Colorado. Not even Dora knew the actual location.

John came in through the glass airlock doors that kept the cold wind from entering the cozy office. He had been skiing again, and had white goggle marks surrounded by windburn on his face. He stamped the snow from his boots and stomped clumsily to the couch to remove them.

“Furniture’s here,” Jamie said.

John held up 10 fingers. “Minutes” he said, and walked over to the counter to make himself a hot chocolate.

“Lenny’s coming along to drive the forklift.”

“Forklift, Lenny, good.”

“Maria’s been making some progress with you,” Dora said.

“Maria good,” John smiled.

“At least he’s not running off listing all the words he can think of all at once. Kind of sounds like Tonto now, though.”

“Kemosabe,” said John, motioning as if he were scraping something unpleasant off his shoe.

Lenny drove the forklift towards Jamie, who grabbed the box at the front and the frame of the forklift and opened the portal to the safe-house. Lenny drove, and where the wall had been, there was now a huge cavern. There was a loud clank as the forklift fell a few inches.

“Things shift,” Jamie explained. “Two places aren’t always at the same height.”

“Wow,” said Lenny, looking around the cavern blasted from solid granite. “Where’d you put all the rock?”

“Someplace in the middle of the Atlantic. Dropped it from two miles up. Made an amazing splash.”

“Cool! Take me along next time -- that would be so awesome!”

“We’ll be needing you for the Syria operation. You and your forklift.”

“What’s in Syria?”

“Explosives. About 40 tons.”

John very carefully hung a heavy ceramic pot of miniature roses from a hook in the corner ceiling, and fed a thin plastic hose for an automatic watering system into the soil. He plugged in a grow light above it, and tested the timer.

“No guards?”

“They’ll be visiting someplace nice. Guam, maybe. Wake up naked on the beach, getting a nice tan.”

“You guys are mean.”

“It’s dangerous, you know. Not just the stuff, but we don’t know it isn’t booby trapped or something.”

“But you’re going.”

“Yes, we are.”

“Then count me in.”

They began unpacking the furniture, and moving in the other boxes. The fuel cell generator was last. Lenny collapsed onto the long couch. John joined him, and opened a beer. The air was still and the cavern was very quiet.

“Good sleep,” said John, turning off the lantern. The cavern got impossibly dark.

“Awesome,” said Lenny. Then after a moment, “Um, you think maybe we could get back to Colorado?”

# San Diego

Pei Win wrapped her arms around John from behind, and brought her mouth up to his ear.

“You should come to church with Gramma and me today.”

John turned around and looked into her face.

“I’m not exactly the religious type.”

“I know – that’s why it would be perfect. You just have to meet Michael Duncan, the preacher guy. All that stuff he was saying last week about the need to doubt everything, and all those little old ladies in the pews just soaking it up and thinking it was the best sermon ever. You have to come see this guy.”

“Not really my thing…”

“Come on, a nice drive up to Cardiff, we’ll play on the beach afterwards, I promise you’ll love it.”

“This really means a lot to you, doesn’t it?”

“I really want Gramma Sadie to meet you.”

“I’ll drive.”

“No way! Nobody drives the Beast except me.”

The drive up to Cardiff-by-the-Sea was foggy and cool. John stretched across the bench seat, his head in Pei Win’s lap, and his bare feet sticking out the open window. The radio volume was high, in an attempt to drown out the wind from the window, and the speakers buzzed with the bass.

When they turned off the freeway, he pulled in his feet and sat up, turning the volume down and rolling up the window. Pei Win pulled into Sadie’s driveway.

Sadie was waiting when they got to the door and Pei Win make introductions. Sadie seemed to approve of John, and gave Pei Win a secret squeeze.

John sat in the back seat on the way to church, entertaining Sadie with stories about the biology lab and pranks involving preserved parts of unidentified animals. Sadie told stories about growing up on a farm in the Midwest, and matched him prank for prank. Pei Win was very pleased to see them getting along. Sadie was her only family, and her approval meant a lot.

The parking lot at the church was completely full, and Pei Win let Sadie and John out in front of the entrance and drove down the street to find a place to park. She returned, out of breath, almost ten minutes later, having run almost two blocks.

She was half afraid that Michael Duncan would not be there, replaced by a god-fearing boring old minister on loan from a more traditional congregation, but he was there, greeting parishioners as they entered the church, as if nothing unusual had happened the previous Sunday.

The church was packed. She had never seen so many people there, milling around, talking; meeting old friends with squeals of recognition, introducing companions to new faces. They found some room near the back, and sat down. The crowd was much younger than last Sunday. The noise level in the church made conversation difficult, and the three of them sat quietly, taking in the scene. Then, as Michael Duncan began walking toward the front of the church, the crowd parted for him, and people found seats, and loud voices turned to whispers and then respectful silence as he took his place at the front of the room. Pei Win could hear the rustle of the pages as he set them on the podium, even from their place at the back of the church. He began to speak.

This has been a busy week. Many of you here today have spoken to me in the past few days, giving me your support and encouragement. Many others, in fact nearly a third of the congregation, have indicated that they will be attending other services until I come to my senses. But I think I *have* come to my senses, finally, and honesty requires that I speak the truth to you, my friends, as I did last Sunday.

We gather here each week, as friends and neighbors, to commune with one another, to affirm our desire to do good, to be good, to ourselves and our community. We are not here out of fear of eternal punishment. We are not here because some deity insists. We are here for each other.

Here we are reminded to think of others. Here we can help one another. Here we meet new people, and make new friends. Here we come together. And on Tuesday night, we’ll have Bingo.

There was a shout of joy from the middle pew, and the room broke out in laughter and applause.

The sermon continued. Pei Win noticed that Michael was standing close to the crowd, his notes forgotten on the stand behind him. He reminded them of all the things that church was, but never mentioned religion or religious teaching. That seemed to be a part of church that was unimportant, and could be eliminated without loss, leaving more time for the important functions of the gathering. He spoke of the meals program for the homebound, the gift packages for the hospital, the volunteer work, and the homework tutoring on Friday nights. The crowd began to participate, murmuring approval as he listed things they had accomplished as a group.

At the end of the sermon, the crowd broke into enthusiastic applause, and the noise level again rose to levels that precluded conversation. They filed out of the church, congratulating Michael and shaking his hand, shouting to one another over the din. Outside, the noise level fell to tolerable levels.

“Amazing”, John said. “An atheist preacher – and it makes so much sense.”

“So many people!” Pei Win said. “You should have seen this place last week, it was dead.”

Michael Duncan was surrounded by a group of young girls.

“If we start a choir, can we sing real music instead of churchy stuff?”

“My gramma’s in the hospital – can we bring dogs there for the patients to pet?”

“I can bake cookies for Bingo night if you want.”

John, Sadie, and Pei Win walked past the group, and then walked down to where Pei Win had parked the car.

“We’re going to change into suits at your place, and head on down to the beach. Would you like to come?” Pei Win said to Sadie.

“And miss my stories? You two go have fun – I have ironing to do, and George is going to tell Cindy about Mrs. Ashworth, I can’t miss that.”

# Syria

Lenny drove the forklift carefully. The warehouse was huge, and there were over a hundred pallets that had to be quickly transferred to a hillside in Mexico, but he was very cautious about bumping the cargo or jostling the pallets too much.

As promised, the guards were peacefully sleeping off a temporary lack of blood to the brain, in their underwear on a beach somewhere in the Marshall Islands. The gates to the warehouse were still locked, as the group of thieves had no need of doors. The pallets collected by the side of the road, in neat rows, awaiting the arrival of trucks to load them into. The trucks would then drive up the hill a bit, and disappear into a compound in central Africa.

John stood by, his gaze far off, monitoring the outside of the warehouse through otherspace. Each pallet took less than a minute to move, but it still took almost an hour and a half to remove the pallets from the warehouse. As the last pallet was deposited in Mexico, Jamie took a last trip around the warehouse, examining pallets.

“Lenny, come take this one too,” he called out just loudly enough to be heard over the noise of the forklift.

“What’s in that one?” Lenny asked.

“Looks like RPGs.”

“Video games?”

“Rocket Propelled Grenades.”

“Cool!” said Lenny, maneuvering the forklift under the pallet. “Can we play with some of this stuff?”

“I can see it raining bits of Lenny all over the Sonoran desert.”

John walked over to join them. “Boom,” he said, pointing to Lenny.

Jamie took a letter from his coat pocket, addressed in flowing Arabic script, and dropped it onto the floor where the pallets of explosives had been. They walked from the humid Syrian night into the blazing Mexican desert afternoon, following Lenny on the forklift. The trucks had arrived, and Lenny got busy moving pallets into the semi trailers.

“Tomorrow jail swap,” John said.

“Yes,” Jamie answered. Tomorrow they would exchange Palestinian prisoners for Israeli captives, and leave another cryptic letter, suggesting to each side that they spin the exchange as a goodwill gesture, as if it had been agreed on by both parties after secret negotiations. Little by little, making the world a better place. We do what we can, Jamie thought. We owe so much.

When the four trucks were loaded, Jamie and John climbed into the first one, and the driver started up the hill. John waited quietly as the truck ascended the hill, waiting for the right altitude to match the compound in Zaire. Finally, after some 40 minutes of climbing, he signaled the driver to stop. John got out, and disappeared off the side of the road. He reappeared, and picked up some rocks by the side of the road and placed them about 20 feet apart well to the right of the pavement. He seemed less than pleased with the arrangement. He walked back to Jamie in the lead truck.

“Slope no slope bump bad” he said.

Jamie looked over at the driver. “The left side is going to drop and the right side is going to rise. You’ll have to go slowly, and angle left a bit. We’re on a hill here, but the other side is level ground.”

“Whatever you say, boss,” the driver said flippantly. He had been through otherspace many times already, and was expecting anything. He backed the truck up, and then forward again, cutting the wheel sharply to the right. A few more times back and forth and he was angled slightly uphill, aiming directly between the two rocks. Jamie felt around in otherspace with his left hand, and nodded to the driver. The truck drove slowly off the road, and into the steamy tropical night of central Africa. The hot dry air of Sonora blew hard against the truck as they crossed over; the air pressure in Mexico was higher than Zaire by quite a bit.

When the last truck had come through, John and Jamie once again climbed into the lead truck, and they drove uphill again, a few miles to the compound. The gate opened as they came up to it, and several guards waved them through with their assault rifles. The trucks drove up to the loading dock of a large warehouse, and John and Jamie got out and walked up a gravel path to an air conditioned office, where they were met by a large black man in a military uniform. They could hear Lenny starting up the forklift, and the warehouse doors clattered noisily open.

“You should have just blown that shit up where it was,” the big man said.

“And take out half the town? I think not, Robert,” Jamie replied. “Besides, we try not to do anything we can’t undo. Sometimes things aren’t as simple as we thought they were. Sometimes we have to put back what we take.”

“So how long do my men have to guard this stuff this time?” Robert asked.

“We should know in a week or two whether it had the right effect. Then we can push it onto an iceberg and make loud noises, or use it for fertilizer on some little farm in Cambodia or something.”

“There’s news about your friends in Virginia.”

“Good new or bad news?”

“Hard to say. It looks like the plans for that big facility in Idaho have been scrapped. Maybe they can’t find the backups either – no point in building a big computer if the software isn’t there.”

“They still have Bergman and Lundquist. They might be able to reproduce the code.”

“Without you two? Probably not, given the efforts they’re going through to get you back.”

“They sent a gunman. They don’t want us back, they want us dead,” Jamie said.

“That Walter Kingman guy? He says he was sent by damage control. The spooks are spooked, but the science guys still want you around. There’s some big fight going on between the two groups, and we can’t tell whose coming out on top yet. But the old days when you could bait them into showing their hand might be over – you let the wrong side know too much, and you end up dead.”

“But they still have hope for the project. Otherwise, there’d be no arguing – they would all want us dead. So they think there’s a backup somewhere that we haven’t found, or they think they can catch us and hold onto us long enough to get it finished.”

“Hard to know which, eh?”

“Maybe if they thought we were dead, we could tell. If the project gets cancelled, then there’s no backup.”

“How would you manage that?”

“Walk into the right trap, maybe.”

“Sounds stupid to me. Better to get someone key to turn. Then you get an inside man in the bargain.”

“Got someone in mind?” Jamie asked.

“Lawrence maybe; or Fitzgerald. I could start some inquiries.”

“Money won’t be enough for either of those guys. We’ll need something more.”

“I’ll put some skull sweat into it; get some of the guys to brainstorm. Once we get the profile on those two, maybe something will fall out.”

“How are you set for cash?”

“Francisco shipped us a crate of it day before yesterday. Tell him to wash it next time. Just sniffing it made my nose numb – some dog is going to bark in customs at the wrong time and we’ll have to move again.”

“He’s a money launderer – you think he’s ever actually washed money, I mean physically? John and I got that last batch out of a shipment of oat straw. Half of the bales were filled with cocaine, and the other half with cash. Do you know how hard it is to get rid of a ton and a half of cocaine? You can’t just dump it in the ocean, you’d kill the fish. We ended up dropping it in a cement plant. Now it’s mixed in with post-hole mix in some Home Depot somewhere.”

Robert thought for a moment. “Next time, save some. Suppose local law enforcement found a few kilos in Fitzgerald’s freezer? That might loosen things up a bit.”

Jamie smiled. “You’re evil, you know.”

“I don’t leave Arabs 10,000 miles from home in their underwear.”

Dawn was beginning to break outside. Jamie felt very tired, but they still had to get the trucks back to Mexico, and Lenny back to Colorado. John was asleep on a couch in the other room. Jamie liked to sleep where the local time was night, but they had decided that such predictability was a bad idea. Now they rolled dice to make sure their down time was in a random place each night. Jamie would be glad when the safe-house was finished. Miles of solid granite between them and anyone trying to get in was a comforting thought.

Jamie woke John, and they went out to take the trucks back through to Sonora.

# San Diego

Pei Win let herself in with the key John had given her, and found John and Jamie at the kitchen table, where John had arranged an improbable collection of bottles and packages around two bottles of cheap tequila.

“What’s all this?” she asked as she sat down.

“A most noble experiment,” John said, “certain to win me a Nobel Prize in Physiology or Medicine.”

“You don’t know which?”

“That’s what they call the prize.”

“So what’s the experiment?”

“Only the most important problem left for modern western medicine. We have the cure for erectile dysfunction, we have Rogaine for bald guys, there’s only one major accomplishment left for the betterment of man. I am going to cure the hangover.”

“You have a hangover?”

“Not yet. That’s the first step.”

“You’re going to give yourself a hangover?”

“Big time. The first one is the control. Give me something to compare against. Get totaled, wake up wanting to die. Then record how long the feeling lasts, how bad it feels on the Lamarr scale, how it affects brain function on simple tests, then do it all over again, using my secret recipe, and wake up ready to party again.”

“This is your secret recipe?” Pei Win said, gesturing at the array of items spread across the table.

“Indeed. Something for each symptom. We have Gatorade for the dehydration, aspirin for the headache, activated charcoal to soak up the heavy alcohols, nicotinic acid to dilate the blood vessels, caffeine to stimulate the neurons, Pepto-Bismol for the nausea, etc., etc. The trick is the timing – each ingredient at the right time.”

“You’ve done this before?” she asked.

“He’s never even been drunk before,” Jamie said.

“First time for everything,” said John.

“You are totally nuts,” Pei Win said, as John opened the first tequila bottle.

John took a sip and made a face. “This stuff is awful. Why would anyone drink this crap?”

“Why indeed?” asked Jamie.

“Try it with some orange juice,” Pei Win suggested.

“Gotta do it straight. Get the maximum dehydration.” He took another sip, and winced again. “Fuck that. Where’s the O.J.?” he said getting up and opening the refrigerator. “Coke will have to do.”

Jamie and Pei Win watched as John poured tequila into a glass and filled it with Coke.

“Isn’t there some rate you shouldn’t exceed?” Jamie asked.

“Good point,” said John, making another face after a gulp of tequila and Coke. “Give each glass ten minutes to see if I black out. If not, I should be good for another.”

“Is ten minutes enough?” Jamie asked.

“We’ll see. If I start feeling weird, I’ll slow down a bit.”

“Oh, you’ll feel weird all right,” Pei Win said. “I’ll just sit here with my finger on the 911 button, and we’ll keep an eye on you.”

“This is going to take a while,” Jamie said. “I’ll make popcorn; you two find something on TV.”

When the popcorn was ready, Jamie took it into the living room, where John was flipping through channels on the television. Pei Win took some popcorn, but John wanted to keep his stomach empty, and thought that the salt might interfere with the dehydration. Pei Win held the glass, and kept track of the time on her watch, so John would keep to his rate limit.

John took notes. “Nothing yet,” he said, and belched. “Except for the taste of Coke in my nose.”

It wasn’t long before he started feeling the effects. The popcorn was gone, and John’s first trip to the bathroom was a little unsteady. He returned to the couch, and Pei Win allowed him another glass.

John practiced standing up and sitting down. “Definitely feeling something,” he said.

By the time the second batch of popcorn was gone, john was recording that the room was definitely spinning. “Clockwise. Why clockwise, I wonder?” He stood up, and then sat down abruptly. “I need to pee again,” he announced, and Pei Win helped him up. He made it to the bathroom with one hand on the wall.

It was after midnight by the time the bottle was empty. John was in the bathroom, singing.

I feel shitty, I feel shitty,

I feel shitty, and gritty, and gray,

I feel shitty, and I’m gonna feel shitty all day…

The song was interrupted by the loud sounds of nausea.

Jamie looked at Pei Win. “He’s all yours. I’m going to bed.”

Saturday morning Jamie slept in. When he finally got up, the house was still quiet, and John’s door was shut. He showered and dressed, and walked quietly out to the kitchen and started making breakfast. The bacon was done, and he was scrambling eggs in the bacon grease when Pei Win came out of John’s room, wearing one of his t-shirts. She grabbed a piece of bacon and leaned against the table.

“He was taking notes all night. How many times he threw up, whether it was dry heaves or not, the time between episodes, whether he got dizzy or faint when he stood up, all while being totally wasted so he could hardly speak. He finally got to bed at 3:30 something – he’s got that written down in his notebook. I thought he was just making up an excuse to get drunk.”

“Not John. Even his jokes are serious. Except those awful puns.”

“Actually, I kind of like those.”

The door to John’s room clicked and squeaked. “What’s that awful smell?”

“That’s bacon, John,” called Pei Win. “It’s great, come try some.”

There was the sound of feet rushing to the bathroom, and the sound of an attempt to remove a small intestine by way of the esophagus.

“At least he’s not singing anymore,” Jamie said, and they both laughed.

John came into the kitchen in his underwear, looking pale and squinting at the light.

“Yup, definitely something we have to cure, for the sake of all mankind,” he said, pouring himself slowly into a chair at the table.

“Would you like something for it?” Jamie asked.

“That would screw up the control,” John said. “I need to chronicle the progress of the recovery, let nature do its thing at its own pace. Then we can do this all over again, with all the help medicine has to offer, and compare.”

“You always have the fun projects,” Jamie said.

“All in the name of science. Only a total idiot would do this for fun. I can’t fathom how people can become alcoholics. Why on earth would someone drink that foul stuff just to feel dizzy, throw up, and have a headache all the next day. Make no sense at all. And it taste awful, too, going down and coming up.”

“Maybe they don’t like themselves. This way they get to be someone else for an hour or two, and then get to punish themselves later.” Pei Win said pensively.

“I think you’re reading a lot into one data point,” Jamie chided.

“Well, we’ll soon have two. What do we need for statistical significance, something like 30?”

“Depends on the confidence you want, but yeah, 30 is a good number,” Pei Win said. “By then you’d probably develop a tolerance, and an addiction. Study all aspects of the problem.”

“I’m going to go lie down. Watching him eat dirty eggs would kill me right now.”

“How’d they get all brown and yucky looking?” Pei Win asked, looking at the pan of scrambled eggs.

“You cook them right in the used bacon grease. Gives them an amazing taste.”

John left the room quickly, heading for the bathroom.

# Colorado

Jamie looked around at the group assembled in the conference room. Some of these people he could trust with his life – some he *had* trusted with his life, on more than one occasion. Others were experts in things that Jamie wanted nothing to do with. *The things we do to cover our mistakes.*

*“*I spoke with Robert Mtebe a few hours ago,” he began. “He thinks there might be a schism forming between the policy makers and the research teams at the agency. This could be very dangerous, but it could also give us an opportunity – a way to shut down this line of research altogether. The freelancer that met us in L.A. had orders to kill. No capture, no discussion, just in and out. Not at all what we were expecting. Someone has given up on getting our help. That means they have found the data and don’t need us, or they have decided to shelve the project. Or there’s some other angle I’m not seeing.”

Charles Hayworth was the first to speak. His specialty was industrial espionage, and he had gotten much better at it now that he could count on easy placement of spy devices. “We haven’t seen any activity in contracts for any of the four key items needed to build the interface. And since we believe you removed all of them from the original project, there is no reason to think that any hardware phase has begun.”

Rick Bond, the head of investigations, spoke next. “Fitzgerald has been socking away funds offshore, in his personal account. Looks like he’s building a bolt-hole, expecting things to blow up. He found our device in his car, but we don’t think he knows it’s ours. If he thinks it’s from the spooks; that would lend credence to the idea of a split at that level.”

“Any agency funds going to that account?” Jamie asked.

“No, he’s too smart for that. But he’s in a place where he can do favors for people for cash, and he’s been cashing in,” Bond replied.

“We may be able to use that,” said Dora. “If several people know he’s doing under the table deals, there are blackmail angles, the possibility of people on the other ends of a deal getting upset, we could cause quite a bit of paranoia and backstabbing if the right information is leaked in the right way.”

“We have his codes – we could make that money go away,” Bond suggested.

Jamie thought for a moment. “Do we have access to any agency funds? Something Fitz has access to?”

“Some little stuff, a couple million in the hardware fund, and a credit card for discretionary things, not a lot.”

“Suppose the hardware fund got cleaned out, and went straight into a certain offshore account, penny for penny?” Jamie asked.

“They’d see that right away. And they’d then notice Fitz’s bolt account.”

“Make sure it happens from Fitz’s home computer, while he’s home. I’ll provide logistics if you like.”

“No need – we have the keyboard compromised. But we’ll have to remove that software after we do the transfer, so there’s no doubt it was done by hand.”

“So Fitz will know he’s being set up. Can we arrange for this to happen when he has a visitor, so the suspicion is directed where we want it to be?” Hayworth asked.

“I can check on that,” said Bond.

“So, the idea is to get them suspicious of one another, maybe fighting, so nobody trusts anyone enough to actually get any work done,” said Dora. “But we still don’t know if the backups have been found, or if any more exist to be found.”

“And, if they are shutting down the project, they’ll want to clean up all the loose ends,” said Jamie.

“So anyone who knows you and John were involved has to be removed from any position of influence,” said Hayworth.

“Fitz may be planning on removing himself. Any others that we might be able to convince to retire?” Jamie asked.

“Lawrence comes to mind. But the research guys aren’t the dangerous ones. The spooks are the ones we need out of the way,” said Bond.

“Nonetheless, without Lawrence, it’s unlikely the project could proceed,” said Jamie.

“Perhaps we can make him an attractive offer. Some enticement, combined with an offer of security, and a sense of danger with his current situation,” said Hayworth.

“We’ll leave that last part to Mr. Bond,” Jamie said.

Bond smiled and nodded.

# San Diego

“Johns Hopkins?” Pei Win asked. “Doesn’t Stanford have a good neuroscience program?”

“I’d be working with the old man himself. They asked for me at the conference. They read my paper, and they asked for me specifically. They have a whole team working on interfaces. It’s perfect.”

“But John, it’s so far away. Isn’t it way on the east coast somewhere?”

“Baltimore. You could come, get in a program – there’s UMB, Hopkins, Georgetown, Howard, U. Delaware, Penn State, and Duke – with your grades you could get in anywhere.”

“I can’t leave Sadie; I’m all the family she has.”

“You see her on Sundays. What did she do when you were home in the Philippines?”

“It’s different now – I’ve been here five years. I just got into Scripps; I can’t just pick up and leave.”

“So we’ll fly back and forth. Other people do it. We can video conference over the web.”

“You know that never works.”

“We can make it work.”

“You’re serious about this, aren’t you,” she said.

“I have to do this.”

“Then we’ll make it work. I’ll get a job as a travel agent or something, we can fly for free.”

“Jamie said he’d split the rent 50/50 with you.”

“You told him before you told me?”

“He was there at the conference when they came to me. He came along to hear the visualization talk, they were doing the same stuff he and Roberts were doing last year. We asked you to come, you know.”

“It was Sunday. You had all day to think about this, you could have told me last night, or this morning. Why wait until now?”

“I knew you’d take it this way.”

“Oh that’s just great. Like I’m being unreasonable.”

“No, that’s not what I meant.”

She was silent for a while. John waited.

“So, when do you leave?”

“Not until the term starts. We have the rest of the summer.”

“The rest of the summer.”

“Yeah.”

“I think I’m going for a drive somewhere. I want to be alone for a while. Don’t wait up.”

“Jamie’s making dinner.”

“Tell him I’m sorry,” she said, standing up.

“Ok. We’ll save you some.”

“Don’t,” she said, and left.

# Virginia

Jamie was waiting in the parking lot next to a blue SUV with Virginia plates, looking away from the car, not attracting any attention. A tall thin man left the elevator and approached the car.

“Hello, Jim,” Jamie said.

“Jesus!” said Lawrence, looking all around. “Do they know you’re here?”

“They will soon enough. They’re listening, you know. If it isn’t in your car it’s on your person, somewhere.”

“They wouldn’t…”

“They would. They are. You know who you’re working with.”

“I’m a team player. They have no reason to trace me. This is my project.”

“It hasn’t been your project since the demo. The moment they realized it could be a weapon, you were window dressing. Expendable window dressing.”

“Why are you here?”

“To make you an offer.”

“With them listening? Are you nuts?”

“They know what I can offer. Protection. From them. And more.”

“What, live in hiding all the time, like some kind of amateur witness protection program? That sounds like a great offer.”

“We can make them go away. We’ve been reticent, careful. But they know what we can do if we are pushed hard enough. We’re offering a deal. They stop pushing, we go away. We take our friends with us. Are you a friend, Jim?”

Lawrence opened the door of the car, then took off his coat, and threw it onto the passenger seat and closed the door again. “I’m not your friend. I’m a team player. These people are protecting my country, our country.”

“These people are protecting their own asses, Jim. You’re not naïve.”

Jamie looked at his watch. “Gotta go, Jim. Say Hi! for me at the debriefing.”

Jamie slipped across to the hotel room across the street as the sound of helicopter blades began to drown out the traffic noise. He watched as the helicopter hovered next to the parking structure, and the second floor filled with running men. Jim Lawrence stood by the side of his car, taking it all in, until he was escorted into a van. Jamie resisted the urge to disable the vehicle by removing spark plug wires. Removing the fuel from the helicopter was fair game, however.

Jamie sat down on the bed, and felt through otherspace for the van holding Jim. He followed it for 20 minutes that way, until it stopped, and the Lawrence was taken into an elevator. Jamie could only feel the edges of things because of the height difference – he couldn’t move anything, the energy required to overcome gravity differences of more than a few feet was more than he could move with his muscles. But once they put Lawrence in a room, Jamie was out of the hotel room and moving up the stairs.

Halfway between floors, he was level with the interrogation room, and he could open a tiny hole into the room and listen in.

“…threatening us directly! Why did they think you would join them?”

“I really don’t know –“

“’Team player’ my ass. You knew we were listening, that crap was for us. Don’t play me, Lawrence, you aren’t up to it.”

“You were bugging me after all.”

“Damn right! None of you brains seem to know what’s at stake here. You play around with your computers and your theories and you have no idea, no idea at all, what our enemies could do with this technology. See anything; kill anyone, from across the globe, easy as walking through a door. No vault is safe, no conversation private, and no armor thick enough to stop someone from shooting you in the head from inside your damned head!”

“I’m aware of the military uses. But the scientific uses –“

“—are useless if we can’t defend ourselves!”

Lawrence did not reply.

“Why did they contact you?”

“I don’t know.”

“What do you have that they want?”

“I don’t know! I’ve been trying to build the project back up from scraps and guesses! We’re getting nowhere! Where are those damned backup files? Everything went off-site every night, for safe keeping. Nobody can find the damned things! That’s what your people are supposed to be doing, not planting bugs in my car.”

“Don’t you tell me my job! You just admitted you’re useless, on camera no less. You could end up in a dumpster somewhere if I just snap my fingers so don’t you get uppity with me Doctor. You just sit there until you can think of why they picked you. I have some damage control work to do.”

As the man left the room, Jamie reached into the camera and removed the memory chip, and put it into his pocket. He followed the angry man down a hallway and watched him key a code into the lock of a windowless office, and enter. There was nothing in the office but a bare desk and a telephone. Nothing in the room gave any hint as to the man’s identity. But Jamie had the video of the interrogation, and Bond or Hayworth might be able to do something with that.

The man was on the phone. “Whadayamean out of gas? Get it back in the air right now! We need eyes in the sky, and quick reaction time. And go over Lawrence’s place with a fine tooth comb. Look for anything electronic that isn’t ours, and anything written down that could be a code. I want to know the name and publication date of every book in the house that could be a onetime pad. I’ll keep him here until you’re done. Keep it neat – you were never there.”

Jamie’s leg was beginning to cramp from sitting in the stairway. He could follow this guy all night and not learn anything more. He scanned the parking structure and wrote down every license plate for Bond to track, and climbed up the stairs until he was level with a soccer field in Venezuela, and slipped through. He limped slowly over to the crowded entrance where the buses and cabs were disgorging people, and waited for a cab to empty. He pointed up at a tall hill a few miles away. “Take me there,” he said in English, waving a U.S. fifty dollar bill. The cabby nodded, and he got in the passenger seat next to the driver.

After climbing switchbacks for twenty minutes, Jamie asked the driver to stop. There was nothing around by chaparral for miles, and the driver looked puzzled. Jamie handed him the fifty, and got out onto the side of the road, and waved goodbye to the driver, who turned around slowly, and started back down the hill, looking back to see if maybe Jamie would change his mind. When the car was out of sight around a curve, Jamie stepped out into the hot Arizona evening air, and booked a room at a Motel 6, using cash and a Texas driver’s license whose photo looked nothing like him. He’d drop the wallet in a mailbox in the morning.

He was dead tired, and he was asleep almost as soon as his head hit the pillow.

# San Diego

Jamie and Pei Win, each with a laptop computer resting on a towel on their lap, sat in lounge chairs by the pool as the last bits of sunlight slanted over the apartment roof.

“John says hello,” Pei Win said.

“He sent you email? I thought you guys did video all the time.”

“Not so much anymore. He’s really busy these days, and dashes off a note when he has time. I think he takes the computer into the bathroom with him sometimes. Those notes are short.”

“Must be hard.”

“I get by. Sue says hi too.”

“How’s she doing? Still with what’s his name? The ski instructor?”

“No, she’s got some new guy, an accountant or something. Took her to London. She seems happy.”

“That’s good – she’s a good person.”

“Too bad it didn’t work out with you two.”

“She needed someone with more time for her. I think she’s better off now.”

“What do you need, Jamie?”

“Sleep. A few more days in the week, a bucket full of extra neurons. A new computer.”

“You know what I mean.”

“Someone who doesn’t need me. Someone who comes and gets what they want when they want it, and is happy. Someone self sufficient.”

“But with a great ass.”

“Well, of course. Goes without saying.”

“Otherwise you could just get a cat.”

“I’d still have to feed it. It’s your week to cook – what’s for dinner?”

“Stir fry. Chicken, bean sprouts, snow peas, a little ginger, quick and simple. And a nice Merlot. No fortune cookies, but there’s ice cream left over from your week.”

“Sounds great. I’m going to be up all night with this.”

“Not me – I’m done. Experiment was a bust though – all the mice died. We’ll take ‘em apart tomorrow, see if the tumors are expressing the protein. Shame though, Harrison thought sure this time they’d make it.”

“You didn’t name any of them this time, did you?”

“Oh get over yourself! Fuzzy was cute!”

“He was ugly as sin, a hairless blind mouse.”

“It wasn’t his fault he was hairless and blind.”

“No, that was your fault. You knocked out seven genes. It’s a wonder he made it out of the womb.”

“But he did. And my paper got published. He’s famous.”

“Was famous.”

“He lives in our memory.”

“He’s buried under Sadie’s roses. You can’t get attached to your projects like that. You were a wreck for a week when he died – it was just a mouse.”

“Tell that to Walt Disney. I had a cold that week.”

“Right. Sadie said Michael Duncan came out to say nice things over a cardboard box.”

“You talked to Sadie?”

“She calls, sometimes you’re not there. We talk.”

“About me.”

“Her favorite topic. I tried functional programming theory, but she’d rather talk about you.”

“Spill. What’s she say?”

“Oh, just little stuff. She worries about you working too hard, that kind of stuff.”

“What else?”

“She likes John. A lot.”

“We all do. The jerk.”

“Yeah – he’s special.”

“Let’s go eat. Find something else to talk about.”

“Did I mention functional programming? There’s this neat trick…”

# Colorado

“The man in the video is Raymond Cayle,” Rick Bond told the group, pointing at the image projected on the wall behind him. “He’s got a discretionary budget of just under a hundred million, and is currently working at least seven black projects. Nominally, he works for Fredericks at NSA, but it is unlikely that Fredericks knows anything about the operations – Cayle has a free hand, as long as he delivers results. No one above him wants to know anything, they all want deniability.”

“That could work in our favor,” Chuck Hayworth put in. “If Cayle is out of the way, and we clean up the documentation, then we can make the whole project disappear, as if it never happened.”

“Out of the way is an interesting euphemism,” Jamie said. “I’d rather avoid euphemisms, so we all know exactly what we’re talking about.”

“Of course, ‘dead’ would be one way to get out of the way, but if he’s discredited or otherwise compromised and out of the loop, that would work too. Dead works best for me, though.”

“I won’t become what we hope to destroy, Charles.”

“Sometimes it comes down to you or them. They want you dead.”

“And we can change that. What would make Fredericks cut Cayle loose?”

“Some major fuck-up, something getting out to the press, rogue government agency doing illegal things, like Iran-Contra or something. Or Cayle getting caught killing someone, again, in the press, preferably on video,” Bond offered.

“Or embezzlement maybe. Getting caught publicly – anything quiet would be swept under the rug,” said Hayworth.

“Who stands to gain if Cayle is out? We could funnel information to people who are threatened by him, or who want that job,” Dora said, getting creative.

“We need all we can get about the other projects he has going. We don’t want to attract attention to the project we want to go away. We want that one to look like a dead end failure.”

“Better yet, like some fairy tale Cayle invented to squeeze money out of one budget and into something personal or forbidden,” Bond said.

“But again, it can’t be special. Several, or all, of his projects would have to look like that,” said Hayworth.

“Rick – how small can you make a shielded voice recorder? Something that listens, but won’t be picked up by bug detectors. We can retrieve the memory periodically, so it never has to transmit.”

“Depends on the battery life. Pretty small though, maybe the size of a quarter.”

“Make it bio-compatible. I can place it inside Cayle while he’s sleeping, and replace it with a new one when we retrieve it.”

“Place it where?”

“Probably the bottom of the abdominal cavity, next to the large intestine. It should stay there without being anchored, and go unnoticed.”

“So audio quality will be an issue. I’ll write up the specs – there’s a guy I use in Sunnyvale who’s good with that kind of stuff.”

“Someone has to keep the books on his projects. Let’s see if we can track the money,” Dora said.

“He’s paranoid. Uses a new office every few days, never uses the same car twice in a row – he’s afraid of something or someone. Let’s find out what that is,” said Jamie.

John was drawing a picture on a legal pad. Jamie looked down at the pad, and then up at Bond.

“Let’s build a picture of his org chart – who talks to whom, who takes orders, who gives orders, who’s on the payroll. Somebody has to be writing something down, or using a computer somewhere. He can’t be *that* paranoid.”

“We have the chopper pilot, two drivers, and some muscle from the parking garage. We’ve been tracking the cars; we have some addresses and a couple names. We’ll get more – some of the flunkies don’t use encrypted lines and don’t have their rooms swept daily, we can get some of the easy stuff that way,” said Bond.

“Just make sure they don’t know we’re watching. Find someone to pin it on if anything gets found.”

“Sounds like we should build his enemies list first, before we do anything that could raise suspicions.”

“Good idea. Let’s get the projects planned and scheduled, see what needs to happen first, and what has to wait.”

“Ok people. That’s all for today. Make sure Mtebe gets up to date when he’s awake.”

Everyone else left the room, leaving John and Jamie alone with Dora. Jamie sat down with a sigh. “If only we hadn’t destroyed the computer. That was rash. Never do something that can’t be undone.”

“But the computer had the data about the project. You had to get rid of that,” Dora said.

“It also had the location of the off-site backups, and how many there were. We found two, but we’ll never know if there were more somewhere. Big mistake.”

“They’re all encrypted, right?”

“Yes.”

“Then all you need is to make sure no one knows the encryption key.”

“We’re dealing with people who break codes for a living, Dora.”

“But they have to know the data is worth decrypting. It could be stuck on some server somewhere with some meaningless filename, lost like the ark in Raiders, hiding in a big pile of trash.”

“I wish we could count on that. But as long as we don’t know, we have to keep looking.”

John looked up at Jamie. “Cusco,” he said.

Jamie looked at his watch. “Maria won’t be in for another 20 minutes.”

John shook his head. “Walk longer moved everything.”

“How much longer?”

“Twenty,” said John, smiling. “Alone ten.”

“You’re not going alone.”

“John has a speech therapy session in Cusco,” Jamie said to Dora. “Care to come along?”

“Back by five?”

“We can stay that long if you like. The center is a short walk from some amazing Inca stonework. Francisco loves to give guided tours.”

“I’ve heard about Francisco’s tours.”

“It’s not that bad. Ok, John, lead the way.”

John got up and they followed him outside, where he walked down the steep road for a long time. Jamie leaned on Dora, and they tried to avoid small piles of melting slush on the sidewalk and rivulets of icy water.

“It’s amazing to me how much the earth moves with tides and warming. Sometimes Cusco is just outside the door, sometimes it’s way down the mountain.”

“You talk like it isn’t thousands of miles away.”

“It isn’t, really. I can reach out and touch the tops of buildings from right here. But we like to show up in elevators or bathroom stalls when we travel. It eliminates a lot of explaining.”

“As if you’d actually explain it.”

“No, I’ve gotten really good at making up stories. But it’s best not to have to.”

John stopped, and then stepped off the sidewalk into the snow. Dora steadied Jamie as they followed. John reached out his hand, and all three of them stepped into an elevator in Cusco. Dora’s ears popped.

“Ouch!”

“Sorry about that. Sometimes it helps to hold your hands over your ears so the change isn’t so sudden. I’ve gotten used to breathing in through my mouth when we cross over.”

“I don’t remember it being that bad before.”

“Depends on the weather. High pressure area, low pressure area, that stuff. Because we don’t cross where the gravity is too different, the pressure is close to the same most of the time. Looks like a storm is coming.”

The elevator had opened in front of a large window looking out onto impossibly tall steep mountains, the tops lost in dark clouds.

“I love travelling with you guys,” Dora said.

“Beats the hell out of airports.”

Maria Castro was waiting for them in a large room with a conference table with audio visual equipment taking up half of it. She seemed very pleased to see John.

“¡Hola!” she said, giving John a fierce hug, and then extending one arm out to include Jamie.

“Who’s your friend?” she asked John.

“Dora,” said John.

“My friend is Dora,” she prompted.

“My friend is Dora,” John parroted.

“Should I be jealous?” she teased.

“You safe,” John began, but then held up his hand. “You are safe.”

“Very good! ¡Bueno!” Maria laughed, and hugged him again. “Irregular verb and everything in the right order. You’ve been practicing!”

Jamie and Dora left John with Maria, and went outside to walk on the narrow boulevard. The wind was cool, and Jamie, already leaning on Dora for support, put his arm around her to keep her warm. They walked three blocks down, to a small hole-in-the-wall money exchange shop, where they were greeted by an enthusiastic Francisco Cruz.

“Jamie! My friend! You’ve come to see old Francisco! And who is this beautiful womens you have in your hand?”

“Francisco, meet Dora. This is her first visit to Cusco, and we were wondering if you had a few minutes to show her around?”

“A few minutes? I am actually unemployed otherwise for the rest of the day. Where is Mr. John Rakity? Does he still career with Maria Castro? That womens I think does not care for me muchly. She is always correcting me when I espeak the English, and she does not much like my Colombia speaking ways either. I read books in English all the time; I know that espeaking very good, she should not treat me bad that way.”

Jamie turned to Dora. “Everything you’ve been told to expect. Francisco is a very enthusiastic guide. You two will get a lot more ground covered without me – I’ll meet you back at the language center, say at twenty to five, Colorado time? Peru is one hour ahead local time.”

“I will bring her back sound and safely, at the middle of five, Cusco time.”

“He means five thirty local, four thirty Colorado.”

“Thanks,” said Dora, “but I know enough Spanish to understand him perfectly.”

“I like this pretty womens,” said Francisco. “Off we do, then!” he said, and took Dora’s hand and waved at the building across the street. “See the stones at the bottom? No mortar – that’s Inca stones, the same since before Pizarro, even since the earthquake.”

Jamie left them, and started walking back up towards the language center. The road was busy with traffic, and climbed upwards gently, but steeply enough that it was noticeably more difficult walking uphill than down.

*I practice walking whenever I can. If John can make progress getting his syntax back, I can retrain my brain too. But sometimes it’s just so hard. I’m exhausted all the time. I just want to rest, let the world fix itself, just leave me alone. I miss Pei Win.*

The wind picked up, and Jamie put his hands in his back pockets and leaned into the slope of the sidewalk, picking his left foot up deliberately and putting it back down again, trying to feel the balance and the shock of each step. He passed an advertisement for what looked like dancing lessons, although it could have been selling shoes, he wasn’t sure. Dancing lessons – that would be some therapy. Maybe not – he should go back to the water therapy, the clumsy aquatic ballet designed for stroke victims. But not with that drill sergeant. No, next time it would be someone who looked good in a bikini. Much more motivating.

*She would have loved Cusco.*

Enough of that. A small girl selling tiny dolls from a basket tagged along on his left, using very good English in her sales pitch. She probably also had equally good Japanese for those phrases. Jamie reached into his pocket, but all he had were hundreds and fifties. He folded a hundred into a small square, and palmed it. He reached for a small doll in red and orange woolen clothing, and quickly exchanged it for the bill. “Gracias,” he said to the girl, and waved her away, putting the doll into his shirt pocket. He didn’t wait to see her open the little wad of paper; he wanted to be far away.

He reached the language center with a feeling of relief, and walked through the lobby into the coffee lounge, where he sank into the sofa with a tired sigh, and closed his eyes. He was asleep a minute later.

A cool hand on his forehead woke him. Maria Castro stood over him, with John looming tall behind her tiny frame. “You snore pretty, Senior Jamie.”

“The hell you say,” Jamie said, wiping his wet chin. He smiled. You could not look at Maria without smiling. It was no wonder John never missed a session, no matter how hard she made him work. *Gotta find that therapist in the bikini.*

“What time is it?” he said, trying to focus on his watch.

“Five,” said John. “It is five.”

“Irregular verb! ¡Bueno!”

John turned around and sank into the couch next to Jamie. “Ahhhh,” he said, and put his hands behind his head and closed his eyes.

“Hard work retraining the brain,” agreed Jamie.

“Train the brain,” agreed John, still with his eyes closed.

Francisco’s voice carried in from the street. “…and the motive is the espanish people wanted the Incas to worship God instead of the sun god, so they tore down the walls and built the big church.”

Maria winced, and called out “The *reason,* not the motive!”

Francisco and Dora walked into the coffee lounge.

“¡Hola Maria Castro!” said Francisco. “Is not motive a good word? I can reason with you, but I would rather motivate, no?”

“You are going to make me absolutely crazy you old man,” Maria told him.

“Ah, my disease has a big contagion, I am afraid. You become an old fool like Francisco, that’s too bad.”

Jamie stood up. “We have to get Dora back. Francisco – did you two get to talk about the Miami money? Oh, and Mtebe has a request, that no cash gets shipped that would cause a dog to bark, if you get my meaning.”

“Yes,” said Dora, “we straightened out the Miami thing. And Francisco will make sure the money is properly laundered from now on.”

“I’m not sure I want to hear about Francisco’s money,” said Maria.

“All on the up-and-up,” said Jamie. “Francisco is one of us good guys.”

“I’m not sure I like the people that come to his shop. I stay away from those people when I can.”

“Ah, señorita, I cannot pick my customers, only my friends. But you are right to stay away from those fellows, they have no manners.”

John stood up, and winked at Maria, then headed towards the elevator. Jamie and Dora followed.

“Goodbye Francisco! Thanks for the lovely walk! Take care of him, Maria, he has a good heart.”

Maria snuffed at this, but smiled. The elevator doors closed, and John pushed the button for the third floor. “Save walking some,” he said. Dora opened her mouth and held her hands over her ears, and they walked onto a snowy hill in Colorado.

# San Diego

Jamie had taken to driving Pei Win to Sadie’s house on Sundays. The car she called the ‘beast’ was getting on in years, and she no longer trusted it to the long drive. Jamie was happy to show off his fancy new sports car. He had bought it with his signing bonus when he joined Cytronics, and it made him feel like he had finally made something of himself after putting in all those years in graduate school. Pei Win still hadn’t completed her doctorate – her project had been running into problems. Jamie was glad he worked with computers instead of living things. Manipulated as they were by Pei Win’s alterations, they were still slow to grow to adulthood and prone to the occasional disease. But she loved the work, and seemed not to be anxious about finishing school and working in the ‘real world’.

The top was down, and Pei Win’s hair was blowing wildly. She had tilted the seat all the way back and was enjoying the early morning sun, her eyes closed, with a big smile on her face. Jamie loved looking at her.

“Did I tell you the rabbits are expressing Tag4?” she said loudly, over the sound of the wind.

“That’s great! Are you getting the yields you wanted?”

“Nowhere near it. But getting any at all is a big step. It means the gene is turned on, that the promoter sequence worked. Now we can just make some more copies and we can be sure they’ll express.”

“Do you have enough expression to tell if they’ll make a good model for human cancers?”

“Can’t tell yet. This one codes for brain tumors, and they take a while to develop. Bill thinks he can paste it into a retrovirus and get extremely fast progression, even in bunnies with no knockouts, but we’re at least a year, maybe two away from anything like that. Besides, that would need a level 4 lab, and we don’t have that kind of funding.”

“But you said he was working on getting something going.”

“Yeah, he’s talking with Pershing Biotech. But they would just provide the lab space – they’d be getting the funding from somewhere else. Bill says he can’t say who, it’s really hush-hush, like they’re worried about patents or something. I don’t think even Bill knows where the money’s coming from. Gotta be some big private firm though – ACS wouldn’t be so cagey, or NSF either.”

“So, if Bill takes it to Pershing, where does that leave you?”

“Well, I’d have a real job, and I’d get me one of these babies,” she said, patting the side of the car.

“He said he’d bring you in?”

“He’d have to – I’m the whole project. He puts his name on the papers, but all the labwork is me. He wouldn’t even know how to program the new sequencers, or get the promoter to lock.”

“Sounds like job security.”

“Security? Hell, the idea scares me to death. I like being a grad student, working with my babies. Sure, money would be nice, but what if things change? What if they won’t let me do the work I want to do? We have a handle on the easy ones – breast cancer, cervical cancer, prostate, thyroid, we have those licked. But the brain, or the pancreas, this could take those out of the picture too, the big bad guys. I want that on my tombstone – she cured brain cancer.”

“A modest wish.”

“This work could do it. The whole pathway is exposed. Once we have a good animal model, and we know what’s going on at the molecular level, remediation just falls into your lap.”

“You and John, always shooting for the moon.”

“Well, he’d better shoot for the moon. That boy is headed for a Nobel. Did you see where his name was on the synaptic occlusion paper? Ahead of Stein, ahead of Barbosa. And the trick with the RNA interference? That was straight out of the stuff he was doing here in San Diego, and that was the key to the whole breakthrough. They’d still be stuck using electrodes without John.”

“You know how all that stuff works?”

“Hell no. He used to bounce ideas off me late at night when he couldn’t sleep. I could follow most of it because he was so good at explaining things, but trying to keep up just reading the conference papers is way beyond me. Neuroscience is as bad as genetics when it comes to specialized language and lab techniques. But I read anything with his name on it. I read all your computer crap too, and half of it goes right by me.”

“You read my papers?”

“Of course, roomie. Spend six years living with a guy, you want to know what makes them tick. Google sends me email any time your name is mentioned anywhere.”

“I tried reading one of yours. The one about the transcription factor thing. Read it twice, and I still don’t know what the big deal is that got everybody excited.”

“I’ll have Sadie explain it to you. You missed the off-ramp, you know.”

“Damn, I hate it when that happens.”

“You should plug Sadie’s house into your navigator. Then she’ll tell you when to get off.”

“Just what I need – another woman telling me where to get off.”

“So tell it to use a man’s voice. There’s a menu for that.”

“I like the lady’s voice. She’s sexy.”

“’Make a legal U turn’,” Pei Win mocked.

“Ooooh. Very sexy, you should be a voice model.”

“Turn here. Two blocks down, and you’re back on Maple.”

Sadie was waiting outside the big house, cutting spent roses off the bushes and tossing them into the compost heap. She put the pruning shears down on the front porch, and walked over to the car.

“It’s a good thing I brought my hat,” she said as Pei Win set the seat back up straight, and crawled into the tiny back seat. “Look at your hair – would you like a brush?”

“I have one. My hair falls right into place with just a few strokes. I can’t make it do anything but fall straight down.”

“Good,” said Jamie. “I like it that way.”

He drove slowly to the church, watching Sadie hold tightly onto her hat all the way. The coastal fog hadn’t started to lift yet, and the sun they had enjoyed on the inland part of the trip was only a warm memory.

These days, they had to arrive early to get a parking spot, but having the extra time before the service let them get to know people, and as they took their usual seats they were met with greetings and smalltalk. The room filled quickly, and the noise level was worse than in the car on the trip up, making conversation almost impossible, though not for lack of trying.

The choir took their place, and the drummer and guitarist set up to the side where the organ had once been. After a few minutes, the drummer started tapping out a soft beat, and the guitar began a low bass line. The choir started softly, and the conversations died down. The piece got lively by the second verse, and the room began to clap in time. As the song came to an end, Michael Duncan stepped up on the small raised stage and began to speak.

He spoke about compassion, and how each person could help promote compassion as they spent their days making money, going to school, or raising children. He described how compassion came naturally to people, and spoke of the rewards that come to a compassionate community, gesturing around at the group as he spoke. People smiled and nodded, and the choir began to sing again, and the room swayed to the music.

Jamie always felt good after listening to the preacher speak. He had always hated Sunday school as a child, and hated long sermons and hard wooden seats. But Michael Duncan worshipped humanity, and Jamie found that wonderfully uplifting.

After the service, back at Sadie’s big house overlooking the ocean, they sipped lemonade and watched the breakers wash against the sand.

“The raccoons dug up your rabbit,” Sadie said to Pei Win.

“Oh dear. Did they make a mess?”

“Nothing Jonesie couldn’t clean up in a minute or two before he swept the pool. I just thought you should know.”

“You buried a rabbit?” Jamie asked.

“All my babies end up in Sadie’s rosebeds when they move on. We say some nice words and thank them for their help.”

“Sometimes Michael comes and say some preacher words,” Sadie put in. “He’s such a nice boy.”

“I thought you weren’t getting attached.”

“I don’t name them. But they deserve some dignity and some thanks. They may be saving people’s lives.”

“Some days I’m really glad I work with computers,” Jamie said.

# Colorado

Rick Bond pointed at the projected diagram with his laser and cleared his throat.

“We have names for these seven people, and we’ve set up monitoring teams to keep track of them. Cayle is still hard to track – he often has three or more cars meet him, and we can never tell which one he’s in when they leave. We’re working on a trick involving measuring the height of the bumper using cameras to see which car is heavier coming out than going in, but that won’t help if there’s a meeting and several people leave in different cars.”

He looked down at his notes, and then projected a new diagram.

“There appear to be eight projects under his purview. One we know well. Two of them seem to be biological in nature, some kind of bioweapon or defense to a bioweapon. The remaining five are unknowns – the only chatter has been about budgets and personnel, but no names yet, so we can’t match researchers with their previous projects or areas of expertise.”

“From Cayle himself, we get mostly digestive noises. We think he may have irritable bowel syndrome. What voice data we get has been muffled unless he gets excited and loud, and in those few cases the information has not been particularly helpful. He does not make friends easily, especially with subordinates. We’re looking into better placement for the microphone.”

Charles Hayworth stood up and walked to the front of the room.

“On the money front, we’ve been able to track the funds going to the Calabi-Yau visualization project. We have a head start on that, of course, because we know all the principals. The other projects are harder, of course, but at least one of them is paid out of the same account, so we know the amounts, if not the direction the funds are going.”

“The bioweapon projects should be the first ones we crack, if only because level 4 labs are characterized by easily tracked equipment. We’re building a list of labs that are publicly known, and we have a good idea of how many are missing, from tracking equipment sales. For the most part, we also know at least the zip codes of most of those sales, due to some legwork with the help of our friend’s special talents.”

Bond added “And we have a list of all level 4 rated researchers, and we are steadily tracking all of them down and matching them with our list of known labs.”

“Mtebe’s people are done questioning the three in the assassination team and we’re ready to release them. If they head back home, we’ll have an idea of where home is, but I suspect they’ll stay put. They’ll be well compensated, and likely to live longer is they stay off of Cayle’s radar.”

“The information is checking out, so at least it’s consistent. None knew Cayle, but two of Cayle’s subordinates were confirmed. These are not guys who would blink without permission, so it is clear that Cayle himself ordered the executions. We think he may have also ordered Langostino killed, but that is still officially an accident. The original police report had it listed as a suicide, but someone quashed that. We’re trying to find out why Langostino was a problem. He was one of the key cosmologists on the project, and one of the few who could turn the math into computer code, so Cayle would not have gotten rid of him unless he was a real threat, or he was perceived to have served his purpose, or both.”

Dora looked over at Jamie. “We arranged to buy some of his papers for the foundation from the family, at a pretty extravagant price, so they are well taken care of, at least financially, and it’s not traceable back to us.”

“In addition,” said Bond, “the family is looking for any other papers he might have left. We’ll snag those too, in case Cayle is looking for them. Part of the general cleanup.”

“Any indications of any knowledge of the project above Cayle?” Jamie asked.

“Nothing at this point. And Cayle kept things pretty close to the vest with his subordinates too, always need-to-know. That makes the cleanup easier, but makes the tracking much harder.”

“The guy can’t keep it all in his head,” Jamie said. “We have to find out where he keeps notes and reports.”

“So far we have nothing. There are no computers or even scrap paper at the two sites we know of, and he hasn’t been back to either one. He carries no electronics on his person, not even a cell phone or a watch. There must be someone he trusts with all the details, or some group he doles out pieces to, so no one has the whole picture. But we have no idea who that person or persons might be.”

“Who is he afraid of?” Jamie asked. “All these precautions – we could really use an unwitting ally against Cayle right now, and someone we can pin any of our actions on so he doesn’t suspect *us*.”

“Working on it,” said Hayworth. “We’re making a list of possibles, starting with Fredericks at NSA. If he wants to keep his activities a secret from his boss, some paranoia is warranted, especially when the boss is NSA. But the levels he’s going to, that’s what you do when you think someone’s out to kill you.”

“Add to that the families of the people we suspect he has killed,” said Bond, “and we’re getting somewhere. But they don’t have the resources, and they don’t know who to blame, at least the ones we know about at this point.”

“Still, if we can make it look like they are sniffing around or causing other trouble, that may be a way to hide our own activities, when we need to,” said Hayworth.

“Let’s not get anyone hurt by hiding behind innocents,” said Jamie.

The meeting adjourned, and Jamie and Dora walked outside onto the icy sidewalk. The sun was out, and the air was still, and the day was quite pleasant.

“So, whose idea was it to buy the papers from the family?” Jamie asked.

“Michael’s, of course. He hates the cat and mouse shit, but he reads all the reports. He’s better connected than you might think.”

“He talks with John. A lot. Not many have the patience. It’s good for John, too. Not just the practice, but Mike knew Pei Win, even before John did.”

“I wish I could have met her.”

“She’d have liked you. She’d have loved Francisco. But she’d have hated this place – too much clothing required.”

“Do you ever just flit down to Rio when you don’t like the weather this side of the equator?”

“Weather doesn’t bother me much. I go where my friends are when I have the choice.”

“You have a lot of friends.”

“Making up for past mistakes. I never had time for people. One or two special people, and when I lost them…”

“You still have John.”

“What’s left of him. He’s in there, you know, I can see the old John, the sharp with, the easy pun, that twinkle in his eye when he was about to spring a real groaner on you. But all that is stuck there and can’t get out into words. You know he’s got some clever zinger, but he can’t put the words together. He draws pictures that blow me away with how much he can say with a few lines, but even those have no sense of time, no flow, as if the part of the brain that controls syntax also controls some basic notions about sequence and timing. It hurts to know he’s trapped in there. It really hurts.”

Dora pulled his arm over her shoulder and put her hand on his waist, holding him up as they walked.

“I used to love body surfing. Now I’d just drown. Quite a pair we make, John and me.”

“But you’re getting better, aren’t you? You said you could feel your toes.”

“Sometimes I wonder if I’m just fooling myself. But John is getting better. That gives me hope. I just need to work harder than he does. I’ve always had to work hard to get close to what comes so easily to him. We all envied John that easy confidence. He never had to study, he would read the textbooks before the semester started, and he’d ask hard questions in lectures because he never had to take notes. I had a tape recorder and I still took notes, and I poured over the text again and again until it finally made some kind of sense. I was at my best when I was coding – there I didn’t have to find out what other people had said about something, I could just make stuff work, be creative, build something new. That’s why I loved programming – I could make it all up.”

“You found something you were the best at.”

“I guess I did.”

They walked past a large drift of snow left by the plow, and splashed across a small puddle behind it. The sun hid behind the clouds, and the wind picked up.

“You know,” said Jamie, “there’s a place in Argentina that’s just about this elevation. If John were here, he’d know exactly where to turn to get there, but I can feel around, and if I find just the right temperature, it won’t matter where we actually end up, will it? We’ll be warm.”

Dora watched as his left arm disappeared, and he had a searching look on his face. “Just about… here.”

He pulled Dora to the left, and they walked out onto a grassy slope on a high mountain, the sun warm on their faces. They looked around, but they were completely alone, with no signs of civilization.

“You have got to teach me how to do that,” Dora said.

“I’ve got to forget how to do that. We have to make everyone forget. We’re just not ready.”

# San Diego

Jamie stood next to the pile of moving boxes taking up most of the living room. Pei Win put one more box on the pile, and stood back to look at it all.

“Six and a half years,” she said.

“I’m going to miss you, you know,” Jamie said.

“Don’t *even* say that,” she replied. “Stanford is only an hour or two away by air, and we can pop back and forth any time we want. I’m going to set up a room in my new house just for guests who drop in unannounced. And if you don’t do the same thing, you’ll just have to have a big bed.”

“When you put it that way, it makes me wish I’d moved to Stanford years ago.”

“You wait until we move out to get sweet on me? Boy do you have lousy timing,” she chided. “But really, you’re my best friend in all the world, and if you don’t come down to see me, I’m going to have to come up and strangle you in your sleep, and plant your sorry remains under Sadie’s roses.”

“I’ll have lots of frequent flier miles.”

“I’m serious about the guest room. That back bedroom by the pool. The middle one will be my study, and I’m getting a huge waterbed for the master bedroom. Do they still make those? I always wanted a waterbed. “

“I’m sure someone still makes them.”

“What kind of bed do you want in the guest room? We should put in a big one there too, in case you bring a lady friend.”

Jamie said nothing, but picked up a box to take downstairs to the waiting truck. Pei Win picked up another, and followed him down.

It took more than two hours to move and secure all the boxes into the truck, and they drove for another 40 minutes to Pei Win’s new house. She jumped out of the truck and ran to the front door. “My own house!” she said, turning around to face Jamie walking up the path, “my very own house. Here’s my key,” she said, producing it with a flourish, and slid it into the lock.

Jamie had been to the house several times already, with Pei Win, but today she was actually moving in, and she was obviously excited.

“Did you see the pool test kit? Look, little color coded vials; you titrate to see how much chlorine and acid to put in. A tiny little chem lab in a little blue box.”

She took a tour through the house, even though they had been there only two days ago doing the same tour. She opened the sliding glass doors that led to the small swimming pool. “If I got a pet duck, do you think she’d like the swimming pool? Or would she just fly away? Would you swim in it if there was duck poop on the bottom? I would. Wouldn’t it be fun to swim with a duck? One of those really pretty ones, like a wood duck or a mallard?”

They went back out to the truck and began to unload it. With no stairs to climb, the work went a little faster.

“Funny how we move all this stuff in, but I’m going to replace a lot of it right away. That old table John got at the swap meet. That bed I’ve been sleeping in for six plus years – it has a big dent in the middle that I fall into every night. A waterbed would never get a big dent in it. Glad we didn’t move the fridge. The guys are bringing the new fridge tomorrow. I got that great big one, to fill up that huge space in my *huge* new kitchen!”

When the last box was brought in, Pei Win fell into the beanbag chair with a heavy thump. “A couch. Gotta get a new couch,” she said, moving over to the side of the beanbag and patting the space on her right. “Sit down here next to me, get cozy. Isn’t this great?”

Jamie eased down next to her, and put his arm across her shoulders. “You did great,” he said.

“I have a mortgage,” she said. “A real job, and a mortgage. If this keeps up, I’ll be all growed up in no time.”

They sat quietly together for several minutes, enjoying having nothing to do for the moment.

“There’s some kind of Mexican restaurant back by the freeway.”

“Acapulco. Supposed to be really good. Chips and guacamole sound really good right now.”

They got up to leave, and she hesitated at the door. “I’m going to leave a light on,” she said. “So it will be cozy and welcoming when I come back. It’s going to be lonely all alone on my first night.”

“It’s going to be lonely in an empty apartment with just a few boxes left in the living room.”

“Call me when you get home. We can talk on the phone all night until we fall asleep.”

“Sounds like a plan.”

They returned the truck to the rental place and came back in two cars to the restaurant. After dinner, they lingered by the cars, saying nothing for a while. Then Pei Win gave Jamie a hug, and said “Call me when you get in bed,” and got into her car. Jamie got into his, and waited until her new car started, then started his, and drove home.

What little he had decided to take to Stanford was packed in boxes in the kitchen where the table used to be. Tomorrow he would take them to the UPS store and mail them to his temporary apartment in Palo Alto. *It’s time for me to buy a house too. One with a nice guest room, or maybe just one large bed.*

# Cusco

In the safe-house, deep within the granite of a tall Andean mountain, Jamie relaxed on a huge couch in front of a wall-sized video display. Michael Duncan was beside him on the couch, feet up on the low glass table, laptop computer in his lap, controlling the slide show on the big screen. John sat on the floor, one arm on the couch, leaning back against the soft fabric.

“Here’s the school in Ubon Ratchathani,” he said. “The kids are really taking to it, you should see the math they’re doing – some of it is way beyond me already. Most of the parents work at the new water treatment plant, and employment is conditional on the kids being in school, not out selling trinkets on the street, or worse. They really want their kids to do well, too.”

He changed the slide to the next picture. “This is the computer lab in Ciudad del Este. The lab is completely self-sufficient now – the money the kids make doing contract programming and web design funds the whole thing, and they get to take money home for groceries and rent. These are older kids and some adults.”

He changed slides again, and went through a whole list of schools and businesses that taught and employed people all over the world. He showed water treatment plants, companies that built inexpensive housing, farms using sustainable agriculture methods, the slide show went on and on.

“You know, Michael, that anything you can show me in an hour is a drop in the bucket. We need to expand the program. You need help. We can get you any amount of money needed, but you have to spend it. You’ve showed the direction you want to go, you’ve built example after example. It’s time you learned to delegate, and delegate in a big way.”

John spoke up, haltingly. “Teach,” he said. “Teach the teacher to teach.”

“Wow!” Michael said, looking at John. “That was great!”

“He’s exactly right you know. You need to stop being Michael, and start making hundreds of Michaels to do the work for you.”

“I wouldn’t know how – and what would happen to the schools if I suddenly stopped?”

“That’s where Dora comes in. She’s run huge companies. She knows people, and she knows how to organize big projects. She can get you the help you need, and set things up to run themselves, and free you to build a curriculum to teach others to do what you have done. I know you really love it out in the field mixing with the people. You can still do that, but you’ll have people following you around watching how you do it, and doing it themselves with you watching.”

“I’m up to it. I understand leverage and delegation; I’ve just never had the opportunity before. I’ve actually never had people believe in me like you do.”

“A lot of people believe in you.”

Jamie stood up, and John and Michael joined him, and the three of them walked to the stairs and up to a low mezzanine that led to nowhere. John waited a moment, and then took Michael’s hand, and they stepped into a small familiar office in Colorado. Jamie opened the door. “Dora, you in there?”

They heard a chair slide back on a hardwood floor, and Dora called out “Here in the break room.”

They walked down the hall to the large room that smelled of microwave popcorn and coffee.

“Michael has a fascinating slide show for you. And he’s ready to hear your proposal. John and I have to get back to Zaire; can I leave you two together to plan great things?”

“Absolutely. I’ve been waiting for you guys all morning.”

John and Jamie left the two and walked out to the warehouse where Lenny was taking a delivery.

“Can you take us down the mountain?” Jamie asked.

“Can I come along? Where you going?”

“Zaire. Middle of the night, nothing to see, nobody awake but Mtebe.”

“That guy bugs me. Something’s not right with him.”

“He’s seen a lot, that’s all. Stuff no one should ever have to see.”

“Yeah, of course I’ll drive you anywhere you want to go. Jane can take care of things here.”

He called out to the back of the warehouse. “Going down the mountain for a bit, hold the fort.”

They walked with Lenny to his car. “Got the last load of that survival shit. We can load it into the safe-house any time you’re ready. You really expect to need all that stuff?”

“Not for us,” said John.

Lenny gave him a puzzled look, then shrugged and started the car.

Forty minutes later, John and Jamie stepped out of the car, and walked to the side of the road. They waited for a car to pass, and then disappeared. Lenny turned the car around, and started back up the mountain.

The air in Zaire was thick and muggy. They walked up the steep dirt road, alone in the quiet night.

“No car,” said John.

They continued walking. The dark road caused Jamie to stumble, but he kept as fast a pace as he could. Something was wrong.

The gate to the encampment was open, and no one was on guard duty. On flat ground, John and Jamie slipped quickly from one building to the other, not staying longer than a second in each one, just catching a quick glimpse, in case of trouble. No one was in any of the buildings. The warehouse full of Syrian explosives was still full of boxes, but the latch had been broken, and the lock lay on the ground.

“Just the people,” John said.

“Tracks only on the road,” Jamie said. “They must be in town, or on the way to town.”

“Past maybe.”

“Let’s hope not. In town we can find them. Farther than that, they could go in too many directions.”

John went to Mtebe’s desk, and opened a drawer full of keys. He grabbed a bunch of them, and they went outside to the vehicle lot. Trucks, cars, and jeeps, and a Land Rover were parked in a neat row. No one from the camp had left in their own vehicle. John flipped through the keys and found the one for the Land Rover. Jamie jumped into the passenger seat, and John raced out of the gate and down the road, slipping on the damp mud during the turn.

“Slide forward on the flat parts,” Jamie said, feeling ahead. John said “Now,” and the car dropped half a foot and bottomed out the suspension. “Downhill works, I guess,” said Jamie, holding his hand against the ceiling. Travelling at 40 miles per hour, sliding a hundred yards forward through otherspace every few seconds gave them an effective speed of well over 100. But the landings were hard on the car and on their bodies. John kept racing ahead, sliding whenever the road was straight and clear.

Jamie felt ahead, farther and farther gradually. Working at this speed was difficult, and the sudden jumps almost made it impossible, but the road was sloping down, and as he extended his reach to a mile or more ahead, he was looking down from a height, above the trees. He reached out farther, but still saw nothing but dark road ahead. Then, a few miles from town, he saw the lights of four armored personnel carriers.

“That’s got to be them. About ten miles ahead, a couple miles out of town. Four APCs.”

“Army or rebels?”

“The army’s paid off. They’ve stayed bought the whole time; they’re probably still sitting it out.”

“Rebels.”

“Afraid it looks like it. Where did they get APCs?”

The Land Rover fell heavily after a longer than normal jump. John was getting anxious, or reckless, or both.

John took one hand off the wheel for a moment, and felt into his pocket. He handed Jamie a Peruvian 5 soles coin. “Half mile?” he asked Jamie.

“They’re at least 8 miles away.”

“Up,” John said.

“I’d guess a half mile or more altitude difference before we can pull anything through.”

“Drop,” said John, putting a finger on the coin in Jamie’s hand.

It took Jamie a moment to figure out what John was telling him. They could not pull someone from the cars ahead, because the energy needed to pull someone up half a mile was more than they could manage with muscle power, and the power needed to do it in a second or less would rip someone apart.

But in the other direction, things were different. A small coin, falling half a mile in a fraction of a second, would pack more power than a rifle bullet.

“Slow down,” he said to John. John let off of the accelerator, and tried to match the speed of the lead car ahead. Jamie felt ahead, and opened a small window above the lead car. He moved it down, past the roof of the car, until he could see the driver’s lap. He held the coin over the opening, and moved it to just above the man’s knee. Then he let the coin drop.

It took a second for the man to react to his shattered and bloody knee, but the foot was no longer on the accelerator, and the truck slowed, and slid off the road. The driver was screaming, and Jamie closed the opening and the sound ceased.

John sped up, and began sliding ahead again. The big car slammed into the road at regular intervals as John got into a rhythm. Jamie looked ahead again, from a height. The three other trucks had pulled over to help the lead driver. They had pulled him from the truck, and gunmen fanned out around the trucks, sporadically firing into the trees.

He continued to watch for several minutes. John kept speeding through the night, slamming the car into the ground with every jump, sending mud flying as he rounded curves. They got closer to the trucks ahead, and Jamie’s point of view got closer to the ground with each passing minute.

The group ahead began to get back into the trucks. The injured driver was carried into the last truck, and the new driver spent several minutes wiping blood from the cab before he got in. The second truck took the lead, and the first truck followed. The remaining trucks started up and took up the rear.

John and Jamie were close now. The trucks were only about a quarter of a mile ahead. But what was important was that they were only a few feet lower in elevation. Jamie reached down and opened a small window between the fuel tank of the last truck and the air an inch below it. He opened the window to a rough circle eight inches across. The fuel emptied quickly.

He moved on to the next truck, and did the same thing. He waited while the last truck used up the fuel in the lines, and started to fall back. Then he emptied the tank of the second truck. He continued, timing the work so that the trucks ended up spaced far enough that they were out of sight from one another on the curves.

“All stopped,” he told John. John slowed the Land Rover, and stopped it off the road. They got out of the car, and walked down the road towards the last truck, still well ahead and around the curve in the road.

“Here,” John said. Jamie looked in the direction John indicated, and reached into the truck and removed one assault rifle, then another. He then looked around, and found one of the gunmen. He opened a window into the ammunition clip, and aimed his rifle at the back of the first cartridge and pulled the trigger. Nothing happened. John reached over and pushed the safety off. Jamie fired again. They heard a yell from up ahead as the gun exploded.

“Lake in,” John said. Jamie hesitated, but then understood. He opened a window where John indicated, and dropped the damaged weapon into the water.

“Him,” said John. Jamie hesitated again. Could the fellow swim? He could not afford to waste time, but he felt around and found another lake with a small island on it. The drop was several feet, but he aimed for the water, and opened a window under the rebel soldier. There was another yell.

One by one, they found seven more rebels, and dropped them in the water next to the island. The fall was brutal, but all eight managed to get to the island.

Jamie heard weapons fire ahead. They cautiously moved through the dense vegetation until they could see the armored personnel carrier. The next truck was still out of sight around a curve ahead, but they could hear bullets hitting trees and occasionally hitting the APC.

John found another soldier up ahead, and they dropped him in the lake. The shooting stopped.

Quietly, they hurried to the APC. Jamie peeked through otherspace to get a look inside. It took his eyes too long to adjust to the dark, and he didn’t dare wait. Not knowing whether more rebels were inside or not, he grabbed John, and opened the rear gate at the same time as he slipped back into the dark jungle. They watched through fern fronds to see who came out. No one did.

There was more gunfire coming from the road ahead. John selected a site, and they slipped ahead to where they could see the next truck. There was a soldier standing on top of it, occasionally spraying bullets at any signs of motion in the forest. Jamie estimated the height of the APC, and motioned to John to wait. Judging from the effects of the previous drops, a fall from that much higher would likely be fatal, or disabling enough that the solder would drown. It would take longer, but Jamie reached into the man’s carotid arteries, and stopped the flow of blood as well as he could. After several seconds, the gun fell loudly onto the top of the APC. After a few more, the soldier fell, first onto the roof of the APC, and then off of the tall truck onto the ground so hard that Jamie was sure some bones were broken.

They waited a moment to see if any other soldiers were active, and then Jamie slipped quickly over to the fallen man, picked him up, and disappeared, slipping back into the jungle. He checked the man as well as he could, and it seemed that the neck and back were OK. Still, he could not safely drop the man into the water, or onto the island. “We need someplace empty, but with no drop,” he said to John. John considered this for a while, and then found a hillside in central Australia, and they dropped the man there.

The third truck was surrounded by seven soldiers, a much more organized group than they had yet seen. Bullets struck nearby, and Jamie quickly slipped across to the other side of the road, deeper into the woods.

“You OK?” he asked John. John shrugged, and patted himself, then shrugged again.

Jamie opened another window under a soldier on the opposite side of the APC, and dropped him into the lake. There was shouting from the remaining soldiers, and they all started shooting into the woods wildly, until a barked order brought sudden quiet. The men began fanning out from the truck towards the woods. Jamie and John slipped far ahead, to well in front of the lead truck.

Jamie could not see anyone guarding the lead truck. He could not tell if there were soldiers in the woods with guns aimed at the truck, waiting for one of them to make an appearance. He tried again to see into the truck, but it was still too dark. Jamie opened a small window next to the front tire of the truck, and nosed the muzzle of his gun into the hole. As he fired at the tire, he also jumped John and himself a hundred yards farther up the road.

Gunfire erupted from the woods, aiming both at the truck and at the place where Jamie’s gun had been a moment before. They saw the muzzle flashes, and Jamie dropped two more rebels into the lake. Jamie opened a window next to the truck, and held the entire gun through, and fired a shot into the air, then pulled the gun and his arm quickly back. There were no answering shots.

“At least six still out there,” he said to John.

They jumped back to the rearmost truck. The back gate was still open. Jamie called out “Mtebe!” and then quickly jumped to the other side of the road. A child’s voice came from inside the APC.

“Doctor Witter? Doctor Rakity?”

“Stay inside!” John shouted, and he and John jumped again. Gunfire sprayed the woods where they had just been, and Jamie dropped another rebel into the lake.

“Five,” said John.

“Get in the APC,” Jamie said, and he and John climbed up onto a log, and then stepped up again into the center of the truck. John reached out and quickly shut the rear gate. Bullets spanged off the armor loudly. Jamie dropped another soldier into the lake. “Four,” he said.

The truck was crowded with frightened children, silently backed as far from the door as they could go. Jamie counted thirteen.

“Robert said you would come for us. We were going to die fighting them, but he said no, put the guns away, and let them take us. You would come.”

“We’re here. Where is Robert?”

The children didn’t know. John found a sunny meadow in Argentina, and Jamie opened a large bright window and herded the blinking children into the sunlight.

“Stay here, you’ll be safe. We’ll go get the others.”

They slipped back into the muggy darkness. The first truck seemed to be still unguarded. Jamie held back, and opened a window from the inside of the APC to the road in front of him. He stayed behind the opening, so no one in the APC could see him. The window opened four feet above the road, at the level of the APC floor.

A hand poked out into the air. Jamie whispered. “Are you alone?”

The hand retreated. A woman’s voice answered. “No, there are fifteen of us here.”

Jamie closed the window, and they slipped back to the woods to find a tree or a rock or a log that would get them up to the level of the APC floor. John grabbed a branch and swung up, but Jamie could not follow with only one arm. John came back down, and they found a fallen tree and climbed up. A moment later they were inside the APC, opening another bright window into Argentina.

“How many are left?” he asked one of the women.

“All the men are missing. They put the children in a truck first, then us. I don’t know what they did with the men, but there was no gunfire.”

“How many soldiers were there?”

“Nineteen. The woman was certain. Jamie mentally tallied the number in the lake, the one in Australia, and the four in the woods. There were no rebels in the remaining APCs.

Just to be safe, he opened a window from the second truck onto the meadow, facing away from the group. He called out: “Mtebe! Are you in there?”

“It is good to hear your voice, Jamie Witter,” came Mtebe’s booming bass.

“Come on out. The women and children are here.”

A group of men filed out into the meadow.

“How many rebels did you count?” Jamie asked Mtebe as he blinked in the sunlight.

“Nineteen.”

“We still have to be careful. Some might have come back into the remaining APC.”

Jamie handed the assault rifle to Mtebe. Then he opened another window into the remaining truck, again with the opening facing away from the group.

“Come out, unarmed,” shouted Mtebe.

Men filed out into the sun, their hands in the air. When the last one was out, Jamie closed the window.

Women ran to the men, and children got up and ran with them.

“There are four rebels still in the woods,” Jamie told Robert. “What can you tell us about them? The leader is still out there.”

“It’s Charles Hilbert,” said Mtebe. “One of the APLC groups from the highlands. They thought they could ransom the camp, and maybe keep the younger ones as soldiers. He’s one of the machete killers, rules the highlands by cutting off hands and feet.”

“Charming,” said John.

“We need to go back. Get the rest of them.”

“Get a radio from one of the ones you already have. Hilbert will be listening.”

Jamie wondered if any of the radios in the lake would still work.

“We have to go to Australia for a moment,” he said, and he and John stepped away, and then reappeared after a few minutes with a radio and a pair of boots.

“We didn’t want him wandering when he woke up,” Jamie explained.

The two of them slipped back into the dark, and waited for their eyes to become re-accustomed.

When they could see again, Jamie turned on the radio, but kept the volume as low as it would go. The he held the push-to-talk button in for a moment. There was a squawk from the trees to the left as a radio broke squelch. John found the soldier, and they dropped him in the lake.

He pushed the button again. No sounds came from the woods. They waited.

After a while, there was a quick whistle. It was hard to locate the sound. John gave the same whistle, and they slipped a hundred feet away up the road. After a short while, they saw a movement on the road, and dropped another soldier in the lake.

They waited ten more minutes in humid silence. Jamie’s leg began to fall asleep. Then they heard a loud rustling in the woods several hundred yards away. They slipped even farther down the road, Jamie not trusting his legs, and neither of them trusting the sudden loud noises from soldiers who had previously been deadly silent. But the sound of men racing through the underbrush continued. Jamie reached out and opened a window in front of the sounds, and the last two soldiers ran into the air above the lake, and fell in.

John and Jamie returned to Argentina.

“It’s time to move the camp,” Mtebe said.

The group sat around him, enjoying the cool air and sunshine.

“To the river camp?” asked Jamie.

“I think not,” said Robert. “We’ve been talking with the group. We want to try Spain.”

“You have no passports, no visas.”

“We will be refugees. We will walk onto the beach in the morning, and say we came in a leaky boat. They will take us in. It will be better than the camp in the jungle.”

“Especially because you will have money and lawyers, and sponsors in Spain.”

“You are a good man, Jamie Witter.”

“You deserve the best. These people would be dead without you, or worse. We need to all get to lower ground if we’re going to leave you on a Spanish beach. There are no hills here; we’ll need to jump again, to a hill somewhere that we can walk down.”

“Venezuela,” said John, and Jamie opened a window. The group walked through in clumps of families holding tightly together. They hiked down a hill in a drizzling mist for an hour and a half, and then Jamie opened another window, and they walked out onto a beach at sunset.

“We need a phone,” Jamie told John, and they slid to Cartagena, and found a phone in a hotel lobby. Jamie called Dora, and explained the situation. She began mobilizing a team immediately.

They slipped back to the beach and filled Mtebe in on the arrangements. They hoped Dora’s people would find them before the police did.

“We have business back in Zaire,” said Jamie. “Some wet rebels need to find a nice warm jail cell.”

# San Diego

Pei Win met Jamie at the airport.

“How is she?” he asked.

“She’s in and out. Sometimes she’s awake and wants to talk, sometimes she’s awake but too doped up to know what she’s talking about. Mostly she sleeps though, until the pain wakes her up and she has to push the morphine button.”

“Do they know if they got it all?”

“They haven’t told me. But she kept it a secret so long; it’s most likely metastasized like crazy.”

They drove from the airport directly to the hospital where Sadie was staying. Jamie carried his overnight bag up to her room, following Pei Win down corridors and up elevators she had come to know well over the past few days.

Sadie was awake when they entered the room. Three other beds filled the small space, but only one was occupied, by a woman sleeping quietly.

“I knew I could get you two together again if I tried hard enough,” Sadie said softly.

“A phone call would have done, you know,” Jamie said, keeping his voice low.

“Now you tell me. How’ve you been, boy-o?”

“Busy. I miss our Sundays.”

“We miss you too. Hey missy – how are my roses doing?”

“They are beautiful, Sadie.”

“It’s the special rose food, you know. A gift of love from your little friends. That’s where I want to go, when this is over. Can you do that for me?”

“It’s a little early for that kind of talk.” Pei Win’s eyes teared up.

“It’s just ashes, you know, when we’re gone. Good for the roses, not much else. Promise me you’ll feed the roses, and remember the good times.”

“I promise,” Pei Win said softly.

“Michael Duncan was here. He comes in a lot – makes the rounds, there must be six of us here from his church. Mrs. Henny says it’s a curse, but I think she’s joking. I say it’s because all the old farts are kicking off to make more room in the parking lot for the young kids. The kids from the choir are coming by on Saturday. They probably won’t let them sing though. We talk about you, Michael and me. Just so you know.”

“All undeserved praise, I presume.”

“He cares about everyone. Such a nice boy.”

Sadie drifted off to sleep, and they walked into the hallway and waited for a while, talking softly together, but she remained asleep, and they left the hospital, and drove to Sadie’s house.

“I’m staying here while she’s in the hospital. It’s closer, and I feel like I’m doing something useful. I sweep the pool, test the water, maybe I’ll mow the lawn or weed the roses, even though Richard still comes over to do all that stuff. I need to feel like I’m helping somehow.”

They were outside the house, walking in the garden.

“I think it helps. She doesn’t feel alone.”

She walked slowly on the path between the rose beds.

“It’s such a warm thought. That all my babies give their love to the roses. I never thought about it that way. She wants to give her love too. Can we even do that? I mean, is it legal?”

“A casket and a headstone might be a problem. But ashes? Who would know? You, me, maybe Michael Duncan.”

“John. I’m sure he’d want to be there.”

“I know he’d get on a plane right away. He’d be here now if you called him.”

“I think he would. But I called you. You’re my best friend in all the world, Jamie.”

Jamie said nothing. They walked through the roses. Pei Win looked down at the ground.

“He’s here I think,” she said. “Little Fuzzy. The first one. John told me not to name them after that. He’s the only one with a name. No little gravestone, no little cross. I don’t even remember exactly which rose he was under. I think it’s better that way.”

“Better?”

“Not knowing. If a rose dies, or doesn’t bloom, or even if one bush does really well, you still can’t tell, can’t say, ‘Oh no, that’s Fuzzy’s rose bush’ and feel bad. You just plant another rose bush, and it gets the love.”

“We could put the ashes under all of them.”

“We could. We will. That will be perfect. Michael can say some nice words. We’ll all have some lemonade. She’d like that. I wonder if anyone will do that for me, when my time comes.”

“I’m sure they will. Everyone loves you.”

“She’s all the family I have left. Some cousins in Manila, and Sadie. I still have some of the insurance money from when my parents had the accident. It got me into school, but I didn’t want to spend it, it was like as long as I had those numbers in my bank account, they were still there, watching over me. I got jobs, I was careful with money, all the things they would have wanted. I’m paying it back. Putting money back in that bank account, filling it back up to the exact amount it started with. Then it will be OK, I can say goodbye, and thanks.”

Her eyes filled up, and she sat down in the grass and sobbed quietly. Jamie stood for a while, and then sat down next to her. She rested her head against his chest and cried.

# Virginia

Rick Bond had found something. He was piecing parts of the puzzles together, each puzzle piece leading to another, the picture getting a little clearer with each piece. The message was cryptic, no one trusted electronic communications. Jamie was in Virginia within an hour, and they slipped from the temporary office to the beach, where they could talk as the waves rushed up the beach and back.

“I don’t know if two is a pattern or a coincidence,” Bond said.

Jamie waited for him to explain.

“There was a project funded by the NSF, doing weather research on low clouds, overcast stuff, you know, completely benign harmless stuff. But they were using a tightly focused microwave beam, a maser, from an airplane flying above the clouds. The maser had to be powerful enough to bore a hole in the cloud so a laser could then bounce off the ground and give them spectrographic data on the air at different altitudes. Anyway, it turned out the combination was perfect for getting a big electrical discharge to run down the column of ionized air. A lightning strike that would hit whatever you wanted, every time. You could take someone out and it would look like an act of god.”

He continued. “It turns out that as soon as this news got up the chain a bit, wham, the head of the project has a weird fatal accident, and the project ends up getting funding from Cayle. The project falls off the map, and nobody hears anything about it ever again.”

Jamie considered this. “And the second one?”

“Spooky coincidence. Another NSF funded project, some RNA interference thing, connected to antibodies somehow – I have the papers, but I really don’t understand all this stuff too well. Anyway, they find out that they can make a thing that only affects one person. Some kind of RNA that matches enough of some guy’s DNA that it only activates in that guy. And they were going to make some magic bullet cancer therapy from it, but as soon as it gets a little bit up the chain, wham, a weird accident, the head of the project bites it, and it gets funded by Cayle, and disappears off the planet.”

“What kind of accident?” Jamie asked.

“They said you were quick. Guy got hit by lightning.”

Jamie looked up at the overcast sky. “Let’s find a sunny spot,” he said, and they stepped onto the beach in Spain where Mtebe’s people had met Dora’s task force. The sun was low in the west, but there were no clouds.

“God that’s weird when you do that,” Bond said, working his jaw to clear his ears.

“So, our project had NSF funding. And as soon as Langostino reported that travel through otherspace was possible, he has an accident, and the project gets unlimited funds from some government source nobody would talk about.”

“Not just Langostino. The guy at the NSF who was handling the money, the guy Langostino told about the slipping through space, he bites it too. Multiple organ failure, unexplained cause.”

“So Cayle is working with us to some extent – we both want the project to disappear.”

“Cayle’s the last link, if you can find out how many backups there were, and get them all.”

Jamie thought for a while in silence. “Do we know what Cayle is afraid of?”

“Not a clue. Could be he’s just nuts, paranoid. Could be someone knows what he’s up to, and wants all of it for themselves. Can’t tell yet about any theory, we just don’t have enough on Cayle himself to know anything. We haven’t even found any relatives, we don’t know where he was born, went to school, nothing. So we can’t talk to anyone who was ever close to him.”

“Keep working on it. You’ve learned a lot already, at least about the projects, if not the man.”

“You bet. So, how’s old Robert doing? My Spanish isn’t that great, but I can read signs. This is where you took him and his people, isn’t it?”

“They said you were quick,” Jamie said, grinning. “Dora set up one of Michael’s schools near here. Greased some palms, got a herd of lawyers involved. They’re talking refugee status, and citizenship classes, although all that stuff works differently in Spain than in the U.S. But the kids are happy. They don’t worry about bogeymen jumping out of the jungle.”

“That NSF angle – gotta say that was Hayworth’s idea. His guys worked the paper trail; my guys took over and did the legwork and interviews. Just saying, credit where due, and all that. He’s a sharp cookie.”

“You make a good team. You guys worked for Dora before?”

“She didn’t tell you that.”

“No, she didn’t.”

“Then it never happened.”

“’Nuff said.”

“You know enough Spanish to order lunch? I skipped breakfast.”

“I’m not really familiar with the area. But there’s a great vindaloo place just south of London. You like Indian food?”

“Do you guys ever get jet lag?”

“All the time. Occupational hazard.”

# San Diego

Jamie removed his shoes and socks and perched them on the top of a large rock. Pei Win kicked off her sandals, and placed then next to his shoes. They walked out onto the beach towards the waves.

“I always liked this beach,” he said. “We had good times here.”

“We did,” she said, taking his hand. They walked to the wet sand, and then turned to walk just at the edge of it, where the sand was firm, but the water seldom reached.

“How’s your project working out?” she asked.

“It’s different. A new kind of computer, a new kind of programming. Some really bright kids just out of school. It’s coming along. We’re reinventing everything, it takes forever.”

“I remember when you were one of those really bright kids straight out of school.”

“Now I’m the old fuddy-duddy. The graybeard.”

“Just a touch of gray. I like it on you.”

“Makes me look extinguished.”

“Oh, I’m sorry. Should we go back and get your wheelchair?”

“You, though. You still look like the sexy girl on the beach I met all those years ago.”

“It’s the genes. Little of this, little of that. Hybrid vigor.”

“It’s always genes with you. How’s your project going?”

“We’re getting close. We get almost 80% with injections. And we got the funding for the retrovirus project. Bill’s going full bore on that, while I get us to 100% induced with the knockouts. Then we put them together, and we should be able to introduce neuroblastomas in normal mice, rabbits, or macaques and get rapid progression immediately, with no knockouts needed. A perfect animal model anytime you want.”

“I didn’t notice any freshly turned earth in the rose garden.”

“We’re working with tissue cultures for the most part. Well, completely, for the last eight months or so. Still can’t name my babies, though. We’re going to need to do trials once the retro work is ready.”

“So, Bill’s got the money for a full blown level 4 lab?”

“No way. We’re in an incubator, there’s seven other startups in the same building, and none of them have that kind of money. No, Bill’s going to contract out the heavy stuff. We can work with the retroviruses as long as it’s only knockout mice. Once we go to wild genotypes it will all be handled by Astris or Xentrol or one of those guys.”

They had walked up the beach to where it ended in tide pools, and they turned around to walk back. The sun had set, and it was already late, and the summer heat was fading quickly.

“Sadie’s doing chemo tomorrow. They won’t let us visit except first thing in the morning.”

“How early is ‘first thing’?”

“God awful early. Like six or something. She’ll be up, though. There’s all kinds of prep for this new stuff they’re trying.”

“Something promising?”

“No. Some guinea pig stuff. At least they promised me it wouldn’t be some placebo. They’re past the double blind stage. Now they’re working on safe dosages. They wouldn’t say, but I know – they only do that on the terminal cases. Sadie knows too. She told Michael. She’s doing the study to help; she knows it won’t fix what’s wrong with her.”

“She’s a strong woman.”

“She is. Now I know where mom got it.”

“I wish I could have met your mother.”

“She’d have liked you. And you would have loved dad. He was a tinkerer, like you. Always building stuff out in the garage.”

They got their shoes, and walked barefoot back to Sadie’s big house. Pei Win led him back to the guest room, and sat on the large guest bed.

“I can’t bring myself to sleep in Sadie’s bed,” she said.

“I can sleep on the couch,” Jamie offered.

“Don’t be silly,” Pei Win said. “This bed is huge.” She pulled off her shirt, and undid her shorts and let them fall to her ankles. She kicked them into a corner, and removed the rest of her clothes. Jamie watched, and as she turned down the bed, he got undressed himself.

When he got into bed, she moved over and put her head on his shoulder. He put his arm around her and they adjusted until both were comfortable. He was acutely aware of her bare flesh against his.

“I’m still in love with John you know,” she said.

“I know,” he said back.

“Will you fuck me anyway?” she said, kissing him on the ear.

# Colorado

Dora had converted half the warehouse into a cubicle farm, staffed with busy people on phones, ignoring the backup beeping of the forklift in the back of the building. John and Michael were having one of their strange conversations on a couch near the coffee station, and Dora was busy on the computer. Jamie wandered through the big space, enjoying finally having nothing planned for the day.

He met Lenny as he was wandering through rows of new heavy duty shelving.

“Hey, I heard about that shit in Zaire,” Lenny called out, jumping off the forklift. “Looks like I should have come along after all.”

“We almost got shot several times,” Jamie said. “I don’t think you would have enjoyed yourself.”

“I could have helped out. I was in the army, you know. Learned how to drive the forklift on the air base. Went through boot camp and everything – I can shoot, crawl under barbed wire, all that shit.”

“We didn’t do any shooting.”

“Not what I heard. Word is you learned where the safety is on an AK.”

“And people think John can’t talk.”

“You just gotta be patient. Like Mike. Those guys talk for hours, get as much said as my girlfriend does in two minutes. And that’s a lot, I tell you.”

“Some universal law of the conservation of verbosity.”

“Huh? Anyways, I could have helped out. Just saying. Any time you need me, I’m there. Just say the word.”

“I’ll remember that.”

“Hey, did you see the new freezers? Come on back this way. The suckers are huge. For all that vaccine stuff. We just got ice cream in there for now. You freeze your butt walking to the back to get it, and it’s rock hard so we throw it in the microwave. Oh, and all that air filtration stuff came in for the safe-house, so the guys can finish drilling all those little air holes. You know how long that takes, drilling through a half mile of solid rock? Forever, that’s how long. Those Peru guys, though, they love it. It’s like full employment and big money. I get to practice my Spanish doing that video thing with them on Dora’s computer.”

Jamie let Lenny take him on a guided tour of the changes to the warehouse. When Dora got going, things happened fast. Workmen were installing shelving and more cubicles, and wiring computers and telephones. The place reminded him of an ant hill.

As Jamie limped around the building, he became even more aware of and disappointed in his nearly numb leg and useless arm. John was making progress with his speech by getting help from Maria Castro and Michael Duncan. *I need to admit that I need help.*

He walked along the rows of shelving, back towards the front offices where John, Michael and Dora were still busy, thinking about his leg. He could move it pretty well by making the muscles stiff and rocking the leg forward, like a pirate on a wooden peg. The muscles were strong from this method; he could feel the hard knotted muscles with his right hand, but he could not feel much sensation in the leg itself. The leg could be made of solid Charlie-horses from all the conscious tensing of the muscles, but he had no feedback. If he ever did get sensation back, he might need morphine for the pain.

He reached the front of the building, and Dora stood up to meet him.

“Ah, there you are. The whole team is in now, would you like to meet everybody?”

She quickly gathered everyone in the open space where the coffee station and couch had been placed. John and Michael joined Jamie, and Dora introduced them to the group.

“These are the people whose vision will be guiding us in our efforts, and who’s fundraising has made it possible. Doctor John Rakity, Doctor Jamie Witter, and the reverend Doctor Michael Duncan, whom you all have met already.”

She beckoned four people to join her on her left. “This is our international team – they speak most of the major languages between them, and what they don’t know they can call up on a phone or a video conference in a flash. They will be the glue that holds the whole operation together. They will also be hiring pretty rapidly, getting political analysts, legal people, and logistics support going.”

She waved her arm past them to another knot of people standing by the couch. “Over here is our research team. Whatever comes up, they can get you informed, in brief or in detail, and they will be becoming experts in each of our major focus areas, and all of our local operations.”

“Lou here is our communications guy. He’ll be putting a team together to make sure everyone is in instant contact with anyone they need. He does the satellite phones, video conferencing, network connections, all that stuff.”

“You already know the construction team. Over here are the beginnings of our central education task force. They will be coordinating all of the schools in the field, making sure they have everything they need, a common curriculum, and local modifications as needed.”

“The medical staff is mostly out in the field, but Doctor Sally MacAfee is here – she coordinates things and will be hiring like crazy for the next few months.”

“And way in the back is the first group we brought on board – our rapid reaction team. These are the guys who pulled Robert Mtebe’s people off the beach in Spain and got them settled in with local legal and refugee support people. These guys know everybody, and can do anything. They’re magic.”

Jamie and John made their way through the groups, shaking hands, trying to learn some of the names. Someone brought out ice cream, but it was frozen so hard it could not be served. Lenny was trying to explain how to soften it in the microwave, but someone from the construction team rolled in a big sheet metal shear and they sliced right through the cardboard and served discs of ice cream on paper plates.

Jamie found Sally MacAfee talking to Dora. “I have a personal project I’d like to talk to you about,” he said. “I’d like to see someone about stroke recovery, physical therapy or something, for my leg. And my arm, I guess. I’ve been putting it off too long, and it’s time I got some professional help.”

“That’s not my personal specialty, but we have our great research team,” MacAfee said, pulling Jamie towards a young woman trying to cut a disc of ice cream with a plastic spoon. “Helen, Doctor Witter would like to see the best stroke recovery people for some physical therapy. Left side motor recovery and sensory rehabilitation.”

“Local, Stateside, or global?” she asked, putting down her plate and walking towards her cubicle.

“Global, I guess,” said Jamie, following her through the party.

She called out into the party. “Lance, Wendy, got a project.”

The three researchers asked Jamie questions about his symptoms, his history, and some questions he found strange, such as whether he got chills at night, or whether his teeth hurt, or whether he liked California.

“It’s looking like Stanford is probably your best bet, Doctor Wilder or Doctor Dean. Wilder is looking for funding for a study – I’ll bet we could pick up that tab and get his attention right away. Shall I make a call?”

Jamie was taken aback by the speed at which this was all happening, but he nodded and said “Yes, please.”

“A personal meeting would be best. A check that size and they usually drop everything to make time for you. When should I say you’ll be in?”

“Oh, there’s no hurry. Whatever is good with him.”

“Nonsense,” said Dora, her chin trying to reach up over the cubicle wall. When are you going to have an afternoon free like today? You’re the busy person with the big check. I’ll drive you down the mountain; you can see him in an hour.”

“It’s her, actually,” said Helen.

“Her then,” said Dora. “Set it up. Do you need a bite to eat before we go?”

“I’m good,” said Jamie, handing his fate to Dora.

“Good then. But change into something fresh. You look like you’ve been wearing that shirt all night.”

Jamie thought for a moment, and concluded that he had, in fact, been wearing the shirt for the better part of a day, including catnaps in taxicabs. *So many time zones, I get completely lost in time.*

He left the warehouse and walked up to the little lodge that had been their first Colorado office. His room had been cleaned, the bed neatly made, and the closet was full of freshly pressed shirts and slacks. He showered and dressed, and was feeling much better when he came back out into the late morning sunshine.

Dora met him on the sidewalk. “Back to Stanford. You feel OK about that?”

“I’m OK. It’s not like we’re going back to the neurocomputation center. There’s nothing left of that.”

“No bad memories?” she asked as they got in her Mercedes.

“Plenty of those. But they’re with me wherever I am. I’m OK. We had good times at Stanford.”

“Mind if I come along?”

“I was counting on it. Someone to lean on.”

“Anytime. Besides, I write all the checks. You feed Francisco raw cash, he cleans it up, but all the accounts are in the foundation’s name.”

“I like it that way. I haven’t written a check or used my own credit card since we went into hiding. Nothing they can track. Just wads of cash. It’s liberating, in a way.”

“We’re going to change that. The hiding part at least. Hayworth and Bond are still spending more than Michael is.”

“Expensive business, spying.”

“So it seems. I still do the books. Bond is running his own witness protection gig. He gets people to talk, and promises them protection, and makes them rich. So far it’s working, as far as that goes. Nobody actually knows all that much.”

“Pull over here for a minute,” Jamie said. John could do this so easily. He understood otherspace like he understood language – intuitively, naturally. For Jamie, it was work. Still, going from someplace he had been before, to another place he had been, was much easier. But they were still too far up the mountain. He motioned for her to continue down the road. “It’ll be several more miles. We’ve got to get down to about 25,000 feet.”

They continued down the steep mountain road. The vegetation changed as they drove, from forest on the north slopes, to chaparral on the southern slopes, and from conifers at high elevations to oaks as they got lower. Finally, Jamie had Dora pull the car over to the side of the road, and he got out of the car.

He walked up the road a bit, feeling for the terrain in Palo Alto, and then turned around and walked farther down. Finally, he motioned for Dora to pull the car forward.

He came to the window. “Angle for that big tree,” he said. “Drive slowly. I’ll be on the other side, watching for traffic. If I come back through, you stop right away.”

She started to drive slowly off the road, and Jamie disappeared. After a moment, the light changed, and the left tire dropped onto pavement. She continued, and the right tire dropped, then the back two. The Sun was higher in the sky, filtering through gigantic fir trees. Jamie got back in the car.

“Watch out for motorcycles. They love these winding mountain roads. Keep heading downhill, we’ll catch Woodside Road and head up to the freeway.”

“If we do this much more, I’m getting a four-by-four, something with some off-road clearance.”

“If I could use my left leg and left arm, I’d get a motorcycle.”

“Well then, there’s your goal. Think positive.”

They wound down the mountain, the sunlight flickering on the windshield as they passed tall trees, and came to the freeway.

“Go south, then take Sand Hill north,” Jamie said.

The landscape became open range, and they left the trees behind. In another half hour, they were in a small clinic not far from Stanford Hospital.

Elizabeth Wilder met them in a small office in the clinic.

“I understand you will fund my project if I take on your case?” she said.

“We will fund your project,” said Jamie. “Whether you want to take on my case, or refer me to someone more qualified is entirely up to you. The matters are separate, although we did understand that getting to see you on short notice was more likely if we were prepared to cut you a large check.”

He smiled, hopefully disarmingly.

“A large part of my practice is retraining neural connections after stokes. But the study is about a possible therapy for use during and immediately after a stroke, and will not involve human subjects.”

“I was not hoping to be part of the study, other than as a source of funding. My problems have been with me for some time now.”

“You look young for a stroke victim.”

“I don’t think it was a stroke, necessarily. But neuronal retraining is definitely going to be required.”

“Why are you ruling out a stroke?”

“We’ve brought the complete medical history and the scans with us. There is no indication of any physical damage, but the areas of the brain that normally control and receive signals from the left side of my body are no longer performing that function. What use I have of my left leg and hand is being controlled from another section of the brain, which I assume I have managed to retrain myself, just by trying to walk.”

“Functional MRI scans?”

“And PET scans, and ACGS tomography,” Jamie said.

“ACGS – John Rakity’s work at Johns Hopkins?”

“Yes.”

“I’d love to see those. That’s cutting edge stuff.”

“They’re on the drive with the others, and the rest of the data.”

“Your case is beginning to interest me, Doctor Witter. I’d want to do my own scans, of course.”

“Of course.”

“The treatment is exhausting and often painful. And expensive.”

“The problem is exhausting. But not painful, at least not physically. And I can afford it. Even after funding your study.” Jamie smiled.

“We won’t be able to give you anything for the pain. It would interfere with the retraining. In fact, the feedback is crucial. And I’ll need you for at least two hours a day, three days a week, for an indefinite time, perhaps months. And there are no guarantees. The success rate will depend a lot on you – your stamina, and your determination.”

“I understand.”

She sat down at her computer screen and worked for a moment in silence.

“I have FMRI time on Thursday and on Monday. Both in the morning, at 8:00 and 9:30. Do you have a preference?”

“Soon.”

“Thursday at 8 then.”

Dora got out her checkbook.

# San Diego

John had booked a flight as soon as he heard. Jamie had already planned to come down from Stanford for that weekend, but he let the lab know he might be gone for several days. Pei Win, with help from Michael Duncan, who had experience, busied herself with notifying people, filling out forms, handling the cremation, and arranging for Richard to get paid to continue maintenance on the big house and yard. She was beginning to regret taking time off from her work. It left her too much time to think about Sadie being gone.

Sadie had many friends in the area, and a formal funeral seemed like a requirement. Michael handled all of those arrangements – it would be in his church. Several of Sadie’s friends at church were catering the gathering to be held after the funeral, in the bingo room behind the church.

“I don’t want an urn. Can’t you put it in a cardboard box or something? I couldn’t throw away an urn, it would sit somewhere like a monument. A reminder that she was… We have our own ways of remembering her. Thank you, yes; that will be just fine.”

She put down the phone, and turned to Michael. “It seems so ghoulish. People keeping fancy bottles of people dust on the mantelpiece. It sounds so wrong.”

Michael had learned that at these times, listening quietly, perhaps with an occasional nod, was better than anything he could say.

On Saturday, it seemed to Pei Win that eleven am would never come. She had been helping set out food and spread tablecloths with six gray haired ladies who never seemed to have nothing to say, but always managed to say nothing she needed to hear. Jamie was meeting John at the airport, and would arrive around ten. Michael was directing the activities in the church. They had spread a satin sheet over a row of cardboard boxes on a table, in lieu of a closed coffin. Candelabras at each end of the table were waiting to be lit, and soft music was playing from somewhere behind the choir benches.

Jamie finally arrived with John, and she ran to them and hugged them both fiercely. “I’ve got to get out of here – let’s take a walk.”

Cars were starting to arrive as they walked through the parking lot. They walked a few blocks down the street. She asked about John’s flight, and talked about the traffic from the airport. They stopped at the elementary school, and sat down in the swing-set chairs.

“Thank the gods for all the people taking care of all this,” Pei Win said, “but if I have to listen to one more story about cat diarrhea or baby vomit I’ll lose it altogether. Those ladies are all about bodily functions malfunctioning. When I get old, my husband’s flatulence will not be the top of my list of conversation starters.”

She walked the swing back until it rested at the small of her back, and then jumped up into it.

“I used to love to swing when I was a kid,” she said, leaning back in the seat to look at them upside-down. “How come we don’t have swing-sets for adults in every backyard? Just swimming pools and rowing machines and stationary bicycles. Like it has to be boring to be an adult.”

Jamie and John began to swing with her.

“I always wanted a trampoline,” John said.

“Yes! A swing-set and a trampoline. You could jump off the swing, land on the trampoline, and bounce right into the pool. I’m going to put those in my backyard. And rabbits, so I never have to mow the lawn.”

“And a duck in the swimming pool,” said Jamie, “One of the really pretty ones.”

“Do you know how hard it was to find a waterbed without all that stuff in it that keeps it from making waves? The old-fashioned kind that’s just a big bag of water? They have patch kits for waterbeds, in case they spring a leak. So I cut a big hole in the plastic and pulled all that gunk out, and patched it back up. Now I can rock myself to sleep.”

She dragged her feet on the ground, and slowly came to a stop after several diminishing cycles.

“I have a job and a mortgage. But they can’t make me grow up.”

“You’ve earned an extended childhood,” Jamie said.

“Maybe,” she said sadly, “but probably not today. We should get back.”

They walked back along the sidewalk towards the church.

“Don’t sit by the lady with the gray ponytail and the ten inch cleavage,” Pei Win said. “Her husband’s the one that farts.”

The parking lot was nearly as full as it was on Sundays. They walked to the front of the church and took seats in the first row that had been saved for them. Michael Duncan came out a few minutes later, and the music faded, and the conversations died out slowly.

Pei Win heard next to nothing of Michael’s eulogy. She had heard bits of it as he had practiced, but her mind was on the people in the seats around her. All these people knew Sadie. Some of them were wiping at tears. She turned around to look far in the back, and even the old man who slept through the Sunday service was wide awake. *You touched all these people, Sadie.*

One by one, people came up onto the little stage and told the congregation what Sadie had meant to them or something funny she had once said, or spoke about something nice she had done for someone. Some had tears as they spoke, or sniffles.

When her time came, Pei Win looked at the paper she had prepared, and then at all the people, and decided that what she had been going to say was not what she was feeling at the moment.

She put the paper down, and looked back at the man who wasn’t sleeping.

“I had something prepared, but instead I just want to thank all of you so much for being here for Sadie, and for being there for her when she needed you. It’s really great to see all her friends here, and to know there wasn’t enough parking. She really loved all of you guys.”

She felt her voice start to crack, and she left the stage and sat down between John and Jamie.

Michael spoke again, and shortly afterwards, they all filed out to the bingo room.

Pei Win walked through the crowd, taking people’s hands, thanking them, accepting their condolences. John and Jamie stayed out of the way, but within eyesight in case they were needed. After a couple of hours, when the last food had been gone for some time, the group seemed to know it was time, and the room slowly emptied. The six ladies began to clean up, and Michael came towards the three friends and said it was time to bring Sadie home.

Richard the gardener was waiting in the parking lot next to his pickup truck, and Michael got in with him, and John got in Pei Win’s car next to her, and Jamie got in the back. The truck and the car drove to Sadie’s house.

Richard had dug a small trench between the roses. Pei Win held a cardboard box, and Michael stood at the end of the garden, his hands clasped in front of him. They waited for him to speak.

“I have been here on many occasions,” he said, “Standing at this spot, looking down at rich turned earth, as another life is offered back to the earth, to nourish and replenish this sacred soil. On this day we thank Sadie Matthews for her life and her love, and we offer her blessing to the soil and the flowers of this garden.”

Pei Win opened the box, and gently shook out the dusty contents between the long lines of roses. Richard followed with a flat shovel, and gently folded the soil over the line of ashes. Pei Win placed the cardboard box in a small hole lined with crumbled paper, and used the fireplace lighter to set the small pile ablaze. They watched it burn, and when the small fire was out, Richard covered it with the last of the turned soil, and tamped it down.

They all joined hands, and stood silently among the roses for a moment, and then went back to the car and the truck. Pei Win waved to Michael and Richard, and then drove the three of them south to her house.

Pei Win walked them into the backyard.

“Right there,” she said, pointing to the small lawn. “A swing-set. And a trampoline.”

# Palo Alto

Jamie was used to scanners by now. His head clamped in a frame, he tried to move his left leg, wiggle his toes, bend his knee, whatever he was told to do. Pins were stuck in places along his leg and arm, and hot and cold metal touched in various places. Contrast agents were fed into his veins from bags and tubes held on rolling stands.

They bent his leg, his ankles, his toes; they bent every joint in his arm back and forth and back and forth. All the while the machine hummed and clicked, recording everything that went on in his brain as the circus revolved around him. He tried to concentrate on his leg and his arm.

As a control, the entire procedure was replayed on his right leg and right arm. The pins hurt, the metal was hot or ice cold and the bent joints rebelled in pain. Finally, the machine stopped humming and clicking, and spit him out slowly on a long plastic tongue. Jamie sat up.

Elizabeth Wilder sat by a large monitor looking at scan after scan. “It will be a few days before all the correlations are complete and the computers are done, but we can see some of the picture here already,” she said, pointing to the screen. “See this part? It looks like someone took a knife and drew a perfect line down here, right between these two structures. It looks surgical, but with no scars or entry points. I’ve never seen anything like it.”

Jamie had. He had watched John practice this stroke, over and over, until he was sure it would be smooth and perfect. They had mapped out this area in scans much more precise than anything in this clinic.

“Here’s the motor region,” Jamie said, pointing along the smooth arc. “And over here is the sensory area,” indicating a blue line slightly to the right.

“You’ve seen this before,” Wilder said.

“Many times. It’s on the drive we gave you.”

“I’ve been over that data, and the histories. No causal information.”

“Just the pictures,” said Jamie.

“I bet you haven’t seen this,” she said, bringing up a different picture. A tattered red paintbrush had left a trail of tiny red lines from the left edge of the picture down to the bottom. “That’s what you’ve retrained. That’s what’s knotting up your leg, and cramping up your fingers.”

Jamie held his left hand in his right, and straightened out the fingers.

“That’s going to hurt like hell once we get the sensory net reprogrammed.”

“Oh boy,” Jamie said softly.

“We have some really good physical therapists who will work with you in the hot bath. We can get a lot of that handled before you get to feel it. Not all of it, but a lot. The leg’s going to be the hard part. Those muscles have been in knots for a long time. We’ll need ultrasound and ice baths, and lots of massage, and not the fun kind. And you won’t be able to stay off of it – we’ll need to start retraining it as soon as we get you hooked up to the feedback unit.”

Jamie reached over with his right hand and felt the muscles in his left leg. They were hard, even though he was not trying to move the leg the way he had learned to do.

“That’s venous blocking, for the most part. The muscle has blocked the vein, not letting the blood get out. We can open that up, get the swelling down, get rid of a lot of that bruising. You’ve been banging that leg around a lot, haven’t you?”

“I guess I have,” Jamie said.

“We’ll work that out in the pool. Sandy will work with you. You’ll like her, and she looks a lot better in a swim suit than I do.”

Jamie looked her in the eyes for a while, then slowly scanned down her body, and smiled lecherously. They both laughed.

“You’re going to need that spirit, Doctor Witter,” she said.

One of the assistants came in. “There’s a phone call for you, Doctor Witter. Would you like to take it in a private room?”

“Are we done here for today?” Jamie asked Wilder. “I may have to leave suddenly.”

“Yes, we’re done. You can take the call in my office, third door down, on the right.”

“Line three,” the assistant said.

Jamie walked into the office and closed the door. He pushed the lighted button marked “3” as he picked up the phone.

“Hi Jamie, it’s Helen here in research. Hayworth came up with something. They need you here ASAP. We have a helicopter pilot who won’t ask any questions waiting for you at San Carlos Airport. Can you get there right away? There’s a high rise near it, in case you need stairs.”

Jamie felt around in otherspace for a moment. “I can make it. What’s the pilot’s name?”

“I don’t have that. But he’ll be looking for you at the general aviation lounge. He knows what to look for.”

Jamie hung up the phone and looked around the office. There was a door at the other end. He opened it a crack, and saw that it led into the second hallway. He closed it, and opened the first door a few inches. “Bye Doctor Wilder!” he called out. “Got to go!” Then he slipped into the stairwell of an office building in San Carlos, walked down the stairs to three steps from the ground floor, then slipped into the men’s room at the San Carlos airport.

The airport was small, and it did not take long to limp to general aviation. A man stood up as soon as he entered. “Doctor Witter?” he asked. Jamie nodded.

“This way,” the pilot motioned, and they walked out into the sun, and across to a small helicopter.

“They say I’m only taking you up,” the pilot said. “Some kind of secret thing. That’s fine with me. I won’t hear anything you do once we’re in the air, and you won’t hear anything from me.”

They got into the helicopter, and the pilot lifted off the pad and headed out over the bay before gaining altitude. He kept climbing, and both men watched the altimeter. Jamie felt around in otherspace as they got close to the right height, and motioned for the craft to stop climbing. He held his thumb down for a little bit as the copter overshot, and then he held his hand flat to indicate the altitude was just right. Then he got out of his seat, and stepped into the small space behind the seats, and then onto a snowy field in Colorado. He almost lost his balance as he shifted his weight onto his left leg, and the copter lifted his right leg up as the weight in the craft suddenly dropped by 201 pounds.

The lodge and warehouse were a few yards away down the slope. He walked over to the road, and down to the lodge.

Someone he hadn’t met yet was in the doorway. “They’re in the foundation office,” the man said, pointing over at the warehouse. Jamie walked over and met Dora at the door.

“That was fast,” she said. “How was stepping out of a chopper at eleven thousand feet?”

“Unusual,” Jamie answered.

“Hayworth found something. They need you and John to get it.”

“What did they find?”

“Thumb drives. Cayle’s notes – how he keeps track of things. We think.”

“Where are they?”

“Safe deposit box, outside of Langley.”

“We’ll need to get down to sea level. I should have stayed in San Carlos.”

“John’s here. We can do the helicopter thing, in reverse.”

“Not much room in there. And next time, get a bigger one, if only so it doesn’t rise when the weight changes.”

“Didn’t think of that. Little ones are much easier to come by. Can you do it?”

“Worth a try.”

“Helen has him on the line. The pilot. You’ll have to tell him what altitude to be.”

John stepped up beside Jamie. “Up,” he said.

“The man says ‘up’,” Jamie repeated. He took the phone from Helen. “Keep rising at about three feet per second. We’ll tell you when to stop.” He watched John, who stood with his head cocked a bit to the right. After a few minutes, he straightened his head, and held up his hand. “Slow down now,” said Jamie.

John held his thumb up. “Go up a bit, slowly.” John held his hand seven feet above the ground. “Another six feet or so,” Jamie said. They waited. John came over to Jamie and put his arm around his waist, and Jamie’s left arm over his shoulder. He hesitated. “No, no, jump!” He squeezed Jamie around the waist, and they jumped. Their feet hit the passenger seat of the helicopter, and they crouched down as the craft fell with the extra weight.

“Jesus!” the pilot said.

“Take us down,” said Jamie.

“Roger that,” the pilot said. Jamie was still holding Helen’s phone.

# Palo Alto

John walked around the big machine, marveling at the big cooling water pipes and fat electrical cables snaking under the raised floor. “So that thing has sixteen million processors in it?”

“Two to the twenty fourth, actually,” Jamie said.

“And your team writes the programs?” It was late at night, but John had wanted to see the machine as soon as his flight got in.

“It isn’t programming, really. We call it patterning. A different thing altogether. We set up patterns in the processors that tell it how to learn from its inputs. It does the programming as it learns. Nobody could actually program that many processors, unless they all did the same thing. The computer programs itself, according to our patterning.”

“I really *do* read all your papers. But this is different than the Teller-Rowe network stuff.”

“We haven’t gone public with this yet.”

“Can it do the same things? The global synthesis from large datasets? ‘Cause that’s what I’m counting on. We have some really awesome data flows.”

“This approach is more general, and much easier to set up. And each processor has unswitched access to its own sensor inputs over a free-space optical bridge. No wires to cross, so it can be incredibly dense.”

“How do we connect to that?”

“We have a fab team that will design the interface. The good news is that the data rate goes down by two to the sixteenth, since it’s all in parallel.”

“Ours all starts out parallel. Millions of little data streams from all over the cortex. Maybe we can talk with your fab guys and come up with something that eliminated the whole multiplexing step. How do you store all that data?”

“We don’t. It’s a streaming process. The data flows through the machine, and it draws conclusions. Almost literally – it makes pictures, as well as detailed Shoenfeld models.”

“That’s the syntactic modeling stuff, from Berkeley?”

“Shoenfeld and Parkinson. It’s inputs to the state machine in the other building. That interprets it, answers questions we put to the model.”

“How would you like to just understand it directly? Direct input to the brain? That’s what we’re working on. The ACGS scanner can form a bridge. We’ve already got two-way connectivity, we can do enhanced computation – you just think of an arithmetic problem, and the computer calculates, and you just know the answer. But we can’t get past simple arithmetic. It’s just too hard to map from the hardware to the cortical stream. But your Teller-Rowe networking code is solving a very similar problem, with the telemetry flows and the data mapping. Can this machine do that for cortical stream data?”

“No guarantees. But your data rates are manageable, and there should be patterns in the stream that the visualizer can handle. What they look like or whether we can make sense of them is another matter.”

“So, does it look like fun? Are you in?”

“You should have seen the kids falling over each other when I said you were coming. They’ve been preparing a surprise for you, hoping to convince you to work with the visualizer. They all want to hook their brains up to the machine. They’ve read your book. So, yeah, we’re in. They’d lynch me if I told you to buzz off.”

“So, what’s this surprise?”

“They won’t even tell me. But I got a FedEx bill for shipping six hundred terabytes of drives from your office. I think they’re cooking up something from one of your data streams. My kids talking to your kids behind our backs.”

“Some of my ‘kids’ are older than both of us,” John said.

“All of mine are snot nosed brats with newly minted doctorates. What I get for not publishing often enough. Sharp, though. Especially Wilson. Reminds me of you in college.”

Jamie drove John to the house on the hill. It wasn’t a large house, but it had acreage and privacy that was not easy to find in Silicon Valley. It also had a Silicon Valley price tag, but Jamie had few other expenses, and a healthy income. And it had a guest bedroom.

In the morning, the lab was full of excited young postdocs eager to show off their surprise to the visitor. They had barely entered the door before they were mobbed and led into the interface room. Here the wall was lined with large monitors, and a row of keyboards, microphones, motion-sensing laser pointers and trackballs filled a table facing the wall of computer screens. Three of the eager group sat down at the table and started bringing up programs, and the screens came to life.

John and Jamie stood with the rest of the group behind the table and watched the wall of monitors. At first, there was nothing but blurs of color, but as time went by, the blurs resolved to blocky cartoon representations of two faces, and some unidentified clutter in the background. As the faces moved, they became clearer, but the background remained cartoonish and blocky.

“He’s focusing on the faces. There’s no data for the background objects, he hasn’t thought about them yet.”

A circle suddenly framed one of the faces, and it changed noticeably, some features getting emphasized and exaggerated.

“That’s Bonnie Hubbard,” said John. “This is data from me, last Friday’s calibration dump. That’s my lab.”

The circle expanded to include the low collar of the woman’s blouse, and the face faded back into cartoon blocks. The woman’s cleavage came into sharp detail.

“Definitely Bonnie Hubbard,” John said, and the group broke into laughter.

The other face came into detail, and a second circle formed around it.

“I think the circles indicate recognition,” said one of the three at the keyboards.

A telephone came into sharp detail in the background, then a lamp. The second person lifted the telephone receiver off the wall, and the spiral cord came into sharp relief, swinging like a pendulum. Numbers flashed on the screen next to the cord.

“Look, it’s calculating the mass of the phone cord from the oscillations!”

The phone was returned to the wall, and the view shifted as the John in the data stream stood up. Numbers flashed all over the wall as the processors calculated the distance to each object and the speed of motion. A clock on the wall came into sharp focus, then a tree outside the window. A label flashed next to the shadow of the tree.

“It’s figured out the latitude from the time of day and the shadow angle. It’s got the date somehow.”

Bonnie Hubbard moved across the field of view, and numbers flashed across her chest.

“It’s figured out the mass of each boob!” a woman’s voice called out, and the room broke into laughter once more. The wall went dark.

“All the data we could get on short notice,” said a tall man in the back.

“Now let’s query the state machine model,” said one of the seated researchers, typing quickly. The wall became blank white.

“Show ten most focused objects,” she typed.

The wall became an image again, with outlines around the faces, the telephone, the window, and other objects. Each outline had a number.

“Name object six”, she entered.

**Liquidambar styraciflua** appeared next to the tree.

“Show height object six”

**6.7 to 6.8 meters** showed next to the tree.

“Show reasoning”

A block of indented code overlaid the screen.

“Parallax, some motion data. Look, it knows the wind speed! From the swaying of the tree and the Young’s modulus of green wood.”

John spoke. “We’ve never gotten visual data rendered like that before. We’ve had motion, and high and low special frequency isolation, but nothing like this. How did it figure out the coding?”

“That’s what it does. It learns patterns. We have it hooked up to cameras, so it knows about vision. It just found something it recognized in the data stream, and correlated it with visual information, and so it represented it visually. It does the same thing with movies on disk – it figured out MPEG4 coding from scratch.”

John was getting excited himself. “So we already have the first step – getting the machine to recognize the cortical data stream. Can it work backwards, and encode images in a way the brain will accept?”

“Hold on a minute,” said Jamie. “How long has this been running on that data?”

“Two days. Since we got all those drives loaded, maybe forty, or forty five hours.”

“Not exactly real-time, John. Do you want to sit in an ACGS scanner for two days to get a picture of something?”

“Can’t – you’d cook. We could maybe run the blood through a chiller.”

“Two days, John.”

“But could it do it?”

“With feedback, maybe. It learns best when it can experiment, change its environment and see the effects. Like a baby.”

“Ask it,” said a woman in the back.

“What?” asked Jamie.

“Ask the machine if it can do it in real time. The input part and the output part. Let it crunch on that for a few days.”

“I wouldn’t know where to start,” Jamie said.

“We could set up a feedback pattern with a time limit, and an optimize pattern, and have it loop on the data stream. We can do that because it’s all on the disks, not real time streams.”

“That will get us the input. But there’s no way to model the output. How would it know if the subject was seeing the right image?”

“But at least we can work on the input. That’s a start.”

John turned to Jamie. “I can have the ACGS equipment shipped here. Probably take two or three weeks. We’ve been working on this for four years – don’t expect to solve all the problems in the first day. If it can’t do real-time, think what kind of equipment we’ll have in a couple years.”

“Direct brain to computer interfacing. At this kind of resolution, it’s about more than just communicating with a machine. You could hook up two people, and they could read each other’s minds, or at least see what the other is imagining.”

“One thing at a time. First, I want to see what the machine is imagining.”

# Virginia

Hayworth met them on the stairs. “We can’t just do a smash and grab here. There needs to be no trace of evidence we were ever there. We need photographs of the placement in the box, so we can replace everything exactly where it was. You’ll be wearing surgical gloves. No fingerprints, no DNA. The gloves will be washed and dried after you put them on, before you touch anything.”

John nodded, and Jamie said “We understand,” as they walked down the stairs and into Hayworth’s office.

“We have all the equipment here to make the copies. The drives have read counters, so we can’t just copy them by plugging them into a computer. We have to image them with an X-ray polarization scanner, and read the bits directly off the image. That’s what all that stuff is in the other room.”

Hayworth got out a map. “The bank is here,” he said, pointing to the map. “The vault with the deposit boxes is in the basement.”

John looked at the map, and then cocked his head a little. “Down,” he said.

“Parking structure below this floor,” Hayworth said. John and Jamie put on the surgical gloves, and washed and blow-dried their hands, and then they headed for the stairwell again.

John stopped before they reached the bottom of the stairs.

“The box number is 143-B,” Hayworth offered.

“Here,” John said, taking Jamie’s gloved hand. Jamie opened a window and looked through at box numbers. He found 143-B, and moved the window into the box.

“Camera,” he said, holding out his hand. Hayworth handed him a black camera with a large lens. Jamie took a photo of the stack of small solid state data modules. He moved the window to take shots from several angles. It occurred to him to look into the boxes on all sides, to see if there were any devices put there to sound alarms if the modules were moved. There were none.

He handed the camera back to Hayworth. “I’m ready to get the first one,” he said.

“Place it in here,” said Hayworth, offering a box lined with white plastic.

Jamie lifted the first module, expecting alarms or explosions, but nothing happened. He placed it in the box.

The next four modules came out just as easily, and they all went into the box.

Hayworth rose. “About fifteen minutes each. You guys OK here?”

“I’ll keep watch on the box,” Jamie said, “To make sure nobody opens it.”

“I’ll bring down some cushions for you. Concrete steps are cold.” He climbed back up the stairs.

John still had his head cocked. Jamie moved the window so he could take a peek into the bank, but the quickly returned it to the box. There were people in the vault.

“Three,” said John. Jamie had only seen two.

“The blond, and the bald guy,” Jamie said. “Who else?”

“Brunette,” John said. “Looker,” then he smiled. “Thong.”

Jamie was not tempted. He kept the window in the box.

Hayworth’s assistant came down the stairs, bringing sofa cushions.

“Chuck said you might want these,” she offered. Jamie lifted himself with his right leg and right arm, and she slid the cushion under him. John took the other one and sat on it. “Thanks,” he told her.

Hayworth came down with the first bottom data module and a laptop computer.

“Here’s the photo. This is the module you took out last. Can you put it back just like the photo?”

“No problem,” Jamie said, and placed it carefully looking first at the photo, then into the deposit box.

Hayworth seemed relieved. “Four more to go.”

One by one, he brought the modules back, and Jamie placed them in the box, just so.

Finally, they were done, and Jamie got up off the cushion. His right leg was stiff, and his left leg would not cooperate at all. John and Hayworth had to lift him up, and almost carry him upstairs, hopping on his right leg.

Back in Hayworth’s office, the assistant put the cushions back on the sofa, and Jamie sat down and set about massaging his left leg. The assistant stooped to help. “Towards the heart,” Jamie said, demonstrating with his good hand. He could not feel her hands on his leg, but they both continued the massage.

Hayworth came in from the back room. “Just sent the image data to Colorado,” he said. “They will work on it, might take a few days. Sorry we had to move so fast, but he changes the bank so often, we didn’t dare wait as much as an hour.”

“That’s OK. We learned a lot about helicopters today.”

“Sucks,” said John.

“Not our favorite way to travel. Too easy to miss and fall or get hit by rotors.”

“Dora said she’d try to get a bigger one next time.”

“Sucks,” said John again.

“Still not a preferred mode of travel,” Jamie interpreted.

“We lost Cayle again this morning. The guy is really devious. We had him for the whole night this time, in a hotel room, under a name he’d never used before. Probably picked it out of the phone book. Five cars met him in the parking structure, and we tried to follow as many as we could, but we lost him.”

“Tracer,” said John. “T99m.”

“What’s he talking about?” Hayworth asked.

“Technetium-99m is a radioactive element. Gives off low energy gamma you can detect with an imaging x-ray camera. Comes out in the breath and sweat, we could track him for maybe 5 hours after he ingests it.”

“Is it dangerous?”

“Won’t kill him, not right away. Might make him more prone to certain cancers in 20 years or so. Depends on how long we dose him, and how much in each dose.”

“Will he detect it?”

“He’ll set off alarms in nuclear plants and airports.”

“Then it’s probably a no-go,” said Hayworth. He seemed disappointed.

“Let’s see what the drives had on them, then we’ll work out plan B,” said Jamie.

“Bond’s guy will continue with the old-fashioned methods. The longer we track him though, the more likely it is he’ll catch on.”

“Hungry,” John said.

“I don’t think I feel good going out anywhere near here or even anywhere in Virginia, for that matter,” Jamie said.

John cocked his head. “Seattle,” he offered.

“Seattle’s good. What did you have in mind?”

“Canli’s?”

“I’m up for that. Chuck, would you like to join us?”

“Go to Seattle with you guys for dinner?”

“That’s the plan.”

“Can’t. Wife is planning something.”

Jamie looked at Hayworth’s assistant.

“Me? Dinner with you guys in Seattle? I’m there! Do I need to dress up?”

“Come as you are. We tip really well.”

“What do I do?”

“Can you walk?”

“To Seattle?”

“To the stairs. Seattle is that close.”

“Bring her home by midnight, guys.”

They walked out to the stairwell, and headed up.

“Open your mouth, breath out slowly, and hold your hands tightly over your ears,” Jamie said, and waited until she had done so. Then they stepped out onto a sidewalk in Seattle. It was drizzling, and they hurried to a sidewalk awning for shelter.

“Welcome to Seattle,” Jamie said.

“Oh, My. God.”

# San Diego

Bill Munson was easily excited. But as Pei Win walked with him to his office, she sensed that this time there was something to take notice of.

“K33 is going to be *it*,” he was saying. “Hobson’s got 99.18% on the Nansen test, and Jim Barclay has 99.01% on the targeting rate. Do the math – the model predicts 98% is the tipping point, and we’ve got nearly 98.2% when you multiply Hobson by Barclay.”

“Aren’t you jumping the gun a little bit? A model is just a model. We’ll know when the in-vivo tests are run.”

“We’ve never gotten close to 80% before, this is major, a really big break.”

“Of course it is. But you’re counting chickens. If K33 infects, if it anchors, if it replicates, if it goes critical, then we’ll have a bunch of mice with runaway brain tumors. Then we can tune it for rabbits. Then we go for macaques. We’re a year away, at least.”

“What if I told you we could go straight to human tissue culture?”

“There’s no way. You’d never get it through review. You’d never get funding.”

“There’s a group that wants to fund this project, but only if we go straight to human tissue. And they have a level 4 lab – even bigger than Pershing’s.”

“That is completely nuts. Why the rush? The mouse model will get most projects as far as they need to go. The macaque model will get them so close it’s almost there. And neither of those has the dangers of building a cancer-inducing retrovirus that uses human tissue as a host. This makes no sense.”

“They have a method for eliminating the danger.”

“How can they possibly? We’d have heard of anything like that.”

“It’s a method that targets insertion points that are specific to one individual. So only the target tissue could become infected.”

“Who did that work? I haven’t seen any report of anything like that.”

“It’s unpublished.”

“Who are these people?”

“It’s a DARPA project. I don’t have clearance for the details.”

“Bill, this just doesn’t sound right. Classified projects? How would we publish? What good would it do anyone if we built the model and nobody ever heard of it?”

“They promise no interference, no classification, we get to publish anything we want. It’s just that we get access to their lab, and to their special procedures and techniques.”

“Why would they do that?” Pei Win said, testily.

“They believe in our project.”

“We’re talking about twenty, maybe thirty million dollars. Nobody gives that kind of money away. What’s the quid pro quo?”

“They want to use the model.”

“A classified project needs a model of human neuroblastomas? Are soldiers coming down with some new form of Gulf War syndrome?”

“They couldn’t tell me,” Munson shrugged.

“I’ll bet they wouldn’t want that going public.”

“So, if we got the money, how fast could we get going with K33 in tissue culture?”

“Assuming it infects, anchors, replicates…”

“Yes, yes, assuming all that. I know it will.”

“Does this mystery lab already have the tissues? We know nothing about the insertion point specificity stuff; that could be a total bust.”

“Assume it it’s already working in the samples.”

“We’re still talking months, maybe more than a year. To get it to where we would be with mice in that time.”

“Isn’t that a big improvement?”

“It’s still in a dish, Bill. You know how different that is from an organism. All kinds of things happen when you’re dealing with something with a functioning immune system. We’d still need to do the mouse study, then the rabbits, then the macaques.”

“But we’d have the funding. After demonstrating it in culture, we’d be able to get plenty of interest in the live models.”

“I’m hearing something hidden between the lines here, Bill. Are we running out of money?”

“You know how it is. I’ve been talking to everyone I can about extending the current grant. But there’s just no way we can get to mice based just on the computer models. You said it yourself, they’re just models. It’s been really hard getting people’s attention.”

“Except for these military people.”

“They have the money, Pei Win.”

“We need guarantees, Bill. In writing, something that legal says will stick. I won’t let this project get swallowed up in something that can’t get published. I’ve worked too long on it.”

“And I haven’t? I pulled you into this in the first place.”

“You’re too trusting. Keep trying – there must be some public funds, or a private firm, or some foundation grants. That’s what you’re good at. Go find something without this greasy feeling I’m getting here.”

“It’s not greasy. It’s money, and a first class lab. And aren’t you the least bit interested in the targeting method? That could make work like this much safer, much easier to get funded.”

“When can we get a look at that?”

“We have to sign some things, and they want background checks, that sort of thing.”

“I’ve never had a security clearance.”

“It’s not a full-blown clearance thing. Just some sort of background check. They already started mine.”

“Have you seen the work?”

“Not yet. But they say as soon as we commit, there should be no problem.”

“Keep looking, Bill.”

“I will. But if this is it, if this is all we can get, are you in?”

“If it’s all we can get, it’s all we can get. As long as we get guarantees we can get to the macaque trials without interference, then I’ll let them check my background all they want.”

“I’ll get the papers to you right away.”

“Bill, you’re still looking, right?”

“Yes, I promise.”

Pei Win looked at him for a moment in thought.

“So, Bill, where’s this lab?”

“Virginia, somewhere. Is that a problem?”

“Not really. Just wondering how much travel I’d be doing.”

“We can do most of the lab work by remote. The beauty of automation.”

“Not quite the same as being there. Sometimes just being able to look at the mice, or smell them, you can tell something is wrong.”

“These are cultures, Pei Win. Cells in a dish. We’ll have a complete data feed, high bandwidth, real-time; it’ll be just like being there.”

“It’s just not the same. But go find that other funding and we won’t have to worry about it.”

“I’ll do my best.”

# Colorado

“So all of the data on those modules is encrypted?” Jamie asked.

“We expected that,” said the tall thin man in a bright red sweater. Dora had introduced him, but Jamie could not remember his name. Something hyphenated.

“So what good is it? Don’t tell me you’ve cracked an NSA encryption method.”

“Oh, no, this isn’t like in the movies. No, we’re going to need his password for that.”

“I’ll bet he doesn’t write that down anywhere.”

“I sincerely doubt it. But he’s not as smart as he thinks he is. He’s actually given us quite a bit.”

“How so?”

“Each entry is in a different file. And he didn’t encrypt the data at the low level, just at the file level.”

“How does that help?”

“Well, we have the information encoded in the files. The time stamps, for example. We know when he created the files, and when they were accessed.”

“How does that help?”

“They were all created in the evening, between seven and nine o’clock at night. In Eastern Standard Time. If they are voice recordings, and we think they might be, then we know from the size of the file about how long he was dictating them. We know that he makes the reports on Mondays, Wednesdays, and Fridays. This guy who is so careful to randomize his travel, his sleeping accommodations, and his finances, is uncharacteristically regular about keeping his diary. Since pocket recorders can do encryption, he probably uses a laptop computer to do that. That gives us a power source and a place to hide a transponder. And since the laptop is electronic, the transponder won’t trip any alarms that the laptop wouldn’t have tripped. His bug detectors won’t help him.”

“But Bond still has to find him between 7 and 9 on one of those days.”

“He has, on two different occasions. We just didn’t know it was worth bringing you guys in at those times.”

“To plant a transponder in his laptop.”

“Oh, more than that. You can watch him type in his password. Then we’ll have access to all of the data we already have, only decrypted.”

“So you’d like us to hang around at Virginia elevations waiting for a cell phone call.”

“That would be ideal, yes.”

John spoke up. “Ballarat.”

“What’s that mean?” asked the thin man.

“It’s a place near Death Valley. Isolated, but with a 4x4 you can change elevations from well below sea level to a mile high in less than an hour.”

“Would you have a cell phone signal?”

“Not a chance. But we can use a satellite phone.”

“Why not just stay in Virginia?”

“First, we can get places faster from someplace with a steep slope. Second, we don’t much care to hang around in Cayle’s neighborhood any more than we have to. Best to stay on the other side of the continent, or better yet, the planet. That guy scares the bejesus out of me.”

“If that’s how you want to do it, it works for me.”

“Besides, Daylight Pass is not much lower than we are now. And it’s only about 20 miles to sea level. We’ve used it a number of times when we needed to get from here to sea level in a hurry, without any damned helicopters.”

“So, we’re building the transponder now, it should be ready in a couple days. Custom stuff. You guys need a sat phone and a 4x4 – should be able to get those by tomorrow or the day after. So we’re looking at Wednesday at the earliest. Bond may not find him that fast, so sometime in the next couple weeks. You guys willing to hang out in the desert that long?”

“You forget, we can be anywhere, as long as we can hit Daylight Pass Road. Now that John has figured out how to jump a whole car, we have options we didn’t have before. Kind of makes it hard to escape notice, coming and going, but it helps that that particular road is pretty quiet.”

“You might want to learn from Cayle, though, and not use the same road too much out of habit. They could stake it out with a sniper, and you’d be sitting ducks.”

“Tell whoever gets the 4x4 to make it inconspicuous. Some beige SUV or something, not a bright yellow Hummer.”

“You could come pick it out yourself.”

“Can’t – I have a physical therapy appointment in Palo Alto.”

“You sound like some soccer mom.”

“Sometimes I feel like one.”

John was going to spend his afternoon in Cusco with Maria Castro. He could get there by walking. Jamie needed to get down the mountain. But he could get down much faster if John was with him, since John could show him how to get places he’d never been, which was hard for Jamie to do alone, by feel.

It was complicated, but Jamie figured out a way it could all work. And, John could show him the way to Daylight Pass, so he could get there on his own sometime if need be. Jamie went to find Lenny.

“How’d you like to see Death Valley?” he asked, when he had found the forklift operator.

“Another field trip? Should I bring a gun?”

“Should be a walk in the park.”

“That’s what you thought about Zaire.”

“If we run into any trouble today, we’ll just get out of there.”

“Well, just offering, you never know.”

Jamie found John, and explained the plan slowly. John could usually make sense of things by just hearing the individual words. The order of the words held no meaning for him, but a list of words in a sentence in any order is often perfectly decipherable. But a plan involved a sequence of steps, and words in the proper order. That was hard for John, and took longer.

Lenny drove them down the mountain. Not far from the lodge, John said “Stop,” and Lenny pulled over.

“Here,” John said, and took Jamie’s hand, and pointed the way. Jamie opened a window onto Daylight Pass Road, and checked for traffic. The road was empty. He opened the window wide enough for the car, and they drove out onto a cold Sierra morning.

“Cool!” Lenny said, working his jaw to clear his ears.

“Now make a U-turn,” said Jamie. “We have to get John back.”

The car turned around on the empty road, and Jamie peeked into Colorado and waited for a clear road. He had Lenny ease onto the shoulder, and they were back in Colorado, heading up the mountain.

They dropped John off a mile below the lodge, and he disappeared into Peru. Lenny turned the car around, and Jamie found the spot where they could slip back into California, and they drove down the steep road towards Death Valley. In about 12 miles, he told Lenny to pull to the side of the road, and he felt around for familiar places in Palo Alto. Satisfied, he checked for traffic, and they pulled into a quiet road under a freeway overpass, where the shadow would provide a convenient explanation for a car suddenly appearing as if out of nowhere.

He showed Lenny how to get to the clinic. “I’ll be a few hours – you might as well take in a movie.”

“With pay?”

“Of course,” Jamie said, smiling.

Elizabeth Wilder introduced him to Sandy, the physical therapist. *She does indeed look good in a swim suit.*

The pool was hot, almost too hot. Jamie was not looking forward to exercising in it. But Sandy massaged his left leg, working some of the knots out; as Wilder connected cables to a mesh net she fit over Jamie’s head. The cables snaked out into another room.

“This is the feedback net. We’re going to place electrodes at points on your leg, and listen to where in the brain the signals are going. As you move, we’ll be looking at the control signals, and we’ll see if we can keep them from getting lost. You see if you can put some resistance to what Sandy does with your leg, and I’ll be watching the monitor. This little guy,” she said, pointing to a small box with a speaker, “will squeal when it sees a connection between the brain and the leg. You want to make that squeal get as low a tone as you can. Ready?”

“I’m ready,” Jamie said.

The little box was silent. Sandy moved his leg, bent the knee, the ankle, the toes, and still the box made no sound. Jamie tried to resist the movement, but nothing he did had any effect. They worked it over and over, sweating in the hot water. Jamie was ready to take a break, and Sandy looked exhausted, but she kept on moving the leg back and forth, through all of the possible motions it was capable of. Still, nothing from the little box.

“You’re not trying,” Sandy said. “Usually by now we would have gotten *something.*”

“I’m definitely trying,” Jamie said, exasperated.

Sandy took her fingernail and dragged it across the sole of Jamie’s left foot. The little box let out a high pitched squeal.

“Got it!” shouted Wilder. “Do that again!”

Sandy tried again. The box squealed.

“What are you doing?” Jamie asked.

“You don’t feel that?” Sandy said. “That drives me crazy when someone does that to me. I’m tickling the bottom of your foot.”

“It tastes like lemons smell.”

“What?”

“When you do that, I get a taste, like the way lemons smell. It’s weird, I don’t know how else to explain it.”

Doctor Wilder explained. “It’s a form of synesthesia. Your brain is trying to make sense of sensory inputs coming from the wrong place. We can work with that. You need to make the tone go lower. As you do, you train your brain to associate the input with the feeling in your foot. The more we train it, the easier it will be to find new pathways for the other signals, and in a few months, you’ll have a whole bunch of new sensations in your leg.”

Sandy stoked the foot again, and Jamie concentrated on making the tone in the box go lower. Nothing he did seemed to have any effect. Finally, all three were exhausted, and Sandy helped Jamie out of the water.

“You can’t expect everything to happen in one day,” said Wilder.

“Oh yes I can,” said Jamie. “But what I expect and what I get are not always the same thing.”

He dried off, with help from Sandy, and then limped back into the office and changed back into his street clothes. His skin was red and wrinkled from his shoulders down. He combed his hair, and sat down in a padded chair with a heavy thump.

“Takes a lot out of you,” Sandy said.

“I’m OK”, Jamie answered. “Now I know what to expect.”

“See you Wednesday?”

“That’s the plan. There may be things that come up. I’ll try to call if I have to cancel.”

“It’s better if you stick with it, especially at first.”

“I know. I’m committed to this, I really am. But my schedule is not always my own. Some things are more important than whatever it is I want at the moment.”

“See you Wednesday,” she said, smiling, and walked into the other room to change out of her suit.

Lenny was in the front office, waiting.

“Good movie?”

“Nah, I just walked around the mall. Cute chicks around here.”

“I know what you mean. Shall we get you home?”

“You da boss.”

Jamie almost fell asleep several times in the car. Back in Colorado, he fell into bed and was asleep almost at once.

# Palo Alto

John stood at the front of the room and spoke to the small group.

“Jim Lawrence has asked me to explain to you what Doctor Witter and I have been building here over the last four years. Our director, Will Fitzgerald, tells me you have a particularly hard problem that he hopes we can help you solve, in exchange for large chunks of your funding.”

Both Lawrence and Fitzgerald were in the back of the room, fidgeting nervously. They knew they were taking a chance letting John Rakity speak to the group. You never knew what he would say. But no one else could answer the questions that would come after the talk, except perhaps Witter, who was not a good public speaker.

“What we are good at here is scientific visualization. Making complex models and data sets perceivable by brains otherwise not well adapted to that form of information. We’re not talking here about pretty pictures or fancy slideshows. We interface deep in the brain with that part of the neural processing that is best suited to processing the data. We might enlist part of a trained musician’s brain to understand certain mathematical constructs. That person would perceive the math not as some music in his head, but as a musician might improvise with a jazz quartet, knowing exactly which chords to play next to harmonize with the improvisations of the musicians next to him in real time.”

He waited for the concept to filter through the group.

“Someone interfaced to our computer can understand the data and the models the computer is patterned with at an almost instinctual level, much like he would balance on two feet, or walk, or speak. We don’t have to think about those things, we just know how to do them. The computer would amplify that person’s learned and hard-wired abilities, and apply them to the problem at hand. You don’t tell such a computer what to do, you don’t ask it questions, you experience the data, and mold the models by natural actions and intentions.”

He waited for a response, but the room was quiet.

“It’s hard to describe. What would be better is a demonstration. I need a volunteer who has done some downhill skiing, and another one who is a music lover. Don’t be shy; this will be the experience of your life.”

Three men and two women volunteered. John took one of the men and one of the women, and placed them on stools to either side of him.

“The ACGS scanner is in the room behind you. You don’t need to wear anything on your head; the scanner can read through the wall, it’s only cheap wallboard. However, we do want you to wear these headbands – they monitor the temperature of your forehead. They will cut off the scanner if you get feverish. It is possible to draw too much input from the scanner when you are doing problem solving, and since the scanner is changing electrical potentials in the nerve tissue, which causes a small amount of heating, we don’t want you to feel uncomfortable at any point in the demonstration.”

He handed them headbands with small blinking lights on them.

“The data set we are working with is a fifteen minute delayed feed of stock quotes. This is real data, taken off of financial feeds. We also have real-time data from the same sources, which the rest of the people in the room will be able to see, projected on the wall behind you. Your task is to detect patterns in the data that you can take advantage of to make money in the stock market. You can choose to experience this data kinesthetically, using the same skills you use in skiing, or as a musical landscape, where you use the skills a conductor might use in leading an orchestra.”

John had given this talk to each new member of the team as they had come on board, and had the patter down.

“You have $100,000 in play money. If you’re ready, we’ll begin.”

The two nodded, and John touched a key on the keyboard in front of him.

“Oh,” the woman said; eyes wide. The man on the other stool smiled quietly.

On the wall behind them a display appeared, showing a complicated graph of stock prices of companies over time, overlaid with options data, trading volumes, news reports, foreign exchange rates, and other information. There was over each stool a dollar amount, and both were steadily rising; already well above $100,000.

“Hey!” the man said, and the number over his head dropped to under $50,000.

The number over the woman had also dropped substantially. “Oh, I see,” she said, and her number started rising again.

“Someone is controlling the market,” said the man. “Clever. I can use that.” The number over his head rose.

“Now wait a minute!” the woman said, as her number started dropping again.

“I can see your trades,” the man said. “They’re onto you.” His number started dropping also.

His headband began to beep, and his number froze, and he looked startled. The woman’s headband began to beep a moment later, and she also became aware of the room again.

“Heather, you have got to try this!” she said to a woman in the back of the room. “We could be zillionaires!”

John spoke up. “Actually, what you started to see was program trading getting used to your manipulations. Some of the world’s most powerful computers are programmed very well, both by experts and by machine learning techniques, to trade on behalf of pension funds and the like. The ability to arbitrage is severely limited in today’s market. Any attempt to use something like inside information is seen quickly, and that information, or at least its effects, are incorporated immediately. In your case, your ability to react quickly to new patterns was picked up and taken advantage of by programs with much more information than we have available. That is why we are here asking for your money, and not playing the stock market.”

“I could feel the market change, I could see things happening ahead, and react to them before they happened. It was extraordinary!”

“We’ll give everyone a chance to play with the machine. But first I want you to think about how you could use this to visualize your own data sets and models. If you think it would help, then Will Fitzgerald will be happy to talk with you further. I am also supposed to let you know that there are five groups being asked to participate in these demonstrations, but only one group can be accommodated in our schedule. Money will not be the main determinant in who we select. We are looking for the project where our help can be of most use; something which could simply not be done otherwise.”

Lawrence and Fitzgerald glared at John when they heard those last words, but then smiled and shook hands as they were mobbed by scientists wanting a seat on the stools at the front of the room.

Jamie had been watching the video feed in the patterning room. John came through the door, and walked over to stand next to him. “That seemed to go well,” he said.

“What was that part at the end?” Jamie asked. “We didn’t talk about project merit, Fitz is going to blow a gasket – he’s scraping up any funding he can scrounge just to pay our electric bill.”

“Look at them,” John said, pointing to the video screen. “We have them. They’ll all pay. But we need to really push it – we need a really hard problem, something earthshaking. Not just something that gets two percent better fuel economy in a jetliner, or better advertizing effectiveness for some drug company. Look at the third group on the list. They have enough money to keep us going, but they are probably fourth on the list as far as what they can pay. But look at what they’re working on. Nothing less than the ultimate answer, how the whole universe is put together. Imagine being able to understand black holes, the big bang, how gravity works, at the quantum level. That’s the project we need.”

“You’ll never get Fitz to turn down a higher bid.”

“I have an ace in the hole.”

“What do you mean?”

“I had some help coming up with the right pitch.”

“You didn’t.”

“Yes. I modeled Fitz, and the board, and Lawrence. If the model is as good as it looks, I have an answer to each objection, and I can play them against each other. I don’t know if I’m good enough to do it to their faces, so I sent them each an email. Fitz and Lawrence will get theirs tonight – the board members already have them.”

“That sounds a lot like skating on the hairy edge of unethical, John.”

“You sound like Pei Win.”

“She has always been right, and you know it.”

“I just said you sound like her. I didn’t say you had her track record.” John smiled.

“Just talk to me before you do something like that again, OK?”

John looked at his friend. “OK.”

Jamie paused for a moment.

“So, what does their data look like? Is it anything close to something we can translate for our little beast?”

“That’s what you are here for, Jamie. But I’ve looked at the size of it. They’ve been using three for-oh-eights for the better part of a year.”

“Something like that could take my team a year or more to get patterned in.”

“Job security, Jamie. We’ll be getting paid for a year, at the very least.”

“You’re not thinking about the money. You never have. You want the brass ring.”

“Damn right,” he said. “Any idiot can make money.”

# Ballarat

Jamie stretched out in the seat of the beige four-wheel-drive Mercedes SUV, the seat set as flat as it would go, and looked at John in the driver’s seat, also stretched out, relaxing. “The whole point of locating in Colorado was that the road was steep and went from real high to reasonably low. We don’t need to get to below sea level. You just wanted a break. You wanted to get away from all the ruckus of running Michael’s projects.”

“So?”

“Well, you might have overdone it. There’s nothing here. Nothing.”

John smiled. “Good.”

“We still need to go through Colorado to get to Cusco.”

“Yup.”

“Where Maria is.”

“Yup.”

“Well, at least I’m stuck here with a brilliant conversationalist.”

“Yup.”

“I should have brought a telescope. I’ll bet the nights here are dark and perfect for astronomy.”

“Wait,” John said, and opened the door. The desert heat blasted into the air conditioned car for a moment, as John got out, and then shut the door behind him. He walked to the back of the car and opened the rear hatch, rummaging around in the pile of supplies. The hatch closed, and John re-entered the driver’s side door, then slammed it shut. The air conditioner struggled to readjust the inside temperature.

John handed Jamie a large pair of binoculars.

“Nice. Someone thought of everything.”

“Welcome.”

Jamie held the glasses up to his eyes and scanned the horizon. A fierce confusion of heated air confounded his efforts to see anything past the first 100 feet. He lay back down in the seat.

“At least I brought a book,” Jamie said. “What do you plan to do to while away the hours?”

John brought up his sketch pad from the door pocket.

“That ought to work. Just don’t try to draw me.”

John smiled.

“We could hang out on the road to Kilauea, watch the ocean.”

“Yup.”

“But you’d rather hang out here.”

“Yup.”

“I can handle that.”

“Good.”

“Wake me if the phone rings,” Jamie said, and placed his open book over his face.

# San Diego

Pei Win looked at Bill Munson carefully, looking for any sign on his face that would make her feel better. Instead, she saw worry, and a little bit of anger.

“What did you find out?” she asked.

“They won’t tell me anything,” he said.

“Then it’s true.”

“It can’t be. There are treaties up the wazoo about biological weapons. Completely off limits. They can’t think nobody would find out, that nobody would go public. It’s insane.”

“But it makes sense. All that easy money. The level 4 lab. The secrecy. We built them a weapon, out of our medical miracle. They made sure we were using human tissue. They had technology for targeting single individuals, for god’s sake. And we gave them lethality. Incurable, aggressive, metastatic neuroblastoma. And this is really Machiavellian – they don’t want a mass murder weapon. They want a surgical strike weapon. You can infect a whole population, but only one person will die. You can infect a tourist, he infects a train full of people, they infect others, and eventually you get to the target, some leader or some political dissident. Problem solved.”

“I had no idea.”

“Come on, Bill. We both knew who we were getting in bed with.”

“What can we do?”

“Stop the project. Quit. Go public.”

“Stop the project.”

“We have our model. We made it work. We did what we set out to do, god, eight years ago. We can keep that, take it somewhere safe. But this, this we have to stop.”

“I know you’re right. It’s just – these people scare me.”

“They scare the shit out of me, too.”

“I’ll let them know we’re done. I’ll write it all up, and give it to a lawyer to give to the press if they ever use it as a weapon. The cat’s out of the bag now, they can’t continue with it.”

“That sounds so naïve. I hope you know what you’re doing.”

“I know this kind of people; I squeeze money from them all the time. They have the same fears as anyone else – they don’t want to go to jail. They’ll stop when it’s clear that it will all go public if they don’t”

“Maybe we should go public right away.”

“Then we would have nothing over them. Don’t do anything impulsive, Pei Win. Let me handle this.”

“Pretend nothing has happened?”

“Just for the time being. Just don’t do anything until I give the all-clear.”

“Bill, this –“

“Promise me, Pei Win. Nothing until I say.”

“Shit. I don’t like it, not at all. But I’ll wait for you.”

“Thanks.”

“Oh shit, Bill. What have we gotten ourselves into?”

“Not us. Me. You were against this from the start.”

“I could have quit. I didn’t.”

“Well, maybe it’s not too late. We’ll all quit. We’ll take our model to Pershing, show them it works. We’ll just have to make it work in macaques, and get rid of the retrovirus.”

“We could have been there a year ago.”

“I know. It hurts me too.”

“So what’s next?”

“Take a day or two off. I’ll give you a call when I’ve laid it out on the table for them.”

“A day off. What a concept.”

“Go have fun on the beach,” he said, standing up. “Don’t worry, I’ll make this right.”

# Ballarat

Jamie was getting hungry. He looked around the SUV, and out into the desert, still baking in the sun’s nearly horizontal rays, and decided to feel around in otherspace for places he could recognize from his travels that were accessible from this altitude.

There was that wonderful little place in Chon Buri. Not directly accessible, but within a hundred feet. Some hotel nearby would have a stairwell he could use. Porto Alegre had plenty of places to choose from. Barranquilla was also easy to get to, with plenty of choices.

“Ceviche, or Pad Thai?” he asked John.

“Both,” said John.

“Do you mean either?”

“Either, both, either, both.”

“Thai then,” said Jamie, somewhat confused, but feeling lazy.

“Good.” John was sketching something, apparently from memory, as Jamie could see nothing like it out any of the windows.

Jamie sat up, and got out of the car. The air was hot, but dry, and didn’t feel all that uncomfortable at this hour. His left leg was being uncooperative, but he massaged it and practiced walking around the car with one hand on the hot roof, and eventually was able to limp around without burning his hand.

He felt around in otherspace for something solid close to the little noodle shop in Chon Buri, and found a building with a stairwell. He stepped in. The air was suddenly cool and damp, and he coughed as he took a breath. He wondered if he was in a government building, or some other restricted space, as he could hear no other people, but then remembered the time. *Not a lot of tourists up and about before eight in the morning.*

He limped down the stairs, holding on to the railing, for five flights, and entered a hotel lobby. The desk was at the far side of the room from him, and he walked up to a pair of desk clerks watching a soccer match on a small television. A large sign behind them said Mercure Chonburi.

“Excuse me; I wonder if I might exchange some dollars for Baht?”

“Indeed sir. How much did you wish to exchange? I should tell you that you will get a better exchange rate if you use the ATM machine at the bank across the street, but our rate is only half of one percent more, if you wish to save yourself a walk.” Jamie appreciated the long winded response, as the man’s English was so heavily accented that he caught only a few of the words. He handed the man a $100 dollar bill.

The man counted out bills on the counter, and some change. Jamie left the change and a few of the smaller bill on the counter, and thanked the man. “How would I get to Bangtah street from here?” he asked.

“Ah, Bangtah not so close nearby, no.” said the second clerk, “You take taxi, much better.”

“Good idea,” Jamie said, and walked out to the front of the hotel. There were four taxis waiting, and he selected the one with the least visible damage, and got into the passenger seat next to the driver.

“Bangtah Street? Pad Thai noodle shop, near McDonalds?”

“Ah, McDonalds, Bangtah, yes, we go.”

“Thank you,” Jamie said, and massaged his left leg. He could not tell if he actually felt anything in the leg, but there was a slight taste of lemon in his mouth, but not quite a lemon taste.

The drive was only a few blocks, and Jamie was sure he could have walked it with no trouble. Perhaps the clerks had seen him limping. Or maybe the neighborhood had taken a turn for the worse since the last time he and John had been here. The driver stopped in front of the McDonalds, but Jamie pointed down the street. “Pad Thai noodles,” he said.

“Ah, Pad Thai, Pad Thai,” said the driver, pretending to understand. He drove a little farther, and Jamie indicated where to stop. He took out a handful of bills, and let the driver select what he wanted. He then found a small bill of about half that amount, and added it to the collection. The driver seemed quite happy. “I wait?”

“No, thank you,” Jamie said, and walked where a sidewalk would have been, and entered the little shop. The aroma was what he remembered, and he pointed and pantomimed to the young woman serving from large pots, and got about a liter of several aromatic dishes served up in cardboard buckets, and placed in a plastic shopping bag. He again showed his currency in his open hand and let the clerk choose the bills she wanted. She was about to make change, but Jamie waved her off, and she smiled and waved goodbye as he left.

Traffic was picking up as he walked down the street back to the hotel. The morning overcast hid the sun, and there was little wind to help the humid air cool him off, and his shirt started to stick to his back as he neared the hotel. He was still a block away when two youths stood up to block his path.

Jamie looked at the two young men, obviously bent on relieving him of anything of value. As the first one reached towards him, Jamie reached into otherspace just below the man’s kidney, and pinched. The man screamed, and fell to his knees, clutching his stomach. Jamie acted surprised, and stepped around him. The other youth stood confused, looking first at Jamie, then at his comrade. Jamie kept walking. *I guess it was the neighborhood after all.*

In the hotel, Jamie waved at the two desk clerks, and walked to the stairs. Climbing was not so easy with his right hand full of dinner, and not available for the handrail, but he managed to get up the five flights without incident. He stepped out onto the desert again, and let the dry wind evaporate the sweat from his shirt.

He got into the car, and the smell of dinner filled the small space.

“Mmmm,” John said, opening the bags.

“Do we have any silverware back there?” Jamie asked, getting out of the car again. He opened the rear hatch and rummaged around until he found camping gear, with plates and forks.

They had barely started when the satellite phone buzzed loudly. Jamie reached into the back seat and picked up the phone, fumbling for the button to open a connection.

“We’re here, what’s up?” he asked, his mouth still full.

“Bond has three cars entering a parking structure. Good chance it’s Cayle – that’s his standard practice.”

“Give us an address; we’ll plug it into the nav system.”

“8661 Leesburg Pike, Vienna”

Jamie slowly entered the address into the cars satellite navigation system.

“Got it,” he said.

John set the navigation system to report latitude and longitude, and entered those into the laptop computer he pulled from the back seat. Without a word, he started the car, and began driving up the hill. Jamie picked up the laptop, and watched as the GPS system read out the increasing altitude. John slowed the car, and Jamie opened a window to check for traffic. They found a driveway, and drove into Virginia.

The car’s navigation system took a couple of minutes to acquire enough satellites to figure out they weren’t in California anymore, and Jamie remembered to select the east coast map on the display, but John kept driving, having a general sense of where he was. The navigation system began providing directions, and John picked up speed.

A few blocks from their destination, John pulled to the side of the road and parked. He showed Jamie where to look, and they opened a window into the parking structure. The cars were empty, and no one was visible. They moved to the stairs, then the elevator. The elevator car had stopped on the fourth floor. They scanned rooms on that floor one by one, stopping briefly at the room where a heavily made up woman was having vigorous sex with a balding, overweight man, then moving on quickly. After a couple dozen rooms, they found Cayle.

“402,” said John, and he started the car again.

They drove away from Cayle’s hotel, to a high-rise parking structure, and drove the car up four levels and parked. They walked to the stairs, and took four steps down, and sat on the concrete stair. Jamie opened a small window into Cayle’s room, and they watched.

Cayle had removed his coat and tie, and unbuttoned the top of his shirt. He had a small overnight bag set on a luggage rack, and Jamie moved the window over to scan the bag for anything that looked like a computer. There seemed to be nothing there but clothing and grooming items. They searched the rest of the room as Cayle dropped onto the bed and turned on the television. They found nothing. The room was empty except for Cayle and the overnight bag. They searched the bag again. Still nothing.

They watched as Cayle watched television. After half an hour, Jamie stood up, and began walking up and down the stairs, his mouth watering with a vaguely lemon taste. He was regretting not having brought the rest of dinner. John continued to watch, but when Jamie returned, John got up and went back to the car. Jamie watched as Cayle flipped quickly through channels, and John returned with his sketch book, and Jamie’s novel, and the rest of dinner.

It was another forty minutes or so when the phone rang in Cayle’s room.

“402,” they heard Cayle say, and he hung up the phone. The television still muted, Cayle walked to the door and waited, listening, staying about a foot to the side of the doorknob, as if he were afraid someone was going to shoot through the door.

About ten minutes later, there was a tapping at the door – three taps, then two, then four. Cayle reached his hand to the door know, still not moving his body, and opened the door until the chain lock stretched tight. Without a word, a small laptop computer was slid through the crack between the door and the jamb, and Cayle took it, and then closed the door again.

He brought the laptop to the bed, and Jamie held the small video camera to the tiny hole in space, and recorded his fingers as they opened the laptop, and slid his right index finger along a fingerprint reader below the keyboard of the computer. The computer screen came to life, and Cayle began to type.

Jamie kept the recorder running. Cayle typed for a little over half an hour, often stopping to think about something, or just scratch. He set the computer down to get up and get a glass of water, but then returned to type some more.

When he had finished, he took a memory chip from his pocket, and slid it into a slot in the computer. He selected an icon, clicked, and then removed the memory chip, and placed the laptop down on the table next to the phone. As he picked up the phone, John pulled out the transponder, and Jamie slid the window to the inside of the computer, and located the memory card. The transponder had thin flexible leads that were designed to slip between the contacts on the memory card and the socket into which the card was inserted. They quickly forced the first lead under the contact Bond had shown them, then the second under the next contact, and wedged the transponder itself firmly between the memory card and the case of the computer, trying to make no noise at all.

Cayle spoke into the phone. “Pickup,” and then hung up.

John and Jamie waited as Cayle once again stood by the door. The door opened against the chain, and Cayle slipped the laptop through the door again.

John and Jamie waited as Cayle removed his pants and shirt, got into bed, and began channel surfing again. When he finally turned off the television and then the light, they closed the window in otherspace, and Jamie tried to stand up. His left leg was useless, and John helped him up, and into the car.

“No password,” Jamie said, placing the empty cardboard dinner boxes onto the back seat.

“Yup,” John said.

“Bond is not going to be happy.”

“Nope.”

“Let’s get back to Colorado.”

John said nothing, but started the car, and drove onto Daylight Pass Road. He drove up the hill, and they slid into Colorado, and continued uphill to the lodge.

Jamie handed the camera to Dora. “Bond won’t like it,” he said. “He uses a fingerprint reader, and doesn’t keep the laptop with him.”

Dora helped him into his room, and he dropped onto the bed and slept in his clothes.

# Palo Alto

Jamie and John were in the patterning lab when a young technician entered the room. “There’s someone at the door without a pass, she wouldn’t give me a name, but said she needed to see one of you. She didn’t care which, but she knew both of your names.”

John and Jamie looked at one another. Jamie shrugged first.

“We’ll check it out,” John said. They went downstairs together.

“Pei Win!” John shouted, seeing her outside the glass door. He ran to the door and swung it wide open, and opened his arms. Pei Win stepped quickly into the room and hugged him around the waist, burying her face against his shirt.

“This is a surprise,” John said to the top of her head.

She looked up at him, then across to Jamie.

“I didn’t dare call. I just grabbed everything important and ran. Bill Munson is dead.”

Jamie answer John’s questioning look. “Bill is the head of Pei Win’s group at CBF. The guy we met at the Christmas party, the one who drank mint juleps.”

“He went to tell them he’d go public if they didn’t shut down the project. John, they’re making K33 into a weapon, a bioweapon. It’s illegal, and horrible, and Bill went to tell them we wouldn’t be a part of it anymore, and now he’s dead. The police came and told us, and I could hardly wait until they were gone, I just wanted to run. As soon as they left I went home and grabbed things and threw them in the car and just drove. I’ve been driving all day. I couldn’t remember how to get here; I took a wrong turn and had to turn back. I’m a total wreck. Jamie, they killed Bill.”

John held her at arm’s length and looked into her face. “Someone killed your boss, and as soon as the police told you, you fled the scene?”

She nodded.

“That doesn’t sound good. How did he die?”

“They said it was a traffic accident. Some hit and run driver ran him over at a crosswalk. Forty miles an hour and no skid-marks. These are evil people John. They tricked us into making K33 so it could kill people. Anybody they want, all they need is a DNA sample and they can make a virus that kills just that person, an awful virus that makes aggressive, massive carcinomas in the brain, rapidly. Highly metastatic tumors, John you saw the models we were building, the neuroblastoma models in mice. We did that for human tissue, and increased the rate, increased the virulence, added multi-site targeting, John we did it ourselves, we made this horrible thing, and now Bill is dead, and I can’t go back home.”

Pei Win put her face against John’s shirt again, and sobbed.

“Who are these people?”

“I don’t know. Bill got some funding, he said it was DARPA money, they wouldn’t let us see anything they were doing; we didn’t have the clearance. They paid for everything; they did all the lab work in the level 4 lab, they had the targeting process already, they spliced in the codes for that in the level 4 lab, we only saw the binding site data, and I think that was just an accident. They said it was a safety feature, so it wouldn’t infect anything but that one tissue culture. But they can slip in any code they want -- it uses hundreds of binding sites, all of them on major histological sites, unique to single individuals. It’s an assassination weapon. They can kill anybody from a world away, just let loose the virus and it finds the target.”

John led Pei Win to a couch in the lobby. “You’re sure this wasn’t just an accident?”

“He was going to blackmail them into shutting down the project. He said he was going to give all the data to a lawyer to give to the press if they ever used it. He was going to come back and tell me when we could quit and go back to Pershing. Now he’s dead. John, nobody dies walking across the street. Nobody hits somebody at forty miles an hour and never hits the brakes. They killed him.”

Jamie walked through the empty lobby and through the glass doors to the receptionist’s desk.

“John and I are going to take the rest of the day off. Would you make sure the rest of the guys know?”

“Is she OK?”

“She’s a friend. She’s just had a bad day. Death in the family.”

“Oh, dear, I’m so sorry.”

“I expect we’ll be in on Monday as usual, but we’ll send an email if something comes up.”

“I’ll let them know. I’m so sorry.”

Jamie went back to John and Pei Win. “Let’s go somewhere. Did anyone follow you?”

“From San Diego to Palo Alto?” John asked.

“I don’t know, I don’t think so. When I got lost on that road that went into the mountains there was nobody on the road at all.”

“Let’s take my car,” Jamie said. “We can park your car under the building, out of sight.”

“Aren’t you being a little cloak and dagger here?” John said.

“I believe her. John, it’s Pei Win. She’s not imagining this. She’s had all day to analyze it, and she’s very good at that.”

“It’s nuts, it just sounds nuts.”

“I can’t leave my car,” Pei Win said. “Henry’s in there.”

“Who’s Henry?” John and Jamie said, almost together.

She took them to her car. The back of the car was filled with papers, a suitcase, paper grocery bags, and framed photographs. In the back seat was a hanging pot full of roses, its chains hanging over the pot onto the floor, and a dog crate. When she opened the door, the crate quacked.

“This is Henry,” Pei Win said, taking the crate out of the car and holding it up so they could see into the front. A male wood duck looked out at John and Jamie, and made some quiet “nak, nak” sounds at them.

“He’s probably really thirsty. I forgot to bring a water bowl or any food. Can we stop at a grocery store? He loves cat kibble. And saltines.”

Jamie took the crate from her. “He can go in the back of my car. John will ride down into the parking structure with you, so his card will open the gate. I’m parked up here,” he said, pointing to his car.

“Can you take the roses? I rented out Sadie’s house, but before I did I took one of the rose bushes. It’s been hanging on my front porch, I couldn’t just leave it there, with nobody to water it.”

John got the roses out of the car, getting scratched by thorns, but putting up with it stoically. They transferred the crate and the roses to Jamie’s car, and John and Pei Win drove down the ramp to the parking lot below the building.

Jamie was letting Henry play with his fingers when they came up to his car. Pei Win carried the suitcase and a laptop computer, and wedged them into the back seat next to her. John sat in front.

Jamie drove, at first not having any specific destination in mind, wanting only to put some distance between them and any places where someone might come looking for Pei Win. He had reached Cupertino when he pulled off the freeway and looked for a supermarket. They bought some cat food, a water bowl, and some bottled water. Henry was indeed thirsty, and ignored the food until he had nearly emptied the water bowl. Pei Win put some of the kibble in the water to soak, and he eagerly wolfed down the soggy lumps of fat and protein.

They sat in the car for a while as Henry settled down to digest.

“So, what’s the plan now?” John asked.

“I need to stay out of reach for a while,” Pei Win said. “When they see I’m not a threat, maybe they won’t bother with me. Maybe they won’t even find me.”

“These are people with a lot of money, and an illegal biological warfare project to keep secret, and possibly a murder. It would be prudent to assume that they are dangerous, and that they will be trying to find you,” Jamie said.

“Or maybe it’s all nothing,” John said, “Maybe it’s all a misunderstanding.”

“Bill is dead. He told them we weren’t going to work on a bioweapon. If they weren’t working on one, they’d have called me and gotten indignant, had a big meeting asking how we could think such a thing. But there was nothing, and then the police came.”

“So we get you someplace to stay. Assume they know all your friends, they’ve been reading all your email, and you can’t stay with either of us. But you can’t stay far away. I’ll book a motel room or something for tonight, but then we’ll have to try to find someplace that will rent for cash, some place quiet and out of the way.”

“Phones are a problem,” John said, getting into the spirit. “We can get some FRS radios for short range stuff, but encrypted email through one of those anonymizing sites is probably safer. Unless these people are the NSA or something.”

“We can set up a one-time pad. There’s software for that. Even the NSA can’t mess with a one-time pad,” Jamie said.

“I have Sadie’s house rented through an agency. I can have them put my house stuff into storage, and rent out the house. Then I’ll have two houses worth of rent money, more than enough to live on. But how will I get the money? What if they can trace my bank account?”

John dismissed that. “We’ll figure out something. In the meantime, I’ll cover your expenses, Jamie will probably want to help, and you can pay us back later – it’s not like you don’t *have* the money, it’s just that you don’t want to get any from a branch close to where you live.”

“We can set up some kind of joint account, and all of us will deposit and withdraw from different locations at different times. They won’t know who it is, and we’ll be all over the place,” Jamie said.

Jamie started the car, and kept heading away from Palo Alto. They drove through San Jose, and headed south into slightly less populated, less commercial areas. He left the freeway, and pulled over to the side of the road.

“The nav system can find us hotels near here. I think this is far enough away to make too big a search radius for anyone, and yet close enough that we can get together within an hour, depending on traffic.”

He played with the menus on the dashboard for a minute, and a list of motels came up on the screen.

“Pick a few that sound nice, and we’ll drive by and find you a place for the night,” he said.

Pei Win looked over the list, and they had the navigation system show them each one on the map. She picked one that wasn’t too close to the freeway. “I don’t know if I feel like driving around a lot; if this one is decent, that will be it.”

Jamie drove. The motel was upscale, away from traffic, but in a nice area, near a street lined with boutique shops. Pei Win accepted it right away.

Jamie stayed in the car. John wanted to pretend he and Pei Win were on a tryst, and use a false name and no credit card. It turned out it didn’t matter; with cash in advance, the clerk did not even ask for identification, and seemed bored, as if he wanted to get back to watching television.

The room was far from the office, in the back, and they returned to the car and drove around to park behind the building. They carried in the roses, the crate with Henry, and the groceries. Pei Win watered the roses and set them on the balcony outside a sliding glass door, and let Henry out to wander around the kitchen, finding his water bowl and kibble. “I’ll have to get him some real duck food – too much of that stuff is bound to clog him right up.”

Henry deposited proof that it had not yet happened, and she reached for a paper towel.

“Don’t use your laptop on the net.” Jamie said. “We’ll get you a new one for that. There may be a key logger installed on it, or they may be able to trace your browser cookies or something. Don’t transfer anything from your laptop onto the new one. They have net access here, but it might be best to drive around a different neighborhood and get a free ride from somebody’s open router while you’re parked at the curb. You can choose a different place each time.”

“You’re really getting into this spy stuff,” John said.

“It just makes sense to assume the worst, and be careful,” Jamie said.

Pei Win looked at both of them. “You guys are great. I was scared out of my head. I feel better now. But we need to make a shopping list.”

“I’ll pick up the radios. There are probably some prepaid cell phone things, I’ll look into how that whole thing works and see if I can get some completely anonymously. And a new laptop – do you have a preference?”

“Something real fast, with a real good wireless card. I don’t care about battery life; it’ll be plugged in at home or in the car. And a big screen. I don’t want to get one of those tiny things.”

“So, something like what you’ve been lugging around all day.”

“But faster – this one’s over a year old.”

“Got it. How about a new car?”

John looked up. “Can’t spend more than $10,000 anywhere without reporting id.”

“Some dependable little thing, inconspicuous, like a Corolla, there’s a million of them. Whatever color they have the most of. Maybe a couple years old.”

“It would be nice if we could find some stranger, give them cash, and have them buy it for us,” Jamie suggested.

“Wanna bet a used car salesman would be happy to put the sale under his own name, for a little extra?” John said.

“We could make up some story about wanting to hide it from a divorce settlement,” Pei Win said, getting into the cloak and dagger mindset.

“What else?” Jamie asked.

John spoke up. “A bad haircut and some frumpy clothes. You attract attention. Learn how to apply makeup to make you look boring. Get a sports bra and baggy jeans; pad your clothes to look chubby.”

“What about a gun?” Pei Win asked.

They all looked at each other silently.

“Probably not a good idea,” Jamie said.

“You’d have to show identification, get it registered,” John said.

“Besides, anyone coming for you would probably shoot you as soon as they saw it. You might live longer without one,” Jamie said.

“Now I’m scared again.”

“But an anonymous cell phone with us on speed dial and 911, some good running shoes, and some pepper spray, and not attracting attention, and not going anywhere they’d look, that will probably be enough,” John said, not too soothingly.

“I just want to hide in the bathroom behind a machine gun,” she said. “But I really want to find out everything I can about what’s going on back home, and in the lab. I want to talk to everyone there, find out what has been happening. But I don’t dare phone them or email or anything.”

“How about we hire a private investigator? Have them snoop around?”

“Put that on the shopping list,” Pei Win said. “I really like that.”

Jamie looked at Pei Win. “I’ll drive your car back to your house. We’ll put all your stuff in John’s car first. Maybe I’ll drive it to a PI’s place, and have him drive it to your house, just in case they’re watching it.”

“Make it look like she’s still in San Diego somewhere,” John said.

“I’ll go up to Oakland or somewhere and rent a car,” John said, “and drive back here, so you have a car to get around in.”

“And fill out some checks, leave the amount blank, and I’ll buy the laptop and things in San Diego.”

“Take my ATM card too, get some cash there. I won’t be using the card up here.”

“Good idea. Are you OK here while John and I get back to do all of that? I’ll be gone a couple days; John won’t be back until late.”

“I’ll be OK. I have Henry. And TV.”

They sat and looked at each other silently for a while.

“Well then,” said John. “I guess we should get to it.”

# Colorado

Rick Bond was smiling. “Nice work, you two!”

Jamie had expected much less enthusiasm. “He didn’t use a password.”

“No, and he doesn’t keep the laptop with him. It’s in a vault in his flunky’s office, where he never goes.”

“So what’s the good news?”

“We have your tape. It has the whole diary entry he made that night. We know where the laptop is, and it is going to sit there until next Wednesday, undisturbed. He trusts his fingerprint reader, so he won’t suspect when we steal the laptop, replace his encryption program with one that first logs the password and then encrypts normally. That’s how those fingerprint readers work – they keep the password in an encrypted place, and send it to the program when you swipe your finger on the gadget. So you guys need to steal the laptop, let us examine it to see what software we need to compromise, then replace it while we write the Trojan, then steal it again so we can install it. But you have at least four days, should be a piece of cake.”

John didn’t seem to be following this – Bond was speaking too fast, and without any pauses.

“Good news,” Jamie translated. “So, Rick, what was he typing? I couldn’t read it through the viewfinder.”

“Oh, he’s pissed at hell at Fitz. One of the flunkies found the account that was empty, and found the transfer to Fitz’s secret stash. But Fitz found it first, and disappeared. But first, it seems Fitz torched some special lab, and that’s what really got Cayle pissed. That one really hurt. He didn’t know Fitz knew about it, and it was something he could have taken Fitz out with. That was what he said, ‘take him out’, like some spy movie or gangster talk. This guy really thinks he’s Al Capone or something.”

“Was it a lab on our list?”

“Can’t say, not enough info. He called it ‘lab 4’ or something like that – I’ll get you the transcript. When we can decode the modules we have, then we might know more.”

“So John and I need to get back to sea level.”

“I’ll have the lat and long put into the car for you. Hayworth is set up in Virginia to examine the laptop, so it should just be in and out, not a lot of moving around. Pull it from the safe, hand it to Hayworth, wait around a couple hours or so, then put it back.”

“Sounds simple enough,” said Jamie.

“Good,” said John.

“We’ll have breakfast here. You get the location entered into the car, and we’ll be off to Death Valley. Maybe an hour or so.”

“Take your time. We’ll be ready before you are.”

Breakfast with Dora and Michael was animated. Michael was delighted, and Dora was proud. She had expanded the school program, and had staffed and funded all but two of the programs she and Michael had brainstormed months ago, and the teams running those were enthusiastic and growing.

“Life is good,” Michael sighed, after finishing his omelet.

“That’s the whole idea,” Dora agreed, smiling.

The air was crisp and cold on the walk to the car. Lenny was there, waiting. “You guys are all set. Rich put in the coordinates for the safe and for Hayworth’s new place. And Helen packed you a lunch, just in case. I don’t know what’s in it, but she’s afraid you’ll laugh. So don’t laugh, OK? She’s a really neat person.”

“I’m sure we’ll love the lunch, especially the thought that went into it. Tell her thanks for us, OK?”

“OK, got it, I’ll do that right now. Bye guys!” he said, rushing off.

Jamie turned to John. “I hope she likes forklifts.”

John puzzled over this for a while as they got into the car. “Helen?” he asked.

“And Lenny.”

“Lucky.”

“Which one?”

“Both.”

John started the car, and they drove down the road to where Colorado met California, at least for them.

On Daylight Pass Road, the sun had yet to rise over the mountains, but the sky was bright. John sped down the long straight road, not because he was in a hurry, but because the road seemed to encourage high speed. A few hundred feet above sea level, John slowed, and pulled over to the side of the road.

He and Jamie got out, and walked around for a bit, John hunting through otherspace for the safe. GPS coordinates left a lot to the imagination when it came to specifying something as small as a private safe in an office building. Walking around wasn’t necessary, but often it was a more natural way of thinking about navigating than sliding through otherspace. They finally located the safe about 30 feet above their heads, and started walking back to the car. John didn’t stop at the car, but kept walking up the hill. Jamie followed.

When they got close, Jamie peeked into Virginia, just to make sure that no one was in the room, about to open the safe, or in a position to hear a noise if they made a mistake. The office was empty, although it must have been *mid* to late morning in Virginia. *Too many time zones, my brain refuses to do the math.*

He moved the window inside the safe, and opened it wide enough to pull out the laptop. A puff of air came out as the window widened. He quietly removed the laptop, and closed the window.

“The air pressure is higher there. I wonder if when the safe is opened, they will notice that there is a pressure difference.”

John shrugged.

“Just once I want to do one of these and leave them a clever note or something.”

“Flowers.”

“Or an angry skunk.”

They walked down the hill to the car. “I didn’t check for any traps or tell-tales, like a hair placed against it or something. Don’t let me do that, remind me next time. We have got to be careful, or none of this will work. The guy is super paranoid.”

John shrugged again.

“Like he might have had a light detector in there. Next time we should used a blackout blanket, or do it from inside a dark room.”

They got into the car, and John pulled up Hayworth’s coordinates on the navigation screen. “Down,” he said, and started the car. A mile or so down the road, he slowed, and Jamie peeked into a parking garage. John pulled the car slowly into Virginia, and parked in a handicapped spot next to the stairs.

“I should really carry one of those placards for the rear view mirror,” Jamie said. “I am handicapped; I might as well get good parking.”

He carried the laptop carefully, and limped up the stairs after John. John stopped, and turned to take the computer. “Handicapped,” he smiled. Jamie smiled back, and pulled himself up the stairs with his right hand on the handrail, and his left leg swinging up each step.

Hayworth peeked through a peephole in the door when they knocked, then opened it wide.

“You should get video cameras – someone could have shot you through the door,” Jamie said.

“This is just for this morning. We don’t use the same place twice anymore. Just in case.”

John handed him the laptop. “Leaving,” he said. He turned to Jamie, and said “This way.” Jamie walked towards him, and they both walked through to a hill on Kauai. It was dark, and the night was full of stars.

“Now that’s just gorgeous,” Jamie said. They sat down on the grassy slope, and Jamie laid back and looked up at the stars.

“Meteor,” John said, as a flash streaked across the sky and quickly dimmed.

A steady breeze flowed from the sea and across Jamie’s face.

“I’ll be glad when this is all over, and we can just relax like this whenever we like.”

“Tired?”

“Very tired. I want to be done with this. Enjoy our friends, not worry about our enemies.”

“Yes.”

They lay quiet for a while, looking up at the stars.

“I should have brought Helen’s lunch. Not hungry yet, but I’m curious what’s in the bag.”

John pointed down the slope. “There,” he said.

Jamie considered it, not feeling like getting up at the moment. Then his curiosity got to him, and he stood up and limped down the hill towards the ocean, stepping carefully over the rough ground in the dark. There was no moon, but the stars were bright, and his eyes had adjusted to the dark.

He felt around in otherspace, and found the car. Not peeking inside, wanting to keep his dark adapted eyes from being blinded, he felt around in the back seat for the bag. He found it, and pulled it through.

He kept the bag closed as he walked back to where John was lying on the grass, not wanting to open it before his friend could enjoy the discovery with him. He awkwardly lowered himself onto the grass, the bag in his good hand hampering his mobility. He laid back and looked up at the stars again, the bag sitting between him and John.

“So?” said John.

Jamie sat up, and opened the bag.

Inside were two apples, a sharp knife, and a plastic wrapped lump of something he could not identify in the dark. Below it were two small apple shaped bottles of juice. He pulled out the apples and the knife, and then carefully lifted out the lump, which turned out to be a wonderfully aromatic ripe cheese.

He pulled out the juice bottles, and handed one to John. He sliced off a piece of apple, and placed a small bit of cheese on it like a cracker, and put it into his mouth. A rich, buttery feel met with the crisp sharp bite of apple, and his mouth was suddenly very happy.

“Oh, yeah. Lenny is one lucky guy,” he said, and prepared a slice of apple with cheese for John.

The sky in the east was getting light, and they had long ago finished the last of the apples and cheese. John stood up, and reached a hand down to help Jamie to his feet. It was light enough to see that they had been sitting on someone’s lawn, and not far from civilization, as they had thought. John checked to make sure nothing was amiss in Virginia, and then they stepped into Hayworth’s little office.

“There you are. I have the complete dump of the disk. Everything is back, and I wiped it clean of any fingerprints, so don’t get any smudges on it when you put it back. And put it back exactly the way it was.”

“The flunky put it in the safe, not Cayle.”

“Don’t take any chances. Cayle could have left instructions on how to handle it, or instilled the same paranoia in his people that he has. Did you take pictures?”

“No, I’m afraid we just lifted it.”

“Did you touch anything besides the laptop?”

Jamie thought. “I don’t think so.”

“Don’t leave any DNA behind, or any fingerprints. I’ll get you some gloves. Wash them after you put them on.”

When Hayworth returned, Jamie put on the gloves, and went to the little kitchenette sink to wash. He shook them dry, holding his hands up like a surgeon. When he thought they were completely dry, he carefully lifted the laptop, and they went to the stairs. John did not have gloves, so he didn’t take the laptop, but he steadied Jamie as they went down the stairs to the car.

They eased back to California, then up the road to the now familiar location of the safe, and Jamie carefully replaced the laptop, trying to remember exactly how it had been positioned. When he was done, he pulled off the gloves and placed them in his pocket. He and John walked back to the car.

“Yes, I’ll be very glad when this is all done,” Jamie said, the fatigue of his disrupted circadian clock very apparent in his voice. He sank into the passenger seat and closed his eyes. John drove slowly, and Jamie fell asleep.

# Palo Alto

The cloak and dagger phase of Pei Win’s existence did not last long. A few months of living in a converted garage, exchanging encrypted emails, and staying away from people in general were just not something she could keep up. The private detective watching the houses and the lab reported nothing out of the ordinary, John and Jamie’s inquiries about Pei Win to the people in her lab generated concern for her welfare, but no snooping questions or any other suspicious actions. She felt guilty missing Bill Munson’s funeral, and the near solitary confinement was making her tired and grumpy, and giving her headaches. The fear she had felt was turning into embarrassment and annoyance at her new situation.

The three of them had set up the Sadie Matthews Foundation, and the rent from her two houses went into the foundation bank account, which listed John and Jamie as the sole owners. John and Jamie also had most of their income automatically deposited into the foundation account, and all three of them used that account’s ATM card and web page for their purchases. No one cared to account for how much was earned or spent.

After the fourth month, she quietly moved into John’s house, and worked on writing a book about the neuroblastoma model she and Bill had worked on. At least the important information about the model would get out, and others could replicate the safe part of the work.

But staying in the house alone all day was still too much like a prison, and she started going in to work with John, and helping out where she could in the neuroscience lab. At least there, some of the procedures were familiar, and she felt useful.

John had spent the months mapping the parts of his brain that were responsible for understanding syntax.

“The part of Jamie’s computer that will be the most helpful is the part that creates what are called Shoenfeld models. Those are syntactic models that are normally processed by an ordinary type of computer running a program called a state machine. The state machines produced are enormous, but they are basically very simple things, and ordinary computers handle them just fine. But these state machines let you ask questions about what the big beast knows.”

“Which machine is the state machine?” Pei Win asked.

“Neither one. They call it a machine, but a state machine is instructions for a regular computer. Anyway, what we want to do is eliminate that step. We want to have the big guy use the ACGS scanner to directly interface with the part of my brain that processes syntax. I should be able to just know the answer to questions before I’m even done asking them. It would be like asking yourself ‘How do you spell UCLA?’ You’d know the answer, because you just spelled it.”

“Wouldn’t you rather know how to pronounce it?”

“That’s easy. All acronyms are pronounced as sneezes.” He demonstrated by sneezing “UCK-LAH!” loudly.

Normally, Pei Win would have laughed and encouraged him, but she felt tired, and he head hurt.

“I don’t know how I’m ever going to catch up with you two, and actually pull my weight in here. All those young geniuses in the other room – they must be resenting me taking up a space here.”

“That’s nuts. Have you seen the way they look at you? Half the guys have a crush on you and the women are starting to dress like you. Which I must say is a big improvement.”

She said nothing, and he continued with his previous explanation. “So, I have the ACGS connected to the big guy in the other room, and I read things it prints out. At first we just started with some novels and a textbook, but as it learned more about how my brain was processing the words, it started to send these funny sentences for me to read, some were syntactic, and some were just wrong, so it got to know how I process errors in syntax, and how I process good syntactic structures that are made of nonsense, or cover areas that the books missed.”

“So that’s what all the colors are on the brain map?” she pointed to the three dimensional display.

“The blue areas are involved in processing syntax. Look how they’re spread out, and tangled down in this part. The whitish areas are things it knows not to touch – basic life support and such, plus moods, memory mechanisms, stimulus response learning centers, that kind of thing. They are all active when I do the exercises, but they have nothing to do with syntax.”

“So why do parts flash sometimes?”

“We used to use thermometers in the old scanners, because when the scanner is reading, it heats up the brain a little, and the more data it has to read, the more it heats up. We measured the temperature so you wouldn’t cook your brain by making the scanner take data too fast. But with the new scanners, they can discriminate in much finer levels, and we’re going both ways – we’re inputting data as well as reading, and the scanner can heat up tiny bits of brain so fast they can’t cool off fast enough just with blood flow. So the scanner itself keeps track, and limits the rate as the local temperatures rise.”

“And it shows you by flashing when it gets too hot.”

“Actually, the flashes are when the brain is retraining itself, swapping some connections that used to do something useful for some new function, and remapping other connections to take their place. If the rate is slow enough, then the old connections are replaced so you don’t lose anything. But if it goes too fast, it heats up, but it also can’t reroute things fast enough to keep up. We don’t want to lose some useful brain function in order to interface with the computer, so we have the scanner paint anything red that is close to the limit.”

“Is that dangerous?”

“Oh, no. You’d have to be under the scanner for a long time, thinking really hard about something, for the rate to get so bad that you’d lose function faster than it could regenerate. You can’t really do that – it’s way too tiring. After five minutes or so I’m completely wiped. It’s exhausting.”

“So how did you guys decide who goes first?”

“He didn’t tell you?”

“He doesn’t seem to want to talk about it.”

“We both wanted to be first. We both wanted it really bad. The stuff the cosmologists are working on, it’s nothing short of how the whole universe is put together. Eleven dimensions, quantum mechanics, relativity, the whole ‘theory of everything’ that Einstein died trying to figure out, that everyone since then has been working on. The first one is the one who will understand all that, in a way ordinary minds never could.”

“So how did you decide? He’d beat you at arm wrestling.”

“The work decided. Whoever goes first has to train with the machine, get the syntax areas mapped. That takes a long time, you can only go a few minutes, and then you need to take a few hours off, let the brain rest and repair. Jamie was needed to pattern his baby. None of his ‘kids’ are as good as he is at it, the whole concept really is sort of the way he thinks about things. It takes other people a long time to understand how to convert normal computer languages into the patterning that his beast uses. He can do it, and show the kids how to do it, in months. Without him, it would take the whole team years.”

“So he’s stuck with the grunt work, and you get to play games with your brain.”

“He’s really good at the grunt work.”

Pei Win got up out of her chair. Her view of the world constricted for a moment, as tunnel vision narrowed her focus to John’s hands. She heard a rushing sound in her ears, and fell over onto the floor.

John was kneeling beside her in an instant?

“Are you all right?”

“God, I hope I’m not pregnant,” she said.

# Colorado

It took Hayworth’s team a few days to build the software that would steal the passwords as it encrypted the data on Cayle’s machine. Jamie spent the time between the hot pool at the clinic, and the warm beaches of St. John’s in the Virgin Islands. John spent most of his time in Cusco, either working on his language abilities, or working on Maria Castro, Jamie could not tell which.

Jamie made sure to keep his sleep rhythms on Colorado time, and not to get sunlight when Colorado was dark. This helped with his constant feeling of jet lag, and he began to feel better. His left leg was giving him interesting sensations, and Elizabeth Wilder warned him that the next phase would not be one he would enjoy.

“We have to train it to know when it is getting damaged,” she said. “And we have to communicate that to your brain in such a way as to motivate you to stop damaging it.”

“What she means,” said Sandy “is that we’re going to hurt you.”

At first, it was only his right leg that hurt. They applied a demonic device to each leg. It delivered painful electric shocks to both legs at the same time, in the same places.

“The idea is to train your brain to associate pain signals coming from the left leg with pain that reaches the brain from the right leg. So when pain signals come from the left leg, the brain knows where to route them. No more tasting lemon scented pain. When we’re done, pain is pain.”

“And from the looks of that leg, you’re in for a world of hurt,” Sandy said, gently massaging the knotted muscles. Jamie felt nothing. But the lemon taste persisted. And his right leg hurt like hell.

John found Jamie watching television on the couch outside Dora’s old office in the Colorado lodge. It was dark outside, and Jamie had considered going to bed, but could not summon any sense of sleepiness.

“Time,” John said.

“Eight thirty or so,” Jamie said.

“Time,” John repeated, jerking his thumb at the door.

“Oh,” Jamie said, rising awkwardly from the couch.

They took the car to California, and then slipped into Virginia. Hayworth had a much nicer office this time, in a little office park by the water. The garage was at street level, but concealed. Jamie appreciated not having to walk up and down stairs to get to the car.

“The laptop is in a different place,” Hayworth said. “Seems to be in a bus locker. Here it is on the map.”

John looked at the map, and cocked his head. After a few dozen seconds, he had found it. Jamie could reach it by stretching high. John steadied him. Jamie would have forgotten the gloves again, but Hayworth had been ready. Jamie placed the laptop on the table, and Hayworth got to work.

“This won’t take long, don’t go anywhere,” he said.

They watched as he loaded the software, and carefully wiped down the computer when he was done. Jamie lifted it back up into the bus locker.

Hayworth’s assistant was hovering in the doorway to the next room. Jamie caught her eye, and her face brightened. Jamie remembered how she had loved the trip to Seattle.

“Ever been to St. Johns?” he asked her.

“Canada?”

“Virgin Islands.”

“No…”

“Great beaches there. Warm clear water. Would you to take a break?”

She looked at Hayworth, who shrugged.

“I can run home and get my bathing suit,” she said.

“Don’t need them in St. Johns.”

She looked at him, calculating. Then she walked over to stand next to him. “Then I’m ready,” she said.

John waved at them, and walked towards the garage where the car was parked. Jamie took the girl’s hand, and before they stepped onto the island, asked her, “What was your name again?”

“Wendy,” she said, and they stepped onto the beach.

# Palo Alto

John and Pei Win looked at the three dimensional display.

“It’s K33,” Pei Win said.

“You can’t be sure,” said John.

“I’ve never seen it in a human brain, but look here, and here. These are areas of rapid growth, totally isolated from one another. Here is another one. Look at the vascularization. Classic neuroblastoma, but multiple independent sites, extremely rapid development. There’s no doubt. It’s K33. My own bug.”

“So, did you pick it up in your lab? A needle-stick accident or something?”

“We never had any in the lab. That work was all done in the level 4 lab, miles away. We never had anything that could infect anything. All the work with the retrovirus was done in the high containment rooms at that lab.”

John studied the display, not wanting to look Pei Win in the face.

“No wonder they didn’t follow me, chase me down, try to find me. They didn’t have to. Just spray some in someone’s nose, let them infect the people on their bus, in their kids’ schools, in their gym locker room, in their office. It spreads around, it finds the target. I’m their guinea pig. My own damn bug.”

“How do we fight this thing? What is the antidote?”

“There is no antidote. We can’t cure aggressive neuroblastomas. That’s what Bill and I were trying to make possible.”

“With the scanner, we can see all of it. We can show it to neurosurgeons. They can remove it, piece by piece. They can watch the scanner as they work.”

“John, there are thousands of sites by now. Maybe tens of thousands. Microscopic at this point, but growing. The brain would bleed out just getting the first dozen. Look at the vascularization.”

“You can’t give up, Pei Win. I won’t give up. Stanford hospital is just a mile or two from here. They have the best guys anywhere.”

“I’m not giving up. I’ll fight this, John, to the very end. I’m just setting realistic expectations, mostly for you. I know exactly what I’m up against. It hasn’t sunk in for you yet.”

“I’m calling Stanford right now. Mitch Randall works out there; he’ll know who the best neurosurgeons are, and the best oncologists.”

“I’ll call Sue Withers at UCSD. She will have some recommendations too. And I’ll get to work myself – I know what Bill used as the starting point for his retrovirus. There are some antivirals we can try, see if we can limit the rate, and maybe keep anything new from popping up. And I’ll look into the targeting sequence. It’s looking for several histocompatibility sites; we might be able to block the mechanism, again limiting new sites from getting started. But the cancer itself, what’s already there – that’s fatal already. We’ll need a miracle for that.”

“I’ll go find you a miracle.”

“When is Jamie due back?”

“He’s flying in tonight with the new parts for the beast. Should we call him on his cell?”

“Let’s wait. I want to tell him face to face. And John,” she said, taking his arm, “I’ll be all right for a long time. This will take months once we stop the virus and start aggressive chemo. I mean, without the miracle, we still have time…”

“I’ll go get us a miracle,” he said, and left the room.

# Colorado

Jamie woke suddenly, a little after midnight. Something was wrong. He lay still, listening; trying to determine what was responsible for the instant certainty that the bedroom had become a deadly dangerous place to be. He listened, but nothing unusual came to his attention. He could hear the sound of the little refrigerator in the other room, some fan blowing somewhere cooling a computer, an occasional drip of moisture from the roof into the gutter downspout. Nothing special.

Was there a sound missing? Something his unconscious brain had decided was important, but had suddenly ceased? *Name everything you don’t hear, and good luck.*

Maybe it wasn’t a noise. The room was dark, but enough light filtered in from outside that he could make out the general shapes of things. Nothing seemed out of place. The small room had little in it, making it easy to catalog the items. He absently scratched an itch on his left thigh.

His fingers came away sticky. He sat up and turned on the light. The sheets were streaked with blood, as were his hands. Not a lot of blood, nothing dangerous, but definitely alarming. He pulled the sheets down. His left leg was smeared with blood; long scratches from his waist to as far as his fingers could reach when he had been lying down. The scratches itched.

*My* left *leg.*

The scratches followed the knotted muscles of his thigh. *I’ll bet that would really, really hurt if I could feel something other than an itch.* He was a little pleased that he could at least feel the itch. That was new. Something had connected in his brain. He absently brought his hand up to his face, and smelled the blood. The familiar smell triggered something deep in a primitive, animal, part of the brain, and another connection was formed. He screamed.

Dora was the first one to get to his room. She found him in a fetal position, naked in bloody sheets, his right arm holding his legs to his chest as hard as he could. He was incoherent, screaming in pain. John came into the room, then Michael. As Michael tried to examine Jamie’s leg, Dora dampened towels in the bathroom, and came back to gently pat away the blood to assess the damage.

“It’s hardly anything,” she said, puzzled. “Just a few scratches, not even deep. He must have done it with his fingernails, in his sleep.”

Jamie writhed on the bed, awkwardly trying to hold his left leg with his right arm. “Muscles,” he said. “Deep pain. Down in the muscle. Oh god.” He was panting, finding it hard to get air. Michael started massaging the knotted muscles in Jamie’s left thigh, and Dora started on his calf. “Towards the heart, like getting rid of a Charlie-horse,” she said to Michael. They could not tell if it was helping, Jamie seemed to be in sharp agony whether they pressed into his muscles of left him alone.

“Wilder,” John said. “Call. Call Wilder.”

Dora ran into the other room, to look up the number on the computer. John took her place massaging Jamie’s calf, and Michael turned their patient, and pulled the leg from Jamie’s grip and tried to straighten it out. The leg was stiff and hard, the muscles cramped. Jamie’s right arm fell limp, and he lost consciousness. His left leg began to relax, but the knotted muscles were still hard, and the leg would not straighten completely.

“He woke up screaming, and he had scratches and blood at the top of his left leg,” Dora was saying as she re-entered the room, the holding the phone to her ear. “His leg is all cramped up with big Charlie-horses all over. He’s not screaming anymore, he seems to be asleep, but his leg is still all knotted up and at a funny angle, like it won’t lie straight.”

She felt Jamie’s forehead. “No, if anything he might be chilled. He’s covered in sweat.” She listened some more, then said “OK,” and hung up the phone.

“She’s going to wake up the physical therapist, get some advice about the muscles, she’s a neuroscientist. But she said it was very important *not* to give him any pain medication for it, the brain has to learn what the nerves are signaling. She says it’s a good sign, what they’ve been waiting for.”

“Great,” said John. She couldn’t tell from his tone, but his body language indicated irony.

Jamie woke, and inhaled sharply, eyes watering. “Oh god.” He started to sit up, but Dora pushed on his chest. “Liz says to lie flat, try to relax every muscle in your body. You guys keep massaging. She said to try to get the knee straightened out, and if things relax, to move the joints, but only if the muscles are relaxed.”

Jamie tried to speak. “If passing,” he paused, “a kidney stone is worse,” he took a breath, “then I want both kidneys removed, just in case.”

“You’re on the rack, and you’re joking. Torquemada would be proud of you,” Michael said.

John looked up at his friend, and saw the strain on Jamie’s face. “Progress,” he said.

“Yeah. She warned me. But who knew? Oh shit,” he said, and started to sit up again, his stomach muscles tightening.

“Relax,” said Dora. “Lie flat, take deep breaths.” She looked at the small crowd forming at the door, and pulled the sheets up to protect what was left of Jamie’s modesty. “Anyone out there who has Lamaze training?”

“This is going to be a long night,” Jamie said.

“We’re here with you,” said Michael. “Sleep is over-rated.”

With that, Jamie passed out again.

# Palo Alto

The table beside Pei Win’s hospital bed was filled with prescription bottles. “My little pharmacy,” she said. “Four antivirals, I think, maybe five. Some of a new thing that’s supposed to reduce tumor blood vessel growth, but we don’t think much of that gets through the blood-brain barrier, although it’s a small molecule. Some anti-nausea crap for the effects of the chemo. The rest of that stuff is the same, just stuff to counteract the effects of the other drugs. Most of the good stuff is in the IV drip – my friends at UCSD made up some custom RNA interference strands from the sequence I gave them for the retrovirus. We’re hoping that will not only lock up viral genes, but also stimulate an immune response.”

Jamie listened, but the dark bags under her eyes worried him, and her skin seemed to be turning transparent in places, or red and blotchy in other places. She was also losing a lot of weight.

“Tomorrow I’m going to bring you a milkshake. Help keep your strength up.”

“French vanilla,” she said.

“I remember.”

“So, how’s our project coming along? You must be getting close. John says he’s been done with the training for a couple weeks. He donated one of his scanners to the hospital, said he had a new model for the project, something with higher power, or higher data rate, or something.”

“He wants your doctors to have every advantage.”

“You didn’t answer me. How’s the patterning coming along?”

“Frankly, I’ve been a little distracted.”

“Fuck that. You’re doing what you can. I want to see that puppy work. After you and John get your chance, I want to know what it’s like to see how the universe is put together.”

Jamie sat down awkwardly on the steel rail at the side of the bed. “It’s at least another two weeks before we can start testing. A week after that before I let John hook himself up – I want to go through all of the safety protocols at least twice.”

“Hell, I have three weeks. I have three months, maybe more if the RNA trick works.”

“Nonsense. We’re all going to live forever.”

“So far, so good.”

“So, are you stuck in this bed?”

“There’s the IV. But we can get that hooked up on a wheelchair. I’ll need a bath before I go anywhere fancy.”

“I was thinking maybe out in the courtyard, get some fresh air.”

“Can’t – gotta stay away from sunlight. But I could wrap up, get some dark glasses. We could pretend I was famous, here for a drug rehab or something. You could be my bodyguard.”

“It’s a date. I’ll get one of those curly cord earphones like the Secret Service guys always have on TV.”

“Hire some guys to pretend they’re paparazzi.”

“Or a TV crew.”

Pei Win coughed, and shut her eyes tight. Jamie saw her fingers whiten as she gripped the steel rail. Then the moment passed, and she wiped her eyes. “They come and go. Some days are really bad. Feels like someone is twisting my eyes out sometimes, or slicing through the back of my head. The morphine can’t touch it – I had them take it away.”

Jamie had nothing to say.

“There are some papers I need you to look at. They’re over in that box, the ones in the blue folder.”

Jamie found the box, and removed the folder, opening it. He looked up at Pei Win.

“Don’t get that way,” she said. “It’s just getting everything settled. Cleaning up all the loose ends.”

Jamie looked though the pages slowly. He stopped after a minute and held one up.

“I know this name from somewhere,” he said, holding up a tax form.

Pei Win looked closer. “Dora Walker. Head of IDG. Head of Pershing before that.”

“She does your taxes?”

“She’s a friend of Michael’s. Started going to his church a few months after Sadie died. She helps him with the charity thing he’s setting up. She got, like, a zillion bucks when IDG canned her, and she has a lot of time on her hands. She’s nice, she likes to help. You’re not the only ones who feel sorry for little old me.”

“So what is this?”

“We’re trying to figure out how much of the foundation’s money is yours. I’m leaving my money in, letting Michael and Dora run it as a real foundation. So we need you and John to cash out. Sign at the bottom.”

“Don’t I get to contribute?”

“You don’t even know what the money is going to. We could be out to kill all the whales. I thought you liked whales.”

“Where is the money going?”

“Michael has a list. Some sort of schools in the third world is his favorite. I put in that some of it had to go to eliminating diseases in those areas. Mosquito nets and stuff, nothing high tech or expensive. Dora wants to grow it into something big, but Michael keeps pushing back. He knows his limits.”

“I’ll leave my money in.”

“At least stop the auto-deposit. You won’t be able to write foundation checks anymore, or use the ATM.”

“I’ll do that. But I’m leaving this in.”

“Mike said you’d do that. He knows a sucker when he sees one. There’s another paper in the back somewhere, you’ll want to sign that one, then.”

Jamie found the form, and pulled it out.

That was the easy one to sign.

# Colorado

Jamie limped carefully out into the sunlight. Walking was more difficult now. His left side still could not feel pressure or touch, but pain was a constant worry. The slightest misstep felt like he had turned his ankle, and it was still easy to knot the muscles, causing him to collapse on the floor. But he was mobile again, if slower than before.

His appearance gathered a crowd. Helen and Lenny came out of the warehouse, followed by Dora, John, and Michael, and several people from the research and database teams. Today was his first trip down the mountain since the night his leg woke him up.

John walked slowly by his side, not helping, not appearing concerned, but ready in an instant to help steady his friend if that was required. The walk to the car became a slow parade, and Jamie was relieved to finally sit in the passenger seat. John got in and started the car. The slide into California had become so familiar Jamie could do it with the car at full speed, looking ahead for traffic on Daylight Pass Road. In the early morning, there was often none. They sped down the mountain, slowing only when they got near the slide to Palo Alto. There they pulled to the side of the road, let one lone car pass, and then crept into an empty underpass in Menlo Park, and headed for the clinic.

Sandy met them in the parking lot. “Look at you! You’re walking!” she said, as Jamie slowly limped to the door.

“Barely,” he said, stepping carefully into the room.

“No, I mean it – look at your leg. You used to swing it up like it was made of wood. You’re bending the knee now. The muscles aren’t all locked up. That’s great!”

Elizabeth Wilder heard her voice and came down the hallway into the room. “So, you had a rude awakening. How’s the leg now?”

“It feels like my thumb after missing the nail. Like any touch will make it burst open. Like any time I step I might break it off at the ankle.”

“Excellent! Absolutely marvelous. Let’s do a scan while we torture it for a while, see where the connections are going. You say at first it was an itch. Has there been any itching since?”

“No, just pain.”

“We’ll have to see if we can train it to itch as well. Itching is close to pain, but it isn’t what we really need at the moment, which is pressure and temperature. Still, we take what we can get.”

“I’m almost ready to skip itching. Let’s move on to touch.”

They walked down the hallway to the scanner room, and Jamie got in. He much preferred the ACGS, but he was not claustrophobic, and the ticking tube was actually somewhat soothing. Wilder gave him a plastic mouthpiece. “Bit down on that to protect your teeth. This is gonna hurt like hell.”

She injected his leg with a muscle relaxant, to prevent cramping. They let it take effect for about 20 minutes while they busied themselves setting up the leg brace and electrodes. Jamie sat for 20 minutes contemplating impending agony.

“OK now, let’s get this thing on your leg,” Wilder said, pulling the bulky contraption over his bare foot and up to his knee. She made an adjustment to Velcro straps, and pulled it up to his hip. Then she connected it to a big box on wheels that Jamie could only see the side of.

“You might want to bite down now,” Wilder said. “Three, two, one, go.”

Jamie’s leg was suddenly crushed by a giant red hot waffle iron. Then the skin was flayed slowly, whipped, stung by wasps, and pierced by needles. He began to sweat, and muscles all over his body were tense. He tried to make them relax, one by one, but as soon as his concentration went to the next muscle group, the previous one tightened up again.

Then the pain was gone, except for the cramping. The tube became quiet, and Jamie was ejected slowly. He sat up as they removed the leg brace with all of its wires and electrodes.

“You get that thing from the CIA surplus sale?” he asked.

“Nothing but the best for our favorite patient,” Wilder said.

John was looking at the output of the scan. “Olfactory,” he said, pointing to one bright portion of the display. “Balance,” he said again, pointing to another hot spot. He said “Callosum,” and pointed to a thin bright region under the bridge connecting the brain hemispheres. Then he said “New.”

Wilder came over to look over his shoulder. “I think he’s right. There’s a thin layer of new growth under the corpus callosum. That’s not supposed to happen. You don’t grow new nerve bundles in the brain. Unless it’s a tumor.”

Jamie leaned over to look at the scan. “Just the one spot? Not all over the place?”

John looked at him. “Not. A tumor, not.”

“I can have an oncologist look at the scan. Your friend here seems to know a lot about reading brain scans.”
“Elizabeth Wilder, meet my friend John Rakity.”

“Oh. Of course. I’ve read your book.”

John pointed at the first spot on the display. “Lemons?” he asked Jamie.

“Yes, at first the pain in my leg was being perceived as a funny taste, like the way lemons smell. Not like they taste, but how they smell. It was very confusing.”

John pointed to the line at the bottom. “Bridge,” he said. “Left sensory right sensory together process same the signal. Process the same signal. Balance,” he said pointing to the screen again; “discriminates.”

“Did you get any of that?” Wilder asked.

Jamie watched John’s eyes as he interpreted. “The signals from the left leg are being sent to the same part of the brain that handles signals coming from the right leg. But I’ve learned to tell the difference between the two legs by recruiting some of the processing used for balance. And the pathway through the olfactory region is now dedicated to the pain signal, which is why I don’t smell lemons anymore.”

John smiled.

“He’s very, um, concise,” Wilder said, looking at John.

“Same reason Stephen Hawking gives short answers,” Jamie said. “It takes too long to put everything together. But he’s getting better all the time.”

Wilder considered this. She looked from John to Jamie, and back. “You two are why there aren’t ACGS scanners in every hospital, aren’t you. Something went wrong.”

“Yeah,” said Jamie.

“Something went wrong,” said John.

# Palo Alto

Pei Win insisted on being wheeled in for the first test. John sat in a comfortable padded chair that reclined back so there would be plenty of blood flow to the brain, in case extra cooling was required. Fitzgerald sat with the group of physicists, on a hastily gathered mix of chairs taken from conference rooms and other labs. Lawrence stood in the back.

John held a dead-man switch in his right hand.

“Five second first shot, coming up in fifteen seconds,” Jamie said.

“Smoke test,” said John. No one laughed. The seconds ticked by, and a screen in the corner gradually filled a pie with green. The pie filled. There was no movement from John. The pie turned gray again after five seconds.

“Nothing much,” said John. “We’re just getting acquainted.”

John reached for a keyboard, and brought up an image on the three dimensional display. “Not a lot going on. I got my head examined and the doc said there was nothing.” No one laughed this time either. “Let’s hit it again, twenty seconds.”

Jamie set the timer. “Twenty second shot, in fifteen.”

The pie began to fill again on the screen in the corner. When it had filled, they waited. After a few seconds, John raised his right hand, where the dead-man switch was. “Nog de pruker dun,” John said. “Dek or flugal pinta nos trag don.”

“What did he say?” asked Fitzgerald.

The pie turned gray again.

“Cool,” John said. “Fractals. It’s some kind of fractal, with everything moving, but slowly. I could sort of see into it when pieces touched. Very beautiful.”

“What were you saying when you were connected?” Jamie asked.

“Saying? Couldn’t have been much. All the parts of the brain needed for coherent speech were being flooded with data from the beast. Except for the motor control parts, and some of the lower order functions.”

“You were speaking gibberish,” Jamie said.

“Likely,” John said. “Maybe I was trying to communicate, with you or with the machine. Just ignore it; it wouldn’t make any sense anyway. It might just be leakage. The data rate is pretty high.”

He pulled up the display again, and large parts of the brain were flashing.

“That’s only about a third of what I trained. The beast hasn’t learned to use the rest yet. Let’s do one more go, thirty seconds this time, then we’ll analyze everything and call it a day.”

They had agreed on three sessions. They had not agreed on thirty seconds. Jamie looked around the room. “Give it a rest for a few minutes first. I want to look at the responses to the patterning in the beast, just to make sure it’s following all the safeties.”

John saw that Jamie was not going to veto the longer session. “I’ll wait. I’m comfy,” he said, and closed his eyes.

Jamie went into the other room and brought up displays and queried the syntax engine. No alarms had triggered, and the patterning was getting reinforced by learned responses, all within the margins he had selected as safe. He returned to the scanning room.

“Thirty seconds, in fifteen,” he said. The pie chart began to fill with green again. Then it was full.

John said nothing this time. Once he raised the dead-man switch, but then lowered it again.

“Oh, yeah,” he said, when the pie had turned gray again. “Definitely fractal. It looks like the fractal dimension gets smaller as the scale diminishes, like at the Planck scale it might get down to four. That would let time go back and forth in either direction, wouldn’t it Marshall? That might also explain why time goes in one direction at the macro scale, but seems to go both ways down at the quantum scale. But everything is moving. You can see the effects of masses moving, it moves space-time, but it isn’t the nice smooth manifolds in the Reynolds paper – it’s a fuzzy fractal, and all the pieces move around slowly, and when they touch you can see through them.”

The physicist were all talking at once, mostly to each other, some asking John questions, but not waiting for the answer. John stood up. “That’s all for today folks, I am dead tired. This really takes it out of you. Jamie, you go ahead without me on the post mortem, I’m going to find a quiet place to crash.”

Jamie wheeled Pei Win around, and they followed John through the door. The physicists were still arguing when the door closed.

“Are you all right, John?” Pei Win asked.

“Check out the scan log for that last session,” John said. “It was really draining. We may have to limit the upstream data rate. Your monster was shoving stuff at me really fast.”

“Don’t go off somewhere alone. I’m taking Pei Win back home, but have Sue or someone watch you while you nap, make sure there are no seizures or anything.”

“She’ll love that.”

“Have her bring a book.”

# Colorado

Hayworth called a little after nine pm. “We’re ready for the pickup.”

Jamie put down the phone and got up off the bed. A sharp pain ran up his left leg, and he felt like the world was spinning. Having pain signals take over part of the balance circuitry could be a liability, he realized. Every time he stubbed his toe, he’d fall over, or get seasick.

He found John watching television in the other room, with the sound muted.

“Virginia,” he said, and John stood up.

Outside, it was dark and clear, and the Milky Way spread across the sky. The wind was cold and sharp, and Jamie was glad to get into the car. He turned on the heated seat.

Down the mountain, they jumped into California, sped down Daylight Pass Road, and then crept slowly into the dark parking lot in Virginia, where Hayworth’s latest office was. It was in the back of a cell phone store in a strip mall, and it was after eleven at night in Virginia, and the lot was empty. Hayworth opened the rear door for them, and they walked in.

“You know, maybe next time we should just get out of the car, and slide into the office, and you can keep the door locked,” Jamie said.

“I’ll never get used to that,” said Hayworth.

“Hi,” Wendy said, peeking over Hayworth’s shoulder at Jamie.

“Hi,” Jamie said.

“Here’s where it is,” Hayworth said, handing John a map with a circle on it. “Some cabinet or something, in an office in a business park. Second floor.”

John took longer to locate it this time. They all waited. “Too high,” he said, looking around the office.

“Is there a way up to the floor above?” Jamie asked, drying his gloved hands in the air.

“Escalator is shut down, and some security gates are down, but we should be able to get up there.”

The four of them walked through the empty mall to the escalator, and Jamie limped up, following John, and the others followed. They stood in front of a security gate for a Victoria’s Secret, and John was not satisfied. “Too high,” he said, jumping up, trying to touch something about three feet over his head.

Jamie looked around. There was a planter of palms next to a buxom manikin wearing a see-through bra.

“Can you help me up there?” he asked. The three of them helped steady him as he placed his right leg high on the planter wall, and they shoved him up as he straightened the leg. He felt unsteady, but John and Wendy held onto him at mid-thigh, and he recovered. Then John let go, and leaped up onto the planter. “Here,” he said, and showed Jamie where the laptop was. Jamie reached out, putting his palm on the glass in front of the manikin to steady himself, and then reached up and lifted the laptop. He held it close to his chest, and contemplated how to get down off the ledge. There was a shout from below.

“Hey, get down from there!”

Jamie looked down at the watchman, and at his white gloved hand still resting on the glass next to the risqué manikin. “This could be hard to explain,” he said. Wendy giggled.

John jumped down, and the other three helped Jamie off the ledge. The watchman walked over to the escalator. At the moment when he walked behind an advertisement, John showed Jamie a path, and pushed the other two into bright daylight.

Wendy blinked in the brightness, and Hayworth swore. John led them down a sloping path past a small shabby house, and onto the street.

“Where are we?” Hayworth asked.

“Cambodia,” Jamie answered. “A little town where John and I pissed off some opium traders last year. We won’t stay long.” They walked down the road a little farther, and then John gathered them together again, and they walked into Hayworth’s office in Virginia.

“Cool,” Wendy said. “Let’s do that again!”

“When he’s done,” Jamie said, and handed the laptop to Hayworth.

As Hayworth copied the password file and replaced the logging program with the original and removed the transponder, the other three sat on the small couch and waited quietly. They did not want the watchmen to hear voices coming from the office.

Hayworth finished. “I’ll send the data to Colorado right away. You can replace the laptop now. Be careful.”

“Want some company?” Wendy asked.

John held out his hand, and they walked back to Cambodia. They walked up the path on the hill, replaced the laptop, and came back down. Jamie removed his gloves, and they walked back to the car, skipping the office.

“Are you busy tonight?” Wendy asked, as they walked to the car.

“You liked that beach, didn’t you?”

“Too bad it’s dark,” Wendy said.

“It isn’t dark in Tahiti.”

John smiled, and got into the car.

“I’m ready,” Wendy said, unbuttoning the top button of her blouse.

They left John in the car, and walked out onto an empty sunny beach, somewhere in the South Pacific.

# Palo Alto

The first breakthrough happened on the fifth test. The data rate limiting had made it easier for John to spend longer with the machine, and the machine and John were both learning how to interact and communicate with one another. It was at a little over two minutes into the session that John started slowly waving his hands in front of him, as if trying to part a curtain, or wave away smoke.

Two of the physicists were in the room, and Lawrence, and the three of them were talking loudly and not paying much attention until John started moving his hands. But they stopped and watched. Jamie was about to shut the session off ahead of time to see what John was thinking, when John reached his hand into nothing, and his forearm disappeared up to the elbow. He brought it back quickly. In his hand was a fist full of white sand, spilling out onto the floor. Jamie shut down the machine immediately.

John was ecstatic. “I reached into East Africa! I’m sure it was East Africa, a beach on the horn of Africa. I could see bits and pieces of it whenever the fractal layers crossed, but then two of the big ones came together and I could just reach through and grab the sand!”

The physicists were on their feet. “Impossible!” one shouted, but the other one insisted, “That’s what I’ve been telling you! If it’s a fractal and it moves, the fourspace manifold will fold back on itself. But you have to be able to parse it in all 11 dimensions.”

“That’s utter New Age poppycock! You put him up to this, there’s a mirror somewhere!”

“Hey,” shouted John. “Shut up. You can download the model into the syntax engine and ask all the questions you like. It will confirm it. You can get the data dump and do the math yourself. But when you can do the math in your head in real-time, you can see picture it, even though you can’t see it. You can imagine it right in front of you, and just push through whenever there’s an overlap.”

He looked at the sand spilling out of his hand. Jamie came over to look at it.

“What’s going on?” he asked.

John waved his hand at the room. “None of this is real,” he said. “It is a projection, caused by the way light and particles can only travel along fourspace manifolds. But the manifolds are fractals, and they fold around and move as gravity shifts, like tides and waves. That’s why gravity is so much weaker than magnetism. It’s why time goes in one direction. But once you can visualize what’s really going on, see the shadows and know the solid shapes that made them, you can wait for the overlaps, and just reach in.”

“But that’s nuts. If there was a hole into East Africa, we’d see it, there would be air flowing through it, we’d have seen these effects all along.”

“We see the effect it has on gravity. But light and particles move along the manifold. There are seven ways to move at right angles to fourspace. But you have to consciously do it; otherwise you just flow along the manifold with everything else.”

“What’s so special about consciousness? Your hand is made of particles and fields just like the rest of everything. What makes you able to move through other dimensions?”

“I didn’t move through other dimensions. Particles and electromagnetic fields can’t do that, they’re limited to fourspace. I just waited until two parts of fourspace overlapped, and went in at ninety degrees.”

“Show me.”

“I can’t do it without the machine. I can’t think that way by myself. It’s not that I don’t have the processing power, but my brain has been hard-wired to live in fourspace, and it can’t think any other way. Unless we can hard-wire it to think like that, we need the machine to do it.”

Jim Lawrence came over and picked up bits of sand from the floor. “Absolutely incredible,” he said. “Wait until they hear this, we’ll never have funding problems again. Can you imagine the value this has? Moving things through other dimensions instantly, from miles away. Absolutely stunning.”

Jamie looked at his friend. “John, how fast do these things move when they overlap? I mean to say, what would have happened if they moved apart while your hand was in there?”

“Call me Captain Hook,” said John, smiling. “Really though, they move by shifts in gravity. Little things like the gravity of a bus on the street; that will move things a little bit. But big things like the moon and the sun and Jupiter; they are so far away that the gravity of you standing next to me is bigger. But those are acting on huge pieces of fourspace, making big changes. Anything big enough to put my hand through moves about as slowly as the moon. I figure I had four, maybe five seconds.”

“How big was this overlap?”

“About the size of a paperback book. Sort of triangular though.”

“Be careful, John.”

“You know,” John said, “Gravity is awfully weak in fourspace. The moon pulls you up a tiny bit, but you could easily pull yourself back down with your muscles. If I had trained my motor and sensory areas instead of syntax, I’m sure I could move the manifolds around easily, feel for them and shove them where I wanted. Make as big a hole as I need. And just walk right through.”

“So, you’re going to train all over again?”

“No, doing both areas would kill you – you’d heat up the brain twice as fast with that kind of data rate, the blood could never cool it fast enough, all you have are capillaries at that scale. But you could. You could start training. The motor areas are dead easy – you just move around and touch things, and the scanner picks it up. You could train in a week, maybe less. Jamie, we’ve got to try this!”

“You think I could catch up in a week?”

“The way you push yourself? Piece of cake.”

# Stanford

Jamie stood in the hot pool, Sandy pressed close, lifting his leg up and down in the water, bending it at the knee, at the ankle, bending the toes. She dragged her fingernail across the bottom of his foot. Jamie fell over into the water.

When he came up for air, he stood on his right leg, and picked his left leg up in his right hand. “Do that again,” he said. Sandy held his foot, and stroked. The world turned sideways, but this time Jamie was expecting it. He focused on the fence at the end of the pool, and his brain fought to reconcile two different ideas about which way was up. Jamie felt dizzy, and then the effect passed.

“Balance,” he said. “Like when it hurts, I get dizzy. But when you try to tickle the bottom of my foot, I get the sensation that down is to my left. And it is a very strong sensation – very hard to argue with.”

“We should tell Liz – it sounds like progress.”

“Maybe. Maybe it’s just part of the earlier rewiring, but nobody tried to tickle me before.”

Sandy ran her fingers down the back of his leg, and the world tipped again. “That worked,” he said. She tried other light touches, but got no response. “I was never all that ticklish,” Jamie said. She lifted his left arm, and lightly dragged her finger under it. “Oh, yeah!” Jamie said, grabbing her shoulder with his right hand for balance.

“That’s progress. The arm has never responded to anything before.”

“Liz is going to want to torture it.”

“Yeah, I’d say that’s likely. We can wait, and tell her tomorrow.”

Jamie thought for a moment, but he knew he was fooling himself. He wasn’t the person who would duck out on a responsibility, even if the responsibility was only to himself.

“We’ll let her know. She’ll need time to set it up anyway. I’m safe until next session.”

“That’s what you think,” Sandy said, and stroked the bottom of his foot. He flipped to the right with a splash.

# Palo Alto

Jamie trained. He sat in the chair and lifted weights with his left arm, and moved his left leg up and down, and around in little circles, pointing his toes, flexing his calf.

“I’m drawing a line right across here,” John said, indicating a neat, slightly wavy line on the display. “We can’t have both sides involved, because of the data rate heating problem. So this tells the scanner to ignore inputs except from this area. This is what’s showing up when you do the left side, these other signals over here are spurious, they just look like their coordinated with the left side. Some of these low frequency ones might actually be left side inputs, but they would be things like clenched muscles, or body awareness, like knowing your leg was there. They aren’t important for the experiment; we can leave them out of it. At least that way, when you’re in the machine, you won’t feel like your leg is missing, and you’ll still be able to clench your butt enough to stay upright in the chair.”

John continued to push the limits of duration in the machine. He was up to eleven minutes now. He was waiting for another opening, but most of the time all he got were openings into places he couldn’t push through. “It’s like pushing on a brick wall. Any time I try to get somewhere higher up than this.”

“That would be gravity,” said a short thin physicist, with close cropped gray hair. *Jameson, what’s his first name?*

John looked over at him.

“Your hand weighs half a kilo or something. How much power does it take to lift half a kilo up a few feet in a microsecond or so? You’d need dynamite. And you can forget about anything more than a few feet. And going the other way is dangerous. Poking a finger into a space a few feet down would give it all of that gravitational potential energy in a very small amount of time. It might explode, or jump away from your hand at high speed.”

“I can see the energy levels. It isn’t all just gravity. Things in the south seem to float above the gravity levels if you push west, and sink below if you push east.”

“An effect of the rotation of the earth. You might also look for rotational inertial effects, and the effects of air pressure. You can really see the energy potentials?”

“I can’t really see anything. I just understand it. Like understanding what you’re saying. It is processed by the syntactic and semantic processing regions in the brain, and goes straight through to conscious thought that way. It’s a really hard thing to describe – when I feel it; I can’t verbalize anything, so I can’t remember what I wanted to say when I come back.”

“A conundrum,” said Jameson. Jamie was sure he was misusing the word.

“Well, Jamie will be able to talk about his experiences. When he’s in the chair, he can describe what he feels with his hand and leg, and he can push on things, move them around. I can guide him, show him what to move, where to go.”

“He always tells me where to go,” Jamie said.

Fitzgerald and Lawrence were arguing loudly about something in the next room, but Jamie could not hear any words. John joked about it, but it bothered Jamie. They had never argued before. He felt like a kid whose parents were having a fight in the other room. But it did not last long, and Fitzgerald entered the scanning room alone.

“I gotta ask you guys something,” he said.

“Shoot,” said John.

“What would it take to duplicate everything we have here? The big computer, the little ones, the scanners, the programming, the whole ball of wax.”

“You’re kidding, right?”

“Nope. How much, and how long?”

“Twenty, maybe thirty million for the hardware. There are ten years of grants in those babies. And maybe eight months, or maybe a year to get it all set up and patterned,” John estimated.

“A year, at least,” Jamie said. “Depends on who does the patterning.”

“Can’t you just copy the software?” Fitzgerald asked.

“No, the machine learns. You can’t download a kid’s brain and upload it into some other kid. It’s like that. You have to teach it.”

“A year. And thirty million. How soon can you start?”

“You’re nuts. Where would you get that kind of money?”

“Leave that to me. Get a proposal set up, with some cost breakdowns and a schedule. I have to be in Virginia by tonight. Taking the red-eye. Get it to me by email.”

When he had gone, John looked over at Jamie. “Screw that,” he said. “Have Ellen scrape some stuff together, we have work to do. Two more training sessions, and you’re ready. By Friday, we could be plucking coconuts off trees in Hawaii without leaving the chair.”

Pei Win greeted them enthusiastically, trying to sit up in the hospital bed. John spoke first.

“We did it!” he said, rushing over to hold her up while Jamie found the button to raise the bed to a sitting position. “We opened a window into Florida. Jamie just felt around where I said to, and pulled the parts together, and we could both see through it, it was huge, like a television screen huge, and the breeze blew into our faces and you could smell the ocean. It was about a hundred or two hundred feet above ground, so we couldn’t get anything but the breeze, but next time we’ll throw something out, and maybe see if someone finds it and gives us a call. Pei Win! We did it!”

She hugged him, and then Jamie. “I knew you two would pull off something huge. You make a perfect team. I wish I could go out and play with you guys, try out your machine for myself.”

“We can do that,” John said. “That’s the plan, right? You’ll start training, we can get you up and running on the beast in a couple weeks, tops. Piece of cake.”

“I’m afraid not. John, I don’t have a couple weeks.”

“The RNA stuff is working, the antivirals are working, what do you mean?”

“They can’t stop the tumors that are already there. The growth inhibitors are just slowing them down, not stopping them. Mark can’t operate; they’re deep in the tissue. They’d have to shred my brain to get to them.”

The two men sat in silence.

“We knew it would probably come to this,” she said.

“I want to find those guys,” John said. “Take them apart, little bits at a time.”

“I know you do. Let it go, John. You can’t win that way.”

“It’s not about winning!”

“I know. Let’s not spoil the day. You guys made history today. We have to celebrate. Where’s my milkshake?”

Jamie handed her the cup. She put the straw into her mouth and sipped.

“Remember Sadie’s funeral?” she asked, looking at Jamie.

He nodded.

“I just want the last part. Just my best friends, a cardboard box, and Sadie’s garden. The renters are gone, it’s empty now. I told Dora to wait for me. Just a quiet little thing. Is that OK?”

They sat quietly, not answering. She took another sip. “This stuff is so good,” she said. “Why did I ever worry about my weight? I could have been drinking these every day.”

Late that night, Jamie’s phone rang. He picked it up, sleepily.

“We can cure her,” John said.

“Huh?” Jamie was not fully awake yet.

“We can cure her. They can’t operate because they can’t get to the tumors without cutting through the brain. But we can. You and me, and the machine. We can reach inside, and cut out just the tumors. The scanner can see them perfectly. We cut the vascular stem, burn it shut, cutting off the blood supply. Then we can remove the tissue, cutting down on the cranial pressure. The drugs are keeping the new tumors from growing. The tumors that are two small for us to work on will grow, and then we get them too, in a few weeks, maybe a few months. And she’ll be cured. We can do this!”

Jamie rubbed his eyes and thought. “We’ll need to practice. All kinds of things can go wrong.”

“So we practice! We’ll get a cow head, or a sheep head, or a dozen of them. We’ll do it on live cows, make sure the techniques work when the blood is flowing. We have to do this!”

“We can save her.”

“Damn right! We’re going to save her!”

# Stanford

Elizabeth Wilder listened to the excited Sandy and smiled. She looked over at Jamie. “She’s right, that’s real progress. We’re set up for the touch training right now. I was just going to go with the leg, but we can do the arm too. We put your leg in a big tube with little pokey wires that press on the skin in patterns. It does the left leg and the right leg at the same time. We’re hoping that we can train you the same way as the pain did, so the right leg areas process the information, and the new bridge links them up, and something else does the discrimination. We can do the arm the same way.”

Sandy stayed while Jamie removed his shirt and pants, and they slid on the bulky, heavy tubes with a tangle of cables over his legs. Wilder typed at a keyboard, and a ripple of cold metal fingers ran up Jamie’s right leg. He could hear the tube on the left leg making the same sounds, but there was no sensation there. He waited for some unfamiliar smell or taste, but there was nothing there either.

The patterns changed, and the metal fingers ran over his legs for a couple of hours, first one way, then the next, then around in little circles, then around the legs clockwise, then counterclockwise. Jamie fell asleep until it was time to switch the tubes to his arms, and start all over again. He fell asleep faster this time.

When it was over, Sandy helped him stand up, and helped him pull on his pants. The shirt he did himself, but she did the buttons for him, since doing it with the little wire hook he normally used for one-handed dressing was much slower.

“You should switch to Velcro or something. Maybe magnets.”

“Or just learn to use my left hand,” Jamie said.

“Now there’s an idea! I should have thought of that!” Sandy laughed.

Lenny was waiting outside in the car. “I caught that IMAX movie you said I should check out. That was something.”

“I thought you might like it.” The car pulled under their favorite overpass, and they drove onto Daylight Pass Road.

“It doesn’t compare to going places with you, though,” Lenny said.

“What’s that?”

“The IMAX thing. It’s nothing like actually going places in the blink of an eye.”

“I guess not.”

They slid into Colorado just in time for dinner.

# Palo Alto

There was no way they were going to get a live steer into the scanning room. They sent two of Jamie’s patterning students to Petaluma to find some goats. While they waited for the goats, they practiced on cow brains purchased at a specialty butcher’s shop.

John directed Jamie, watching on the scanner display, and through what they had come to call “otherspace”. Jamie could feel things in otherspace. John just knew where things were. John’s abilities taxed him heavily, however. There was far more processing involved in what John perceived than in what Jamie felt with his hand. John’s display flashed constantly, and he would have to stop and rest, and let the tiny overheated parts of his brain cool down and start functioning properly again. They kept track of the time for each session, so they knew when he would need to rest.

When the live goats arrived, they brought Pei Win’s doctor in to assist. Mark Jenkins had been filled in on the procedure by all three of them, at various times and with various slants on what was happening. He was overwhelmed with the flood of new information, and compartmentalized it to focus on how they could help his patient. They brought Pei Win in to watch. She called it “proper informed consent” and insisted. She also felt the need to participate, since another life might be given up in exchange for hers.

“We aren’t going to kill it,” Jamie said. “It’s more like we’re going to give it something like mad cow disease.”

“You’re not making me feel better,” Pei Win said.

“She won’t feel a thing, I promise,” John said.

They got down to work. Jamie was right handed, and doing all the fine work with his left hand was extremely difficult, and fatiguing. But John had it worse. The sessions were much longer than when they had used dead tissue. They had to stop the bleeding quickly, and keep the pressures low, and work the bits of tissue out through a small window so that adjacent brain tissue would escape damage. John pushed the limits, and the machine and his brain slowly learned to accommodate. But the real surprise came when they closed off the last blood vessel, and declared success, and then turned off the machine.

“Did!” John shouted triumphantly. The remaining words coming out of his mouth made no sense at all.

Jamie and Pei Win looked at him, expecting him to burst out laughing at his own joke. He looked at them, puzzled.

“John, can you understand what I am saying?” Pei Win asked. John gave her a blank look. “Talk to me, John.”

He stared at her. He looked at Jamie, and at the blank display. The machine was off, but John was still unable to make any sense of language. He knew immediately what had happened. He tried to explain it to them. He gave up on words, and tried pantomime, and pointing. He got out paper and drew pictures. They pieced it out together.

“He’s accommodated,” Pei Win explained to Mark. “The part of his brain that is used for language is now being used only for dealing with understanding the data from the machine. He was in too long.”

“The safety protocols didn’t cover accommodation. We looked at heat, and sugar levels, oxygen, metabolic byproducts, blood flow rates. Everything but the brain’s ability to adapt. We should have had alarms go off after some time. He was in for 38 minutes. I was in for longer than that, but the data rate was slower for me. When he re-accommodates, we’ll set his alarm for 35 minutes, and mine for about 48 or so, give me a decent margin of error.”

“You’re not thinking of going through with this!” Pei Win said.

“I think we can handle it. As soon as John gets his voice back, he’ll tell you so himself.”

“I won’t let you risk it!”

“Don’t be stupid. What’s the worst that can happen? Suppose John can’t speak, and I can’t use my left arm or leg. You’ll be alive. Don’t back out on us. We can do this. We *need* to do this. It’s not just about you. Think about John and me. How could we live if we knew we could save you and we didn’t try?”

“Don’t do that, Jamie. Don’t beg, don’t argue, don’t bargain, and don’t try to make me feel bad for you guys. We have time. You guys think about it. Really hard. Sleep on it. I won’t stop you if you make the choice rationally; I want to live. But you need to think very clearly about this, or I won’t go along.”

John looked bewildered and frustrated.

“We’ll sleep on it,” Jamie promised. “And John will probably convince you himself in the morning.”

John’s eyes suddenly got wide, and he looked at Jamie, and then smiled broadly. He reached out his hand and it disappeared up to the shoulder. He pulled it back out, and handed Jamie a fist full of snow.

“God!” Pei Win said. “He doesn’t need the machine anymore!”

# Colorado

Jamie couldn’t sleep.

The day’s session with Wilder had been a bust, he had felt nothing. He tried everything he could think to do, but nothing would bring any sensation to his leg but pain. His arm could not even do that. He hated this feeling. He had always been able to work harder, and make things work. Here was something he could not get a handle on, and he hated the feeling of frustration that brought.

He got out of bed and dressed, put on an oversized down jacket, and went outside. The moon had set, and the night was dark and clear. The wind chilled his right leg through his jeans. The left leg felt nothing. He walked carefully over sparse patches of crunchy snow, new grass invisible in the dark, but audible against his shoes in the quiet night. A frog sang love songs in the creek bed.

He walked uphill, a direction he had not taken before. The whole point of being in the mountains was that almost everything was downhill. The path was steep, but well-travelled and smooth. The lodge below him looked peaceful; the only lights visible were on the porch and at the warehouse entrance.

Ahead, at the top of the trail, a dim red light flashed and went out. It flashed again, longer this time, and then went out again. Jamie walked towards where the light had been, and saw faint shadows against the starlight. There were people walking around on the top of the little knoll in the middle of the dark, cold night. He could hear voices, but he was too far away to hear words. He approached the group.

The red light flashed again. He could make out three people, faces buried in fur lined parka hoods, legs covered in thick padded ski pants, feet huge in clumsy boots. A telescope sat on a large heavy tripod, aimed up into the northern sky.

“It’s Jamie,” said a woman’s voice, stepping towards him. “I can tell by the way you walk. Have you come to see the comet?”

Helen’s voice was friendly and warm, and she introduced him to the other stargazers.

“Binoculars are better for the comet,” said one of the men, handing Jamie a huge pair of wide-eyed binoculars. “The telescope is aimed at NGC 3982, if you want to see a spiral galaxy face-on.”

They pointed him to the fuzzy dot, and he searched for it with the binoculars for a while before finding it. His left hand hung at his side, and his right hand had trouble holding the heavy glasses. The image wobbled, but he thought he could make out a head and a faint tail.

“The question is,” said Helen, “whether it’s a good omen, or a bad omen.”

Jamie looked at her for a moment, trying to see her face in the dim shadows of the furry hood.

“I suppose that usually depends on whose side you’re on,” he said.

# Palo Alto

John’s speech did not return. Jamie and Pei Win argued about what that meant. John tried to follow along. He seemed able to understand each word, but it was as though they could be put in any order and make as much sense to him.

“He’s not at risk anymore. He doesn’t need the machine. I’m the only one who will be hooked up, and the data rate for me is much lower. It’s safer for me.”

“He can’t talk! Think about what he’s lost! You can’t go back in there and sit on that chair and not think about what you might be giving up too. What if it doesn’t work? What if I die anyway? He can’t work anymore; he can’t read or write, he can’t even use a telephone. And you, you’re literally willing to pay an arm and a leg to try this? You’re not a surgeon, Jamie, you’re a computer programmer. There’s so much that can go wrong.”

“John’s already paid. Do you want that to go to waste? He will probably recover in time. I probably won’t have any problems at all – we have the alarms in place, I can pull out before I accommodate. Pei Win, if there’s any chance at all we can do this, we have to do this.”

John nodded his head in vigorous agreement.

“I don’t want to die,” Pei Win said. “I want to stick around, see John get his Nobel. You aren’t going to let this go, I get that. So we do it. But whatever happens, it happens, OK? It’s my own fault. I made this thing.”

The scanning room was crowded. It had become a full scale operating room, sterile, with lamps and carts and equipment and a team of doctors and nurses, and hardly any room to move around. Mark had brought his team in, surgeons and oncologists; even an anesthesiologist was outside on standby, although no one expected to need him.

John and Mark stood near the display, already showing Pei Win’s brain in false colored detail. Jamie sat on the scanner chair. Everyone waited for him.

“Starting with anterior three,” he said, and turned on the scanner. They had agreed on removing two of the medium sized tumors first, since they were considered the easiest, and would make good practice. They were connected to the vascular system only by a thick knot of capillaries, and were not close to any large blood vessels.

The third one was to be the most important. This one was the most life-threatening, and had to be removed soon. But it was the largest because it had the best blood supply, sitting right on top of an artery. It would take time and patience to remove, and they wanted to do it while Jamie was still fresh.

He felt through otherspace, and found Pei Win’s head. He watched the display, and oriented himself mentally to the picture. As he had practiced on the goat, he felt inside. He could feel the folds of her brain, soft under his fingers. He pushed gently, and watched the display, seeing a part of the brain move.

“He’s in,” Mark said, watching the display in fascination. “Down two centimeters.”

Jamie moved down, and pushed on the brain again.

“Good, a little more down, maybe two millimeters, then forward to the anterior fold, maybe a centimeter and a half.”

Jamie moved towards the tumor, gently pushing on the tissues so the team could follow on the monitor.

A nurse mopped his brow. He smiled at the cliché. He hadn’t known he was sweating, and there were no hot surgery lamps heating up the room. But everyone needed something to do.

“I don’t feel anything,” Pei Win said.

“You won’t,” said Mark.

“I know, but still it seems like I should.”

Jamie stared at the display, and felt for the tumor. The bright spot moved.

“I think I have it,” he said. He put his fingers around it and pressed gently. The red node in the display flexed.

“Find the vascular bundle, below and to the left,” Mark instructed.

“Who’s left?” Jamie asked.

“The patient’s left. Always the patient’s left.”

“We should call it port and starboard,” Pei Win suggested.

“Hush,” said Mark. “Don’t move your jaw, it jiggles the image.”

Pei Win didn’t answer. He head was clamped in place, but Jamie had seen the vibration in the image as well.

“Now for the hard part,” Jamie said, and he opened a tiny window next to the clump of capillaries. With his right hand, he picked up the radio frequency scalpel. It would do the cutting, and cauterize the blood vessels against leakage at the same time.

“This is always a weird feeling,” he said, moving the tip of the scalpel to the window. “My left hand is a foot away from where my right hand is working, but they’re both working on the same tiny spot. It’s disconcerting. I feel like I want to bring them both together, like when I’m soldering something.”

Mark looked at Jamie. The left arm hung limp at his side. Jamie’s imaginary left hand was inside Pei Win’s head, but his real one was hanging uselessly down beside the chair.

The tiny camera near the tip of the scalpel showed the fine tube of the waveguide approach a tiny red spot hanging in mid-air above the table to Jamie’s right. Jamie steadied his hand on the table, and touched the tube to the tiny mass of blood vessels. The image in the display flashed green at that tiny spot.

“We’re go, hold it steady. Power on three, two, one,” Mark said, and a tiny puff of smoke rose from the little red dot above the table. Jamie backed the tool away, and the camera showed a small white spot where the flesh has been burned.

“That was good,” Mark said. “Got a touch of myelin, try to go only for the blood vessels. A little lower next time. Five, maybe six more of these, and we’re ready for stage two.”

Jamie moved the tiny window down just a little bit, exposing another tiny patch of red. He brought the tool up, and pushed gently, watching the display.

“Green. Power on three, two, one.”

Another small puff of smoke. Jamie’s nostrils flared at the odor.

“No good,” said Mark, as the camera showed the magnified image. “We’re getting tumor, not blood vessel. Don’t do that close to the real thing, Jamie. We can lose tumor, but don’t hit anything we want to keep.”

Pei Win blinked, but said nothing.

Jamie took his time. He adjusted the window carefully, his left hand overshooting a little, and recovering. He brought the needle-like waveguide tube up to the spot hovering above the table, and pressed. The display showed green, but he pressed again, and more green showed up. “I see,” he said, and moved the tool around, watching the display flash yellow and red, then green again. He waited until he had located the spot that produced the most green on the display. “Try that,” he said.

“Three, two, one.”

A puff of smoke. Jamie waited.

“Looks good,” Mark confirmed.

The nurse patted Jamie’s forehead again. Maybe he had been sweating.

A soft tone came from the speakers mounted in the flat display behind Jamie.

“That’s the alarm, shut it down,” came a voice from the back of the room.

Jamie touched the keyboard, and his left arm tingled. He held it up so the blood which had pooled in his hand could drain. He kicked his left foot against the chair to get its circulation back as well.

“It’s going slower than I thought it would,” Jamie said.

“You’re doing great,” Mark said.

“How do you feel?” asked Pei Win, still locked in the head restraint.

“I’m good,” Jamie said. “Told you so.”

The nurse brought Pei Win a glass of water with a straw.

“When he gets the big one, will this headache go away?” she asked Mark.

“I expect so. It might even be immediate, once the blood supply is cut.”

“God, I can’t wait. No, I don’t mean that. Take your time, Jamie.”

“I’ll be really careful. You can just suffer in the meantime.”

“My hero.”

It was time to resume. Jamie turned on the scanner, and felt his way to the tumor again. Each burn was precisely on target this time, but Jamie took care to breathe and relax between each one, and treat each one as if it were the first. The alarm sounded again.

“One more to go,” said Mark. “Maybe two. The blood flow is already showing up yellow on the scan. We’re starving the tumor. One or two more and we can work on the membrane.”

Jamie relaxed and pumped his arm and leg. He stood up and stretched. Pei Win stretched out her legs.

In the third session, Jamie burned off the last of the blood vessels leading to the tumor, and started separating the tiny membrane that held the tumor to the rest of the brain. He took a deep breath.

“Now to pull the little sucker through,” he said.

He picked up a small suction tube, and held it up to the tiny window. It grabbed onto the tumor gently. Mark and John watched the display turn yellow and then green at that spot.

“Green,” Mark said, and waited.

Jamie slowly opened the window, pushing it back against the tumor, and gently pulled on the suction tool. The tumor bulged through the window.

“I can see it,” Jamie said.

“Do you want to section it, or keep going?”

“The window is still only touching the tumor. It looks OK. I’m expanding.”

“Your call – I’m good with that.”

Jamie opened the window a little more. The tough little piece of tissue bulged out some more, and Jamie pulled on the suction tube a little more.

“Still good, I think we can do this one the easy way,” he said, and opened the window a little more.

As he pulled on the suction tube, the tumor distended, and slowly oozed through the opening. When a little more than half of it had come through, Jamie stopped pulling.

“I’m closing the window a bit. Trying to keep the tumor plugging the opening.”

“Keep it there for a bit. Let some fluid fill the cavity. We have good tissue pressing in; we don’t want that near the opening.”

Jamie waited, watching the display. He could feel increasing pressure pushing on the tool in his right hand.

“Closing a little more,” he said, and narrowed the opening. The tumor pushed out against the suction tool.

“Slow up, give it time,” Mark said. Jamie waited.

“That should do it,” said Mark. “Try not to let too much fluid through when it goes.”

Jamie pushed on the tumor, keeping it as a plug against the opening, and gently closed the window. The tumor squeezed out, and a drop of fluid fell onto the table as Jamie closed the window completely.

“We got it!” Mark said loudly, and the tension in the room relaxed. Pei Win held up her thumb in congratulations.

Jamie set the small lump of brain down on the paper-line tray and turned off the suction. He felt tired. He turned off the scanner, and massaged his left arm.

“Let’s take a break for a bit,” he said, “then go for anterior five.”

The next tumor was larger, and had three separate blood supplies. It took five sessions to remove it, and Jamie felt his back ache as he finally stretched after dropping the tumor in the tray next to the other one. A nurse held a cup with a straw to his mouth, and he took the cup in his right hand. Chocolate milk reminded him he had not eaten since breakfast, and it was four in the afternoon. He drained the glass.

It was time for the big one. They had planned this one carefully over the last three days, marking which areas to cut first, which areas to avoid, where to take breaks. It would have to be sectioned carefully; there was a central blood supply with weak walls, and the main artery extended into the tumor. It would have to be clamped off and cauterized before the rest of the tumor could be removed.

Jamie massaged his muscles and rubbed his neck. He was about to start when the display started flashing, and gentle alarm tones began to ding, ding, ding from the speakers.

“She’s seizing!” Mark stepped over to Pei Win, whose eyes were blinking rapidly. The display showed flashes like bright roots spreading across both hemispheres, branching and branching again.

“What did we do wrong?” Jamie asked.

“Nothing,” said Mark, holding Pei Win, and trying to insert a mouthpiece whenever her jaws unclamped. “It’s been happening all week, it’s the tumors.”

John pointed at the display. Jamie looked at his finger, pointing right at the large tumor that was their next target. The array of sparks in the display was coming from that spot.

Pei Win’s eyes stopped blinking, and the display returned to normal.

“Mthmth,” she said, spitting out the mouthpiece. “Ow. Bit my tongue again. I hate it when that happens.”

“Keep this in,” Mark said, putting the mouthpiece back in her mouth.

“We should get started,” he said. “They come in waves.”

Jamie worked slowly, methodically burning through one bit of tissue after another, each one done perfectly. The first of the three blood supplies was almost completed in the first session. Jamie stretched and kicked with his left leg, and twisted back and forth to relax his back muscles.

The second session completed the first knot of blood vessels, and got halfway through the second. The third and fourth sessions finished cutting off the blood supply to the tumor, but the large vessel pressing into it still had to be dealt with.

“Resection the ventral node first,” Mark said. “That will free up the lateral membrane connection.”

Jamie opened the window, gently pulling on the suction tool to pull out a small section of the tumor. Mark held the tool in place while Jamie took the waveguide tube and burned a line gently across to top. He passed over the line again, and again, and the little bit of tissue came away bit by bit. Mark held another suction tool on the cut face, preventing it from bulging out through the opening. The bit of tissue finally dropped away, and Jamie closed the window.

“Let the cavity fill,” Mark said, and they waited for fluid to seep in where the bit of tumor had been.

It was time to close off the large intruding blood vessel. Jamie shut off the scanner, and took a deep breath. Everyone in the room shuffled around, trying to relax tense muscles. When he was ready, Jamie turned the scanner on again, and felt for the tumor.

He positioned the window as close to the blood vessel as he could, and then gently pressed the tumor against the window. Mark applied suction to the tip of the intrusion, and together they pulled the fragile little pulsing tube out of the window, where Mark could pinch it off with a tiny hemostat. Jamie took a breath, and passed the waveguide tube over the spot just past the clamp. A drop of blood hit the paper on the tray, and Jamie passed over the spot again, then a third time, making sure the cut was sealed.

They gently pushed the tissue back through the window, and Jamie closed the opening just before the alarm would have sounded. The most difficult part was over.

Pei Win began to jerk, and the ding, ding, ding, tones sounded softly, almost politely, from the speaker.

“Shit,” said Mark. “I thought about having you cut that nerve first, but we were running out of time.”

The screen flashed, recording the spikes of neural activity. The damaged tumor was striking back. They waited for the seizure to subside. Mark checked Pei Win’s mouthpiece.

“Blood pressure is rising,” said the nurse. Jamie looked at the monitor, lines of telemetry from sensors on Pei Win’s neck, arms, and brow scrolled by in a column on the right.

“Open the NO line. We have to keep the pressure down or that patch will open up.”

Vasodilators flowed into Pei Win’s veins. The blood pressure kept rising.

“There it goes,” said one of the surgeons. The monitor showed a warm spot spreading into the open cavity next to the remaining part of the tumor.

Jamie turned on the scanner.

“Not yet,” said Mark. “It’s too soon.”

“We have to stop the bleeding, relieve the pressure.”

“You can’t hook back up yet. Give yourself enough time.”

John put a hand on Marks shoulder, pulling him back. Jamie felt for the tumor. He found the hollow spot where they had removed the section, and opened a small window there. Blood hut the tray in spurts with each heartbeat. But the pressure in that area went down.

“Close it off, the tissue is getting close.”

Jamie closed the window. Working quickly, he opened a new window as close to the burst vessel as he could. He turned on the suction and pulled a small bit out, then some more, until there was enough to put a clamp on. Mark pinched off the vessel.

“The cut is still intact. This is a spontaneous aneurism,” he said.

The pinched off blood vessel swelled behind the clamp. “More dilation,” Mark said, and a nurse adjusted the feed of vasodilators.

“We have another one,” the second surgeon said. “Posterior, left.”

Desperate, Jamie reached down with the fingers of his left hand, and tried to find the tiny broken blood vessel. He watched the monitor, pressing gently here and there, until he got to the spot. He pinched, just a little at first, and saw the blood flow on the monitor in that section turn from red to orange, then yellow. He pinched tighter. The flow went to green, then blue.

“Posterior left clamped off,” said the second surgeon. “Count is two minutes, fourteen seconds.”

“What does that mean?” Jamie asked Mark.

“Blood flow is cut off. That part of the brain has starved for two minutes already. We have to get it flowing again, or that section will die.”

“I have three fingers left. I can pull open a window, you get the suction ready, and you handle the RF.”

“I’m ready.”

Jamie, his thumb and forefinger still closing off the blood, fumbled with his remaining fingers. He opened a small triangular window below the vessel, and it bulged out. Mark held it with suction, and readied the cauterizer. “Move it up slowly, and I’ll burn as we go.”

Jamie moved the window, and Mark sealed the vessel. But when Jamie released the pressure with his fingers, the seal broke open again.

Pei Win stopped shaking, and opened her eyes. “Oh, that feels so good. No headache anymore.”

Jamie pinched off the blood vessel again, lower down this time. The alarm sounded.

“Jamie, you have to come out.”

“Burn it,” Jamie said, holding the vessel against the window again.

“Pressure’s dropping,” the nurse reported.

“Finally we get a break,” Mark said, and applied the cauterizer.

“Heart rate’s dropping,” the nurse said.

“Get the cooler going,” Mark said, and one of the surgeons started the machine that cooled the blood going to Pei Win’s brain. “Fourteen minutes,” he said.

“Jesus,” Mark said, finishing the burn. Jamie released his fingers. The vessel held.

“She’s crashing,” the nurse said.

“What next?” Jamie asked Mark.

Mark looked up at him. “Nothing,” he said.

“Is she OK?”

“There’s nothing we can do, Jamie. Fifteen minutes. Her heart is stopping.”

Pei Win spoke. “John,” she said, “Take care of my roses.” Then she was silent.

The heart rate monitor stopped.

“Calling it,” the first surgeon said. “Ten fifty two pm.”

Jamie turned off the scanner and stood up. Then he fell over as his weight shifted to his left side.

# Stanford

Sandy stood in the hot pool in front of Jamie, holding his left foot in her hand. “You can’t expect miracles every time. You have to be patient.”

“I’ve been a patient too long. I want to be an ex-patient.”

“I know. But recovery takes time. Besides, don’t you like coming to see me?”

“Some day, I’ll come see you in a non-professional capacity,” he said.

“That would be great. My husband is one of the chefs at Chez Tuesday. We could all go out together, my treat. And I’ll dance with you, teach you flamenco.”

“It’s a date. I look forward to dancing the flamenco.”

She bent his leg, and massaged her way down to his toes.

Helen and Lenny were waiting in the car. Jamie got into the back seat. “How was the movie?” he asked.

“Sad,” said Helen. “Next time we’ll do the car chase one.”

“I said…” taunted Lenny, and she punched him on the shoulder.

Lenny pulled out onto the road, and they headed for the overpass.

“Say, have you two ever seen Kilauea? It’s erupting again.”

“What is it?” Lenny asked.

“It’s a volcano in Hawaii,” Helen explained.

“Never been there,” Lenny said.

Jamie felt around in otherspace for a moment.

“Slow down,” he said. “And then turn right a bit.”

# San Diego

Dora Walker stood next to Michael. Richard held his shovel, and John gently sprinkled ash from a cardboard box along the small trench between the roses. He placed the box in the pit at the end of the trench, and held the lighter under it for a long time. Flames rose, and he sat in the dirt, watching the box collapse and fold in on itself. Tears streamed silently down his face.

Jamie could barely focus, the salty water filled his eyes, and he blinked it away again and again, but his eyes kept filling. His throat was sore, and he sniffed constantly as the tears found their way to the rich dark earth of the rose garden.

The flames died, and white smoke rose into the still marine air.

“Our friend,” said Michael, “Will live in our hearts for as long as we breathe.”

Richard moved slowly and carefully, turning the dirt gently over the thin line of ash. He sniffed.

John stood up, and dusted off his pants. He put his hand down to feel a rose leaf, examining it carefully. At his feet was a small bag of rose food, and he reached in and sprinkled some of it slowly at the base of each plant. He turned on the hose and rinsed his hands, drying them on his pants. He looked up at Dora and Michael, and over at Richard, still holding the shovel. Then he walked over to Jamie, and put his arm over Jamie’s shoulder, and buried his face on his arm.

They stood like that for a few minutes. The John sniffed, and put his arm around Jamie’s waist, and supported his friend as they walked back to the others. Jamie limped clumsily, his left arm dangling, his left leg barely supporting his weight, pressed against John’s side.

At the hotel the next morning, Jamie’s phone rang at 8:00. He considered ignoring it, but picked it up.

“Sorry to bother you,” said Jim Lawrence’s voice, “but something’s come up. Can you and John get a flight back real soon? Meet us here this afternoon?”

“You’re kidding, right?” Jamie said; his throat still sore.

“No, this is important. Brass from back east, big deal. It’s about our funding after the incident. The whole project might hinge on this, 80 people, millions of dollars. We need you guys up here; you’re the only ones who can demo the machine.”

Jamie said nothing.

“Are you there? Can you make it?”

“We’ll be there.” Jamie hated himself for being responsible.

There was an armed guard at the door when they got there. He checked a folder and compared their faces to the photos in it, and then checked their identification anyway.

“This is new,” Jamie said.

The guard said nothing, but waved them though.

There were two more armed men inside, standing next to a tall, muscular man talking to Lawrence and Fitzgerald. It was very clear who was now in charge.

“You’re late,” the big man said, when John and Jamie entered the room.

John looked at the three new people, and then at Jamie.

The seven of them went into the scanner room together. The room had been cleared of all the medical equipment, and had been returned to its previous spare state – the two scanner chairs, and some folding chairs at the back of the room.

The large man pulled out a cell phone and pressed a speed dial number. “Where is he now?” he said into the phone. “Let me know if he moves.” He returned the phone to his pocket.

“Fitzgerald here says you killed someone in this room.” He paused. “I’ve been reading the reports on the weapon. You can reach across the world and pick up sand off the beach. We have a demonstration target currently available. Fitzgerald has the coordinates. Turn the machine on, and we’ll get started before the target moves.”

Jamie looked at him. “I beg your pardon?”

“Get on with the demonstration,” the man explained. He turned to Fitzgerald. “Bring up the map.”

Fitzgerald hurried over to a keyboard and typed. A map showed up on the wall display.

“His name is Francisco Orador del Toro. He’s a money launderer for a big Columbian drug cartel. We’ve had him on a leash for a while, but he’s not playing ball anymore. He needs to be shut down before he says something he shouldn’t. He’s got a little villa in Peru, and we have people watching him at the moment. They tell me he’s sunning himself by a swimming pool.”

“And you want me to what?” Jamie asked.

“Use the weapon, you idiot.”

“We didn’t build this to be a weapon.”

“My boss didn’t pay you to build a science project. Turn on the machine, before this guy decides to move where we can’t see him.”

“You want me to kill him?”

“Cerebral hemorrhage, like in the demonstration the other day.”

John looked at Jamie, puzzled.

“That was no demonstration.”

“Seemed to work pretty damn well. Turn on the damn machine.”

Lawrence rushed to the keyboard and started the scanner.

Jamie looked at John. “We’ve seen what happens when people take good science and turn it into a weapon. I won’t have anything to do with this.”

The large man made a gesture, and the man to his right pulled out his gun and pointed it at Jamie’s chest.

“You seem to be under the impression that you have a choice here,” the big man said.

“I always have a choice.”

The man gestured again, and the gun swung over to point at John.

Jamie saw the resolve in John’s face. He understood what was going on. Jamie made a decision.

He reached into otherspace, and felt for the gun. He knew nothing about guns, but he knew he could disable the weapon if he removed enough of its parts. He found a spring, and opened a window below it, and fixed the other end over the parking lot outside. He pushed the spring through onto the pavement. He found other parts, and dropped them one by one. The bullets were last. There was an audible click inside the gun, and the gunman hesitated, looking at the weapon.

Jamie felt for the second gunman’s holster, and dropped the entire gun out into the street.

He turned to the large man. “I’d like to talk to your boss.”

“You’re in no position to make demands. Get busy.”

Jamie felt for the man’s throat. He considered blocking the windpipe, maybe connecting it to the water line in the kitchen. But he felt the pulse in the man’s neck, and changed his mind. He stopped the flow of blood to the man’s brain, blocking both carotid arteries at once. The man’s face looked angry, then puzzled, and then blank. He crumpled to the floor.

The man holding the gun swung it to point at Jamie and pulled the trigger. Nothing happened, and the trigger did not spring back for another try. The other gunman had noticed the weight in his holster shift, and confirmed that he was missing his weapon.

“Is there anyone else here who would like a demonstration of the weapon?” Jamie asked.

The gunmen fled out the door, followed quickly by Fitzgerald and Lawrence.

John walked to the man on the floor and checked his pulse. He would wake soon. John picked up a keyboard and threw it at the display showing the map. He began pulling cables out of the wall.

Jamie opened a window over the Pacific, and began throwing the cables into the water. The scanner chairs went in next, and the chairs in the back, until the room was empty. They opened the door into the computer room, where Jamie had labored for years building the big machine. John picked up a monitor, but Jamie held his arm, and gently pushed him back against the wall. He then opened a large window under the machine, and it fell into the water, somewhere east of the Philippines. Cables tore from the walls as the machine dropped through, disintegrating from the differential acceleration as it dropped hundreds of feet in a second.

Together, they threw everything they could into the hole. When the room was empty, Jamie closed the hole again. His ears popped as the pressure changed.

They looked around at the bare room. John took Jamie’s hand, and showed him a grassy slope in Oregon. Jamie looked back at John, held his breath, and they walked through.

“Backups,” he said to John as he let out his breath. “Got to find the backups.”

# Colorado

Jamie walked through the glass air-lock doors into the little sun room, then opened the outer doors and walked into the chill morning. Workmen were installing the big sign above the warehouse door. Sadie Matthews Foundation, it read. He watched them work for a bit, and decided that walking under the sign right now was not the best idea. He slipped through into the office the easy way.

“God, I still can’t get used to that,” Hayworth said.

John was already there. Dora and Rick Bond were leaning over Hayworth’s shoulder, looking at the transcripts on the big monitor.

“What did you find?” Jamie asked the group.

“Cayle’s a busy little bee,” Dora said. “There are nine projects, or were before Fitzgerald firebombed one of them. We knew about two, now we know about seven more. Whenever we deal with Cayle, we’ll have to deal with all of these too, they’re really nasty.”

“Guy’s vindictive, I’ll say that,” Bond said. “That big guy who took over your lab? Dead. So are the three guards. Lesson to Lawrence and Fitz, he called it. Don’t fuck up.”

“He put that all in writing?”

“Damn proud of himself. Ordered our friend Walter Kingman to take out the lightning guy when he backed out of a deal. Ordered the hit on you two himself, sending in Kingman because he’d worked out so well before. Kingman did some guy named Munson who was running that project Fitz took out. It’s all there.”

“More than enough to put him away, but someone would need to get the modules with a real warrant, and somehow get the password, again with a good warrant. Hard to arrange.”

“Any mention of backups from the project?”

“He says Lawrence and Fitz are idiots, and they can’t build the computer. The guys who can pattern it are all over the place now, forgetting how to do that work. And you destroyed every ACGS scanner in existence, and they haven’t a clue how to build one of those. It’s looking like it’s close to a done deal.”

“We can’t figure out what was special about lab K33 that made Fitz want to destroy it.”

John stood up. “What?”

“Lab K33. That’s what he calls it, I think,” Hayworth searched the document. “Here it is: ‘The K33 lab is a total disaster – he must have known what it could do.’”

Jamie felt cold. “Munson. Bill Munson ran the project.”

“You guys know something about this?” Bond asked, seeing the anger taking over John’s face.

“K33 was Pei Win’s project. It was what killed her. They turned it into a weapon, and used it on her.”

John almost shouted. “Cayle. Cayle used it.”

Hayworth searched the document again. “K33 was used four times. Or one time, with four targets, it isn’t clear. One of them was a woman who disappeared after Munson was killed.”

Jamie was furious. “That’s it. Enough of this crap. We are going to put that guy away.”

John worked hard for his words: “Under Sadie’s roses.”

Jamie limped over to John, and they turned and disappeared.

# Cusco

Jamie leaned on John, and they walked into a small shop, following a portly man in a tailored suit, who looked very out of place. The man examined a silver necklace, and then turned around to face the pair.

“You don’t look like assassins,” he said, in heavily accented English.

“Actually, we’re not,” Jamie said. “But we did you the favor of removing a couple of them that had been spying on you from the ridge above your villa.”

“The two gringos with the binoculars? Who like to watching me swim? I wondered where they goed to.”

“They worked for someone we don’t like. I hope they can swim.”

“Are you my retirement package? Did Mario send you? I was expecting something more like him, maybe a bomb in a car.”

“We have a package we hope you will like much better.”

“You want something from me?”

“We wish to hire your services, doing something similar to what you did for Mario before your retirement, but without the ethical problems, we hope, and without all that nasty stuff with the guns and all.”

“I quit that business because I don’t like working for people like Mario, and I don’t like working for people like the ones you say you don’t like. Why would I like working for you?”

“We work for a little foundation that does charity work in poor places. Sometimes charity means making sure Mario found his way to a jail cell in Florida. He’s there now, wondering where his pants are. Sometimes charity requires collecting money for poor children, like the ones outside selling quinoa bars on the street. We collected Mario’s money. I think all of it. We wanted to make sure he didn’t have the best legal representation in Florida. But now we have a problem. We have all this money. But it needs to get to a bank account all pretty. So we thought of you.”

“I also have these many charity cases,” Francisco said.

“There is plenty of money for everyone’s charities.”

“Some of the people guarding Mario were my friends.”

“They still can be. No one was harmed. Although there is bound to be trouble when they find the money is missing.”

“That cannot be helped; it is the nature of human, this love of money.”

“We left the money at your villa. We had to move a couple of your cars out of the garage to fit it all in, I hope you don’t mind.”

“My garage is full of money? I have a big garage.”

“Mario had a lot of money. Take your time with it; take what you feel is a generous cut for yourself. Here is the account where it needs to end up. The password is your last name, translated into English.”

Jamie handed him a card with the account number on it. On the back, the card read “Speaker of the Bull”.

Francisco looked up, but the cripple and the mute were gone.

# The Hole

Cayle awoke in the dark. His head hurt. It was very dark. He waited for his eyes to adjust, but they did not. The room was completely without light.

He stood up, and banged his head hard on a ceramic pot hanging from a chain. He swore, and felt around him. He was in a large space, and he bumped into soft furniture as he stumbled forward, trying to find a light switch. He found a wall, a cold, hard rock wall. He followed it around, stumbling against a small table, a huge television screen mounted on the wall, and some boxes. Eventually, he found a lamp. He felt around the lamp until he found the switch, and turned it on.

The room flooded with light, and he shut his eyes against the sudden glare.

He squinted around, locating all the items he had stumbled across in the dark. He looked at the stone walls, the stone ceiling. He pulled back a beautiful handmade rug to reveal a stone floor. There were no doors. There were no windows. Air came in through a set of small holes drilled deep into the rock, high on the wall away from the television. Another set of holes on the opposite wall let the air back out. He peered into the lowest hole, but it extended into the dark, far away. He could not fit his hand into the hole.

The room was huge, and he had only explored a small corner. He walked towards the back, and found more lights, and stacks of boxes. The boxes were full of military MREs, enough for an army. Or for one man for a lifetime. There was a shower, and a bathroom. There was a well equipped kitchen, and a huge pantry stocked with canned goods. There was a small hospital.

The television received no signal from the outside. There was a large video library, however, and a huge selection of music.

There were no doors. There were no windows. There was no one to talk to.

He sat down on the couch. On the table, there was a note. He picked it up and read it. It said: Take good care of the roses, or we’ll shut off the air.