

THE STYX STRIKERS



By Thor Zollinger

2017

Chapter 1 "Arrival"

All Jake could see out the window were white clouds, as the shuttle descended towards the surface. He sat back in the cramped seat and thought back on the events that had taken him here. He felt a mixture of excitement about arriving on Wayfarer to start a new life, and sadness over the accident his parents had recently experienced. Up until a few weeks ago Jake had lived on the main habitable planet of the Lahti system at the outer edge of The Free World's League. Now he was headed for Wayfarer, a moon orbiting one of the Lahti system's smaller gas giants. His uncle Helmut had offered to take him in, if he could manage to actually get transportation out to the moon where his uncle lived.

Jake's parents lived in one of the larger cities on Lahti. His dad was... had been a machinist at one of the local manufacturing plants that supplied consumer goods to the densely populated city of New Kingsland. Jake had to keep correcting his thinking, his parents accident was just barely starting to sink in. His mom had worked as a book keeper for a small college nearby. They weren't anyone with any notoriety, just normal people living out their lives as best as they could. All of that was interrupted when the traffic accident had occurred. A large transport vehicle had careened out of control off of an overpass side-swiping his parent's vehicle as they drove along. Their small compact car had the usual passenger safety features, crash foam and anti-collision systems, but it just wasn't enough to overcome the physics of being hit by a massive transport. Both of his parents had been seriously injured and were now facing months of physical therapy and rehabilitation.

Insurance was there to cover the basics of their medical care, and the adjustors were all very polite, but it was all just a haze in Jake's memory. Their house had a substantial mortgage, so the bank was going to take that back now that neither one of his parents could work. They would eventually move in with his grandparents after rehab. Jake had selected the things he wanted to keep out of the house and had them put into storage, the rest of his stuff the adjustors had sold off for him. He had enough credits from the sale of his dirt bike, sports equipment and from his savings to purchase tickets to get him most of the way to Wayfarer to his uncle's place. It took all of his college money, but moving to Wayfarer would take care of that. All colonists on Wayfarer had free access to the online university courses as an incentive to move there, and one-way tickets to Wayfarer were partially subsidized by the government. Uncle Helmut had paid for the last bit, the shuttle flight down to the surface, and his uncle was sending one of his hired hands out to pick Jake up at the landing pad where he would be arriving in about a half hour.

Jake pushed the back of his seat part way back and closed his eyes. *He would miss his friends the most*, he thought. *At seventeen, your friends ARE your life.* He had basketball games every afternoon with a few of the guys, and he had even had a girlfriend for a while this last year. He was tall, sandy curly hair and gangly, a bit awkward, but pretty sharp at mechanical things. He had inherited his dad's skills with machinery, but that didn't help much where girls were concerned. Now he would have to start all over again. He sighed. There weren't many girls where he was headed. The moon had only just been colonized in the last twenty years or so and not many people lived on the moon yet. Uncle Helmut had been one of the first to help in establishing a working population there. His uncle's plantation was out in the middle of nowhere which wouldn't help his social life at all.

Wayfarer was an odd anomaly in the Lahti system. Something non-human took action hundreds of thousands of years before to terraform it with plant and animal life from Lahti, the planet in the Goldilocks zone of the system. As such, it had a breathable atmosphere from all of the plants, lots of water flowing everywhere, weather, and most of the features you would expect from a habitable planet. The Lahti plants and animals were not edible, but mankind had figured that problem out a long time ago. Most alien plants and animals weren't edible anywhere anyway. And most of them didn't taste any good either. Mankind had figured out long ago that they needed to bring edible plants and animals with them, which was why the first colonists almost always tended to be farmers, ranchers, or both, just like Jake's

uncle. The gravity on Wayfarer was also close to Earth's which made it perfect for humans, but the light level was a bit dim. Being further from the sun, it didn't have quite the same amount of sunlight humans were used to. Night time was interesting as well, since the larger gas giant reflected quite a bit of light down onto Wayfarer's surface. The day-night cycle was quite confusing due to the slower speed the moon rotated at and since the gas giant tended to dominate the sky when the sun wasn't up. To get past the confusion, the colonists had adopted Earth's twenty four hour clock and basically ignored the longer day-night cycles of the moon itself.

The stewardess interrupted his thoughts. "Would you like something to drink, young man? I have a nice selection of soft drinks. Maybe you would like to try some crackers or nuts?"

"No nuts" he said quietly. "I would like some juice, if you have some, though." Jake felt a bit insulted by the "young man" comment, since she didn't look like she was much older than he was. *Young man my butt*, he thought to himself. A bit of frustration at the world for losing all of his friends was sneaking in. *I'll have to watch that*, he thought carefully. *I won't get any dates that way*. She put some ice into a cup, poured some red mixed fruit juice into it and handed it to him with a napkin. He smiled cautiously. The businessman next to him requested a tonic and water and continued reading his magazine. *She's cute*, Jake mused. She poured the drink, set it down, and turned to service the opposite side of the aisle. *Rats*. He'd missed his chance to talk to her. *She probably didn't have time to talk anyway*, he told himself shyly. He had to get better at this because he couldn't really get any worse.

The kid in the seat in front of him started to act up again. Luckily it was going to be a short flight, compared to the trip out from Lahti to the orbital substation. Jake didn't have much money to work with, so he had to take a slow, low-fuel economy flight out. The slower the inter-planetary flight was, the less it costed you. The fast, high-fuel flights were the ones you wanted to take, but ordinary people like Jake couldn't afford those. Not yet, anyway. Jake kept his bony knees back away from the back of the seat in front of him to keep from getting jostled. The kid was a bit too rambunctious and kept smacking his knees with the seat back. He wanted to strangle the little devil, but that wouldn't do.

"Hey, cut that out!" he said sharply after getting hit in the knees again, and he glared at the boy menacingly. The little imp stuck out his tongue. Jake tried to grab it, but the kid was too quick. He jerked backwards and just about fell on the floor. *Serves you right*, Jake thought. The kid's mom turned and glared at the boy too. She gave him "the look". The boy sheepishly climbed down off his seat and went back to the toy warriors and animals he had on the floor. He had a couple of five centimeter rubber warriors and a couple of plastic mechs about twenty centimeters tall to play with, along with a couple of dinosaurs.

The Atlas mech looks pretty cool, Jake thought. The Atlas is one of the largest mechs, weighing in at over 100 tons and is as tall as a two story building. With a round "head" where the cockpit is located, it's shaped very much like a giant armored robot. The other toy mech looked like a Vulture, complete with spring-loaded missiles that shot out of the missile pods. The real Vulture had legs like a giant armored bird, with dual missile launchers on each shoulder as it's main armament and powerful lasers mounted in each of it's arms. The toy's arms had tiny red lasers mounted in them that could be activated by pushing a button on the back. The lasers shot all the way down the length of the cabin, startling the stewards until they figured out where the laser was coming from. The toy mechs made some pretty cool sounds too, when you pushed the "fire" button on the back. The Atlas had green lasers, *Argon lasers*, Jake recalled from school. *The red ones are CO2 lasers* he repeated silently to himself. The gas determined the color.



Atlas Mech



Vulture Mech

Jake sat back and looked around the cabin. Everything was a variation on a shade of light gray, the overhead, the carry-on storage compartments, the walls, the floor, the faux leather seats, and even the uniforms the cabin stewards wore. You could tell the business people because they wore solid grays too. *Boring*, he thought as he looked around. At least some the passengers had some style and color. The latest craze for guys like himself was to wear thick black skin-tight pants and neon patterned sports jerseys like the pro athletes wore. Jake liked soccer, the Ferrari Formula-1 racing team, and the SaberCat mechwarrior™ team that competed on Solaris-7. That gave him a wide variety of jerseys and colors to choose from. Today he had on his bright orange SaberCat jersey, with black saber toothed tiger skulls on the back, shoulders and front pocket. *I look pretty rad*, he thought to himself.

He tried to keep up with the girl's clothing trends, but they changed every couple of months which was pretty crazy. At least the fabrics were re-paintable so the girls could change their "look" every week for a few credits if they wanted too instead of buying all new items every time. It was still a real waste of money, in his opinion. The young girl across the aisle in front of him had on a loose wrap patterned like a speckled golden pheasant, with a black and red feathered hood. Bird feathers seemed to be the trend of the month. The brassy woman in front of her was patterned like a male peacock, and had on lots of jewelry. Another woman down the aisle was patterned like a white swan, with a large gold choker and crown. He didn't think much of the jewelry either, *most guys think it's a waste*, he stated confidently.

He turned his attention back to the windows as the shuttle dropped below the clouds. He could see the outlines of a small town down below amid the tangle of the jungle that dominated the area. Then he noticed an odd chain of black sinkholes stretching off into the distance, winding along a pattern that looked a bit like a wandering river. The black openings were massive, large enough to accommodate a tall building inside, and were spaced at random about a kilometer or two apart. *Wow, I wonder what those holes are*, he thought as the shuttle descended quickly. Looking back at the town he noticed most of the buildings were only two or three stories, with only light traffic on the roads. Most of the vehicles were equipped with larger tires for off-road travel or were heavy haulers. There were only two roads leading out of town, and he could see signs of privately owned settlements here and there cut out of the countryside along the two main roadways going north. The shuttle landing strip seemed to be the focus of the town, which made sense since the town was the main hub for transporting goods on and off of Wayfarer. Hopefully his uncle's foreman would be there to meet him on the ground. He was slightly worried no one would be there to pick him up.



The shuttle was lining up on the runway, on final approach. The jungle had been cut back on both ends of the runway to better accommodate aircraft, with amber landing lights strobing in the direction the shuttle was gliding in on. The stewards had strapped in and he had never really been allowed to unbuckle and get up and move around during the flight. Too much turbulence. *Oh well, it wasn't a very long flight anyway. I am hungry, though. Maybe I can get something to eat in the terminal before my ride gets here.*

A flock of white birds erupted from the trees as the shuttle touched down. *That's odd, Jake thought, those birds look just like the ones back home. Maybe the settlers brought them with them when they colonized the moon.* The shuttle braked hard, throwing him heavily into the seat belts. "This pilot doesn't mess around", he said a bit surprised. The business man next to him smiled, put his magazine down, and reached under the seat to retrieve his bag. "Yup, they don't care if you bang your head", he commented. "They expect you to watch out for yourself on Wayfarer. They don't tolerate any whiners out here, you have to pull your own weight or you get deported. You look fit though, you ought to fit right in."

"Thanks" Jake said smiling. "I can't wait to get out of this cabin and see what Wayfarer smells like."

"Well" he laughed, "it smells a lot like wet dirt, with a touch of rotting jungle mixed in. I'd almost forgotten it smelled like anything at all. You get used to it pretty quickly. I've made the trip so many times I don't even notice it anymore."

Jake smiled, and pulled his bag out from under the seat in front of him. He liked this man, it was a pity the guy had spent the entire flight reading that stupid business magazine. Jake had a million questions he wanted to ask about living on Wayfarer and no one had been available to answer them. He was just going to have to find out the hard way. The man stood up, fetched his other bag out of the overhead bin and waited for the other passengers to move forward off the shuttle. Jake was still stuck in his seat under the overhead, but he knew relief was only a few minutes away. Finally he got to straighten up and stretch his long legs. "Good luck, kid" the man said as he worked his way down the aisle. Jake smiled back. The boy in the seat in front of him was still playing in his seat as he walked past. The kid's mom was gathering up the boy's things and trying to find all of the toys he had stashed under the seat while he was playing on the floor. Jake was much better organized.

Finally he was able to move down the aisle towards the open door hatch and walked through the bridgeway and into the terminal hallway. It was a bit sparse, no plants, pictures or anything on the walls, large un-tinted bay windows, a padded bench here and there, but no one seemed to notice much.

Everyone off the shuttle was walking quickly down the hall towards the main terminal. The hallway opened up into a large vaulted chamber with a sculpture soaring up into the open space. It was a sweeping geometric shape covered in sheets of copper, with silver streaks increasingly towards the pinnacle, drawing the eye upwards. Jake walked down a curving white stone staircase to ground level towards the base of the sculpture.

Past the sculpture were two exit portals made of a light colored wood formed into rounded archways. Security guards in dark grey stood on either sides of the arches, scanning the new arrivals. The guards bristled with weapons. Each carried a pulser in a holster on the right hip, and had automatic rifles slung over their shoulders. Several sizes of knives were tucked away in sheaths on the legs, forearms, and on the waist belt, along with a jungle machete on the left hip. *What's that all about*, he wondered. One of the guards monitored a hand-held instrument, apparently the controller for the scanners built into the archways.

Jake passed through the arch and into the outer lobby area. *Plenty of seating here*, he observed. The lobby had about a dozen seating zones with about ten comfortable tan chairs each, tables in the centers of each zone, and small square end tables to put a drink on. The baggage claim carousel was on the right, and he could see small shops off down to the left. Passengers were crowding around the carousel as bags and items started to emerge randomly. Jake wandered over to the carousel to wait for his two bags to appear. He had one large suitcase and a large duffel bag to reclaim. The businessman who had sat next to him was talking to someone on his skull phone and was reaching for his custom leather luggage. The bags had a matching brown leather two-tone design and tooling that reminded Jake of the saddles he had seen in the photos his cousins had emailed him. The man obviously had connections and money, especially since he hadn't flown in on Jake's slow interplanetary flight. All they had shared was the shuttle ride down to the surface.

Just as his bags came out of the chute onto the carousel Jake's zipPhone rang. His phone looked like a twenty centimeter long thin silver cylinder with a pull-out thin-film screen. He had kept himself entertained on the interplanetary flight out watching movies and playing videogames on it. He'd forgotten all about it. "Hello?", he said, answering it with one hand while grabbing one of his bags off the carousel with the other. *Who in the world has my number here on Wayfarer?*

"Planetfaller, this is MoonWalker-1. We are in-transit to your location. Expect our arrival in Zero-Seven minutes at Verticopter Pad #2. Please acknowledge, Over."

"Hey! Bjorn, is that you?" *His cousin was coming to pick him up! Nice!* They had always used military lingo playing video games whenever they had met up on Lahti.

"Dude! Good to see you made it in one piece!" Bjorn said. The whine of the rotor blades made it hard to hear him, but Jake didn't care one bit. "We'll see you at the pad in couple of minutes. I just wanted to make sure more than your phone made it, your location popped up on my Zip Tracker app when you landed."

Jake was really excited now. He hadn't seen Bjorn or Sven for a couple years, not since their last visit to Lahti with his uncle Helmut. "Roger, MoonWalker-1. I'll be there in five for pickup. Planetfaller out!" He had both of his bags, now all he had to do was figure out where Verticopter Pad #2 was and he was home free.

He found the map board up high on the wall above the seating area and scanned it looking for Vertipad #2. It wasn't too hard to find, since the aeroport wasn't very big to start with. There were only two shuttle gates for commercial flights and two Verticopter pads. Jake took off loping down the hallway past

the luggage carousel, but had to stop short at the next archway to go through a security scan again. There were only two people ahead of him, but he was anxious to get to the pad and into more friendly territory. Before long he was on his way down the hall again.

He stopped inside the glass waiting booth just inside the doors that led out onto the tarmac. The sign above the entrance said "Verticopter Pad #2" so he knew he was in the right place, at least he hoped he was. The attendant smiled as he came to a stop, "Please be seated, your aircraft will be arriving shortly" she stated. Jake smiled back and took a seat on the hard bench. "Is this your first visit to Wayfarer?" she asked.

"Yah. My cousin is picking me up. I'm going to live with them from now on."

"Oh, a new resident. Welcome to Wayfarer, I think you'll like it here."

"Thanks. I'm going to work for my uncle on his ranch, I know how to run a fabricator and I'm pretty good on computers" he said confidently.

"You sound technical. We can use more technical types here, they're in short supply. Wayfarer hasn't attracted enough technicians to keep up with demand. We have plenty of general laborers and plenty of managers, but definitely not enough guys like you. You should do really well here. Excuse me while I check on your flight..."

I see your flight arriving in two minutes. They will land in the circle out on the tarmac, the closest one right out there." She said pointing. "Wait until someone waves you over, then head out the door. I have to go check on my next flight, so I'll see you around some time. Good Luck!"

"Thanks, I know what to do" Jake answered. "I can take it from here."

The attendant smiled and walked off briskly to her next assignment.

Chapter 2 "New Beginnings"

Jake's cousin Bjorn was sitting in the copilot's seat pointing at the circle painted on the tarmac below at the large number two in the center. The pilot smiled. He already knew right where they were going, but he let Bjorn think he was in charge. Ben had worked for the Langer family almost since day one on Wayfarer, he'd made this flight hundreds of times. Ben could pilot anything from aircraft to mechs with ease. He slowed the verticopter's descent and flared just as he neared the landing pad.

The verticopter was one of the vehicles in the database available to all colonists. The massive database contained almost every innovation of mankind since the dawn of technology, making the job of colonization much less costly. By fabricating what they needed on-planet, the colonists could save the huge costs of shipping heavy equipment through space to their new world. Some of the initial equipment was shipped in to get the process started, but after that the colony was expected to find their own raw materials and manufacture what they needed themselves out of local materials. Each colonist family came equipped with a set of "fabricators" as a part of their startup gear, small to large prototyping machines capable of manufacturing both metal and composite parts. "Some assembly required" was a well known joke among the colonists. One of Bjorn's friends helped operate a mining facility, providing steel alloy powder as feedstock for everyone else's fabricators. Another colonist provided copper ore,

another provided aluminum and titanium, and a few other far-flung settlements provided the rarer trace elements needed for alloys. Rough plant material was used to supply the need for carbon compounds for composites, along with petroleum oils which were on the moon in sufficient supply for fuel and making plastics.

Sometimes it was expedient to resurrect ancient technologies like combustion engines when the basic energy source was readily available to a new colony like here on Wayfarer. As a result, the verticopter ran off of a liquid fuel refined from the crude oils they had found beneath the ancient forests on Wayfarer. The copter was a tip jet flyer, with miniature pulse jets mounted at the tips of each of the four heavily reinforced rotor blades. This design simplified the aircraft dramatically; no heavy engine was required. The craft used compressed air to spin up the rotors, then blade rotation pulled fuel up through the central hub from the fuel tank to be ignited explosively out the back of the tip jets. A vertical vane behind the cabin used the rotor's downward air flow to rotate the craft about its center. Because there was no motor torque turning the main rotor, a boom and tail rotor were not required, giving the copter a very compact, stubby look. Onboard electronics provided navigational maps, communications, and lighting. It was simple but effective, and utilized very few raw materials to construct.

The Langer's verticopter was a four seater, with a clear bubble canopy. The body was painted a light yellow, the color behind the family crest whose symbol was a hooked siege ladder, emblazoned in gold on the belly and doors of the copter. The crest dated all the way back to ancient earth when mankind was just getting a foothold on their first planet.

Jake saw the weird bug-like verticopter flare, then settle gently into the center of the circle. Bjorn hopped out and waved him over. Jake grabbed his bags and headed out the doors at a jog, he was too excited to walk. He ducked his head instinctively as he stepped under the copter's screeching blades as Bjorn reached out for his carry-on bag, which he tossed into one of the back seats.

"Bjorn, how's it going! Man am I glad to see you guys" he said as he punched him in the shoulder, their customary greeting. Bjorn punched him back and grinned.



Verticopter

"Hey, Jake! It's good to see you! Throw your other bag in and climb in the back." It was too hard to talk much over the screech of the rotors. Jake climbed in while Bjorn hopped up in the front seat and put the headphones back on. Ben had already gotten clearance to take off, and the verticopter leapt into the air and peeled off to the north screeching loudly as it cleared the jungle trees. Jake struggled to get his

seatbelt on as the copter maneuvered quickly away from the aeroport. He grinned widely at the way Ben threw the copter around.

“So, how was your flight? Bjorn asked as he turned to face backwards in his seat. The verticopter had leveled off and was headed smoothly towards the northeast.

“Not too bad. The turbulence wasn’t too bad on the way down, just a lot of clouds. I saw an ocean on the way down, do you guys ever go to the beach?”

“No way, too dangerous. We’re too close to Ceazar the gas giant’s gravity well. The tides roar in and out five or ten miles every day like a huge tsunami. You get caught in that and you’re dead meat.”

“Wow, I didn’t know that.” Jake commented. “I was hoping to learn how to surf when I saw the waves. Too violent for that, huh. How about those big black holes in the ground. What are they?”

“Oh, those? Those are sink holes down to an underground river. There’s one not too far from the ranch. It’s so big, you could drop the entire ranch into it. It’s part of the land grant my Dad got when we became settlers here on Wayfarer. Dad doesn’t let us go over there alone, he thinks it’s too dangerous” he said winking. Jake knew what that meant, he and Bjorn had been getting into trouble together on and off for years.

“Hey, where’s Sven?” Jake asked.

“The copter only holds four and we knew you had some luggage, so he had to stay home. We’ll be back at the ranch in another twenty minutes, you can punch him then if you want.” Bjorn and Jake were almost the same age, seventeen, Sven was a year younger. They also had a little sister Christina, who was eight and was a pest in their opinions.

“Oh, man! I forgot to get a snack in the terminal. I’m starving” Jake moaned as he remembered what he had forgotten.

“What? Oh yah.” Bjorn turned around, snatched a bag off the floor and handed it to Jake. “I almost forgot, Mom sent along a sandwich, some chips, and a drink for you. She thought you might be hungry.”

“Alright! Cudos for Aunt Glory!” he said with a big thumbs up. “What kind of sandwich is it?”

“Ham I think. We cut up Porkchop, our meanest pig, last week and had him for dinner. He was fighting with all the other males and causing too much damage, so we ate him. We have a lot of ham left over. It’s really good. Dad cooks a mean ham, with glazed brown sugar baked on the outside with a blowtorch.”

“Surphlr groobn hamwer” was all that came out, since Jake’s mouth was already stuffed with the double decker sandwich, making Bjorn laugh. He decided to give Jake a few minutes to eat. Jake munched happily on the ham as he watched the savannah’s hills roll by beneath them. Ben more or less was following the main road out to the ranch since it ran pretty much in a straight line north anyway.

It wasn’t long before the ranch was in sight, a broad open clearing in the trees covering over a hundred hectares where Jake could see rows of fruit trees, some row crops, long green houses, a few open pastures, buildings and small houses here and there, and a huge log manor house with solar roof panels was near the center of the clearing. All of the UV tinted windows were solar as well, providing the majority of the power the house required and helping to keep the interior cool as well. Metal fences enclosed the pastures, and a high massive wall of boulders six or seven meters high surrounded the entire

clearing, with a clear-cut gap of over a hundred meters between it and the trees. A large metal gate with spikes on the outside barred the roadway into the clearing. Apparently something in the jungle had to be kept out. Jake wondered what it was, as he finished his sandwich and chips. The juice wasn't bad either, some sort of sweet yellow guava with a tart bite to it. As the copter flew closer, Jake could also see an anti-aircraft battery with a missile launcher sticking up on a tower in the very center beyond the manor house, capable of firing on any portion of the perimeter. Wayfarer had some teeth, he surmised. He hadn't heard of anything nasty on Wayfarer. He supposed someone would fill him in later.

The verticopter flared again just before it settled into a slow rotation before landing gently on the landing pad near the manor house, one of the few paved outdoor spots in the compound.

Jake and Bjorn piled out of the copter, grabbed his two bags, and headed towards the house. Two large cats, tan, spotted, with lots of black tufts, came bounding around the corner of the house from under the bushes heading straight for Bjorn. "Hi girls, did you miss me already?" Bjorn said laughing. "Jake, meet Frick and Frack our two Servals. They're from old earth stock. We got them just before we moved here to keep varmints out of our vegetable gardens." The cats shoulder bumped Bjorn's legs and wound in between his legs for a minute, then focused all their attention on Jake. They sniffed him all up and down, standing on their hind legs and almost made him drop his bags. "You must smell pretty interesting there, Jake. What did you have for lunch? Oh yah, ham. These two *love* ham, we have to kick them out of the house whenever Dad cooks like he did last week. Don't worry about Frick and Frack, they won't eat you, but they might just lick your face clean off if you aren't careful."

Jake relaxed a bit as the large two cats focused more on his pants where the ham sandwich had sat a few minutes ago in the copter. "Hey, that tickles" he said a bit perturbed. "Determined little beasts, aren't they." Satisfied that he didn't have any ham on him, the two cats took off at a dead run, playfully chasing each other off towards one of the storage buildings further down the drive. "Well that was fun. What other surprises are there around here, dogs the size of a small horse" Jake joked?

"Nope, no dogs. Dad doesn't like dogs much, he says they get into the trash and don't follow orders like the cats do. Those two are trained for hunting small game in the jungle. They're really smart. They're really good at flushing out birds and they can catch small game better than anything. With their long legs, they can run faster than just about anything else around here. Stuff that's their size, anyway. Hey, did you notice the front gate and the rock barriers?"

"Yah, what the heck is that all about? You must have something pretty big out there to need a nasty spiked gate like that."

"Actually, the wildlife aren't too bad, nothing bigger than a super-sized buffalo. The only thing we have to worry about when we're outside the barrier are the Lupes and Grizz, kind of like big wolves and a big bear-like sloth. We check the satellite image of the area we're going hunting in first to make sure we won't run into anything too big when we go outside the compound on foot."

"So what are the barriers and the gate for then?"

"To keep the Bants, the buffalo, out of our crops and to keep out pirates."

"Pirates?"

"Yup, one of the hazards of being on a sparsely populated moon and being all spread out like we are. You noticed the Anti-Aircraft battery, right? That little beauty keeps 'em away more than anything. Since Dad

put that up, we haven't been raided once. The mechs work pretty good too at chasing off any rotten pirate types that show up."

"Wow. I didn't know things were so exciting around here."

The boys arrived at the back door and sauntered into the kitchen through the mud room, aptly named by Aunt Glory since working out in the fields always resulted in very muddy boots. Aunt Glory was a stout blonde woman, with sparkling blue eyes and a mild manner about her. "Well, who have we here?" she said from behind the large kitchen counter. "Hi Jake, come over here and give me a hug. Why, we haven't seen you for ages." Jake smiled, set down his bags and went around the counter to say hello to his aunt. "You've grown, young man, you're almost as tall as I am. How was your trip?"

"Hi Aunt Glory. It was loooong. I've been in the air for over a month." Aunt Glory let go of Jake and looked straight into his eyes. "When you get a few minutes this evening you need to tell me how your Mom and Dad are, okay? I want some details, we don't hear anything much this far away from home." His aunt and dad had grown up together as brother and sister on Lahti. Jake nodded, then she pushed him lightly back towards Bjorn and said "follow Bjorn, he'll show you to your room. It's downstairs." She went back to working on the cookie dough in the bowl on the counter and winked as he headed off after Bjorn. "Cookies later..." she said (as if Jake hadn't noticed already).

Yes!, Jake thought to himself, *I'm going to like it here.*

Bjorn smirked and headed off down the hall to the stairs and down into the basement. Jake followed and spent the next few hours unpacking and moving into the small room next to Bjorn and Sven's room, and checking out all of the stuff Bjorn and Sven had set up in their lair. The basement was filled with animal trophies on the walls in the central lounging area, where a "pit" of comfortable couches were arranged in a circle in a sunken area down a few steps. Handmade bows and knives of all kinds were also hung on the walls, and there were plenty of video games on the main computer, projected up onto a wall-sized screen. A military-style shooter was up on the screen running, even though nobody was in the room playing it. They even had a crude mech cockpit simulator built out of fiberboard off to one side facing the screen, with control panels and buttons all over the insides for the pilot. Bedrooms and utility rooms surrounded the lounge area on all sides. Jake's room looked like it used to be a study room or office, with cork board and white boards on the walls, but at least it had a bed in it besides the desk, and somebody had shoved a chest of drawers into a corner at an odd angle blocking part of the closet. He'd move the desk and straighten the furniture out later when he wasn't so excited. Jake was in heaven!

Bjorn and Sven abruptly rolled into Jake's new room, locked in a wrestling hold. "Hey you guys, don't break any of my stuff!" Jake hollered. He had just gotten out his two favorite mech models and had placed them on the dresser near the doorway. "Sorry, old bean" said Sven breathlessly, "I was just trying to teach this cretin a lesson for stealing my zipPhone, the idiot left his out all week and forgot to charge it up again. Calling one of his *girlfriends* again."

"You moron, Ariel isn't my girlfriend. How many times do I have to tell you that! I should have her kick your butt the next time we see her, she can do it yah know..." Bjorn lunged at Sven again and caught his right arm, but Sven was too quick and managed to make it back out into the lounge area before Bjorn could get a good grip on him. Bjorn let him go and flopped down on Jake's bed. "Ariel is cool, and so is the rest of our gang, Zane, Dan, Tarra, and Hai. You'll meet them when we go on safari next time."

"Safari? What's that?" Jake queried.

“It’s when we get together with our friends and disappear into the Jungle and go exploring instead of doing chores and schoolwork. We try to sneak off with one of the machines early, that way we can get farther away before Mom or Dad catches onto us. Mom insists we always have a zipPhone with us just in case we get into trouble, but we know she uses it to track us so we turn them off at least part of the time. It wouldn’t be good if she knew we were headed down into the sinkhole.

“You need a Location Spoofer app.” Jake stated. Bjorn looked puzzled, so Jake filled him in. “It’s an app that goes on your phone that tells the world you’re someplace else. You can program it to follow a preset path, or you can have it record your motion for a day and play it back whenever you want to. You just have to make sure you start recording at the exact same location you want to start replaying it later so it doesn’t LOOK like you’re spoofing it. Any obvious break in your trail and your Dad would figure it out.”

“Wow, that’s pretty rad. How’d you figure that out?”

“My Dad caught me” mumbled Jake.

“Oh, right. Where can I download the app?”

“I’ve got a copy on my zipPhone, I’ll email it to you later.”

Jake and Bjorn wandered out into the lounge area and watched Sven dodge giant bugs in a game that looked like you were a sparrow flitting amongst the branches of a tree. The goal was to catch as many gnats and fireflies as possible without getting skewered by a giant mosquito or running headlong into a Goliath beetle. If you stayed below the top of the tree canopy you could avoid the hawks, but every now and then a crazy parrot would try to snatch you for lunch. The monkeys were pretty aggressive too, but you could avoid them pretty handily, since they required thicker branches to move around on. Butterflies weren’t worth hardly any points, but they were easy to snatch, just like the moths. Some of the tree frogs were eatable too, but you had to avoid the brilliantly colored poison arrow frogs, they were deadly. Tree frogs were worth a lot of points, though. You just had to be careful and pay attention to their coloration. And when you went in close for a tree frog, you had to really watch out for the ants. The nasty little devils would gang up on you and sting you to death if you gave them any time. They were everywhere.

“Dinner!” called Aunt Glory from upstairs.

“Oh man!” Sven blurted out. “I was just about to level up! I guess I’ll have to try again later.” He hit pause and the chaos on the screen halted. His sparrow flitted from side to side anxiously as the leaves rustled lightly in the breeze, then the screen went dark as he shut off the game. The boys ran upstairs to see what was for dinner.

Chapter 3 “The Mine”



Jake spent the next few days adjusting to the Langer household, what time everyone got up, when meals were ready, which cat bit you and which one didn’t, those sorts of things. Overall he was pretty happy settling into a routine. Bjorn and Sven usually got going about 7:30 AM, ready for breakfast at 8:00. Aunt Glory had a helper named Petunia who came in and started breakfast for everyone. She was a quiet woman, medium length chestnut brown hair, fat cheeks, and a shy smile. Her husband had also worked for the Langers until his untimely death in one of the pirate raids a few years earlier. She didn’t have any children, but she helped keep track of Bjorn, Sven, and Christina. Little Christina was her favorite.

"Hey Jake, how good are you with a rifle?" Bjorn asked. "We're headed over to Hai's mine this morning so you can meet him and get the lay of the land. We need to pick up some more metal powder for the fabricators. On the way back we're going Bant hunting, can you handle a propellant rifle?"

"Uuhh, I've never shot one of those" Jake answered slowly. "I've fired my Dad's big carbine back on Lahti. It used bullet cartridges, not liquid propellant. I could hit a small target at 100 meters, though."

"Hmm, you're going to have to do better than 100 meters, more like 400. A propellant rifle is a bit different, but not by much" Sven stated, as he walked around the kitchen table and sat down for breakfast. Jake picked the chair opposite to him so he could see Sven, who used his hands a lot when he talked. "You hold it and aim it the same way" he said shooting at an imaginary target out the kitchen window, "but you have to check the propellant tank once in a while to make sure you have enough in there if you intend on firing a lot of shots. That's a critical thing to make a habit of, so when you're fighting pirates you don't run out when you're in rapid fire mode."

"Oh, right." Jake said thoughtfully. "How often does that happen?"

"Bjorn has shot TWO pirates and Sven hasn't shot any!" Christina blurted out. Sven stuck his tongue out at her and glared, but all she did was smirk at him.

"Yah, well I'll get a couple pirates the next time." Sven said. "We're bound to get attacked again sometime. The pirates only come around when they think we're not ready for 'em. We haven't seen any since Dad put up the missile battery last summer."

"More likely, one of our neighbors will get raided before we do." stated Uncle Helmut. "The last pirate raid happened a month ago on the other side of the Areoport. They hit a ranch and made off with about a half dozen cattle before the hired hands drove them off with a forestry mech. Those pirates weren't well armed like the ones we've heard stories about on the news."

"Yah" Sven piped in, "Those bastards have full fledged battle mechs and are wiping the settlers out before making off with everything on the ranches! They had a Loki, a Commando scout mech, a Vulture, and a bunch of trucks to carry off their loot. Nothin' our missile battery can't take care of."

"I wouldn't be so sure of that, Sven" uncle Helmut said in a measured tone. "One good anti-missile battery on one of their mechs and our defenses wouldn't hold up for very long. We could slow them down, but we'd still have to fight them off with hand held launchers and our two utility mechs. I've contacted the authorities in Port Canaveral about getting authorization for some heavier weapons to mount on our construction mech, and I think we can rig something up for the agro-mech as well. You can help with that can't you Jake? It will give you something to do to show off the fabricator skills you've talked about."

"Sure! I can handle that!" Jake said enthusiastically. *Cool!* Jake thought with a big grin taking a bite of a roll. *I was hoping all those 3D models I practiced on would come in handy.* Jake had never actually fabricated anything really big yet. Almost everything he'd made himself were smaller hand held metal tools and parts with his Dad, toys for the neighborhood kids back on Lahti, and plastic kitchen items for his Mom. Jake's eyes sparkled at the prospect of fabricating weapon mounts for the ranch's two mechs.

Aunt Glory pointed at the eggs and ham and said "Get busy guys, the eggs won't stay hot forever. You can't kill anything on an empty stomach." Jake smiled with a mouthful of crescent roll with ham stuffed into it and helped himself to some eggs. "Porkchop tastes pretty good!" he chimed in as the family

helped themselves to the breakfast Petunia and Aunt Glory had prepared. "Where are the cats?" he asked looking around expectantly.

"Oh, we make sure the two little monsters are outside before we start breakfast" Petunia added in. "We don't need their help."

Bjorn finished eating first and headed out the side door a few minutes later and off to the vehicle garage. Jake wondered what type of transportation they would be taking, the verticopter again? A few minutes later he heard a high pitched whine wind up outside, then the engine rumbled louder as Bjorn pulled a tracked vehicle out of the garage and drove up to the house outside the kitchen. It had the low pitched rumble of a diesel engine with the high pitched whistle of a large turbocharger. The vehicle was pulling a small trailer behind it with two pair of balloon style tires since the guys were supposed to come back with metal powder from the mine's smelter for the fabricator to use.

"What the heck is that!" Jake exclaimed and he bolted up from his chair to get a better look. The vehicle looked like nothing Jake had ever seen... It had a low, wide, mean look to it, with wide exposed tracks on either side and very hefty suspension. The cockpit had a sharp nose that slanted up to point, allowing brush and obstacles to slide cleanly underneath the body, and a back-slanted window peering out from between the substantial roll bars that made up most of the internal structure of the vehicle. A heavy combustion engine was located somewhere behind the four-man passenger compartment. The windows barely cleared the tracks, giving the vehicle a kind of chopped bad-ass look. It was painted a dark tan military color, with the family crest on the sides of the engine compartment. Bjorn's head popped up out the hatch, he had a tanker driving helmet on and a huge grin on his face.



Ripsaw

"That's the Ripsaw!" Sven said loudly, as Jake's uncle smiled slyly and continued eating his toast, shaking his head. "It's the fastest thing around! Wait until we get it out on the straightaway out on the main road, then you'll see."

Sven and Jake hurried through the last of their breakfast, tossed the plates into the sink and were headed towards the door when Aunt Glory grabbed Sven by the collar. "All right young man, take care of those dishes or you're not going anywhere!" Sven slinked back to the kitchen sink and rinsed off the dishes like he was told and put them in the dishwasher. Jake followed his lead, then both of the boys looked expectantly at Aunt Glory. When she nodded they both bolted for the door, as all the adults started laughing.

Jake followed Sven, climbing up the back of the track and then forward to climb up on the roof of the vehicle. It was a tight fit, but both boys managed to get down through the hatch and into the cockpit. Sven took shotgun, so Jake had to sit in one of the two back seats. The rear seats were slightly higher

than the two front ones, so Jake could actually see pretty good out the front window. "Strap in" said Bjorn. It took Jake a minute or two, but he figured out how to fasten the five-point harness, the large round buckle was attached to the strap that came up between his legs, then the other four straps snapped into the sides. The seats were heavily padded black leather and held Jake's hips in securely from both sides.

Jake noticed the two rifles clipped into racks on the sides up at the top of the window line, and there was a shotgun clamped in up against the dash in between the two front seats. Just then Jake noticed that both Bjorn and Sven had strapped on waist belts with pistols and ammo packs before they belted in. "Hey, where's my pistol?" Jake asked.

"Sorry old bean" said Bjorn, "you have to pass a shooting course from my Dad and qualify before he'll issue you your own pistol."

"Don't worry, we'll protect you from any pirates." Sven stated with a grin. Jake wasn't amused, but he was too excited to care. He'd never ridden in anything like this hot rod tank before. Bjorn pressed down carefully on the accelerator and started the Ripsaw up, heading around the circular driveway and down the dusty dirt road towards the entry gate. He kept the speed slow and steady since he knew he was being watched out the window by the adults, he didn't want to lose his driving privileges.

The ride was a bit rough because of the cleats on the tracks, but Jake didn't mind one bit. He looked out the side window and noticed the alignment of the rows of crops change like a mollier diagram as they maneuvered down the main access road through the fields. Most of the native trees in the ranch clearing were up near the house, but he also noticed fruit trees here and there along the edges of some of the fields, and there appeared to be a stand of trees around a pond halfway to the rock barrier surrounding the entire ranch. A hired hand was throwing out food for the chickens and ducks alongside the pond as they sped off down the road raising a cloud of dust behind them.

Sven pressed a big blue button on the dash, "That's the remote for the gate." Jake looked out ahead but he couldn't really see much, the gate was still too far away. "If we press the button early we don't have to stop and wait for it to open." The locking bars had retracted and Jake could see the huge gate was starting to swing inwards towards them. Bjorn didn't even have to slow down, he'd timed it so well. As they passed out through the gate Sven mashed the button again to shut the gate. The gate was made from large welded steel tubes and was a good five meters high and six meters wide. The spikes on the outside looked rather menacing from up close.

"Hey, what are those spikes for anyway?" Jake asked.

"They're to keep pirates from ramming the gate with a vehicle or a mech" said Sven. He was exaggerating, but Jake didn't know the difference. He'd figure out later just about everything had to do with pirates where Sven was concerned.

Bjorn piloted the Ripsaw down to where their access road met the main road and turned North heading away from town. "Almost clear..." Bjorn said under his breath. The ranch was surrounded outside the rock barrier by heavy stands of trees interspersed with open areas of tall grass and scrub brush. Once the vehicle was well out of view of the ranch, Bjorn slowed down almost to a stop and said "hang on to something, and watch this..." Bjorn pulled the Ripsaw off to the side of the road onto the grass, revved the engine up and slammed the Ripsaw back into gear harshly. The vehicle leaped forwards, smacked Jake's head into the head rest, and roared to life kicking up a huge rooster tail of dirt and weeds as they rocketed off into the clearing next to the road.

“Holy crap!” Jake swore under his breath. The Ripsaw roared as Bjorn kept shifting gears, snapping Jake’s head every time he pressed the shift paddle on the steering yoke. All of a sudden Bjorn stabbed the brakes and threw Jake forwards into the harness straps taking his breath away and rocking the vehicle forward. Laughing, Bjorn stabbed the accelerator and slammed Jake back into the seat again. Sven banged his arm on the dashboard as Bjorn slammed on the brakes again and yelled “hey cut that out, you maniac!” Bjorn slowed the vehicle down and settled on a more reasonable speed and stopped jerking the guys around so much. He’d cut quite a distinctive pair of furrows into the clearing. Jake could see these weren’t the only furrows in the vegetation, apparently this wasn’t the first time Bjorn had torn up the landscape like this.

Pointing the vehicle back into the general direction of North, Bjorn maneuvered back towards the road and resumed their trip at a more reasonable pace, but not until after he had flattened a few small trees just for good measure. “You’re crazy.” Jake muttered after getting centered back in his seat again.

“Oh, just having some fun.” Bjorn commented.

“Does he always do this?” Jake asked Sven.

“No, just when he wants to show off. He’s worse when there’s a girl around.”

“Girls? What girls?” Jake asked expectantly.

“Well, there’s Ariel Bjorn’s sweetheart” teased Sven.

“She’s NOT my girl friend!” Bjorn yelled over the noise of the engine just a bit too quickly, as his cheeks flushed.

“Then there’s Tarra” said Sven “but she’s not his girl friend either.” he said grinning widely. Bjorn glared at Sven, but let the comment go as he focused back on the road again. “Tarra’s really cute, always has her hair in a pony tail and she’s a good climber. She’s almost always in the top of a tree somewhere, if you can find her. Ariel and Tarra are the two that are close by.”

“Only two girls in the whole area?”

“Nah, there are a lot more in town. We only see them once in a while though, when we go to town for a dance or a holiday or something. Well, except for online. You can meet girls from all over online once you set up your own Pennant Page.”

“Oh, I wasn’t sure if you guys had that here on Wayfarer. It was all the rage back home on Lahti.”

“Yah, well we’re not THAT backward out here. We’re just all spread out.”

Jake looked out the window as the vehicle topped another rolling hill. He could see the land was a mixture of heavily forested areas with an occasional open clearing, filled with the tall pampas grass. Ahead he could see the landscape opening up into a savannah where there was more grass than trees, and he could see large rocky outcroppings sticking up here and there. Off in the distance was a black rocky ridge, jutting up like the spine of a large animal.

“How far is it to the mine?”

“It’s about another ten kilometers” Bjorn added in. “It’s at the base of that black ridge up ahead. Can you see that big triangle sticking up off to the right? That’s where we’re headed.”

It took another twenty minutes to reach the ridge, then the road teed. Bjorn took the right branch along the base of Black Rock Ridge, winding along a narrower one lane road where the trees were right up close to the edges. Every now and then an errant tree branch would slap the side of the Ripsaw up against the windows. The windows weren’t open, but Jake found he could open a vent slot that ran along the bottom of the side window for some fresh air. It was starting to get hot in the vehicle since it didn’t have any climate controls. He had to stay strapped in since the road wasn’t really very smooth, there were a lot of ruts in the dirt road and pools of stagnant water to splash through in the bottoms of every dip. The area was semi tropical in nature and received massive amounts of rain during the summer like it was now. It took another five minutes of winding road to reach the mine.

The road opened up out of the trees into a dusty gravel clearing up next to the base of the ridge. There were a half a dozen large steel sided buildings arranged around the clearing and up against the black rock where a large mouthed tunnel led back into the rock wall. A couple of low, flat mining trucks with large tires were parked up next to the largest building which had a large sign on it that said “Kintaro Mining Co.” Jake could hear a lot of machinery noise coming from that building, and a stream of gray smoke could be seen curling up into the air from a tall smokestack. Bjorn pulled the vehicle through a set of tall beams that supported some kind of vertical silo in front of the machinery building, stopping so the trailer was directly under the center chute. The silo was labeled “Fe26 Mix”, whatever that meant. There were silos in front of several of the other buildings as well, with conveyers running from the largest building out to each one of the smaller structures.

“OK everybody, dismount” Bjorn said as he shut down the Ripsaw and unbuckled his harness. Sven was already up and reaching to open the top hatch. Jake figured out the harness buckle and stood up as much as he could, waiting until Sven had exited the vehicle. Jake couldn’t wait to get out and stand up straight for a change, the confines of the Ripsaw had gotten to him after sitting for almost an entire hour without moving much. His ears were still ringing from the noise of the engine that had been droning away right behind his ears for the last hour.

Jake climbed up and out of the hatch, then jumped down off the vehicle and was back on the ground again. “Wow, I didn’t think that ride’d ever end.” Jake exclaimed, stretching his arms over his head and doing a few neck rolls.

“All right guys, let’s go find Hai.” Sven said stretching. Hai was the same age as Sven and liked the same games Sven did. “Hai ought to be up in the control room monitoring the crusher.” he said as he started walking towards the main building with Bjorn and Jake in tow. The guys entered the wide truck doorway into the main building and met Hai walking out to meet them. Hai was wearing blue coveralls with the company logo on them and a pair of black leather athletic shoes.

“Hi guys! I saw your text. I got the foreman to take over for a while, hey, who’s this?” Hai asked.

“This is our cousin Jake from Lahti. Remember? I said we might have someone coming to live with us?” Sven piped in. “This is him.”

“Hi there.” Jake said sticking his hand out. Hai bowed quickly as was customary for his Japanese heritage and shook Jake’s hand. “Hi yourself.” he replied. “Tour?” he said glancing at Bjorn and Sven with a grin. Sven winked back.

Hai turned around and pointed up at the smelter and said "That's the furnace and smelter. It's hot. Don't touch." The Hai pointed at the big noisy machine at the back of the building and said "Rock crusher. Wear earplugs." Then he pointed at the machine in front of the smelter and said "Molten metal goes in, powered steel comes out, then it goes up into the silo outside. Got it? Good. Tour's over. Race you to the mine shaft!" and took off running. The guys laughed and took off after Hai with Jake in the rear.

The run across the gravel and into the cool air in the mine shaft felt good after the long drive. They ran onwards into the dimly lit tunnel for a hundred meters, then stopped to catch their breath. The tunnel branched off into three directions and Hai led them into a smaller side tunnel about eight meters tall and four meters wide, close to the width of one of the mine digging machines and forming a pointed arch. Hai pointed further down the tunnel at a noisy digger working away and explained it's operation for Jake.

"The whole ridge is basically all Hematite and variants on that, all loaded with iron ore as far as the eye can see. We picked this spot on the ridge because of the trace elements located here. This tunnel follows a seam loaded with nickel, manganese, tungsten, and a lot of the other elements we need to make different alloys. There is even a little silver and gold mixed in, but not enough to make much of a difference. Mostly we make the basic steel alloys you guys need for your fabricators." Hai explained. "We get carbon for making coke for the furnace from a small logging operation my uncle runs a little further east of here."

Hai picked up a rock from off the floor of the tunnel and pointed to the dark red streaks and dark crystals in the sample. "Can you see the silver gray nodules in this one? Those are Specularite and are almost solid iron oxide. My Dad thinks the ridge was a volcanic seam that opened up when the continent split open a few million years ago. The iron in this ridge is why the original settlers decided to start a colony near here twenty years ago." Hai handed the rock to Jake to take with him.

"Why are the arches pointed?" Jake asked, changing the subject.

"It has to do with shear flow, the way the forces are directed down through the rock from above. We remove all of the rock material in the top of the arch that would be in tension in a rounded arch. Rock fractures in tension and causes cave ins, rock in compression is stable and solid. The pointed arch makes sure all of the rock is in compression, so we don't need reinforcement beams or structures most of the time. That's also why the tunnels are spaced further apart, to prevent stress concentrations in the rock walls. We have plenty of ore, the seam here is massive, so we can easily space out our tunnels and save the costs of shoring up the roof."

Most of that went right over Jake's head. The guys had started walking back out of the tunnels towards the light outside, but had to dodge an automated ore truck that was headed back into the mine for another load. "The ore trucks will stop and not run you over most of the time." Hai commented after the truck went by in a cloud of dust. "They have collision avoidance systems, but sometimes the sensors get too much dirt on them to work very well. It's better to just get out of the way when you see one coming."



Ore Truck

“Hey, I’m thirsty” Bjorn piped in “can we get something to drink?”

“Oh. Sure, let’s go into the break room. We’ve got everything under the sun in there.”

The guys found some drinks and snacks in the refrigerator in the operations building and had a bite to eat, then listened to Blacky, one of the mine workers playing his guitar in the corner. It sounded like Blacky should have been a musician instead of working in a dusty mine, he had a knack with the acoustic guitar that bordered on mystical. Jake was envious of his talent. After a snack the guys headed back outside to take care of filling up the hopper in the Ripsaw’s trailer with metal powder and head back towards the ranch.

Chapter 4 “Bant Hunting”

The guys waved at Hai as they drove out from under the Fe26 Mix hopper and turned the Ripsaw back towards the road out of the clearing and back under the arched trees. The vehicle wasn’t as fast as it was before, now that it was pulling a substantial load behind it. With the hopper full of metal powder, the trailer now weighed more than the Ripsaw did. Bjorn had to be more careful and drive slower down the winding road, the bumps now had a greater effect on them as they negotiated through the ruts in the low spots in the road. The trailer would pitch, causing the ripsaw to bob up and down.

After reaching the main road Bjorn turned the Vehicle south back onto the two lane road and proceeded to speed up some. “Alright guys, start looking for a good spot so we can pull over and do some target shooting. We’ve got to get Jake up to speed on the rifles before we throw him into a herd of Bants.”

After another kilometer or so Sven pointed ahead at an open grassy area with a hill behind it. “How about over there?” Sven asked. “That looks like a nice spot.”

Bjorn nodded and pulled the Ripsaw off the road and up an embankment onto the flat grassy area off to the right side of the road, with the right side of the vehicle facing the hillside. He shut down the engine and unbuckled his harness. Jake followed his lead and unsnapped his harness. Sven unbuckled too and

proceeded to undo a set of latches Jake hadn't noticed along the bottom edge of the side window. "Jake, open the latches next to you." Sven said. "We need to get the window open." Jake had no idea the window opened. Jake unlatched three more of the latches next to his seat and said "now what?"

"Push!" Sven said. The two pushed on the window, which hinged up and out of the way, latching neatly up outside the roll bars. "That's cool" Jake added.

Sven reached up above the window and unlatched the big rifle and pulled it down. He sat back in between the front seats on the large, wide glove box and proceeded to slip the rifle onto a post that stuck up from the lower window frame. "Yah gotta get the rifle down onto the pin to hold it in like this." Jake noticed the pin fit into a ball swivel built at the center of the rifle, allowing it to pivot up and down some, and sweep from left to right. There was another mount in the center of his part of the window too. "Get the other rifle down and put it onto the swivel." Sven said while sighting down the barrel of his rifle at the hill fifty meters away.

Jake did as he was ordered and got the second rifle down, but almost hit Bjorn in the head with it. It was heavier than it looked. Sven helped him get the rifle seated on the mount, then pointed at the compartment in the side of the Ripsaw below the window. "Hand me one of those clips." Jake reached into the well and felt around inside and found an ammo clip to hand to Sven, who promptly checked the safety and inserted it into the rifle. Sven pointed at the sight gage for propellant tank located on the side of the butt of the rifle. "Check your level and tell me how much is in your rifle."

"Uhhmm, it's about at the $\frac{3}{4}$ mark" Jake said slowly as he watched the liquid level rise and fall a little as he moved the rifle to get a better angle.

"Good. Now check the safety and make sure it's on safe. Black is safe, red is ready to fire."

"It's black and on safety." Jake repeated.

"Good. Now get out a clip and insert it into the rifle." Jake had a little trouble getting the clip aligned correctly, but he got it in after a couple of tries.

"OK. It's loaded."

"Good. Now pay attention while I show you how to fire this beast. First, the trigger has two positions. You pull the trigger back until it clicks, that loads the propellant into the firing chamber. When you want to fire, pull the trigger the rest of the way. If you pull the trigger all the way in one move it takes a moment before the gun will fire, it has to prime the firing chamber first." Sven thumbed off the safety, took aim through the reflexive sight at a rock part way up the hill, pulled the trigger back until it clicked (making it really obvious) then pulled the trigger. Boom! Sven hit the rock, but winced at the loudness of the rifle.

"Oh yah." Sven said. "I forgot about the ear plugs." Bjorn laughed and pointed at the ear muffs he had on and mouthed something, pretending like Sven was deaf. "Har, har, very funny old bean." Sven said back at him. He reached into the glove box and retrieved two sets of ear plugs and handed one set to Jake. Once Jake had his earplugs in, Sven pointed up the hill. "Now pick out a target and let's see if you can hit it."

Jake selected a big black rock and took aim through the reflexive sight, putting the red dot on his rock. He pulled the trigger back until it clicked, held his breath to keep from wobbling, and pulled the trigger. Boom! The rifle spat out the round and hit the rock with a visible puff of dust.

“Hey, not bad.” Sven commented. “Now pick a smaller rock and let’s see you do it again.”

Jake repeated the process and hit another rock.

“OK, you can shoot.” Sven said. “Now let’s play a game. Call out your target, 25 meter shots are one point, 50 meters is five points, 75 meters is ten points, twenty points for 100 meters. I’ll go first.”

Sven picked a rock at 50 meters and popped it quickly. “Five points.”

Jake took his turn, and hit a 50 meter shot. “Five points.”

Sven selected a branch on a bush at 75 meters, carefully took aim, and hit it on the edge. “Yes! Fifteen points, my man.”

Jake picked a brown rock at 100 meters. “Dang! Missed.” Sven grinned, he knew now Jake wasn’t quite the hot shot he thought he was.

After a half an hour of shooting, Sven was up substantially over Jake, but Jake was getting better at it. Sven switched out the reflexive sight for a large scope and showed Jake how to compensate for distance using the reticule. Each tick mark represented 50 meters of distance. Sven had Jake try a few long shots, out 400 meters or more. There wasn’t much of a breeze, so they didn’t really go over how to compensate for side wind. It took a dozen shots, but Jake started to get the hang of it. Long shots were a LOT harder, he had to really concentrate in order to keep from jiggling and missing the target.

“Bants are hard to approach, even though they aren’t really afraid of us. You’ll have to manage a long distance shot if you’re going to hit one” Sven instructed. “We’re going to be nice today and let you take the shot. You only get one, the Bants will run at the first shot and we’ll never catch up to them, not out here we won’t.”

“How long of a shot?”

“I dropped my last one about four hundred meters. Think you can do that?”

“I’ll give it a try. What if I miss?”

“You’ll just have to wait and try again in a week or two, old bean.”

Bjorn took a few turns shooting long range as well, just to keep in practice. He yawned and said “OK guys, let’s go find some moving targets. I’m getting bored watching you two waste lead on rocks and sticks.”

Sven nodded. “Jake, put the safety on, pull the clip and put your rifle up on the rack.” The way the rifle worked mechanically, a round wasn’t chambered until the trigger was pulled and it clicked. The big rifle was single shot, not semi-automatic. It took Jake a minute to find the clip release, but he managed it without needing help. With the rifles stowed, Sven pulled the window release and shut the side window, then the guys re-latched it and buckled in. Bjorn started up the engine and pulled the vehicle back onto the road heading south. “All right guys, it’s your job to spot the Bants. They’ll be off in the grass, probably up near the tree line.”

Jake leaned into the window on his side of the vehicle behind Bjorn and strained his eyes on the horizon, but he couldn’t see anything that looked like a big water buffalo. He wondered if Bants were taller than

the pampas grass and if he would even be able to see them at all. Sven was doing the same out his window. "Nothin yet." Sven commented.

After driving a few more kilometers the guys crested yet another rolling hill and Bjorn slowed down. The savannah dropped away below them making it easier to see the landscape. Bjorn stopped, then pointed off to the south east to their left at a low point where Jake could see the shimmer of water in the grasses. "Sven, get out the field glasses and check that marsh down there."

Sven had a pair of binoculars in the glove compartment, which he used to scan the lowland terrain below them. "Nope. Nothing down by the marsh." He scanned wider, trying to see if there were any animals at all on the savannah below them. "I can see some smaller deer-like beasties down by the water, but nothing that looks like a Bant. Those deer'll be long gone before we can get close enough for a shot. They disappear in this tall grass."

Jake found a pair of binoculars in one of the compartments in the back and took a long look around. "What are those big humps sticking up over there?" he said pointing north east along the ridge they were parked on. The mounds were more than a kilometer away.

"Nothing, we've been faked out by those dirt mounds before, some type of termite mound or something." Bjorn stated. Just then one of Jake's termite mounds started to move. "Hey wait... there's one." Bjorn added. "Action stations!" Bjorn hollered. The guys quickly unlatched both side windows, swung them up out of the way and retrieved the rifles. Jake's rifle went out the left window on the rear mount, while Sven's went out the right side in front. Bjorn pulled the Ripsaw off the road and Sven headed up out the top hatch. Jake started to follow, but Bjorn stopped him. "He's just going out to unhitch the trailer. Start reloading the empty clips, the fresh rounds are under your seat."

Jake fished the empty clips out of the compartment and figured out how to open up the seat bottom, which was full of boxes of steel rounds for the rifles. Sitting in the opposite rear seat, he began reloading the clips. "Hand me one." Bjorn asked "I can reload too while Sven is busy out back." There were five empty clips, thirty rounds each to reload.

Sven had climbed down the back of the Ripsaw and had proceeded to lower the stand and unlatch the trailer hitch. It took a few minutes to crank the stand down far enough to release the hitch, but he got it. He finished the job and clambered back in, but the other guys weren't done reloading yet. "Check the propellant tanks." Bjorn directed. Sven fished a bottle of propellant out of the side compartment and refilled the tank in the butt of the rifle through the top cap, then refilled Jake's rifle too.

"Topped off and ready to go!" Sven said.

"All clips reloaded and ready for action!" Jake added, slamming the seat cushion back down and retaking his position behind the rifle. Bjorn strapped himself back in and put the Ripsaw in gear and began moving forwards slowly.

"Keep your eye on the Bants, I'm going to try and get as close as I can without spooking them. Let me know when one raises it's head and looks our direction."

Sven climbed up and sat on the roof with his legs down the hatch. Jake watched expectantly out the window as Bjorn crept the vehicle closer to the huge animals, the Ripsaw wasn't exactly a very stealthy vehicle. Bjorn managed to get within about three hundred meters, when several of the large buffalo popped their heads above the tall grass and snorted. Bjorn stopped the Ripsaw when Sven called "Stop." down the hatch, but not before a few of the Bants began trotting up the hill away from the vehicle. Bjorn

couldn't see much from where he was down low in the seat. Jake figured there were about twenty or so by the number of heads that popped up out of the tall grass.

"This is about as close as we're going to get." Sven called down the hatch. "These guys are skittish and about to bolt." Sven reached out in front of the hatch, unlatched a bracket, and pivoted a metal stand up into place in front of him. "Jake, hand me your rifle." Jake handed up the big rifle with the scope on it, and watched as Sven hooked it onto the metal stand. "Get up here, you can't shoot anything from down there." The grass was indeed too tall to see over. They wouldn't be shooting anything out the windows here. Jake clambered up out the Ripsaw and took over the rifle. Sven was looking through the binoculars at the small herd, he called out "Range to target, 346 meters."



"How do you know that?" Jake asked quizzically.

"The binoculars have a laser range finder in them. You put the cross hairs in the right lens on the target and hold down the button on the right side. The range shows up in the right lens."

"Oh. I didn't know that. Let me try." Sven handed him the binoculars and Jake checked the range to the nearest Bant in the group, it was about 348 meters away now.

"Shoot it in the back of the head." Sven instructed, "The steel round won't damage your trophy too much, and it'll drop him quicker than hitting him in the heart."

Jake gave the binoculars back and went back to the rifle, finding the nearest animals in the scope. He picked out one of the nearest animals and tried to steady the scope reticule on the target, but the animal turned away from him. His hands were shaking a bit, he was so excited. His heart was pounding in his ears, as he tried to calm down and steady his aim on a different Bant. Taking a deep breath, Jake finally took the shot. Boom! The rifle retorted, startling all the animals into a mad dash up and over the hill away from the sound.

"Did I get it?" Jake shouted expectantly. He couldn't see anything in the dust and tall grass the animals had kicked up.

"I think so." Sven said slowly. "Let's go find out."

Bjorn headed the vehicle slowly in the direction of the dirt mounds while Sven and Jake hung onto the railings on the top of the vehicle. The ground was pretty rough, but the bumps didn't force Jake and Sven

into coming back down into the vehicle. It took a few minutes to close the distance, then Sven hollered "Hey look! You actually got one. You lucky bastard!"

Jake could see the large buffalo lying in the grass on the ground. Now that he was close to it, he realized the Bants were a lot like an earth-type water buffalo, only larger and with two stout horns. He'd only seen a head at the ranch on the wall, one of Sven or Bjorn's mounts. Jake was grinning ear to ear now. "Nice!" Jake felt more like one of the crew now, he had been worried he wouldn't pull it off and would have had to go home empty handed, the city kid without any survival skills. Instead he was going home a triumphant hunter.

Bjorn pulled the Ripsaw up and backed it towards the buffalo, following Svens directions. Sven broke out the davit on the back corner of the Ripsaw, while Bjorn unbuckled and got out. "Nice going, old bean! Your first trophy!"

"Do we get to eat it?" Jake asked.

"Yup." Bjorn said, "You get to eat it too. We have to soak the meat for a week or two first, though. He's been eating Wayfarer grasses and has lots of nasty tasting chemicals in him. Once we get all of that out of the meat, we'll have a barbeque and you can eat him."

"Nice." Jake beamed from ear to ear.

"We've got to get him home first." Sven added in. He had the davit, a short lifting beam with a winch on it, swung out and was lowering the cable and hook down to the ground. Sven jumped down and wrapped the cable around the back legs, then used the control pendant to raise the back of the buffalo off the ground while Bjorn pulled a net under the animal. They repeated the process for the front legs and pulled the net all the way under. Hooking the corners of the net in the hook, the guys were able to lift the animal up in the air with the davit and swing it over up against the rear of the Ripsaw. Bjorn got a couple of long straps out of a rear gear locker and strapped their cargo securely to the back of the vehicle using the cleats.

Sweating from the exertion and climbing around in the hot sun, the guys took a last look at their handiwork and climbed back into the vehicle. "Hey, I could use a drink." Jake stated proudly. "What have we got left in the cooler?"

"I think there's some lemonade left, and a couple of bottles of water in under the ice." Sven dug around in the cooler which was on the floor behind his seat and fished out a couple of plastic bottles with Aunt Glory's lemonade in it. He handed one to Bjorn and let Jake find his own bottle. Jake grabbed a granola bar out of the tray in over the ice along with a bottle of lemonade.

"Ah, good stuff." Bjorn said smacking his lips as he scanned the horizon. "Clouds are starting to roll in, we'd better get rolling before it starts to rain." Putting his drink in a drink holder in the center glove box, he started the Ripsaw back up and started heading back the way they'd came through the tall pampas grass towards the main road. After collecting the trailer, the guys headed back down the dusty road towards the ranch.

It's a good day to be on Wayfarer, Jake mused.

It had started to sprinkle on the way back to the ranch, but it launched into a torrential downpour as Bjorn rolled down the lane and back through the gate back onto the ranch. "6:30 right on schedule. As soon as the sun starts to drop the air cools off and all the water falls out." Sven explained. "The humidity

is really high this time of year. It will quit in another fifteen minutes or so." Steam was rising off the pavement in front of the vehicle garage as the rain continued to fall. Sven pressed a different remote to open the door to the building so the guys could drive inside out of the rain.

Ben, the Langer's pilot, was inside the garage working on something over on the mechanic's bench. He smiled as the guys came pouring out the top of the Ripsaw, eager to show him Jake's trophy. "So, what'd you get? I can see you've got something strapped on the back there." He walked slowly towards the Ripsaw while cleaning off a metal part in his hands with an oily rag.

"Jake got his first Bant!" Sven yelled a bit too enthusiastically. "Dropped it with one shot at 350 meters!"

"Nice! Congratulations, Jake." he said offering his very greasy hand to Jake. Jake hesitated, and looked at him like he was nuts. Ben laughed and walked over to take a look at the Bant strapped on the back of the vehicle. "Looking good. I'll have one of the guys get the Bant down and butcher the meat. You guys can head in, I'll take care of things out here."

"Thanks Ben." Bjorn led the guys towards the door. It was still raining heavily, so the boys made a mad dash across the driveway and crashed into the mud room at full tilt. There were benches in the mud room to sit on to take off muddy shoes and boots, which came in really handy. After doffing their shoes, the guys headed into the kitchen. They all started talking at once to Aunt Glory, Petunia, and Christina who were cutting up vegetables for the next meal.

"Slow down, I can't listen to all of you at once!" Aunt Glory exclaimed.

Jake took over the conversation, "I got a huge Bant at 350 meters! It's so huge, it almost doesn't fit behind the Ripsaw! I'll bet it weighs a couple of tons, we almost couldn't lift it with the winch!"

"Yah it's a big one." Sven added scratching his ear vigorously. "If he hangs it in his room, there won't be any way to get in there and move around, he'll have to crawl in."

"Very good Jake. It's nice to see we have another hunter in the family. "

"I've been hunting tooooo..." Christina piped in. "I got fifteen flies this morning while you were gone. Frick was helping me." Frick is the female serval, the one that doesn't bite.

"Yes, you're such a big help." Petunia patted her on the head softly. She winked at Jake, who added "Yup, you're better than me. You got fifteen and I only got one." Everyone knew except for Aunt Glory that Christina held the mud room door open and LET the flies in first. If Aunt Glory knew that she wouldn't be so eager to pay her for swatting them. Christina had ran around the entire house all morning yelling out how many credits she had accumulated as she swatted the flies one at a time in the windows.

Jake was happy. He'd bagged his first trophy and really liked living with his cousins. His smile sagged a bit as he recalled the mess his parents were in back home. He hoped they were all right, he needed to send a v-mail back home to tell them how he was doing. He needed to get some pictures of the Bant first. Jake headed off downstairs to get his zip phone so he could take a few pictures and send them along with his video mail message to Lahti. His Dad would be amazed at the size of the Bant he'd bagged!

Chapter 5 “Fabrication and Mech-anization”

The next day Uncle Helmut took Jake with him on his way out to one of the out buildings, the one attached to the machinery garage where the mechs and farm equipment were housed. Unlike the garage next to it, this building was sealed up tight and air conditioned. Jake could hear the whir of lots of fans cooling sensitive electronics as they walked in. The door whumped solidly as it closed, and Jake could feel the pressure difference inside the building from the circulation fans and air filtration. It was actually cold inside, with absolutely no humidity at all. Outside was the opposite, hot and so humid his clothes almost stuck to him after a while. Every thing inside was white. Uncle Helmut led him deeper into the building, into a control room full of rack mounted electronics. One wall was almost entirely large windows looking into a set of fabrication cells.

“The first small cell is where electronic assemblies are fabricated. The machine takes a lot of exotic material feeds so it can fabricate all kinds of electronic parts right onto the circuit boards as they are printed. We get most of those feed materials and micro chips from Lahti since the elements required are so hard to refine out of common sources. We have to import micro chips too. As a result, we tend to use more analog circuits than digital ones to control all of our machinery. That also makes them more robust and more tolerant to vibration, damage, and emp attacks.”

“The second cell is a bit larger, that cell handles fabrication of plastic and composite parts. We can handle up to a cubic meter in volume for each part. Items bigger than the cell are constructed in sections and assembled from the smaller subsections.”

“Yah, I’ve operated one of those before in my Dad’s shop” Jake chimed in. His eyes were pretty wide and his mouth was open as he gazed into the work cells from the control room.

“The third cell is about the same size, but it handles fabrication of metal parts with fairly high precision. It won’t create a polished surface, but it comes close. We have to hand finish parts with smooth surfaces after the fact, which is what the technicians were doing on the work benches in the room we passed through to get in here. You may have noticed our two milling machines, the lathes, and finishing equipment along with sanders, grinders, and hand tools.”

“The fourth cell handles the big stuff, metal parts for the farm machinery, repair parts for the mechs, that sort of thing. We have forklift access into that cell from the back for parts that are too heavy to lift. That’s the machine I want you to use to make mounts for the weapons I have on order for the farm mechs. The mounts won’t need to be high precision. If you need a more precise part, fabricate the piece you need on the other machine and press it into the larger part. Ask one of the technicians for help and he’ll help you with the tolerances so the pieces can be press fitted together. Bolt threads can be roughed in, but not shaft bearing surfaces, seals and the like. Those have to be handled with precision inserts.”

Jake nodded in awe looking at the equipment he was going to get to operate, this stuff was way beyond anything he’d ever used before. The biggest thing he’d ever made was a rock hammer with his Dad and a few kitchen utensils. “What about electric motors and stuff like that?”

“We get those from a manufacturer in Port Canaveral in town. He has an online catalog of sizes along with the engineering drawings so you can incorporate them into your designs. It takes a few weeks to get a motor from him, but it’s not like we have to order parts months in advance from Lahti and pay the shipping all the way out to Wayfarer. We try not to do that, but sometimes you just can’t avoid it. He carries wire too, all different sizes, since he has to stock it for his motors anyway. We have a selection of motors, parts and more complex assemblies in the warehouse.”

Uncle Helmut stuck his head into the finishing shop and hollered “Jackson, come in here and show Jake how to get things started. Jake, I’m going to leave you here with Jackson. I’ve got to check on the boys up at the north end of the ranch, they’re clearing a section of brush and trees out, we’ve got an infestation of Rockers that keep invading our fields from there. Work with Jackson until lunch.”

“Oh. Ok, I guess I’ll see you later.”

Jake spent the rest of the morning learning how to operate the fabricators with Jackson, and even managed to print out a few parts before he was done. He made an odd plastic bracket for one of the harvesting machines, a precision fitting out of steel for the end of a hydraulic piston somebody needed, and spent some time digging around in the colonist machine database just to see what was in there. The collection of machines was mind boggling, he didn’t understand what most of the things in there were even for. Reading the machine description didn’t help either most of the time, there were just too many obscure items in the data base. Jake found if he started from the index and looked up something more understandable like mountain climbing gear he had better luck at finding something recognizable.

Uncle Helmut had left the weapon ID numbers he had on order for the farm mechs on a slip of paper before he left. Jake managed to find those items pretty quickly. The database auto updated and inserted new items about once a month from data files sent from Lahti. It took Jake an hour to figure out how to pull up the farm construction mech on the computer and remove the generic tool attached to the 3D model. Once he got that figured out, he imported the new weapons into the model and spent some time learning how to move the darn things around and get them into position on the mech’s arm mount. After some coaching from Jackson, Jake also managed to figure out how to pull up a generic mount he could use as a base for a new weapon mount. This was going to be a lot harder than he expected. Luckily Jake was saved by the bell – Lunch time! Jake saved his work on the farm mech and headed out for lunch.

After lunch with the family Jake headed out across the fields on foot with Bjorn and Sven. After about a hundred meters Jake realized his athletic shoes were NOT what he wanted on his feet, but it was too late. His shoes had picked up five centimeters of mud on the bottom and soft dry dirt had invaded the tongue of his shoes and was working it’s way down around his socks. Next time he’d wear boots like the other guys had on. He hadn’t even thought about it on the way out the door. At least he had long pants on so his legs weren’t getting beaten up by the plants he was trudging through. It took a while to walk all the way out to where the guys were clearing out the brush on the north end of the ranch. Jake could see the construction mech with big gripper attachments on the wrist mounts standing in the middle of the brush. They had removed the chainsaw and attached a second gripper in it’s place for this job.



Construction Mech

“We’ve got about half of the trees and brush cleared, but it’ll take us a few more days to get all the big boulders out of the way and moved over onto the rock barrier over there.” Sven pointed at the Boulder wall on the north side of the ranch about forty meters away. The mech had really tore up the landscape, raw earth surrounded the work site and roots were sticking up out of the ground like dirty vines. “The scrub brush has a really nasty root system to get down deep to the water in the ground.”

Bjorn was already climbing the ladder up into the open cockpit of the construction mech. Sven pointed up at Bjorn who was standing and donning a light jacket with embedded wires in the fabric, slipping on the gloves and attaching the cables from the gloves to the jack on the wrist of the jacket. “This mech isn’t a very advanced one, it doesn’t have a neuro-helmet for controlling it, it has a jacket and gloves instead. The sensors in the jacket can tell how you’re moving and the mech mimics your motions. A button on the floor has to be pressed to enable the body tracking to move the waist and arms. You lean forwards and backwards to move the mech body around, the legs are moved by the controller to keep the mech balanced at all times. You walk it forwards and backwards using the foot pedals just like the cockpit back at the house. It works great most of the time, but you do have to get used to it.”

“That’s cool! Can I drive it?”

“I suppose so, you did OK in the simulator the other night. Ask Bjorn after a while when he takes a break.”

Jake noticed Frick and Frack were a short distance away, lounging in the grass watching the guys casually and cleaning their paws. Bjorn started up the mech, which made a low whine as the turbines spun up and the generator came up to full power. Bjorn enabled the motion tracking, flexed the arms and grippers like a boxer getting ready for a bout, then leaned forwards to crouch the mech and get a grip on the nearest scrub brush. Jake could hear the generator whine louder as the mech settled into a wide stance and began pulling, ripping the bush right out of the ground roots and all as it stood up. Bjorn tossed the bush onto the pile off to the side, stepped the mech forwards and leaned in to rip out another one.

Jake and Sven took turns running the much smaller skid steer loader with a jaw bucket attached to grab and haul the bushes and roots over to a trailer similar to the one the Ripsaw had used a few days ago on their trip to the mine. The other guy stood by with a pistol, ready to pop whatever critters the mech unearthed. The work was hot and sweaty, but they were making a dent in the thick scraggly brush.

“Holy cow! Look at that!” Jake yelled as about six big fat Rockers came bolting out from the dirt under the bush Bjorn had just pulled out of the ground. “I’ll bet those suckers weight 10 kilos a piece!” He managed to shoot one before the others disappeared into the big rocks. A few seconds later Frack bolted across the landscape through the grass, zigging and zagging crazily with his tail whipping left and right. Every now and then he would stop cold, reverse direction and take off again in another wild sprint in the opposite direction. It took a minute or so of wild antics before he caught the large furry ball of a Rocker that had ran for it. When he finally caught the thing he went rolling across the ground in a cloud of dust. “He got one! Nice!”

Frick had gotten up and trotted over to see what he’d caught, but Frack wasn’t sharing, at least not yet. Frack growled at her and carried the Rocker a bit further away to make his point. A few minutes later Frick bolted after her own Rocker and the wild scene was repeated. The cats knew just where to wait, out of the big rocks where the ground was flat and grassy between the worksite and the boulders of the ranch’s barrier wall. Sometimes the Rockers would stop and hiss at the cats, threatening with an open mouth and long root-crunching front teeth. Frick and Frack would stop a few feet away and tense, waiting for the Rocker to bolt again. They were having more fun chasing them down than anything else.



All heck would break loose every time Bjorn hit another nest with the mech. “That is so cool!” Jake exclaimed as he watched the cats running down the varmints. Work would stop momentarily as the guys watched the cats do their work, lining up their kills off to the side of the worksite. Jake was having a hard time hitting the running Rockers with the pistol Sven had handed him, but the cats were making up for it. “No more vegetables for you, you little monster!” Jake yelled after connecting with another Rocker. The Rockers had been doing quite a bit of damage to the vegetable field next to the scrub brush. It wouldn’t have been quite so bad if the varmints would eat one cabbage all the way. They had a bad habit of taking a few

bites from one, then moving on to another one, and so on. One Rocker could damage a lot of produce in one afternoon. A colony of them could destroy an entire field if you let them go for a month or two.

After awhile, Bjorn got thirsty and decided to take a break. He shut down the mech, unplugged the jacket, clambered down and walked over by Jake to the juice cooler attached to the side of the trailer. "Hey old bean, how's it going?" Bjorn knelt down in front of the cooler, positioned his mouth under the spigot, and pushed the button. "Ahhh, that's good stuff! Dad calls it Gator Aid but nobody can figure out why. There aren't any alligators on Wayfarer that we know of, and what's a gator got to do with fruit juice anyway?" He took another gulp and kept going this time until he quenched his thirst.

"Maybe he calls it that because it looks like swamp water?" Sven postulated with a crooked grin. "All I know is it sure tastes good when you're parched out here in the fields." Sven took a turn drinking from the spigot too, so Jake surmised that was the way it was done around here, at least when Aunt Glory wasn't watching anyway. The iced juice tasted really good in the heat, and the cooler held about twenty liters of it.

"Hey Bjorn, can I take a turn at running the mech? I've spent a couple evenings in the simulator and I'm ready to try it out for real."

"Oh you have, have you. Fine." He took off the gloves, handed them to Jake, then took off the jacket. "It's all sweaty, but you can have it." he stated with a wicked grin. Jake hadn't thought of that, but he slipped the jacket on anyway. It smelled bad, but then they all smelled bad so it didn't really matter much. The gloves were a different matter entirely. Jake slipped on the soggy thin gloves and plugged the chords into the jacket. The clammy gloves felt disgusting, but he knew he had to suck it up if he wanted to drive a mech... A real mech! Jake's heart was racing as he climbed up the ladder and clambered over the side into the cockpit.

"Let's see if he can figure out how to start it up" Bjorn whispered to Sven with a wide grin.

Jake plugged in the jacket and immediately pushed the start button on the dash. He had gone over the cockpit diagram the night before, so it was all fresh in his memory. He wasn't about to let Bjorn or Sven get the better of him, not about driving a mech. He'd waited for this moment his whole life. He was in a real mech! The startup sequence was pretty simple, all he had to do was log into the machine and press start. Oh, he'd forgotten to log in. "Hey, you forgot to give me the password" Jake yelled. The mech's side windows were still down, so Bjorn could hear him just fine.

"The password we set up is 'Squishy Squid'. We change it every once in a while just for fun."

Jake typed it in and the system announced "Operator Recognized." in a female voice. He pressed 'Start' again on the dash and heard the gratifying sound of the turbines spinning up behind him. After a minute, it announced "All Systems Ready." He had to lean back to get an eye on the floor to see where the enable button was, then he assumed a body position with his arms down like the mech was positioned in and pressed the enable button with his foot. The mech lurched slightly as he took control of the upper torso. Jake walked the mech forward a

few meters and stopped in front of a large bush, then leaned into it as he extended the arms and took a hold of the trunk down near the ground.

He was a bit uncertain in his movements and dug the grippers into the ground a bit, but he managed it. Leaning back he ripped the bush out of the ground a bit too vigorously. The mech had to take a step back to counter his move. Jake could see Bjorn smirking at him through the side window, but he kept going without stopping and threw the brush aside onto the pile for the loader. Stepping the mech forwards, he set up for the next chunk of brush and went in after it. After a few more bushes Jake was getting the hang of it and was moving much more smoothly. Bjorn and Sven shrugged, not getting to make fun of Jake any more, and went back to driving the loader and to Rocker shooting duty.

Jake spent the rest of the afternoon in the mech cockpit and was able to clear out the rest of the scrub brush in the work area. Driving the mech was a blast, but he could feel his arms getting tired. Making all of the mech motions himself was tiring. At least he had air conditioning blowing on him out of the vents. He could stay relatively comfortable even though he was working up quite a sweat. It was really satisfying being able to see the swath he had cut through the brush behind him. They had unearthed quite a few Rockers as well, and had overfilled the trailer with the scrub brush. Sven had climbed up on top of the pile in the trailer and was jumping up and down on the branches trying to mash them down in better. Jake backed the mech up to where he had started, positioned the arms downwards again, and pressed the start button to shut down the mech. He had never raised the window, so all he had to do was clamber out the window out through the roll bars and climb down the ladder.

“Not bad, old bean” Bjorn commented. “How are your arms doing?”

“Wow. They feel like I just did a hundred push ups. My back is going to be pretty stiff too. That’s a lot more work than it looks.”

“Yup, you’ll be in tip top shape in no time if you run that mech every day. How do you think I got this good looking!” Bjorn said as he did a few weight lifter poses. He was in pretty nice form. “We still have to haul all the boulders out of here, that’s on the list for tomorrow. It’s Sven’s turn in the mech next, but you can take over tomorrow afternoon again.”

“It’s time for a team meeting,” Sven chirped “to plan our next Safari. Today’s Wednesday, all the guys are expecting us to set something up by Saturday. I think we should drop Jake into the Spire Sinkhole and do a little exploring.”

“Oh, yah. What’s Dad got planned for Saturday? Mom isn’t trying to take us on some lame picnic just cause Jake’s here is she?” Bjorn wasn’t too keen on picnics.

“I don’t think so. Christina would be talking all about it if Mom was planning a picnic, and she hasn’t been talking up a storm about anything like that. Picnics are OK sometimes, but I’d rather go repelling.”

“Cool! I’m in. How far down is it down into the sink hole?” Jake exclaimed.

"It's really deep! You're not afraid of heights are you?" Jake shook his head no to Sven. "It takes about two hundred meters of cable to get down there. The spire in the center is as tall as a skyscraper, like the Empire Tower back on Lahti. We use the winch cable on the Ripsaw to lower down our gear and to pull us back out. It's got a remote which works *all the way down* to the bottom, we don't even have to leave anyone behind up top. We lock the Ripsaw up though, just in case someone comes by. Dad owns the land it's on, but people around here go pretty much anywhere they want. We don't want anyone doing anything funny while we're all the way down in the bottom. ZipPhone reception is kinda spotty down there in the tunnels, we can't call for help even if we wanted to. Mom would freak if she knew we were down there."

"Why don't you guys have a hot spot repeater on the Ripsaw?" Jake asked.

"Uhhh, never thought of that. Hey Bjorn, why don't we have a hot spot in the Ripsaw?" Sven commented.

"I don't know, smart Alec. Why *don't* we have a hot spot installed in the Ripsaw? You're the electronics genius."

"Hmmm. I'll ask Jackson and Anouar and see if they've got any hardware we can use sitting around. Anouar is our best radio tech. He works on the mechs too."

"Tonight when we're back at the house I'll call Ariel and Zane, Sven, you call Hai, Dan and Tarra. We'll meet at 6:00 AM before anyone else gets up and bug out early. Everyone already has their assignments for gear, and my pack is already set up, I never unloaded it from the last time. Oh shoot! I forgot and left that bag of food in there again. I'll have to throw that out." Bjorn had a habit of leaving food in his pack and finding stinky mold in its place a week later.

"Man, I hope you didn't bring back any bugs like you did last time you forgot about the food. You'd better take that outside before you open it. Jake, last time he dumped the pack out on the floor and it was full of beetles busy eating his leftover sandwich. It took us an hour to run them all down in the room, they scattered everywhere!"

The guys had started walking back towards the house through the fields as they talked. The air was started to smell like ozone, rain was coming again right on schedule. They picked up the pace and jogged most of the way back to home base, it wouldn't do to get caught out in the evening rain storm. The precipitation was warm, but with all the dirt they had collected Aunt Glory wouldn't let them back indoors until they had sprayed off the mud using the garden hose at the back porch.

Jake looked up into the sky as they approached the house. He could see the large crescent of Ceazar the gas giant overhead in the golden skies reflecting the dimming sunlight. The clouds were rolling in slowly. He wondered how his parents were doing back home, as a tinge of regret snuck into his mood. He missed home, but didn't really think about his old friends much anymore, there was so much going on in his life. He wondered if he would ever make it back, but knew he would eventually. His cousins had made it to Lahti every so often, so why wouldn't he? Just then they made it indoors and his thoughts of home vanished as they headed downstairs to clean up. He had to find his back pack and get ready for tomorrow's Safari!

Chapter 6 "Safari!"

A lone figure sat on a branch perched in the top of a massive old growth tree, viewing Ceazar the gas giant slipping below the horizon, it was an amazing sunset-like sight. She had a coil of rope hanging from a clip on her belt along with a hand full of carabineers, a blue bandana was tied on top of her head covering her wavy chestnut brown hair. She wore a frilly crème colored top and a tan pair of shorts with huge pockets full of snacks and one small thermos filled with flavored water. She also wore tight fitting yellow repelling gloves and red rubber slip-on shoes designed for rock climbing. Tarra was 'Sheera, Queen of the Jungle', or so she declared herself anytime anyone asked.

Tarra wasn't too far from the ranch house. Her family's ranch was south of the Langer's, but still on the north side of Port Canaveral, surrounded by the largest trees she'd ever seen. She climbed this one quite regularly, and had a small portable platform to sit on strapped to the tree trunk behind her back. The seat was padded so it was fairly comfortable, though sometimes she preferred to wrap her tanned legs around a big branch instead. She felt more connected to nature that way. The wind was blowing lightly through the branches, rustling the leaves in a very soothing manner. She closed her eyes and listened to the song of the breeze through the tree's foliage. With the sun coming through the leaves, the warmth felt absolutely delightful.

Breaking the calm, the sounds of a Toucan-like bird began resonating from her pocket. Reaching down and answering her zipPhone, "This is Sheera, who dares intrude on the Queen of the Jungle?"

"This is Sven, you ninny. You already know it's me."

"Greetings master Sven. How will you serve your Queen today?"

"Would you knock it off? We're setting up a Safari for Saturday morning. Can you be ready to go at 6:30 in the morning? We'll come pick you up. We'll have Jake with us, so you can meet him too."

"Oh, how nice. Another loyal subject for the Queen. I can always use more servants."

"Yah, whatever. Just be ready to go on Saturday, your highness. Later!"

"Well that was rather rude, wasn't it. It's a good thing he had good news, or I would be forced to require some type of penance for his rudeness" she said with a frown and pouting lips. Tarra placed the zipPhone back in her pocket and stretched lazily in the sun light. After freshening up her lip gloss she dropped the rope tied to the branch in front of her perch, grabbed the rope with both hands and slid off the platform. Swinging briefly in the air, she gripped the rope with her feet and began the long glide down to the ground fifty meters below.

Tarra walked quietly the half a kilometer back to the ranch house, pausing briefly to fish the zipPhone out of her pocket. "Hi Ariel, the boys are setting up a Safari for Saturday early to go down to the River Styx." Tarra and Ariel had started calling the river in the tunnels after the

legendary river from mythology ever since she had been reading ancient myths for school. "They're bringing a cousin named Jake with them, do you know anything about him?"

"Hi Tarra. No, I haven't heard anything yet. I suppose Bjorn will be calling me soon, at least I hope he does. He's got such a dreamy voice. He talks to me more when I have him on the phone, he's kinda quiet in person."

"So you haven't heard anything about Jake? Darn, I was hoping you could tell me something about him. Wow, a new guy in town. This is so exciting!"

"Yah, I guess so. Hey, what if he's the same age as Bjorn and I are? Is he older or younger? What if he's my age and he likes blondes?"

"Well, I remember Sven told me he and Jake were about the same age, so I think you're out of luck, blondy. I already called dibs anyway, remember?"

"Ok, don't get excited. I can take a hint. I'll just work on Bjorn some more, and see if I can loosen him up. I just know there's a lover boy in there somewhere, he just needs a little more coaxing to get him to come out and play."

"No joy on that with Sven, he doesn't seem to feel it at all. I've done just about everything to crack through his shell and all I get is a punch on the arm or he messes up my hair like I'm his little sister or something."

"I noticed. He wouldn't notice a girl making a pass even if she hopped in his lap. Hopefully Jake is a little more clued in. We'll find out this weekend anyway when we meet with the guys."

"Guys? Huh! Zane and Dan are too much over the top. Zane is too much of a jock, always trying to impress everyone with his muscles, but he hasn't got a whole brain in his head. Hai is all brains and no brawn, and Dan just about slobbers all over you any time he's around. He's both girl crazy *and* food addicted. If you were food, that boy wouldn't be able to breathe."

"Not much to pick from out here, is there. Well, at least Bjorn is both cute and smart. He's not a genius, but he isn't a fool like Zane and Dan have proven to be. And sometimes being a genius can be a problem too, Hai seems to be too shy and technical to even *talk* to a girl. He keeps asking me about the computer we have at home and hasn't asked even once what I like or how I'm feeling."

"That'll be the day, the day when Hai asks either of us how we're feeling. And Dan, I had to slap Dan when he put his grubby mitts in the wrong place. Next time he tries that I'll break his nose, then maybe he'll get the message" Tarra stated emphatically.

"Maybe you won't have to, if Jake takes a liking to you. Boys can be pretty territorial. Bjorn has kept both Zane and Dan at bay since we started dating. He likes to say we aren't, but we are. It's nice not to have to worry about Dan trying to corner me like he tried last year. I kneed him pretty hard and he finally got the message. High heels work pretty good too, but I don't get to

wear them very often out here. A spike through the top of the foot and I can put any man on the ground.”

“Ooooh, that’s brutal. I haven’t tried that yet. With any luck Jake will turn out to be nice and I won’t have to. Well, I gotta go in the house now. Later!”

“Toodloo, call me later if you find out anything.”

Tarra walked up the front steps of the manor house, across the wide porch past the old style rocking chairs and went in through the screen door. “Mommmmm, where are you!”

“I’m in here Dear, making dinner for your Father.”

“Mom, Ariel and I are going camping this weekend with the Langers and the other guys. You don’t mind, do you? I’ll have all my lessons done by tomorrow night, and you know I’m already way ahead of the course schedule.”

“Yes, we know Dear. I heard from Mr. Langer you guys are taking his nephew out on a camping trip. Where are you going Dear? I need to know where to send the rescue squad if you get into trouble or if a vehicle breaks down.”

“I don’t know yet, probably the same place we went last time, up on the hilltop over by the big lake. We have a rope swing set up and a dock built so we can take the canoe out on the water.”

“All right, just let me know when you guys decide. I suppose I can always call your zipPhone if I need to check on you. Who knows, you might need someone to run out with some fresh snacks or something” she said with a smile.

“We should be fine, we had *way too much food* last time. I’m going downstairs to get my homework done.” Tarra smiled slyly as she trotted down the stairs. Sven had emailed her the location spoofer app along with some instructions, so she was all set on that count. Now all she had to do was pre-program a route out to the lake site that would take, oh, about two hours to get there, then some random moving around so it would look like they were at the lake for the rest of the day.

Saturday morning Tarra got up early, had some breakfast and raided the kitchen for her camping trip. Her mom had set up a few containers of food for her cooler, and had thoughtfully packed some of her favorite snacks as well. Tarra ran back downstairs where she had her rope and climbing gear all set in a smaller canvas bag along with her climbing shoes and gloves. “A jacket, I’m going to need a jacket too and some workout pants” she muttered to herself as she thought about the cold air in the bottom of the Spire Sinkhole. She had just the thing in the drawer in her closet, a nice coordinated ensemble that spoke both practicality and style. She wanted to be able to present the right image to Jake when she met him. Conquest was all about preparation, both in climbing and with boys.

Tarra hauled all of her gear, backpack, and cooler out onto the porch and sat down in the big rocking chair with her legs crossed under her. She was ten minutes early, which was good,

because Bjorn was usually right on time when it came to Safaris. Her outfit was coordinated with patterns of bird feathers in blues and greens, the latest fashion. Her top was loose for climbing with just a bit of satin along the collar. The patterned leggings were nice and tight, also better for climbing, under loose tan shorts with big pockets. You had to have somewhere to put your drink bottle and snacks. Her bright red socks contrasted sharply with the greens, but went well with the leather hiking boots she had on and matched the red reflective sunglasses with the green lenses. The bandana on her head was her favorite blue one, tied in back to keep her hair out of the way. Her utility belt was loaded up as usual, they were going repelling into a sinkhole after all. One had to be practical even when one was being fashionable.



The morning air was cool and wet, just starting to heat up as the sun was rising over the hill tops to the east. Today the sun cycle was in synch with the clock, which happened about once a week. It was going to a superb day! It was better to have daylight in your favor down in the sinkhole where the light never quite came in directly, it was always in shadow at the bottom since it was so deep. Bjorn had timed the Safari quite well. Just then Tarra noticed dust coming from the direction of the main road, it looked like Bjorn was on schedule and would be arriving in a few more minutes.

The manor house was up on a rise, giving a good view of the surrounding countryside despite the tall trees surrounding the house. The dogs noticed too and were barking, running part way down the tree lined lane and looking back at Tarra to make sure she knew they were on the job. Their tails were wagging, which meant they knew who it was.

Bjorn came growling down the lane in the Ripsaw and stopped in front of the porch in a cloud of dust. He had a hard wall popup camping trailer behind the vehicle, the one they used when they went to the lake. Tarra knew just what to do, she hopped off the chair, slipped on the backpack, pulled the gear bag over her shoulder and dragged the cooler down the steps on it's rollers towards the trailer. Sven popped out of the Ripsaw and came down to help her stow her gear in the trailer. "Hey there Queenie, how's it going?"

“Hello yourself. Nice to see you guys are on time, I like it when my subjects are punctual.”

The dogs were jumping up on Sven and trying to lick his face. “Hello, you big ugly mutt, it’s good to see you guys too, yes I know you like me. What? You want a treat? Here you go.” Sven always had a couple of cookies in his pockets for the dogs. “All right, all right, that’s enough. Get down you guys I have work to do.” Sven opened the door into the trailer bottom and helped Tarra get the cooler inside and out of the way, and stowed her bags.

Tarra climbed up the ladder up the back of the Ripsaw using the track as a step up, and crawled across the roof to the hatch and dropped her feet down the opening. She knew how to get into the beast. Plopping into the right rear seat, she looked over and scanned Jake up and down. He looked OK, just like a city kid would out here on a remote moon in the country. He was wearing practical clothes for the outing, not too extreme, not too city either.

“Hi, I’m Jake. I’m staying with my cousins the Langers for a while.”

“Hello yourself, I’m Tarra” she stated coyly. “My friends call me Sheera, Queen of the Jungle.” She extended her hand to see what he would do... Jake took her hand lightly and nodded.

Sven had clambered in after Tarra and sat down in front. He turned back around and said “Tarra, this is Jake. Don’t bite him too badly, he’s new. Play nice and you just might get a prize later on.”

“Oh? And what might that be?”

“We might let you sleep indoors instead of out with the Lupes and Grizz tonight.” Sven chuckled turning back around.

Ariel grinned and winked at Tarra, she was sitting in between the two front seats on the jump seat between Bjorn and Sven.

“Ahhh!” Tarra gaffed with her mouth and eyes wide. “You beast! That’s no way to treat a Queen, is it Jake.”

“No, it’s not!” Jake jumped in to Tarra’s defense, taking the bait. “She can take my spot” he said gallantly with a big smile. Sven smirked, Jake had no idea what he was in for. Sven had ignored her advances for quite a while, and now she had a new target. He knew Jake would be good for something. Tarra smiled at Jake who smiled back as the Ripsaw began moving out of the drive and back down the lane. The dogs were barking and running along, excited for the interruption in their day. The dogs trailed the vehicle part way down the lane, then turned and ran buoyantly back towards the house to begin their rounds of the ranch. Ariel squeezed Bjorn’s leg and grinned, they both knew what Tarra was up to even if Jake didn’t.

Jake and Tarra hit it off right away, talking about all of their travels, families and the like as the Ripsaw made it’s way north west towards the lake on the way to the Spire Sinkhole. With the windows closed to keep the dust out, you could almost hear everything another person said to you over the growl and whine of the engine. Jake paid attention to the route, which wound it’s

way across the savannah-like rolling plains. They had to ford several streams on the way as the route climbed slightly up in elevation and wended its way across the low lands. Every now and then the road dipped down into a rocky ravine, then climbed back out up onto the plain as they approached the foothills leading up to the lake. The two-track road seemed well used, even though it was out in the middle of nowhere.

The Ripsaw finally topped a rounded hill and Jake could see a lake glimmering in the sunlight on the other side. A flock of antelope which had been drinking on the far side of the inlet bolted and headed up into the bushes and tall grasses away from the vehicle. A few of the animals halted briefly and watched them descend down the off-road trail towards the lake inlet before continuing off into the distance. The two-kilometer long lake extended off into the distance around the base of the large rounded hill and had arms that reached out into ravines between the hills on the opposite side of the lake from where the road branched into an improvised camping area beneath a stand of medium sized trees. Jake could see the wooden dock below the clearing jutting out into the pristine blue water. Fish could be seen hitting the surface of the lake as they snapped up insects on top of the water.

“Wow, nice location” Jake exclaimed as he noticed the logs around the fire pit in the middle of the clearing beneath the trees just above the dock.

“Yah” Sven added, “We’ve had a lot of fun times up here at the lake. There’s a really nice fishing spot over there underneath the overhanging bushes where those antelope just were. I caught a six and a half kilo Krenshaw over there last month, boy was that good eatin.”

“Yah, well you still have a ways to go to beat Dan’s ten kilo sucker fish.” Bjorn interjected.

“You can’t eat those!” Sven exclaimed with disgust. “They’re all nasty and oily. I was talking about something you can eat, not one of those big useless trash fish.”

“What’s that over there?” Ariel commented quietly, pointing at a small pond on the near side of the lake where a stream entered the lake from the side to the right of the camp ground. Ariel had a way of noticing things other people missed.

“Huh, would you look at that. A beaver has dammed up the creek and started building a lodge over there.” It wasn’t really a beaver, but that was what everyone called the critter since it built dams and structures out of tree limbs just like back on old earth. Bjorn pointed out the lodge for Jake’s benefit, since he seemed to be having trouble seeing what Ariel was looking at. “Let’s go take a look and have something to eat, I’m starving.”

The five clambered out of the Ripsaw to stretch their legs and get a breath of fresh air. “We need to hang around here until Dan, Zane, and Hai show up. They called earlier and they’re on their way on dirt bikes, so we have some time to kill. Let’s go check out the beavers.” Sven said as he trotted off towards the new pond.

“Hey, look at those ripples, one’s headed for the lodge!”

Jake threw a rock at the “V” in the water, which prompted the other guys to grab for rocks. The whole thing degenerated into a rock skipping contest as the beavers disappeared beneath water. Tarra and Ariel headed back to the vehicle in search of the coolers where the sandwiches and drinks were stowed.

“So what do you think of Jake?” Ariel whispered to Tarra...

“Well” she said slowly with a big grin, “He has possibilities.” She smirked and took a bite of a barbecued pork sandwich. Lately she’d been experimenting with a mostly vegetarian diet, but she liked shredded pork sandwiches too much to stop eating meat entirely.

After the other three guys showed up, introductions were made, then the group finished eating and headed back out on the trail heading west in a cloud of dust. Jake made sure everyone had their location spoofer app working, it wouldn’t do to have someone forget and get found out before they even got started on the safari.

The road wound it’s way between hills and rocky outcroppings upwards into higher elevations. The terrain rose slowly towards a vast, flat topped strip of ground where the monstrous open sink holes were located. When seen from the air like Jake had a few weeks ago, they appeared as a random string of black pearls. The caravan was headed for the nearest black opening in the ground, though they couldn’t quite see it yet since they were wending their way through a thick section of the forest.

“Say, how much farther is this?” Jake queried after bouncing off yet another deep rut across the trail.

“Oh, it won’t be long now. We just have to go over the next rise and we’ll be right on the edge of the Spire Sinkhole.” Tarra informed Jake, while straining out the window to see exactly where they were. “It’s hard to tell anything from underneath these trees. Over this hill we pop right out of the forest and there it is! Right in front of you.”

“What the heck is it any way?”

“Well, an underground river, the River Styx runs under this part of the ground. It ate away at the roof of it’s tunnel and it caved in. The forest runs right up to the edge of the hole, and some of the forest is at the bottom. Parts of the roof fell in one piece, transplanting the forest way down inside. A portion of the tunnel formed a tall spire kind of in the middle of the hole, which is why it’s called the Spire Sinkhole. The spire is as tall as some of the high rise buildings back on Lahti.”

“How do we get down into the sinkhole, climb down the spire?”

“No silly, we lower a cable off of the Ripsaw down into the hole and anchor it at the bottom. Once I get the cable in place, you guys can use the Ascenders to glide down the cable” Tarra said with a grin.

“You’re going down first?” Jake gaped with an open mouth incredulously.

“Well, yah.” Tarra stated sternly back at him. “I’m the best climber in the group, who did you think was going down first, one of those other goof balls?” she said pointing out the window at Dan and Zane who were busy trying to whack each other with their jackets while zig zagging all over the road just ahead of the Ripsaw on their dirt bikes.

Sven chuckled and shook his head. “You’d better slow down or we’ll run over those two when they crash.”

“What’s the matter with those two anyway?” Ariel exclaimed. “Couple of maniacs. Did they have to come along?” she said exasperated.

“Ah, they’re OK. They add comic relief.” Bjorn said grinning. “Besides, Jake needed to meet them and that’s what this Safari is for.”

“Fine. Just keep Dan away from me, he gives me the creeps” Ariel stated flatly, shivering.

“Hey, look. There’s the sinkhole” Tarra interjected as the vehicles rounded the top of the hill and came to an abrupt stop twenty meters from the edge.

“Wow, that’s huge!” Jake exclaimed. “It didn’t look that big from the air. We’re repelling down inside of that? Dang, that thing’s a kilometer across and five hundred meters down!”

“No! It’s only a hundred meters down, Jake, one hundred fifty meters or so of cable. One hundred and fifty is the number you set into the Ascender so it stops just off the bottom. The cable length is higher than the drop ‘cause it drops at an angle, it doesn’t go straight down.” Tarra clambered up out of the vehicle and walked over to the edge to look down. Jake was right beside her. He felt a little uneasy looking down over the abrupt edge into the maw of the massive sinkhole. He could see a few birds circling their way up and down the thermals that existed in the air that rose up out of the sinkhole. The air was moist and warm this time of year, making it easy for birds to move in and out. Strange animal calls and screeches could be heard echoing up from below.

“What was that?” Jake asked after a particularly loud screech echoed it’s way up the walls.

“Probably just one of the birds.” Hai said finally, speaking in front of the girls for the first time on the safari. He was a bit shy and didn’t really say much when there were girls around, but he was talking to Jake and not them after all. “There are all kinds down there, they seem to like the way the sinkhole shelters them from the wind. None of the bigger animals have seemed to figure out how to get down there from up here, we’ve never seen anything bigger than the small marsupials you see in the trees, no Lupes or Grizz. We did find a skeleton of an ancient Grizz that fell in. Not enough for them to eat down there anyway, I guess.”

Bjorn was now standing next to Jake at the edge of the precipice. He pulled out his computer tablet and took a look at the thermal heat scan he could get off the satellite feed. “No beasties in our vicinity.” he told Sven. “Everything seems to have moved away from all the noise we made driving in.”



“Good, let’s get the cable set up and the gear ready to go down into the hole. Zane, you, Hai and Dan unload the gear out of the trailer while I get it set up for tonight. Bjorn will lower Tarra into the sinkhole and get the descent cable ready for the rest of us.” The crew scattered in various directions to attack their individual tasks. Ariel, who hadn’t gotten any directions, shrugged and followed Bjorn and Tarra back to the Ripsaw to see if she could help Tarra into the climbing harness like last time. Jake wanted to watch Tarra go down into the hole, so he didn’t mind that Sven hadn’t given him any directions either.

Tarra had the harness out of the storage locker in the side of the Ripsaw and slipped both legs through the straps, once she and Ariel got the thing straightened out. “Here, help me get the shoulder straps in place, I’ve almost got the main buckle done up.” Ariel untwisted the straps and laid them carefully over Tarra’s shoulders. Tarra grabbed the ends and slipped each one into the correct buckles and snapped the cross straps into place across her chest. She tensioned each one of the leg straps so they wouldn’t cut off the circulation in her legs while she was descending and yanked on the D-ring in the front to make sure she had everything set up just right.

Bjorn had the snap hook on the end of the winch cable and was slowly letting out enough cable to reach the edge of the hole. Tarra walked over to the end of the cable, snapped the hook onto her D-ring and inserted the detent pin that locked the snap into place so it wouldn’t open. Backing towards the edge Tarra slipped on her climbing gloves and gave the thumbs up sign. Bjorn handed her the winch remote and Tarra backed over the edge, letting out cable slowly as she held onto the cable with the other hand, walking backwards over the edge and into the opening. She had begun the long descent down into the Spire sinkhole.



You can purchase the entire book on my website at:

<http://www.JavelinArt.com/styx-strikers-novel.html>