

MIND DUEL

A Novel By Thomas James Schneider

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This is a book about animals so it seems appropriate that I dedicate it to my little Whisper, a tiny wisp of a girl at six pounds, but full of enthusiasm and joy. My beloved cat “helped” in the writing of this manuscript walking back and forth across my keyboard and constantly getting between me and my computer screen. We shared adventures over the years, from nighttime mouse hunts together to my rescuing her from three day’s entrapment in the neighbor’s crawlspace. She finally passed away at the age of nearly twenty just before this novel was completed.

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Prologue

The small boat rocked gently in a peaceful sea. She was tied to a buoy that marked the site of a submerged data collection station just below the surface in the shallow waters off Destin, Florida. Although the sky was cloudy, the winds were calm. Kim was a little concerned that Bluetooth hadn't shown up just yet. The dolphin had missed the previous rendezvous time, and Kim missed the time before that, when the weather had been bad. They agreed that they would meet at these regular intervals, but that attendance was not mandatory. And dolphins don't keep time very well. Bluetooth was the one who had the idea to meet at this location whenever possible at the noon hour following each full moon. So here waited Kim, hopeful, worried, contemplative. How had she arrived at this moment in her life, this moment in their lives, two species interconnected mentally, emotionally, to an extent beyond anything Kim had ever imagined possible?

Chapter 1

Homestead

---- 2 years earlier ----

Dr. Kim Lake had always lived her life with intensity. It was an intensity she both burdened herself with and reveled in. Kim Lake had been that way since the morning that she was six years old and gazed up at a bird perched on a wire that ran behind her family's home. She pondered, "Is he watching me, as I am watching him? What does he think of me?" She felt a link between their two minds, or at least, she imagined it. What was really in the minds of animals? Could one ever know? It became her life-long obsession. Twenty-eight years later, she was in a time and place where, incredibly, she may be able to answer those questions.

On this Saturday morning, Dr. Lake would again be going in to town, to the DPRT building. There was that work that the Biological Applications group was engaged in that she wanted to review. Her downtown office and lab were more her home now, the DPR Technologies building, her homestead. The dedicated Dr. Lake often worked on a Saturday. Now in her thirties, she had been with DPRT for almost a decade.

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She dressed in her usual business attire in spite of the fact that it was not a regular workday, gray slacks and a navy blue turtleneck that she would cover with a white lab coat upon arrival at the office. She did own an assortment of turtlenecks, but most were just variations in shade from that dark blue one she wore today. You might joke that the office place would be scandalized if she ever wore a green one, but in seriousness, her rock solid reliability was something that her coworkers counted on and appreciated, and she was well liked.

She neglected her hair, just as she paid little attention to the rest of her appearance. She might have been a little taller than the average woman, but her habit of wearing flat-heeled shoes among others typically wearing high heels, gave the impression that she was not that tall.

With some effort on her part, she could have been genuinely attractive. Lacking that effort, her physical appeal benefited only from the psychology of expectations ... a woman scientist. By geek standards, she was quite attractive. She endeavored to dress modestly, but it was a workplace comprised mostly of nerdy engineers. Her mind was enough of an attraction that, in their eyes and by their standards, her soft dark shoulder length hair, with bangs just touching her eyebrows, framed blue eyes that beckoned, “come hither”, to use an old fashioned term. Regardless of her relative attractiveness, depending so on the observer, she had proven herself to be more than competent over the years at DPR Tech and now headed her microelectronics department. Even as head of the department, she continued to be a hands-on employee, often working with the lab equipment herself,

though delegating the bulk of such labor to her number one assistant, Ray Porter.

She arrived at the office building and parked her car in the company garage noting that the presence of but a few other cars indicated Dr. Lake was one of the rare ones working this weekend. The low-key atmosphere would be part of the appeal to work on weekends. Nevertheless, as she walked in the early morning sunshine and cool fresh air, she hesitated for just a moment, questioning her decision to work yet another day in a lab without windows.

She said hello to the weekend guard as she entered the building and crossed the lobby to the elevators. On the second floor, she walked the empty halls and made her way to her lab door entrance. There she punched in her code to gain entry. Dr. Lake pushed open the heavy steel, secure door and reached blindly for the light switch as she stepped inside. The flip of the switch added the main overhead lighting to the faint glow that had already been present in the darkened space, a glow that had come only from control panel lights on the various computers and other more sophisticated equipment in the windowless room.

She pattered around the now brightly lit lab most of the morning, even firing up one of her impressive machines to practice manipulating microscopic traces on a silicon chip. The morning passed quickly and she was satisfied that the extra time in the lab this morning had been worthwhile.

Her personal office was at the far side of the laboratory work area. It adjoined the lab separated by a lightweight interior door and a wall that was mostly glass, allowing a view of the lab while seated at her desk. At lunchtime, Dr. Lake went into her office, where she ate a candy bar and, seated at

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her computer, proceeded to connect to the local secure network. This gave her access to the Bio Apps Group reports. Biological Applications Group (BAG) was doing work of great interest to Dr. Lake. She viewed the recent status reports posted by the group, and brought herself up to date. She flicked through the electronic images of pages one after another on the touch sensitive screen, slowing occasionally when something of particular interest caught her eye.

The centerpiece of her company's technology was their proprietary Dual Port RAM (Random Access Memory), and the Bio Apps Group had incorporated variants of the memory chip into a series of projects that had been highly lauded. Some had spawned production and sales of new products. Others had at least encouraged related technologies to advance in new directions. Of particular interest to Kim was how BAG had been developing brain interface capabilities that were aiding the treatment of a variety of afflictions. Implants could provide new pathways around damaged brain areas. Patients might be able to direct the implant by their very thoughts to control motors that replaced disabled limbs or that drove exoskeletons a paraplegic might wear. But, of the many successes of DPRT's dual port RAM chip, the greatest was, in Kim's opinion, yet to come. And as wondrous as the continued achievements of BAG were destined to be, Dr. Lake had her own ambitions for the dual port RAM implant.

Ray Porter awoke that same Saturday morning looking forward to a day on his ranch. He had arrived here late the night before, after the drive into the country from San Jose. He

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had bought his modest ranch with the money he inherited when his childless and favorite uncle died. The spread featured a humble ranch house comparable in size and amenities to his San Jose townhouse apartment. The property had a split rail fence surrounding a field located close to the west side of the house. The only thing between the house and the field was a small vegetable garden that was furrowed into the land barely beyond the late morning shadow of the house. A wide gate in the fence allowed for a short walk from the house, past the garden and through the gate, into the pasture where Ray kept his horses. Entering the gateway and facing out across the pasture, one would see, beyond the fence that constrained the far side of the field, some wooded acreage. Those woods and a pasture beyond the woods that he liked to call “the lower forty”, although it was nowhere near as big as forty acres, rounded out the rest of Ray’s property.

He paid a caretaker to tend to the horses when he was not around and to facilitate other maintenance and repairs on the property. Owning the ranch was an expense he could afford, but a luxury he might have to give up if he ever took on a wife and family. But then, that is when he would most want to have this wonderful, bucolic place. It would be a perfect homestead for his romantic notion of raising a family.

Presently, Ray slipped through the gate and strode out into the pasture, walking on the grass still wet with morning dew. He pondered his responsibilities, both present and future. He pictured himself frolicking with small children in the fields and running with the horses. He wasn’t far into his daydream when thoughts entered his mind about how expensive raising a family would be. Life wasn’t fair; there was never quite enough money to have *everything*.

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Ray was like that; he fretted about everything. He slapped himself and thought, “Why do I do that? Why can’t I enjoy a pleasant thought for just a moment?” He returned to his fantasy daydream and tried to enjoy the image of him running in the fields with his children, but the thoughts quickly returned, “How much is all this going to cost? Kids are expensive.”

He considered raising some cattle on “the lower forty”, but he was an animal lover and didn’t eat beef, so how could he sell his cows to someone else to slaughter so they could eat beef. He couldn’t afford to raise them as pets. If people don’t raise them for slaughter, they aren’t raised at all, and so never exist. Which is the more unjust? There he goes again, over-thinking everything. Ray actually had a fine mind that never stopped. It was an asset back at his job at DPRT.

This morning he said hello to his horses, Lady and King, and then returned to the porch to wait for Janene to arrive. He had met her one pleasant day when they made eye contact at a street-side cafe during lunchtime. They engaged in small talk, which led to an afternoon of meaningful conversation where they discovered a shared love of animals. Their relationship was never too heavy. She was his kind of off-again on-again girlfriend. He liked Janene well enough, but somehow she was never the image he saw in those daydreams of wife and kids. Janene was even more strident than Ray in the animal rights activism world. She had some interesting friends, and before long, Ray was introduced to these friends and eventually brought into “the group”.

The sun was still low in the sky when Janene arrived. Ray took her by the hand and they walked over to the field to watch the horses romp in the fresh morning air. They leaned

against the fence as they enjoyed the show that the two horses put on prancing about, tails lifted. King and Lady liked Ray not only because he was a kind owner, but they liked him at first sight; Ray was 5'6", not much over 130 pounds and was a welcome relief from Mr. and Mrs. Schultz, their rotund prior owners, who liked to bounce around on their backs.

"I don't know if horses can see red, but maybe they like your hair," Ray theorized. "They certainly do like you." He based this judgement on the way Lady and King strutted like show horses performing for Janene. Janene's bright red hair was the hue that red haired children usually have before it darkens with age, but hers retained its extreme color even as an adult. Janene was an inch shorter and even slimmer than Ray, so Lady and King had that reason to like her, too.

Ray had more to say to Janene, "Geetha is coming today, too, so we have to be careful. No mentioning of 'the group'."

Geetha was a coworker from DPRT. She was of Indian heritage, but Ray never asked for details. She was obviously Indian and had an easily detected accent, but it seemed politically incorrect to ask, "Where are you from?" He might get a steely response, "I'm an American. Where are *you* from?" Geetha, in fact, had grown up in India, but was very Americanized. She was a kind person who would never have taken offense at a question about her heritage, even though Ray was afraid to ask.

A quarter mile from where Janene and Ray waited for her, Geetha turned off the county road onto Ray's private drive. She had roused the kids before sunrise and had started the drive in the dark. Now, she drove northward along the straight stretch of dirt road, with the early sun more at her

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back, lighting her way on this crisp, cheery morning. The drive followed the split rail fence on her left, and when Geetha reached about the halfway point along the fence where she passed Ray's small horse stable, she could see Ray and Janene ahead at the far corner, leaning with their forearms against the fence. The modest ranch house could be seen directly ahead among a few trees. She swung her van a little to the right and parked in the scrub grass parking area that the drive widened into in front of the house.

Normally very formal in her business attire, Geetha looked more Americanized than ever in blue jeans and a western style shirt as she climbed out of the minivan followed by two children. They stretched their legs, then waved and called hello, and started walking toward the others. As they approached, Ray, without saying a thing, ran to the foyer of his house and returned with a cowboy hat to place on Geetha's head. His first words to her were, "Now the look is complete!"

The ten year old daughter cried, "I want one! I want one!" with a big smile on her face. Geetha, Mara and thirteen year old Harish took turns passing the hat around and hamming it up.

"So you kids want to see some horses?" Ray asked. "I have a couple of 'em who want to meet you. First you will have to learn a little about horse tack." The whole party walked over to the stable, and the two horses came trotting over to get a morning treat from Ray. Ray explained the bridles, reins, stirrups, and saddles to the children as he saddled up the horses.

When the horses were ready, Geetha and kids took turns riding at a walking pace around the field. Janene observed, "Those are really good horses you have. They seem

to know those children are not skilled riders, and they are being careful with them, ya think?"

"Yes, I've seen horses exhibit disdain for unskilled riders they don't like, and give them a really hard time. King and Lady are being very considerate." Emboldened to try something a little more daring, Ray walked out onto the field and tied a long lead to the horse's bridle. He stood in the center maintaining control for the safety of the children as King circled him, and then encouraged King to treat Mara to a slow trot. The horse switched gates from walking to trotting, and Mara giggled with delight as the ride turned bouncy. Lady joined in and Harish was equally thrilled.

After their ride, Geetha took the two kids to explore the woods, while Ray and Janene took their turns riding. The two more skilled riders gave the horses a better workout. They galloped back and forth across the field in short sprint races that somehow seemed to always end in a tie. They figured the horses liked running together and were rigging the races that way, horses in charge, not humans. Ray and Janene weren't really driving them hard, and all were having fun.

One more time up the field from the back toward the house, and the race turned from fun to near catastrophe. Janene was sprinting along about midfield when, without time to understand what was happening, she suddenly saw the world start to turn in front of her. The saddle had slipped around the horse's middle and Janene found herself out of control and riding the side of the horse at a full gallop, just hanging on for dear life. By the time Ray brought them all to a stop, the saddle had rolled all the way under and Janene was hanging somehow under Lady's belly. Janene was unhurt, and

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only after the fact, did she start shaking in fear. It all happened so fast.

After the near trampling, Ray confessed, “I tend not to cinch the strap tight enough. It seems so mean to do to them when you are tightening the saddle. Also, I think Lady might have bloated her belly while I was cinching the strap so that it would loosen up after I was done. Horses are smart like that, but I don’t think she thinks through the consequences. I just suspect she thinks, ‘If I do this, the saddle will be more comfortable.’ She is not thinking about what might happen next. You don’t think she did it on purpose, that it might be that she really wants to hurt you, do you?”

“No. I still think she likes me. It’s like you said, she doesn’t think that far ahead. I don’t know. Will we ever know what goes on inside a horse’s head?”

Ray’s glance turned up field and he declared, “Here comes Geetha!” Geetha and her kids came running laughing and shouting. When they got close enough for Ray and Janene to make sense of the clamor, the kids spoke over each other excitedly as they related a tale of a scary encounter with a snake. Mara laughed and pointed and interjected her teasing comments as Harish began a confession, “There is this place in your woods where someone has dumped some junk.”

“Yeah, I’ve been needing to clean that up,” Ray said.

Harish continued, “I saw this piece of black rubber that looked like a shred of an old bicycle tire half hidden in some tall grass. I thought, ‘that old thing looks a lot like a snake. I’m going to pick it up and throw it at Mara to give her a scare’, but when I reached down to pick it up, it shot right out of my hand! It really was a snake! I think I almost grabbed a rattler!”

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“Ha ha,” Ray and Janene laughed and expressed their thankfulness that he hadn’t been bitten. The group of adults departed the field still chuckling over the snake affair. On the way to the house Ray showed them what few things he could find growing in his garden as he tried to show off his farming skills. They, next, sat on the porch for a while and then went into the house and talked, over a late lunch, about how exciting the day had been.

Ray had decorated his little farm house’s front room to look something like an English countryside pub. He had a small bar set up next to the doorway in the far wall that led to the rest of the house, but upon entering the room, before you reached the bar, you passed the dart board on one wall and an assortment of horse brasses hanging on another. The bar featured a tap that didn’t really work, but bottled beer was close at hand in a small refrigerator. He referred to his place as “The Spotted Dog”, named after a pub he once stumbled onto in the actual English countryside years ago on a trip to Europe when he was younger. Nobody drank beer this time. Lemonade was the drink of the day as they talked.

Mara continued to razz her big brother, “Boy, you sure were scared!” Harish smiled and took it all in good humor, as he beat her in a game of darts. Ultimately, with a long drive ahead, it was time to say goodbye. Geetha and her son and daughter left for home, thanking Ray for the invitation, and hoping to come back some time when Geetha’s husband would be able to come, too. Geetha headed out kicking up a little cloud of dust on the dirt road. Janene and Ray sat again on the porch and watched the van drive away.

“The horses are still saddled up, Janene. Let’s go check out the lower forty,” Ray suggested. They called the horses

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over and then led them through the gate to exit the field and walked them to the wooded area. They mounted up, and then had fun picking their way slowly through the trees on horseback, ducking branches here and there. The challenge gave way when they exited the woods, and they broke into a trot as the horses found sure footing in the pasture. After trotting around the field a bit, they couldn't resist and found themselves breaking into a gallop once again. Ray looked at Janene and thought about how daring and athletic she was. Here she was back on the horse already after that saddle incident at the other field. Maybe he could work at picturing her in that future family daydream. But Janene had a fierce independence, and all her friends, at least the ones that Ray had been introduced to, were rebels. She kind of scared him in a way, and besides, she would probably not agree to settle down with him anyhow. Ray redirected his attention to his riding.

They would start at one end and sprint the length of the clearing, then turn and race back. On their third pass, something on the ground caught Ray's eye as they raced along the field, and he reigned in King and then turned him back toward the spot. Janene and Lady followed. He dismounted and on examination declared, "There's an old well here. It's all overgrown and partially filled with rocks, but a horse stepping in that hole at a gallop would have been a disaster." He marked the spot with a stick and said, "I'll inspect this whole field before we run the horses here again." Janene got down off her horse and scanned the surrounding terrain suspiciously with her eyes as Ray continued to stare at the ragged hole in the ground. They decided they had had enough riding for the day and walked the horses home.

Later that evening, they sat on the porch and watched the sunset. The front porch of the house wrapped around the west side where they presently relaxed savoring the view over the fenced riding area toward the western sky. The sun was already below the curve of the Earth and the cloudless sky presented an orange glow hugging the treetops at the horizon and transitioning through a rich, dark blue zone, further darkening upward toward a star field overhead. Rain tended to bring out noisy frogs and insects at this time of the evening, but it hadn't rained in a long while, and the evening was very quiet.

"That's three close calls in one day," Janene stated. "There was my saddle, then the snake incident, then the abandoned well close call."

"Yeah, I guess life in the wilderness has its downside," Ray said. "We are freed from a lot of dangers when we live in our high-tech world back in San Jose."

At that moment, in the darkening skies, a shooting star graced their field of view with its spectacular beauty. "It's worth the risks to be out here," an introspective Ray proclaimed. He went on to say, "I'm going to clean up that junk pile in the woods next weekend." It was Ray's classic inability to remain poetic, always torn between optimism and pessimism, beauty and practicality. Mind always working, he could not simply enjoy the moment.

"And that shooting star reminds me of my idea to dispense with garbage worldwide. All those landfills, one of which my trash will be on its way to after next weekend, should be mined and neutralized. If I were king, I'd order the government ... no wait, I guess I would *be* the government ... I'd order the people to build great reflectors in Earth orbit."

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“Ha ha ha,” Janene burst out laughing. “I thought you were about to say what you would do if you were King, your horse! It took me a moment to make sense of what you were saying!”

“If I were king,” Ray repeated himself undeterred by Janene’s laughter. “Those sunlight collecting reflectors would focus huge amounts of perfectly clean heat energy on each landfill creating this molten lava pit that would sterilize the dump of pathogens and toxins, and we’d mine the slurry for metals.”

Ray was nothing else if not a big thinker. He often thought outside the box, and he was good at seeing a fresh perspective. He was the guy who among his nature loving, environmentalist friends, had justified the drilling for oil as equivalent to squeezing Mother Nature’s zits. “It’s down there, and it’s best to get it out and clean things up,” he rationalized.

Sunday evening came at Brent Mabry’s upscale home in an exclusive neighborhood of San Jose. His modern furniture was always new, because his wife liked to redecorate often. He scowled as he noted a new end table next to the bulging and inviting, rich dark brown, leather couch and wondered how long that had been there. The bar was never too far away, centrally located there in the living room, and he made himself a drink.

Mabry was quite successful, having risen to the office of vice president at DPRT, but you wouldn’t know it to listen to his wife, who was just returning from having Sunday lunch

with her aging mother. He had actually seen his wife's car turning in to their drive that led to the portico in front of the house, as he had only just arrived home himself, and was still outside the front door when he saw her. But he hadn't waited. He had gone on inside ahead of her.

Ellen was slow coming on in. She was probably fixing her hair after the convertible drive home. Now, she was already speaking as she came in the door. It started out nice enough but immediately went sour as she greeted him with, "I missed you today, dear. Mother is fine, thank you for asking. You know, I missed you all yesterday, too. Do you really have to golf so much? I'll bet some of those ambitious young executives at DPRT went in to work yesterday. If you're not going to spend time with me, at least maybe you should be going in to work. You should be president of that company by now, or at least VP of Advanced Programs or something important. Production Operations, poo, that's factory work."

He wanted to protest that Production Ops was the most important department, since nothing the company developed was worth a hoot, if it wasn't manufactured properly, but he didn't bother. "Here have a drink. You're all worked up after gabbing with your mother all day," he said as he handed her her favorite adult beverage. "I was golfing with Davis Cantor yesterday, you should know. An extra day at the office wouldn't be as valuable to my career as golfing with the CEO."

Blow-up averted, the late fifties Mabry settled his middle-aged body into a soft leather lounge near his wife who took a seat on the couch. He was almost all gray and not getting any younger. His days as a college athlete seemed impossibly long ago. His six-foot frame still reasonably

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accommodated his somewhat widening girth, but Mabry sadly acknowledged the softening of his once muscular body. He had advanced in steps from captain of the lacrosse team to corporate vice-president, and this stage in his career was as far as he needed to go. He just wished his wife would accept that outlook. She was still pretty good looking at fifty-five, and he pondered whether, without that, would she still offer enough to their marriage for him to keep her. The childless couple had not ever tried to have children; they had not even even discussed it. How did the years go by and that happen? How does a married couple never even raise the issue of having children, to share their thoughts about it? Mabry pondered the question for a while and then had the answer.

He spoke resignedly, “Ellen, sometimes we don’t talk much; probably, not enough. But I think it’s because we already know how the other feels. Neither of us has to say the words. We just know. I guess you *are* the right girl for me.”

It was the best spin he could put on their relationship, and it was enough as Ellen smiled and relaxed contentedly with her drink.

Chapter 2

The Corporation

Kim Lake was but one computer genius in a world that sometimes seemed full of them fifty years after the earliest digital supercomputers had begun to change the world. One golden boy after another tended to flash onto the scene briefly enjoying his moment in this superfast, high tech world. But Kim had a quality rare among her peers that kept her continually employed at a prestigious rank in that technological world; she had imagination. She tried things that others hadn't, or hadn't dared. So it was with the dual port RAM.

The twelve story San Jose, California building sported its logo over the main entrance, DPR Tech, Digital Processing Research and Technologies. Inside a meeting was in session. A man's image appeared on a screen in front of the attendees. "Our dual port RAM technology enables our modern computers to interface seamlessly with the machines they control," the speaker explained. It was a coincidence that the acronyms for Dual Port RAM and Digital Processing Research were the same, DPR.

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Twenty executives sat at a single table in the full conference room. The attendees obligingly stared at the screen that occupied almost the full height and width of the far wall of the room. Presently, the screen transitioned from the image of the current speaker to show a studious looking woman standing next to a large microscope with attached LED screen in a well lit and meticulously clean laboratory. The walls of the laboratory were bright white, and stainless steel equipment racks, visible to the woman's left and right, gradually moved out of frame as the camera slowly zoomed in. The woman switched off the distracting microscope's power and the magnified image of a silicon chip's architecture disappeared leaving the scope's LED display black. The choreographed presentation then centered up Dr. Lake as she dramatically turned to face the camera.

"This is Dr. Lake, our lead researcher in this area," the speaker's disembodied voice continued. They risked credibility every time they used Dr. Lake for these show and tell conferences because, in spite of her unkempt appearance, she was still youthful and subtly pretty, and just didn't look the hard science type. But she was in fact their leading researcher and her oratory skills were top notch. Besides, they had no choice but to use her today, because she was making a special pitch of her own.

Today she wore her typical dark blue turtleneck under a white lab coat. Of late, she was gaining weight as a result of long work hours and poor eating and exercise habits. Furthermore, she wasn't much motivated to get in shape, as she preferred people recognize her more for her professional skills anyway.

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“Ladies and gentlemen, members of the board, colleagues and stockholders,” Dr. Lake began her presentation. “Thanks to our advanced dual port RAM technology, you traveled here today comfortably and safely, not to mention, quickly and efficiently. The computational power and speed made possible here at DPR Technologies is vital to the city’s surface traffic and mass transit systems. We did not always have these well-honed, finely engineered systems. And in simpler times, it didn’t matter that everything was not so thoroughly optimized. In the time before smart public conveyance systems, you might have pulled the cord to ding the bell, or you actually walked up to the conductor and said, ‘I would like to get off here.’ Then technology brought us the world we live in today. For a while, we descended into a hustle-bustle existence, where we seemed to lose individuality, on top of losing personal connectivity. Now, I think we are recovering from that adjustment period. I’d like to point out that our individualities have, in a way, made a comeback, ironically, thanks to high-tech advances. The transit vehicle knows you as soon as you board. It knows where it needs to go based on who is aboard, and it considers the present traffic patterns to most efficiently serve everyone. This level of complex decision making in a sensor rich world is only possible thanks to the work we do here. Most of you appreciate this mass transit anecdote, but few in the public really know the extent to which our systems improve everything from electric power usage at home to ocean farming. The average person forgets that when your grocery cart steers you to all of the products you typically buy on grocery day, it wasn’t always that way.”

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About to transition from the rah-rah DPR Tech prerequisite part of her presentation, to the part where her heart really was, she took a deep breath. Another presenter might have sounded awkward or pretentious daring to delve into the philosophical in a technical presentation, but Kim did not. Born on Long Island but raised in the South and then ultimately moving out west with the family, her mixed cultural background left her no recognizable accent. She had a calm, steady manner of speaking with just the right amount of animation and appropriate hand gesturing. An occasional southern drawl would slip in, especially when she used the word “there” with that tongue pulled back, drawn out rrrr sound. But this hint of a southern country girl just had a disarming affect improving her relation with the audience.

Still, at this moment, ever so slightly, she lost some of the polish in her presentation. She was about to broach a sure-to-be controversial new subject. For some time, she hadn't been so certain anymore that she believed whole-heartedly in the work she was doing, and so now, she wanted to steer the company in a new direction. She would stop merely dreaming of those childhood ambitions that followed her all her life, always there in the background. She would finally take action. Our goals in life change as we grow up, but Kim was one of the rare few who latched onto an idea when she was but a child, and held it close all of her life. It had taken a lot of convincing to get her management to let her make this pitch to the money people. The VP of R&D had signed off on it, but many here didn't have a clue as to what she was about to say.

“We are Man.” She used the gender neutral, species emphatic form of the term. “We live in a world of our own making. We mine the Earth and form our habitats. We control

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the weather ... at least within those habitats, and now even to some extent outside of them. We travel when and where we want on the surface of the planet and under the sea. Our hubris is unbounded.” That last line she said with a smile, a self-deprecating smile, intended to sheepishly say, “And the hubris part is not a good thing.”

“But we share this world with others. Life on the planet is a mosaic; no, a tapestry is a better term, an interwoven complexity of relationships. Now I’m not condescendingly suggesting that anyone here believes that we don’t need to live in harmony with nature. And I’m sure we here agree that we harm other species at our own peril. But even the best of us don’t spend enough time seriously trying to define that limit. How far is too far in bending the Earth to our whims?” And then she waxed even more philosophically, if that was possible. “We do pure science because we want to know things. We are naturally curious. We also do pure science because we know full well that it has repeatedly spawned great benefits throughout history. And so, I propose a venture that we must not easily discount as inappropriate to our company’s business model and goals. The endeavor is bold. The benefits are unpredictable. But this is the time and place to explore a new frontier. It has become evident to me that the dual port RAM is the key to deep, meaningful connection with other species. I would like to build an interface that will collect the neural patterns of another species and then in a mirrored application download them to a volunteer human brain. We have already made significant breakthroughs in brain implants using the dual port RAM to address problems involving brain injury, so the

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medical/surgical aspects are not too out of line for the company.

“I, more specifically, propose that this first attempt at what I call ‘deep communication’ with another species should be with one with which we already communicate to some extent, the domesticated dog.” The presentation continued, perhaps becoming a little too technical, with charts and diagrams, tables and graphs, describing details of the proposed procedure. She surged with confidence at the end convinced that she had made her case. They should all stand up and applaud, right?

The first question broke the relative silence that up until then had been violated by no more than the strong undercurrent of a dozen murmurs among those pairing off to quietly exchange critiques. “Dr. Lake, would you expound, please, on the bottom line benefits to DPR Technologies that you foresee with this research?”

Kim struggled not to show her annoyance. Hadn’t she already noted the grand history of the benefits of such scientific research? “Again, I can but repeat that the benefits of pure science are unpredictable but often lucrative.”

An attendee was heard to say, “That seems a reasonable assertion.” Kim was grateful for even the feeble support.

“Perhaps a dog will tell us how to herd cats!” a naysayer shouted sarcastically. Now that was just mean, and it actually gained Kim some sympathy. She shot back, “Or perhaps a dolphin will teach us how to better farm fish.”

Another man stood up to speak, “Dr. Lake,” he first drew her attention and paused.

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“You can call me Kim,” she responded. What was that? You can call me Kim! The line echoed in her brain. I’m trying to sell professionalism and I blurt out that? Flirting? Was I flirting? I never flirt. I must be getting desperate because I sense I’m losing them. Get it together, girl. Girl? Ugh, I’m still doing it! Professionalism ... professionalism.

“Don’t you think PETA will have something to say about this? I don’t want the animal rights people giving us grief about animal experimentation,” he continued.

“I will convince the public that the purpose here is to better understand our animal cousins to our mutual benefit,” she countered. She was beginning to realize that her plan would have to include a major PR campaign for the public even after she convinced the board. Her task was not just a technical one. Her scientist’s dreams had been a bit naïve.

“There sounds like a risk of public opinion going either way,” another voice was heard from the group.

Yet another person spoke up continuing the line of thought of the person speaking before him, “Or public opinion becoming divided and passionate in both directions. Certainly you’ll never win over everyone. Some will be for, some against. You’ll never avoid controversy.” Question and answer continued while the murmurs throughout the room expanded over the next several minutes growing louder in their competition to be heard. The general sense taking over the discourse was definitively negative.

Thank goodness the company president was there to participate. He didn’t sit in on all of these meetings, but Dr. Lake was a highly respected employee whose presentations were valued. So today he was here. He intervened, “I think we have a lot to think about and I would like to confer separately

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with Dr. Lake and several others of you that I will contact. Thank you, Dr. Lake.” He reached over and turned off the screen. It was as though, he had pulled Dr. Lake to her safety from a pool of sharks when that screen went blank.

Dr. Lake was a deep thinker, but she could be a realist, too, when she needed to be. Her early college years were interrupted by the death of her father. He succumbed to pancreatic cancer, but Kim always thought he actually died of a broken heart having lost his beloved wife the year before. She took the following year off from college and took care of her younger sister and the various family pets, the dog, the cat, a fish tank with six cichlids that all had names, and a rabbit in the back yard pen. Yes, the animal shelter sometimes has someone’s former pet rabbit in need of adoption. It was out of character for Kim that she currently lived in an apartment with no animals.

When her sister married young, right out of high school, Kim was free to return to college. She did so with great eagerness to learn and excel. She liked to say that college is easy, if you but go there to learn. Her classmates partied and likely considered her a nerd, while she scorched her way to a doctorate in microelectronics. She wasn’t completely averse to dating and a social life, but she tended to date only serious men who were usually older than she. Of late, the rare dates she had had were now with men about her own age, now that she herself was well into her thirties.

On an occasional weekend, she would visit her sister and her husband at their home in the suburbs. She enjoyed the opportunity to play with the pets in the yard as much as to see Michelle. Michelle Lake was a name with reasonably nice

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sounding alliteration. Kimberly Lake would have been even better, but her Dad wanted plain Kim, like the movie star, Kim Novak, so that's what was on her birth certificate. Kim liked it that way, too. She thought Kimberly sounded a little too soft and girlie.

This particular Saturday afternoon, on the weekend following her disappointing pitch to the board, Kim stood next to a barbeque grill and chatted with Michelle and her husband, Donny, as he turned the shish kabobs. The sound made by the cooking food was punctuated by an increased sizzle with each turn of a kabob and then quieted with the closing of the grill's lid. Donny set the tongs down and listened in on Michelle and Kim's conversation just as Michelle asked Kim how her work was going.

"Oh, I've had some ups and some downs. You know how I had that idea about putting one of our implants into the brain of a dog and recording its thoughts?"

"Uh huh," Michelle nodded as she answered.

Donny interjected, "What? Wow, are you kidding me? That's awesome! I hadn't heard about that. Tell me more." His overplayed enthusiasm almost sounded mocking, but it wasn't. Donny was genuinely fascinated, and Kim correctly took it that way.

Her explanation to Donny would have been a good practice run if it had come before her formal presentation, but that probably wouldn't have done any good as for convincing the board. While sincerely interested, Donny still listened somewhat with the attitude that this was some wowee-zowee fun idea, but then as he absorbed the concept in depth, he began to realize the profound ramifications of such a technology. And he came to appreciate the depth to which his

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sister-in-law was committed to exploring the minds of animals. This was much more important to her than he had at first realized.

Kim finished, “So I think the presentation was not well-received. Cantor says he is going to talk to me some more about it, but I sense he is pretty cold to the idea, too.”

As the adults cooked and talked, the kids were playing croquet on the backyard lawn. The game was getting old as they started fussing about the rules, and one of them quit in a huff. Kim interceded with a suggestion.

“I have a new game idea. This game is simple. There are three of you. Each has a ball and a mallet. We pay no attention to wickets and pegs; the full yard is the play area. Jill, your task is to hit Bobbie’s ball with yours. Bobbie, your task is to hit Jimmy’s, and Jimmy, you drive your ball to hit Jill’s. Each of you is both hunter and prey. In fact, that’s what we’ll call this game, ‘Hunter and Prey’. Beware when you attack your prey, and keep tabs on where your hunter is! Sometimes you will want to attack; sometimes it will behoove you to run away.”

They started at three far points in the yard, and the game proceeded with even more interest and strategy than Kim had anticipated. She was good at coming up with fresh ideas, and this original, improvised game was just one example of her creativity.

CEO Davis Cantor stood beside his ornately carved antique desk in an office fit for the head of one of the most successful corporations in the world. Except for that desk. It

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seemed out of place for this high-tech business. The large office had no bookshelves, no clutter. Cabinet doors on one wall opened to reveal only a minimally stocked bar. The furniture was modern and included a couch where, presently, VP of Production Operations, Brent Mabry, was seated. The mahogany walls sported oversized monitors where you might have expected to see art in this classy room setting. The monitors displayed the present locations of anchored platforms in three different oceans. Depicted geo markers represented the platforms, and overlaying these symbols were real time data outputs reporting everything from ocean water conditions to fish population vectors. Of all the accomplishments of DPR Technologies, this ocean farming business was the crown jewel. This was the idea Davis Cantor brought to the company ten years ago, when he took the helm as CEO. We would track and know all of the oceans' marketable fish populations. Ships would use a minimum of resources to find and harvest, as they always knew exactly where to go. Fishing would be responsible and sustainable. Imagine that! Davis Cantor, environmentalist! It was as much a bold idea as Dr. Lake's. And it had worked.

The whole operation was continuously optimized by a genetic algorithm. A genetic algorithm encodes values for all the variables in a given problem into a vector of numbers, a mathematical version of "DNA". Thousands of DNA vectors float around in the computer's CPU generating simulated answers to the problem at hand, while "mating" and producing "offspring" by the mixing of their binary 1's and 0's. The better solutions, as indicated by the simulation, are granted a greater opportunity to reproduce. A finely honed solution ultimately "evolves" after multiple generations. Cantor's

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algorithm considered hundreds of factors from where the fish were to be found, to the current sea-worthiness of individual ships in the fleet, to demand for fish at several dozen ports around the world. The computer ran the show telling everybody where and when to fish, to refuel, to change the crew, and to sell the product.

Yes, that antique desk was out of place in that office and in this high-tech world. Keeping it was Davis Cantor's tribute to the history of progress. He had traced its pedigree back to a vicar in Kent, England who purchased it already used in the 1800's. Davis, in a way, liked that he could trace it back no farther. The desk retained some mystery.

"So, Davis, the way you ended that meeting, I feel as though you want to give Dr. Lake's idea a shot," Mabry said from the couch where he comfortably almost lounged in the presence of the big boss. He and Cantor went way back and were good friends. Cantor liked to keep close this one person in whom he could trust and confide, and Mabry was one of the few who seemed not intimidated by Cantor. His imposing and weighty six-foot-four frame served Davis Cantor well in his management style of authoritarianism. He would cruise DPRT's offices and factory floor, moving through them with his entourage like a wave that threatened to overwhelm anything or anyone that got in his way. For now, he was alone with confidant Mabry and spoke with relaxed candor. Since Mabry brought up the topic of Dr. Lake and her idea, Cantor took the occasion to relieve him of any misconceptions.

"Don't kid yourself, Brent. I just wanted everybody to calm down. I want this idea kept as quiet as possible ... and choke that baby in the cradle without too much fanfare."

"Gee, Davis, it's not that bad is it?"

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“No, it’s not bad at all. In fact, it’s brilliant. It’s awesome. But it’s poison for us. The critics are right about PETA. The controversy would tear us up. Either we are abusing individual animals who have nothing to say, or, if we succeed, the whole exercise can only enhance the animal rights movement. You see, that’s my real concern, not just the controversy over animal experimentation. The unacceptable danger here is what if it works. What will we learn? Some animals are just mean and want us to die? Some animals are like us with hopes and dreams? It’s a lose/lose proposition for us. The only ultimate consequence of it all is that we will be told that we, humanity, need to cut back because we are taking too big a piece of the pie.”

“You really think this could work and some animal would curse us and make people feel guilty?” Mabry retorted.

“Not exactly, Brent, but I think I know how this is likely to actually go down,” the CEO answered. “Any animal’s communication will be through Dr. Lake’s chosen volunteer. We’re not talking here about a talking dog. We are talking about a person, some human being, who was so privileged as to be the one to get hooked up, and that person telling the world what they say is the animal’s take on things. Too dangerous, too risky, and I don’t just mean for the company. I mean, at the risk of getting all philosophical like our good doctor Lake, for the human race. This plan has to be stopped, and the very idea must be suppressed, if that is possible. I’ll give Dr. Lake a promotion, more money, make her happy enough to forget this idea and the way we shot it down.”

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“I don’t want more money if I can’t use it to pursue my dreams,” the ever dramatic and philosophical Dr. Lake continued the conversation with her favorite lab tech. Ray Porter operated the Tunneling Electron Microscope. He was eternally subject to the jokes about his ray gun, as the TEM is essentially just that, a ray gun. The ray gun was the quintessential weapon carried by heroes and villains alike in 1950’s sci-fi stories. But Ray used his tunneling electron microscope only to shoot at little atoms, shaping super-miniaturized circuits on experimental silicon chips. Right now, he was simply desoldering a chip from a circuit board, and he could start and stop the process anytime. So he dropped what he was doing and stood attentively at Dr. Lake’s side.

“Aww, you should take the raise and bide your time until you can convince them. Maybe next year.”

“I don’t know, Ray. I got the feeling when meeting with Cantor that he *really* doesn’t want to hear any more about ‘deep communication’.” Dr. Lake spoke without even looking up from the microscope that her brow was firmly planted against. When she did look up, it was only to make her way to a nearby computer keyboard.

Ray bounded from place to place, keeping in Kim’s face as she moved about the lab. “But you can’t leave the company. There is nowhere else in the world equipped to do what you want to do,” he pleaded.

“I guess you’re right. I don’t really have a choice.”

“Maybe you could at least kind of dabble in the idea here and there without them knowing. I’ll help,” Ray volunteered.

Dr. Lake looked up from the current focus of her attention and made eye contact with Ray. “Ray, that’s a

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serious breach of contract that would seriously get me fired,” Kim lightened the mood with the overuse of the word, “seriously”.

“Kim, you have a bold and optimistic vision of the world, and I’m afraid it’s rubbing off on me. I can’t believe I’m saying this, but I want to do it. You’ll be the first to say that if you can achieve your dreams without any risk of failure, your dreams are not big enough, or however that saying goes. You show me what we need, and I’ll start burning the dual port RAM.” He used the term, burning, to describe his process of fabricating custom integrated circuits on a silicon chip, a process that he was exceptionally skilled at.

“I don’t know ... I don’t know,” Dr. Lake’s voice trailed off as she returned her attention to her work.

However, over the next weeks in their spare time, the two of them developed ideas and explored possibilities for the mind merging DPR (dual port Random Access Memory). At first, it was just casual blue-skying of ideas, but after a few days, the intensity of their effort seemed to grow irresistibly. They found themselves fully committed. They were really doing this.

They also grew closer, discovering a mutual love of animals. Ray talked incessantly about his horses until Kim almost started to think of them as her own. She hoped that soon she would go visit Ray, Lady and King on a weekend and go riding.

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CEO Davis Cantor pressed the intercom button to speak to his assistant, “Mary, get Brent Mabry up here as soon as possible.” Up on a large wall monitor, the video recording from a surveillance camera was just finishing playing out. Few employees knew about Cantor’s ever-present hidden cameras. Dr. Lake was saying, “Ray, I’m glad you talked me into doing this in spite of Cantor’s decision. I think this is going to work. Look here,” as she gestured toward a piece of equipment on the workbench. The segment began again in a loop starting with an earlier part of Kim and Ray’s conversation where they discussed complications with the large scale integration of customized CPU functions within the same chip as the dual port RAM that would be necessary for her mind link process.

Mabry entered the room and was immediately blasted by a furious Davis Cantor, “We have a problem. Look at this video. I had that Dr. Lake toeing the line. She was not going to be a problem, I’m sure. But that damn assistant of hers is screwing it up.”

“Oh man ... ,” Mabry mumbled something as he watched the video loop.

“Ray Porter has to go. We can’t let that idealistic young punk be an enabler of her ... rebellion.” He hesitated on that last word, spitting it out only after having failed to find a more fitting one. But, hell, rebellion is right. She should have blind loyalty to this company. “I want you to see to it that Porter is fired. Dr. Lake’s dreams ...” this he emphasized with an evil, dismissive, sarcastic tone, “will die with him. I hope she is still hesitant enough about this idea of hers that, if we destroy him, discredit him, then when he is gone, she will take it as a sign that it was not meant to be. You know how she tends to get all philosophical.”

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“What exactly are you saying you want to do?” Mabry said a little sheepishly.

“All I’m saying is I’m delegating that to you. I *will* say simply firing him is not enough.”

A few weeks later, Kim worked alone in her lab. Ray was late. Geetha Singh, her black hair and dark skin set off nicely by the maroon blouse and black slacks she wore, walked in just after a glance up at the video screen monitoring the hallway just outside the lab door would have shown her entering her key code. Kim hadn’t bothered to look up though, because she was used to the familiar beeping sounds of the scramble pad at the secure door. The scramble pad was a clever security enhancement. Each key was itself a tiny digital screen that displayed a single digit. The employee would hold his card just in proximity of the wall mounted keypad. Upon detection of an ID card, the so-called scramble pad would sound off a flurry of beeps as the number values that are displayed on each of the ten 0 to 9 keys shuffled to present a random configuration, as opposed to the usual 789,456,123,0 arrangement of a standard keypad. An employee’s unique five-digit code thus would always be entered in a varying physical location on the key pad. Observing the finger motion, or looking for traces of evidence of contact on keys, would not reveal an access code to a spy.

So it was that Kim wasn’t looking, and was expecting that Ray was approaching after she heard the door open and close. But it wasn’t Ray. Dr. Lake was surprised to hear Geetha’s voice. She was even more surprised at Geetha’s demeanor. Normally sharp, precise, business-like, her voice this time had an unfamiliar softness, and her face had a grave

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seriousness. “Sit down, Kim,” she said and paused, but not long enough for Kim to actually sit. “Ray is dead.”

“How did this happen?” Simultaneously, just as Geetha was breaking the news to Kim, Davis Cantor was in another room screaming at his friend and confidant, Brent Mabry. It was a good thing for them that Cantor had taken extra measures to assure that his office was especially sound proofed.

“It was an accident! I didn’t mean for it to happen this way,” exclaimed Mabry. “I broke into his apartment. I was there to plant child porn on his computer. It was a good plan ... arrest, grounds for dismissal. Discredit him you said. I’d already set him up to look like he was stealing from the company making phony purchases of expensive equipment but pocketing the money. And when the investigators found the porn on his computer, it would have been the coup de grace. He’d be fired in disgrace, just the message you wanted to send Dr. Lake.”

“So how’d he end up dead, for God’s sake?” Cantor yelled.

“I don’t exactly know what went wrong. He had a scheduled meeting, mandatory attendance, early in the morning here at DPRT. I watched him leave his place. But he must have forgotten something. He came back and found me there. I barely had time to flip off the light and hide, when I heard him at the door. I wanted to slip out after he came in, but he saw me. It was dark in there with the early morning and the curtains drawn, so he couldn’t see who it was. He just thought I was a burglar, and he jumped me as I made for the door. We struggled in the dark. I hit him with whatever I could

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grab, a lamp I think. I didn't hit him that hard, but he fell. I couldn't believe it when he didn't appear to be breathing. Then I noticed the blood. I made it look like a burglary and got out."

"So how is this on the news already?" Cantor said still furious.

"Someone at the meeting called his apartment manager when they couldn't reach him on his phone. They found him there. The place was a mess from the struggle. I'm sure it looks like a burglary gone bad."

"But there's going to be evidence, man. Haven't you heard of modern forensics?" Cantor ridiculed.

"I wore gloves. And a hat and some goofy glasses in case anyone saw me. And even if they find any evidence, there's no reason any one should come asking for my fingerprints or DNA."

"So where are the gloves, hat, glasses, and all?"

"I tossed the hat in a garbage bin far from his place," Mabry fumbled his hand around in his pocket only half paying attention to what he was doing. "Oh, I have the gloves right here in my pocket."

"You idiot! Get rid of those things right away. And the glasses? Don't tell me you lost the glasses." Cantor paused and then screamed, "You lost the glasses?"

Chapter 3

A Lucky Guy

Tom Brantley threw the lasso at the cleat way earlier than was necessary as the Marlene approached the mooring. The Marlene was the reliable workboat that belonged to Digital Processing and Research Technologies. Tossing the rope early was a game they had played in his days as a roustabout in the Louisiana Gulf of Mexico oil fields. Two deck hands would stand at the ready on the bow as their workboat approached a dock, closing tangentially on the mooring. The first to hit the mark was the winner. But the sooner you threw, the less likely you were to snare the still far away cleat. If you threw first and missed, you could sometimes pull your rope back, hand over hand, and recover the loop in time for a second throw and yet win, but not usually. Most exciting was when both threw early and both missed. Then it became a race to haul ropes back in and throw at the retreating dock cleat that the coasting boat had already passed, while the rest of the crew watched and laughed, and the skipper muttered something about idiots as he hurried to reverse the engines.

Those oil field days were far from all fun and games. Roustabouts worked a week on and a week off, and it was

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incredibly hard work. The day's shift was twelve hours long, but at least the mornings started out nice. In the Louisiana summers, it was warm, even at daybreak. You stood on the deck of a barge, or tugboat, or small workboat, as you headed in the predawn for the site of the next work assignment. The fast crewboat was only for commuting from a port to an oil field that was far from land. Once bivouacked for the work week at the remote camp, the workers used boats that typically motored along at a fairly slow and deliberate pace that was more like that of a sailing vessel. Usually the boat was one that was low enough to the water so that, if you were headed into the wind, you were misted with the saltwater that splashed off the bow as the waves broke against it. You stood there on the bow near the front of the boat, sea spray in your face, and watched what had to be the most glorious sunrise possible that revealed itself each morning in the sky over the gulf waters off the Louisiana coast. That kind of a show, that soul-drenching experience, made the hard day's work out there worth the effort.

This time Tom was on the Atlantic Ocean in yet a different boat. This time Tom had no competitor in the lasso game. He stood alone, braced with a wide stance on the bow of the coasting boat, threw the lasso early, and smiled as he played the game by himself and reminisced. The skipper watched Tom hit his mark, reversed the engine, and brought the bow of the boat to a stop, as Tom reeled in the slack and cinched the rope on the boat's forward cleat. Continuing in reverse, the captain drew the boat snugly alongside the dock, while Tom ran aft and secured the second rope there.

The twenty-five foot, ocean worthy crewboat had but the two of them aboard. They were here to service some

failing equipment aboard the unmanned deep water monitoring station that was one of many owned and operated by Digital Processing Research and Technologies. The station was comprised of a platform supported well above the water on four steel legs. Those legs continued to a substantial depth below the surface, such that the platform had some degree of stability, even though they did not reach the bottom. The permanence of the rig was the result of the anchor chains leading from the legs to the bottom, far below, that were kept always under great tension against the buoyancy of the hollow legs. The high platform itself was subject to very little movement, although there was a dock that floated on the water a staircase below which did rise and fall with the sea surface. On top of the platform was a tool house. Below the platform and below the water's surface, an array of ocean salinity sensors at each of four depths provided redundancy, but presently data from two, one at fifty feet and one at a hundred feet, indicated failing sensors. There were other kinds of sensors as well, but just now, the salinity sensors were the ones that were failing. They were down to the back-ups, so the failed ones needed to be replaced before any more went bad.

Tom had worked in the oil fields to pay his way through college and now had a degree in mechanical engineering. Those college years combining work and study did more to foster a love of being outdoors on the water than an interest in engineering. As a result, Tom found jobs like this one that kept the salt spray in his face and his body mostly away from a desk.

The unmanned station had its dock at water level, but electronics were housed in the cabin well above, up the flight of steel grate stairs. After ascending the stairs and entering the

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cabin, Tom turned a crank that raised the sensor module. A hand crank was actually more reliable than electric motors in this salty environment. Tom didn't mind the exertion either. He replaced the faulty sensors, cleaned the turbidity sensors, replaced some louvers on some of the shallower modules that bore barnacles, and cranked it all back down into position. He descended back to the Marlene where he then suited up, opened the scuba tank valve, and jumped overboard.

This was not on the official checklist, but Tom used any excuse to get into the water. It was like those oil field days. He remembered a hot summer day in his earlier life as a roustabout, the last day of a weeklong offshore stint. It was always the last day before heading ashore for your week off that everyone acted a little crazy. The crew worked on a wellhead while perched on the wood plank cribbing about ten feet above the water. This was not the big drilling derrick that one pictures when thinking, oil well, but just the small structure left protruding above the water after the derrick has moved on to drill or service the next well. The cribbing tightly surrounded the wellhead providing a minimal deck area. The structure was supported on wood pilings that were set in the mucky Mississippi River delta bottom twenty feet below the surface. The water was not terribly deep here, yet there was no land in sight in any direction.

Coworker Lou brushed his head against a pipe while leaning over, knocking off his hardhat, which fell into the water, and began floating away inverted like a little boat. Willie yelled, "I'll get it" and jumped into the water. After retrieving the hat, he was just starting back up the ladder that stretched from the water level to the cribbing deck, when someone yelled, "Hey Willie, your gloves!" Tom looked out

on the water and saw Willie's work gloves floating about ten feet away. They had been loosely tucked in a pocket when Willie jumped in. Doug yelled, "I'll get it!" and jumped in too. Gloves were throwaway out there. You burned through a pair a day, as many as three pair on a really tough day. And Willie was already in the water almost close enough to reach them. But Doug jumped in ... any excuse to take a dip. Everybody laughed.

Tom felt he was a lucky guy to be living the life he had.

Presently, Tom did an inspection down to fifty feet. It was an easy dive with virtually no current. They had had the luxury of picking a day to come out here when the weather was good and the seas were calm.