

Necedah

By

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Synopsis

On a massive planet, a peaceful culture is split into two by climatic change. Separated by immense distances, they develop separately over the next two millennia. When they meet again, one is backwards and militaristic, the other advanced but altruistic. Only one way will lead them forward.

Dedication

To my loving wife, who has steadfast supported me to go wherever my interested, talents and ambitions drive me.

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Prolog

Necedah was a massive world. It was also a unique world. In all the universe, there was no other planet like it. It was the anomaly that arises when a 1/near-infinity improbability meets the near infinity of the universe.

Necedah started out as a brown dwarf, a collection of hydrogen gas too small to become a star. In mass, it was about 8% the mass of Earth's Sun. But in size it started out large, formed in a pocket of space by drifting gasses that intersected yet became intertwined by gravity. As it was coalescing into a rotating dwarf, it was also being pulled towards a nearby nebula made up of the remnants of a supernova. At ten-million years old, as it started to enter the nebula, it was still a very young body. Just beginning its gravitational shrinking phase, it was still slightly wider than the diameter of Earth's Sun. But since it was collapsing, it was also emitting immense heat as the potential gravitational energy was converted into thermal energy.

The section of the nebula that the dwarf was now immersing itself in was unusual in its own right. It was a sparse cloud of molecules of a complex metallic substance that is only created in third generation supernovas. The properties of this substance was exceptional in that, when cold, it was neither attracted nor adhesive to other non-bonded molecules of the substance; however it had almost a nuclear hold on molecules that were already bound to it. Yet, when heated and the electrons were excited, the substance became highly attractive and with extremely strong bonding as the molecules merged together.

As the substance encountered the outer shell of the impacting dwarf, the substance became heated, and started bonding with other molecules, which in turn bonded with other molecules. As the outer gases of the rotating dwarf pulled along the adhering substance, it created a sheen of the substance wrapping around the dwarf, with the sheen floating on the pressure of the dwarf gasses below. And as it went through the cloud of the substance, the sheen became a sheet, and the sheet became a blanket, and the blanket became a casing. As the dwarf exited the substance space, it was encapsulated by thick shell of the extremely adhesive and strong substance. And since the adhesive properties of the substance was stronger than the centrifugal forces, the substance flowed into an almost perfect sphere that was over 11 miles thick, encasing a hydrogen brown dwarf almost a million miles in diameter.

In journeying through the remainder of the nebula, the dwarf accumulated significant space dust to create a layer of space dirt over the substance. As the dwarf exited the nebula and then ventured through vast open interstellar space, it continued to gather a variety of different materials and elements, eventually creating a crust that was almost five miles thick, including what would be the equivalent of about a quarter mile of surface water.

In the void of space, the radiating heat was quickly absorbed by the coldness of space, eventually causing the sphere to cool. As it cooled the substance comprising the sphere became an almost inseparable, rigid mass, held in place and in form by the strong chemical bonds between them.

The substance had one additional special property it then started to exhibit. It absorbed and dissolved hydrogen gas. As it reached saturation point, it would emit the hydrogen out as well as absorb it. On the inner side of the sphere, the gas might escape out, only to be reabsorbed again. However, on the outer side of the shell, the hydrogen would escape, and when it encountered the heavier elements, it would quickly work its way up to the surface, then shoot off into space. This resulted in a slow bleed of the hydrogen out of the inside of the sphere. Over time, it bleed off almost half the mass of the original brown dwarf inside.

After drifting through space uneventfully for eons, Necedah approached a star system with a young Type G star at its center. Caught in the star's gravity well, it was left hurling towards the star in a near collision path. While Necedah had about the same diameter as the star, its mass was only about four percent of its new partner, making the star the undisputed dominant body in the system.

As Necedah journeyed inward in a hyperbolic encounter, it compounded the captivation in a near miss encounter with an orbiting rock giant planet, much smaller than Necedah, but about the same mass. The encounter causes Necedah to whip around the other planet in a strange dance that caused the other planet to fly out of the system in a similar hyperbolic trajectory while also pulling Necedah back towards it, but at a much slower speed. As the distance between the two increased, the pull decreased. Eventually, the soon to be forgotten planet flew off into the recesses of space, leaving Necedah in a nearly circular elliptical orbit around the star; an orbit that also resided in the "goldilocks zone", neither too hot or too cold to support life.

The many moons of the ejected giant were also left scurrying about; most lost, and in many directions. However, one, about a hundredth of the mass of Necedah, was captured, ending also in a near circular

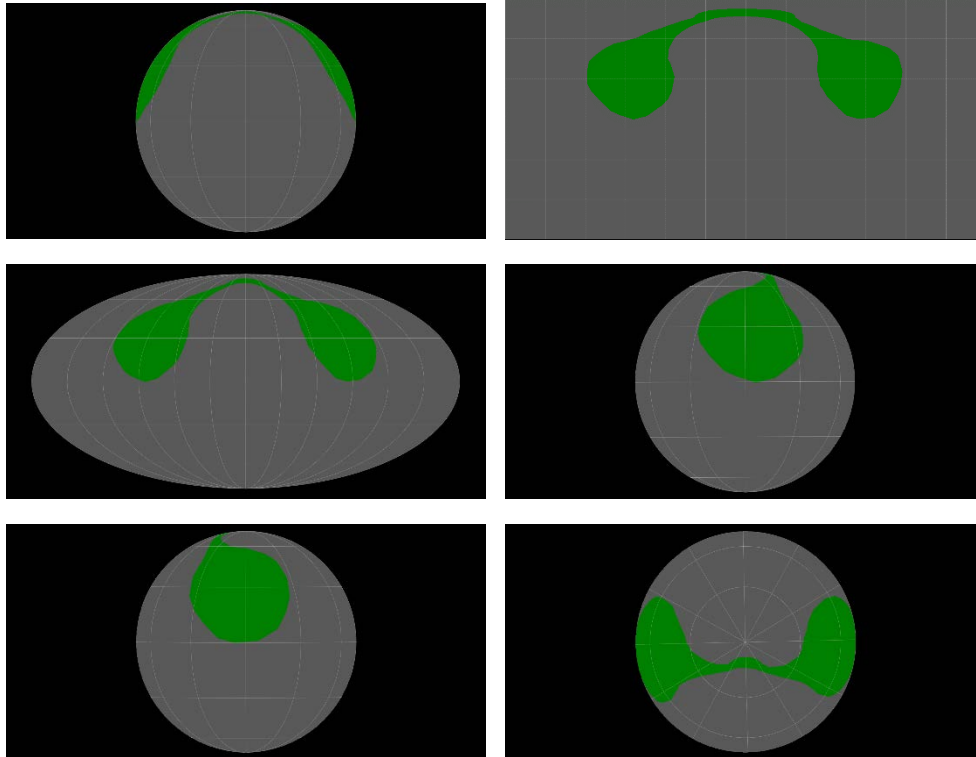
elliptical orbit around Necedah, providing ongoing stability to Necedah and its 10 degree axis incline to the central star.

But Necedah did not survive the encounter unscathed. It's near perfect spherical million-mile diameter body became amiss, with two bulges on either side of the planet. These bulges were a little shy of five-hundred-thousand miles across and almost an equal distance north-south, with a small bridge connecting them that came within hundred-fifty-thousand miles of the North Pole. In reality, to anyone on planet, this would have looked like a small arc of land near the North Polar Region. Although small in comparison to the bulges, the bridge was still sizable; about fifty-thousand miles wide, by about a hundred thousand miles long; with mirrored East and West South jaunting sides going down to the oval bodies on opposite sides of the planet.

Although without volcanos, the encounter and heat generated left the surface of Necedah with a fiery organic primordial sauce that would someday give life to Necedah. Then, the heat would subside and the atmosphere gave way to a rich nitrogen-oxygen mix. Likewise, the primordial ooze slowly transformed to oceans and land that supported increasing complex forms of life. A couple billion years later, intelligent life would take root, and a few tens of millennia after intelligent life forms, our story begins.

Someday, Necedah would end in a magnificent and cataclysmic implosion. But that is far, far after our story.

Maps of Necedah



Section I – Paradise

Chapter 1 - BluestoneCutter

Professor BluestoneCutter sat leisurely sipping his mid-day tea from his second story deck while looking out over the SouthCentral City harbor and the South Ocean beyond. He adjusted his light sweater, a little more snugly than regular. Although it was mid-day and clear, it was a nippy 18 fB¹ with the typical slight breeze from the northwest.

Normally at this time of day he would be working at his office in SouthCentral University. But today was LowSun day, and like every year, he took it off to relax at home and take in his view. As he looked South, his view was slightly obstructed by the Sun hanging just a few Sun widths above the horizon. As indicated by the day, the sun was at the lowest high-point of the year, just a few degrees above the horizon. But as it hung low in the sky, he felt fortunate being on the South shore. Many of the northern cities would see no sun today, and in fact had already entered the long night; some of them more than a dY² ago. But being on the south coast the sun never entirely vanished, but would at least peek out just above the horizon for a little bit each day.

Moreover the northern shore was about 15 degrees colder, getting down to -10 fB³ in the middle of the night now, versus always staying well above freezing on the South coast. He knew here it could get balmy in the warm session, getting as high as about 30 fB⁴ in the day, but also staying around a mild 20 fB at night. The North coast, about 50,000 KL⁵ to the north, would never get much higher than a brisk 15 fB in the warm season.

On the other hand, going south was definitely not better. The 3-day rains abruptly stopped within about 1500 KL⁶ south of SouthCentral City, and this seemed to happen at the same latitude around the entire northern region. So the land masses extending out to the southwest and southeast of habitable Necedah were vast deserts. Moreover, besides being parched, they became hot very quickly. Prior to last cool season, research ships had only made it as far south as about 20,000 KL⁷, both along the eastern and western southern coasts. At 20,000 KL down, it was about 15 degrees warmer there. So instead of a chilly 18 fB, it would now be around a warm 31 fB. In the warm season, it would be a

¹ 18 fB (Freezing to Boiling scale) = 64.4 degrees Fahrenheit = 18 Celsius

² dY (1/10th of a Necedah year) = 1.02 earth months

³ -10 fB = 14 Fahrenheit = -10 Celsius

⁴ 30 fB = 86 Fahrenheit = 30 Celsius

⁵ 50,000 KL (thousand standard Lengths) = 51,420 Miles [1 KL = 1.028 miles]

⁶ 1,500 KL = 1,542 Miles

⁷ 25,000 KL = 25,710 Miles

nearly unbearable 45 fB midday. Models for 40,000 KL south indicated it was another 15 fB warmer there, getting up to 60 fB midday in the warm season, and never getting much below 35 fB in the middle of the night in the cold season.

He and his collages debated what it was like near the equator of the Necedah. Although they had clearly never taken any measurements from there, the learned consensus was that it was almost certainly near 100 fB all the time, with the water so superheated the thought was it would be more plasma than ocean, but keeping the temperature just below boiling. Between the distance – almost 540,000 KL south - and the extreme temperatures, he couldn't imagine how anyone would ever be able to see that area, much less ever survive there.

“Yes,” Professor BluestoneCutter thought to himself as he took in his view, “this is just where I want to be. My little piece of Paradise.”

Turning his attention back to the serene view, as long as Professor BluestoneCutter diverted his view a little east or west to avoid looking directly into the Sun on the horizon he could take in all the vantage point from his deck had to offer. In the harbor, he was taken in by the majesty and beauty of the Clipper ships coming in and going out of the harbor. For hundreds of years, they had been the backbone of cargo commerce between the other coastal cities of Necedah. The beauty and elegance of the design showed the maturity of both the art and science of Clipper ship building.

But as his focus changed, he was just as impressed by the wonder of the new class of steamers also making their way in and out of the harbor. They were just one of the marvels coming out of the current and accelerating Age of Discovery. He had read that almost all the new ships being built were steamers. He pondered that while they were faster and could keep a schedule more dependably than the Clipper ships, the steamers also had the flaw that they had to be fueled. While new fueling depots were being built along the coastal cities radiating out from the main hub cities, there weren't enough of them to make the 50,000 KL journey to either SouthWest City or SouthEast City. So, at least for the time being, the steamers were restricted to regional transports, leaving the Clippers for the long journeys between the hub ports.

As he took another sip of tea, his gaze wandered from the harbor to the city around him. There were very few other two-story houses in SouthCentral City, giving him a very commanding view of the harbor and surrounding city. Most of the buildings were still made of wood, but more and more were made out of brick, or, for the more grand structures, stone. Looking upon the city around him, he reflected how

lucky he was to be in this house. His position as Professor Emeritus of Meteorology at SouthCentral University afforded him both the prestige to have it and the time to enjoy it.

Professor BluestoneCutter reflected how he had come to live here. There was almost unlimited amounts of land available in habitable Necedah. With about 5 billion KA⁸ of land, the population of 500 million citizens hardly made a noticeable dent in it. There was so much land that it was free for anyone take as long as there no one else had built there. Moreover, with so much free land, it was culturally taboo to sell it, although once you built there you could ask a fair value for the building on it. However, the value was usually calculated on the labor it would take to build a similar house, without consideration of the land beneath it. Still, even though there was ample land to just take, and it had no inherent value, some land was more valueless than others. So any existing land that had a building in a good location, tended to be passed down or given away rather than selling for building value. This particular spot of land of his was about a half mile from the University and two blocks from the harbor, and had been given to the University about 200 years ago by another professor who had first built here. As the ranking Professor Emeritus, he was able to choose this place when the last Professor who lived here retired and moved to the *Retired Professors* complex that were built by the university about 50 KL inland. Professor BluestoneCutter loved this location and was going to keep working as long as he could just so he could keep enjoying it.

In large part he had earned the title of Professor Emeritus by winning the Central Science Academy's Renowned Discovery award. This was the most prestigious Sciences award in all of Necedah and was only awarded a to a maximum of one research professor each year at the annual Science Academy conferences, and only then if the discovery was deemed worthy of "A discovery that shapes the way people live and allows the citizens of Necedah to achieve a better standard of living". In fact, historically, it was only awarded 38% of the time. The other 62%, no one was given the award that year. So in a 10 year period, it was typically given out only about 4 times.

Professor BluestoneCutter had won the award for his discovery of why the 3-day rains could vary their stop and end time. The environment in Necedah was very predictable and very regular. Every 3 days it would rain for about 5 cD⁹, for a total of about 1.5 cL¹⁰ of precipitation. However, the rain's start and

⁸ 1 KA = 1.058 sq. miles; 5 billion KA = 5.288 billion sq. miles (All land on earth = 0.2 billion sq. miles)

⁹ 5 cD (1 cD = 1/100th of a Necedah day) = 3.6 hours.

¹⁰ 1.5 cL (1 cL = 1/100th of a standard Length) = .977 inches

stop time could vary by almost 9 cD¹¹. Professor BluestoneCutter had shown that by tracking the speed of clouds in the sky above for the days preceding the rain, you could predict if the rains would start sooner or later. If the clouds moved slower than average, the rains would arrive later, if they were moving faster, it would arrive faster. He developed a formula that allowed people all over Necedah to predict the rainfall arrival within 4 mD¹², which led to his award by the Academy. Because of that award, he was only one of 2 Renowned Discovery award winners in all of Southcentral University's staff and was one of only 4 Professors given the rank of Emeritus.

Being an Emeritus definitely came with its privileges. He was allowed to either lecture or do research, or a combination of both, as he preferred. Moreover he was given priority scheduling to all the research facilities, had unlimited access to all the labs, and could teach any classes he decided to teach. He was commander of his own destiny. Professor BluestoneCutter had decided to lecture one class each year on advanced Meteorology studies, that was only open to students he invited, and conduct research about 100 cD¹³ each dY¹⁴. Of course, he could choose what to do in his research hours, so he could finagle them to however he wanted to spend his time.

But despite all the flexibility he had with his time, he still chose to officially take this day off each year as one of his 7 vacation days, just to enjoy what he had achieved.

Professor BluestoneCutter, taking another sip of his tea, looked down at the postal mail he had brought up with him. He sorted through the typical stack, seeing the normal letters from other professors and colleges, as well as official documents.

While going through them, he silently chuckled to himself as he noted the addressee: *Professor Emeritus Nord BluestoneCutter*. It had been over 250 Ys¹⁵ since a cast system of hereditary labor skills had been abandoned. True, for as long as history recorded before then, a culture had developed where a father would pass down his trade to his son, who would pass it down to his son and so on. Changing your trade was never a consideration, much less an option; that's just how things were done. Women had a little more flexibility in that they could marry into any cast; but once married into it, that was their position for the rest of their lives, just like their husbands. And this system worked with great efficiency.

¹¹ 7 cD = 5.1 hours

¹² 4 mD (1 mD = 1/1000th of a Necedah day) = 17.4 minutes.

¹³ 100 cD = 72 hours

¹⁴ dY (1 dY = 1/10th of a Necedah year) = 1.02 months.

¹⁵ 250 Y (Necedah year) = 208.7 years

Since Necedah's weather and crops were so dependable and consistent, although the population changed, the proportions between the various trades didn't. Whether you were a carpenter, a farmer, an ironsmith, or a teacher, there was a set, consistent need for your services, for life. Everyone could contribute and have a life with abundant food and ready shelter – as long as every man did what his father did.

But the beginning of the Age of Discovery a couple hundred years ago changed that. Suddenly the demand for certain skill sets changed. There was an increased demand for iron smiths, and educators, and a whole new class of trades needed in the arts and sciences as discoveries started to make things both more beautiful and more efficient. At the same time, certain trades were being replaced with contraptions and devices, decreasing the need for them. Hence society had to change and abandon the cast system and permit men, and increasingly women, to move to the trades and professions where they were most needed and removed from those that were being reduced.

It had been 3 generations since Professor BluestoneCutter's great-grandfather had made a living from precisely cutting the valuable Bluestone. Yet, there was no move to eliminate the deep tradition of taking your fathers "tradenname" as your tradename, even though it was now probably not their trade for nearly half the population, and decreasing more so with each generation.

Returning from his internal chuckle which had descended into an intellectual self-lecture, the Professor continued reviewing his post stack, this time with a little more deliberant effort. He always paid a little more attention to those from further away. Letters coming from CentralCentral University, just 25,000 KL away, would normally take 1½ dY to get to Southcentral City by Yaze express. NorthCentral City, SouthWest City, or SouthEast City, all about 50,000 KL away would take 3 dY. Those from NorthWest City or NorthEast City, about 70,000 KL away, would take a little less than 5 dY to reach him. He knew those letters were important enough to wait a long time for a response. Alternatively, local letters were typically of a more mundane nature.

However, that wasn't always the case today. In flipping through the letters, he saw a package from CentralCentral Science institute, an arm of the Science Academy. And a package was definitely more attention grabbing than a letter. The weight and size of a package via Yaze express from one of the other hub cities cost much more than a typical letter, and hence had relatively more importance.

His first thought was that this was the formal package discussing his lecture at the SouthCentral Science Academy meeting in about 2½ dY, where he was to give a lecture on "Challenges in Predicting Daily

Temperatures to 3 Significant Figures". The distance between the hub Cities was too great for people to travel between for casual reasons such as a conference – it could take from 3 dY to over a year to get between the hub cities, and traveling by Yaze was never described as comfortable, even on the more elegant services. So every year each of the 9 hub universities would hold a regional Scientific Conference, where a number of talks on various scientific topics would be given. Each regional conference would then send the papers for the talks back to CentralCentral University, who would collect all of them, and disseminate them to the 9 University Libraries. One of those papers, if it was uniquely insightful enough, might be nominated for the Renowned Discovery award. If it was truly life changing, it might even win.

He had heard of papers in other regions that might be so incredible as to overshadow the winner from two years ago who had produced a paper on "*Commercially viable Electricity Generation and its Uses*". That paper had launched initiatives in all the Hub Cities that had already surpassed the use ideas presented in the paper. But now he was told there were papers on two other revolutionary concepts.

The first, titled "*Instant communications between Cities using Electrical Signals*", was a presentation on how using simple variations in open/closed circuits between the cities utilizing a coding system could allow for transcribing information instead of having to wait for it to be delivered by Yaze. The concept was not entirely new, but there were substantial hurdles to be overcome. For one thing the degradation of the voltage over long distances precluded a direct connection. Additionally, speed of light considerations would cause about a $4 \mu\text{D}^{16}$ delay between the most distant hub Cities; the actual delay would be much greater. But the author had come up with an innovative way to re-amplify the signal along the way. Therefore, the signal could, in theory, go as far as possible. Additionally, they had developed a coding language that would allow for acknowledgements and transmitter reversal for bi-directional communications. This graduate student, attending SouthCentral University, as a practical experiment of this new contraption, in cooperation with SouthEast University, had set up 500 relay points between SouthCentral University and SouthEast University so that the key science papers presented at each of those universities, could be instantly transcribed to each other rather than being sent by Yaze Express.

The second paper, "*Using Steam Generation to produce Inter-City Land Transportation Devices*", was a joint concept by Contributor Nash ShipBuilder and a young CentralWest research professor to put a

¹⁶ $4 \mu\text{D}$ (1 μD = millionth of a Necedah day) = ~ 1 second

smaller version of a steam ship engine in a rail based land vehicle larger than an ore hauler that would allow for large scale cargo hauling as well as travel between the cities as fast as, and maybe faster than, Yaze transport. The concept, if practical, would not only change the fabric of long distance travel, but also allow for relatively comfortable travel between the cities.

It was truly a fascinating time to be alive, and he was anxious to see and read those papers, one of whom could very well will the Renowned Discovery award.

As a former winner, Professor BluestoneCutter was not eligible to win again. However, he was automatically one of the judges for all future awards as long as he was alive, and as such he had a good idea who the next year's winner might be from this year's papers. But the other, more important perk, at least in his mind, was that he was guaranteed a talk session if he wanted one; and his research had gone far enough that he had asked for a spot at this year's SouthCentral regional conference.

But as soon as he opened the package he noticed it wasn't for his lecture session, but instead was the monthly weather data he received as part of his research. As he started sorting through the data he grimaced to himself, half out of concern, and half out of annoyance.

Due to the time it took to transport the package, the data was mostly too old for his needs. For CentralCentral that data was 2 dY old, and for NorthCentral, SouthWest and SouthEast Universities the data was 4 dY old. For the other Universities it was even older. For his immediate concern, only the 2 dY, 3 dY and 4 dY old data had any relevance.

As the title of his talk this year - "Challenges in Predicting Daily Temperatures to 3 Significant Figures" - suggested, the temperature on Necedah was incredibly predictable and consistent. But 4 dYs ago, Professor BluestoneCutter had noticed that average temperatures over the dY was down by .05 fB over expected. Still well within the monthly statistical uncertainty of .07 fB. But the next month was down by .10, then .18, and last month it was down by .32 fB beyond expected. While all were not individually that far off, being down in the same direction, and also increasing each month, definitely got his attention. Not wanting to cause any undo concern, he had not gone over to Profession Rewt YazeshoeMaker's office yet to have him run the statistical numbers; but Professor BluestoneCutter suspected that three small variations measurements that were steadily and increasingly moving in the same direction each dY for 4 dY in a row, would, in fact, be very statistically relevant.

Professor BluestoneCutter had also convinced himself that a much more rational reason was that there was a systematic problem with the temperature equipment here in the SouthCentral facilities, and it

was producing increasingly faulty and skewed measurements. However, the data from the other Universities was consistent with his data. All the cities showed a .06 to .08 fB decrease 4 dY ago, and CentralCentral University showed a decrease of .11 and .17, 3 dY and 2 dY ago, respectively.

He wasn't sure what the implications of this was yet, but he felt in his gut is wasn't good. But more to the immediate concern, it was going to really throw a wrench into his talk about "*Challenges in Predicting Daily Temperatures to 3 Significant Figures*" when the temperatures were shifting below the expected averages, and in an apparent non-linear fashion, making prediction even harder.

Chapter 2 - ArtifactFinder

Professor ArtifactFinder was fixated on the perspiration running down his face as the first warning bell sounded. True, it was hot. At 33 fB it was damn hot. However, he was happy this was about 2 fB cooler than the projections his friend Professor BluestoneCutter had sent before their departure. He would have to give his friend some good academic ribbing when he got back for being 2 fB off. Of course, since no known person had lived any closer than about 40,000 KL to the north of this place, he couldn't hold him too accountable, but that wouldn't stop him from having a little fun with it.

Professor ArtifactFinder was also grateful that, being just before sunrise on LowSun day, it was now the coolest part of the day in the coolest part of the year. In 1.5 dD it would be an incapacitating 50 fB. In 5 dY it would be almost an uninhabitable 60. Which all begged the question why this place even existed.

Thinking of all this gave him the sensation that it was getting hotter, at which he was immediately annoyed that he would allow his mind to play such tricks on him. While he knew the sun would soon be coming up, and with its pending arrival the temperature would be going up quickly outside, the building he was in had thick stone walls, and it would be at least 4 mD¹⁷ before they would notice any increased temperatures inside.

The profession then snapped his focus back to his surroundings, again annoyed, but this time at himself for dwelling on such trivial matters. This was the last dD of the last day of the most important archeological find in recorded history, and he had just spent precious moments thinking about the sweat on his face, and how fast the acknowledged uncomfortable heat was increasing.

His mind snapped back to his surroundings. He was currently standing at the doorway on the far end of the room they had come to call The Mess Hall. It was about 30 L wide by about 100 L long and comprised about 25% of the entire building. To the untrained eye, the sole contents of the room looked like 4 parallel rows of neatly arranged piles of dust and wood chunks, peppered with reddish veins of rust. It was as if an ore car with a trough had precisely and neatly poured 4 parallel rows of dust and wood chunks in a very smooth and regular pattern. However, according to Associate Professor HouseFramer who, as Professor of Historical Lifestyle Studies at SouthEast University, was doubling as their "expert" on furnishings and personal effects, these used to be rows of wooden tables and benches, probably used for eating and other gatherings. The reddish veins of rust were what was left of low-grade

¹⁷ 4 mD = ~17 minutes (1 mD = ~ 4.35 minutes)

iron joints and nails, similar to what was in wide spread use about 500 years ago. Yet, the decomposition of the wood in this extremely hot and arid environment, indicated the site was much older – although admittedly their models were theoretical for climates such as these, as no known person had lived within 40,000 KL of this site.

Professor ArtifactFinder was glad they were able to document all the sites here through the new technology of photography. While the photos were crude and in black and white, the still were a vast improvement over writing description and hand drawings of findings. Even more so in a place like this that others couldn't visit and verify. Making photographs of this room was especially challenging. Being indoors, they needed flash to get photographs. Yet the flash power they had to use let off sparks in all directions. If any of those sparks touched this wood dust it would have instantly started a fire that would have consumed the entire contents of the room. So they had constructed a strange custom contraption of tin shielding that kept the sparks from going in the direction of the wood dust while also creating enough general light to make the photographs take. The complexities of using the tin shielding and the flash power to take photos of the room meant that it took them almost a full day to take just a few photos; but those photos were priceless and well worth the effort. Scholars back home would analyze them for years.

Having taken in The Mess Hall for a ceremonial last time the Professor made his way through the middle of the room towards the double doorway at the other end. As he made his way, he imagined large gatherings of 800 people sitting in here, having a meal and discussing whatever happened in their daily lives. But he was at a loss of what those daily lives could have consisted. Other than fish, there was no food source around here, no wood to build furnishings, and no game to hunt. Where would those 800 have gotten their food and supplies? And what was the purpose of living in such an inhospitable area, and how did it provide benefit to others? They had few answers and many questions.

As he exited The Mess Hall, he entered another room that was large, but not nearly as large as The Mess Hall. It seemed to be more of a junction room. Behind him, to the east, was The Mess Hall. To the south was a hallway that lead down to an area of common rooms and private quarters. To the North was a corridor that lead to functional areas of the complex; kitchen, pantry, meat locker, storage rooms, etc. And to the west was what they called The Map Room. The Map Room was a medium sized room that abutted the entrance foyer to the southwest of the Map Room. In the middle of the Map Room was the remnants of what they believed to be a ceremonial table with statues or ornaments on it, now spewen about the floor. On the north wall was a hieroglyphic map of what looked like a crude drawing

of this building on the middle of a small hill, surrounded by a shallow circular trough and various symbols surrounding it. Professor ArtifactFinder was looking forward to the briefing review by Assistant Professor LandMarker today as to the meaning of the symbols.

Professor ArtifactFinder looked out though the building entrance to the Southwest, taking in the light that was radiating the room, and the heat that was accompanying it. He knew the second warning bell would be ringing soon, and all his associates would be joining him. On most “normal” mornings, there would be just 2 warning bells – one at 7 mD before 47 cD¹⁸ warning them they had 3 mD to get to the debriefing area, and then one at 4 mD before 47 cD telling them they should be in the debriefing now. At each of these debriefings, each of the 12 members of the research teams would have about 1/3 mD to review what they had learned that night. This would get them out and in their hammocks to rest just as the sun broke the horizon and the temperature really shot up.

However, today was different. Today was the last day of this incredible research expedition. The first warning went off at 43 ½ cD to tell them the teams they had 10 mD to do a final pack up and bring all their equipment to the front. At 44 ½ cD, all the research team members were expected to be up front with everything they had remaining inside, never to enter again – at least not this winter. Then while the ship’s crew was loading their belongings for the journey back, each research team group would each have a full 10 mD to give a summary review of their finding for the entire expedition. Of course, this was just a summary for their onsite colleagues; each would be expected to write a full publishable article on the 3 dY trip back, as well as work with everyone else to do a joint article that was principally authored by Professor ArtifactFinder.

While waiting for the next warning bell, the Professor looked out the entrance. To the right was their rest hammocks, and to the left, in the distance, was the ship that brought them here. They had spent a lot of time in the rest hammocks. Everyday their work shift would end at 47 ½ cD, just a few mD before the sun came up, because the heat would quickly get too oppressive to do anything.

At this far southern latitude of almost 18 degrees below the north pool, the sun would be up for almost a full 44 mD before setting again. In that time, the temperature would come up about 14 fB to about 47 fB. It would still continue to raise another 3ish fB over the next 50 mD, before it would peak and start

¹⁸ In Necedah, cD and dD were often used to tell the time of day, and mD used to describe a time window or how long until some event. 47 cD was .47 of a full day since midnight the previous night.

cooling again. However, the inside of the structure would continue to warm even longer – it was as if it had been built to absorb heat and keep it in as long as possible.

So everyone had to pretty much just lay in the hammocks and endure the heat each day for about 400 mD. The hammock area was shielded by heavy canvas to the south to keep the sun from shining directly on the expedition, and the entire area was fitted with misting tubes that would run for their rest period after being refilled by the ship's crew during the night. During this rest period the members would just drink massive amounts of water, get what cooling they could from the misters, sleep when they could, and maybe write a few notes if they were able.

That would continue until about 87 ½ cD, when the outside temperature had cooled down to about 42 fB, and they would get up to start their research. Soon the heat would be livable inside the complex too, and the teams could start their inside work as well. They would then work all night until the next mid-day, and the process would start all over again.

It was never cool. It was not even ever warm. It was always hot. The only difference was how hot. This was the depths of Winter. No one could imagine how anyone could possibly live here in the summer months when temperatures reached around 60 fB.

Professor Artifact Finder then scanned over to the left side of the open entrance view and noticed the ship that had brought them here and recounted how they had come to know about this place. The ship itself was an impressive sight to see; a marvel of innovation and science. It was a joint project of South Central University and Power Systems Corporation. While the new solid fuel burning steamships has been dominating new ship building for the last 15 years or so, this ship was based on an entirely new technology – steam turbine engines fueled by a liquid petroleum energy source. Christened *Long Distance Research Ship 1*, or LDRS1, it had been designed strictly for, of course, long distance research. It was of a long, wide and low construction. The front 95% was reserved strictly to store the new fuel. The rear 5% housed the 5 steam turbines and 5 screw drives. With all 5 engines going, it could maintain speeds of almost 20 KL per cD (KLpcD)¹⁹, just slightly faster than clipper ships with the northerly tail wind behind them. The large fuel store meant that it could travel almost 100,000 KL, by design, without refueling, which was about 16 times further than most of the current commercial steamships. Moreover, the replacement of solid fuels that had to be shoveled, with liquid fuel that could flow in via mechanical pumps, meant a vast reduction in labor and ship's crew. The reduction in crew quarters

¹⁹ 20 KLpcD ~ = 28 MPH (1 MPH = .705 KLpcD)

also reduced the weight, wind resistance and needed food stores. In the end, although it was a very large ship, there was only 8 beds available for researchers, and 12 for the ship crew.

But the most distinguishing feature was that while LDRS1 could do a little better than Clipper Ships when going with the Northerly tail wind, when going against the Northerly wind, the clipper ship was doing maybe 7 KLpcD²⁰, LDRS1 could still do the same 20 KLpcD. This was massively significant for a research ship.

In Necedah, the prevailing winds were from the north-northwest. In the habitable region, the effect was fairly light, only about a 1.5 KLpcD average wind speed. But once you passed the End-of-Rain-Line, the average wind increased to about 14 KLpcD. Professor ArtifactFinder had no clue why this was and made a mental note to ask his friend Professor Emeritus BluestoneCutter when he got back to SouthCentral University. But nonetheless, since the considerably warmer temperatures south of the End-of-Rain-Line gave only about 4 dY in the winter months to explore them before it became too hot, this meant that Clipper Ships could only make it about 20,000 KL south in a little over 1 dY before they had to turn around and start making the relatively slow journey back north over the next 3 dY before the weather got inhospitable. However, LDRS1 could make it essentially twice the distance, or just shy of 40,000 KL before having to turn around, since it could go at full speed in both directions.

Last year was the maiden full research voyage of LDRS1. Throughout almost the entire trip, they had seen nothing but a continuous shoreline with an almost imperceptible curve which looked the same, KL after KL, after KL. As LDRS1 made its way down the coast, it found that the second 20,000 KL looked almost identical to the first 20,000. It had started to look as if the entire endeavor of building a highly expensive specialized ship as the LDRS1, had been a complete waste of resources with nothing new to discover. Nothing except, of course, to confirm that it did get hotter and hotter as you went further south.

As it was anchored at what was supposed to be its most southern point before it turned around, the morning survey lookout spotted something unusual on the southern horizon through his distance scope. It was a bump on an otherwise monotonously flat and continuous horizon. But there was definitely something there; something different. So being an explorer, the ShipMaster committed a serious breach of protocol and instead of turning around today, as he was instructed, he went another day

²⁰ 7 KLpcD ~ = 9 MPH

south to encounter the whatever the bump was. And as he arrived, he felt as if it was entirely worth it, regardless of the consequences.

In the middle of nowhere, after nearly 40,000 KL of the same dune-beach-ocean landscape, KL-after-KL, for thousands and thousands of KL, before them was this large stone structure sitting atop a round knoll. The round knoll was sitting right on the coast. To the west, half of the knoll was facing open ocean. But to the east it was surrounded with what looked like a semi-circular trough or moat around it which was filled with ocean water, giving it an almost storybook look. The trough was wide and appeared deep enough that the ship could have entered the channel.

But the ShipMaster was having none of that. He was going to stay in the safely deep water to the northwest of the knoll. Meanwhile, he was having the photographer take as many pictures of the structure as possible within the hot but short winter day. After a while, the ShipMaster moved the ship to the direct west of the structure, then to the southwest, so that a better set of photos could be taken, but he refused to enter the trough; that would have to wait for a future trip.

They made anchor there that night. The full moon that night made for an eerie sight of the silhouette of the structure against an otherwise two-tone background of the desert and ocean.

The next morning, they steamed north as they were supposed to 2 days before, and with the day given up going south rather than north, they were a full 3 days behind schedule, or almost a 1/3 dY. For the next 1 ½ dY they continued north a full speed. During the journey everyone documented what they had seen, in as much detail as possible. The photographer developed his photos in an improvised dark room and shared them with the rest of the crew to discuss what they had discovered. Nothing like this had ever been found before. Sure, there were small trinkets and plates and pottery that had been found in the deserts near SouthEast City over the years and sold to certain museums and important families, but nothing even close to this. Everyone looked forward to discussing this with the rest of the history faculty when they returned to SouthEast University and making sense of what they came upon.

Before they made it back to port, they were intercepted by some merchant steam ships that had been dispatched to find them, seeing as how they were more than 2 days late returning. So by the time they made it back to SouthEast City, they had a small caravan escorting them, making it almost a parade like scene, with a small crowd welcoming them back.

As soon as they made it to port and starting sharing their stories and photos with the press, the mystery structure 40,000 KL below the End-of-Rain-Line quickly became the talk of the town, with all sorts of

theories and conjecture of how it came to be, but the history department of SouthEast University was largely silent, because they had no plausible theory for why a large stone building, that was miserably hot in the winter, and unlivably hot in the summer, would exist there, especially since before the last year people couldn't even make it there from the habitable area.

Based on all the academic and public interest, in a matter of days it was announced the ship would make a second journey again next year, but this time leaving a full 7 days earlier and returning 8 days later, which would give it an extra 1.5 dY of research time. The specifics of the journey were light, but the eyes of the entire SouthEast region, and soon to be all of Necedah, would be on them to come up with answers. And so was borne the expedition Professor ArtifactFinder now found himself immersed in.

Returning to the present, Professor ArtifactFinder lost focus on LDRS1 and widened his peripheral vision, only to notice Nart ShipMaster standing outside the entrance at a distance and smoking a pipe. The professor had not had high hopes for Nart when he had first met him. Much the opposite.

Professor ArtifactFinder's first impression of Nart ShipMaster preceded even meeting him. For years Professor ArtifactFinder, while both teaching History at SouthCentral University and heading the department, had been courted by SouthEast University to do a 2-year professor exchange program where he would teach a special Artifact History course. There was no doubt that Professor ArtifactFinder was attracted to the offer. He had grown up in the SouthEast City region, and his family name came from there as well. His ancestors, or course, found artifacts and sold them to the university and important families. In fact, most of the artifacts he would be lecturing about would have been collected by his father, grandfather, and great grandfathers.

Last year he had agreed to do the exchange and had been excited about it. He was treated very well by the University. He was given a place normally used by an Emeritus Professors, and the department pretty much let him handle his class as he saw fit, including any excursions he wanted to do. He was also allocated about 30% of his time to research, and he could do whatever research he wanted to do (or, quite honestly, do none at all, should he so choose). They never made any demands on him or supervised his class work. They treated him with deference and respect.

That is why he was so taken aback when last summer he was unceremonially summoned to the chancellor's office without warning. When he arrived, he found there, besides the chancellor, the Chief Servant of the SouthEast City, as well as someone from the local office of the Necedah Interior Ministry.

Without any fanfare, they immediately got to the point. Even though he was a visiting professor, this was bigger than just their university, and based on his experience, skills, and discipline, they wanted him to head up the research expedition – his knowledge of historical artifacts and heading the history department at SouthCentral University made him the most logical choice. Moreover, he would be able to pick his team. However, this all came with one non-negotiable condition: while he would be in charge of the research teams, the ShipMaster would be in charge of the overall mission, and that ShipMaster would have complete control over all safety concerns, when they got there, and when they left. In fact, to underscore how core this was, they made it clear that if he so much as suggested to the ShipMaster they lengthen the trip, he would void his tenure, and he would be immediately released. This was a highly unusual trip, with many, many unknown risks, and the safety of the entire party was paramount, and the ShipMaster would be charged with the responsibility for that.

Professor ArtifactFinder was astonished that he would be given this opportunity, while at the same apprehensive of the directness of the offer and sternness of their non-negotiable condition. Still, this was likely the most important research mission in known history, and he was almost in disbelief that they had offered the job to him. So, he gladly accepted and asked when he could meet the ShipMaster.

Knowing that as soon as it was released that Professor ArtifactFinder was going to lead the research teams he would become an instant celebrity whom the press would hound, they had already setup a meeting for this evening at a relatively small and obscure pub in a residential neighborhood near the South Ocean. He was given the time, address and directions, and politely asked not to be late. They also let him know that the person selected to be the ship ShipMaster was a certain Nart ShipMaster.

The ShipMaster professional family was once a noble, respected, almost autocratic professional class. A couple hundred years earlier, they were almost a separate political structure upon themselves, ruling the seas and all that happened there. In port, they would routinely be invited to high-raking social events and often be a powerful voice in political issues that involved the ports or sea commerce.

But since then, with the advent of a better highway system, and increased cargo hauling capabilities, their status had waned. Sea commerce was still very important but was now more of a commodity with a viable substitute available, especially with the advent of steamships which could be operated with a much less skilled crew. As such, when in port, ShipMaster members were now much more likely to be seen in a dark pub drunkenly boasting about their exploits, then at a society event discussing politics with the local power players.

Later that evening, Professor ArtifactFinder made it a point to be 10 mD early to their scheduled meeting spot. When he got there, he made his way to a back table and asked for a hot tea. While waiting, he noticed a group of about 15 sailors sitting at the bar, carrying on somewhat noisily about the journey that was in front of them. In between talking about the challenging tasks on this new ship, they could be heard giving salty barbs and insults to each other in a way that only close shipmates would do.

One of them in particular seemed to be the butt of many of their jokes, and he'd just laugh it off, look down, and take another drink as if he was not worthy of respected enough to even return their fire. Professor ArtifactFinder assumed from the interaction that he was a lowly deck hand, the unfortunate person whose gifts had left him at the bottom of the social pecking order.

As soon as he saw the Chancellor and the Chief Servant walk in with a couple administrative staff, he joined them and set down with them in a private room. When he saw the person who had been the butt of those jokes join them at the table and be introduced as Nart ShipMaster, he hoped no one saw the disappointment, shock and dismay on his face. As the meeting went on, the ShipMaster was quiet, largely speaking only when asked a question. His answers were always professional and to the point. A few times he did interject when an idea or plan was being discussed that had a flaw or unforeseen consequence. These interjections clearly showed a keen grasp of his knowledge of the seas, but his lack of general interaction seemed to be a sign of his lack of confidence or the fact that he may have been drinking too much. To Professor ArtifactFinder, Nart seemed demur, weak, disrespected, and possibly a drunk, certainly no one to be in overall control of such a vital scientific mission.

Professor ArtifactFinder never saw Nart in a social setting again, but at the many planning meetings they had before the trip Nart did nothing to assuage his fears. Professor ArtifactFinder had voiced concerns to the Chancellor but was succinctly told he should focus on the research teams planning and not the ShipMaster.

So Professor ArtifactFinder was understandably concerned when sailing day came, and Nart ShipMaster showed up with his crew of 11 hands. But as soon as they were underway, it was as if Nart became a completely different person. He stood up straighter, walked more purposefully, never lowered his eyes when talking to someone, and spoke forcefully to all his crew with the undertone that if you did not fully and completely implement his instructions, there would be a big price to pay.

Once when the ShipMaster came on the deck and barked out an order to one of the younger crew – a crewmember who Professor ArtifactFinder remembered from the bar on the night he first met Nart but

was reportedly new to Nart's crew – as the ShipMaster turned to walk away, the young crewmember muddled under his breath something about that being a waste of time. The ShipMaster flew around to the young crewmember and gave him a backhand that sent him almost halfway across the width of the ship. The ShipMaster then rushed to the downed crewman.

At first Professor ArtifactFinder was aghast, almost in shock. Violence was almost unheard of in Necedah. He had never seen or nor knew of anyone who had seen an adult strike another adult. While he had occasionally heard wild tales, and most of them tales from ships at sea, he hadn't ever heard of, much less seen, a credible story of violence except for one time in Northwest Necedah, and that was several years ago.

So surely, he thought, when the ShipMaster rushed to the downed sailor, the ShipMaster was going to check on his welfare. But instead the ShipMaster grabbed him by the shirt with one hand and lifted him off the deck, bringing their faces close together, and then quietly said "If you ever question or delay my orders again I will throw you overboard like the others." Letting the young sailor plop down back on the deck with a thud, he then turned and headed back towards the stairs. The rest of the crew waited as the ShipMaster walked back. It first appeared to Professor ArtifactFinder that they were doing this out of shared shock at what they saw; but then realized it was out of deference for his command.

As soon as the ShipMaster disappeared, the rest of the crew hurried to the young crewmember's aid. After making sure nothing was broken, Professor ArtifactFinder heard one of his more experienced shipmates tell him, "The ShipMaster knows what he is doing. In an emergency, there isn't time for him to explain. If you hadn't rigged that down right and the ShipMaster has ordered a quick turn, that could have come loose and killed some of us." The rest of the crew also were quick to tell him that no one wanted the ShipMaster to "start throwing people overboard, because once he starts, he can get carried away".

Professor ArtifactFinder didn't know if the ShipMaster had even ever thrown a single person overboard. But he did know that no one else ever again objected to the ShipMaster's orders, and the entire voyage was one of the smoothest operations he had ever seen. Even the drills and training the ShipMaster insisted upon throughout the trip, instilled confidence in all the research teams that they were in the hands of a highly skilled, highly effective sailing crew, all directed by a seasoned professional ShipMaster.

Returning to the present, Professor ArtifactFinder then noticed Nart starting to come inside the building. In all the time they had been here, Nart had never ventured into their morning debriefings. He hoped that the ShipMaster might actually be showing a little interest in what they were here to accomplish.

“Good Morning Professor,” Nart said as he came closer to Professor ArtifactFinder. “Good Morning ShipMaster” the professor returned.

“Professor, I’ve been meaning to ask you. I understand your family line is from the SouthEast City region. That’s more or less been my home port for most of my life, yet I’ve never heard of that profession line before.”

“Completely understandable ShipMaster,” the professor retorted. “The market for artifacts is very small. The SouthEast City region is the only place that there is any market at all, and then only enough for 1 or 2 sellers. I had heard stories that some of my ancestors would go as far as moving to falsifying a new family name and learn a new trade rather than compete in such a sparse market. In fact, I was the last one who made a full time living at doing that, until I gave it up when I was still fairly young to become a full time academic.”

Nart shook his head in agreement as the Professors words trailed off.

The other members of his research teams were now streaming back into The Map Room - 3 teams each with 3 members - all of them carrying some gear with them and placing it near the door for the ship crew to load onto the ship. As the last of the team members were coming in, Nart said something to the professor that caught him off guard.

“Professor, I’m sorry I’m making us leave 3 days early, especially after getting here 2 days late. But getting here earlier in the season caused it to be too hot to run all 5 engines, and I had to cut it down to 3 the last bit of the leg down here. The temperatures are going to start rising each day soon, and I can’t count on using all 5 engines until it gets cooler. Should I only be able to use 2 engines, the temperature will rise faster than we can make it north to cooler weather. And in that case, we all die, and no one will know what you have learned.”

Nart concluded the sentence as if he had told him he wanted more sweetener in his tea. Very matter-of-fact and without inflections to match the gravity of what he was saying. But the professor accepted that Nart knew exactly what he was talking about, and trusted that he was making the right decision.

Professor ArtifactFinder noticed the groups had informally gathered now and were more or less looking at him to start the expanded briefing. As he normally did, he made his way to the far side of the map room and stood in front of the Map as he prepared to address the group. He heard the second warning bell go off, just as he turned around, only to notice that Nart was still standing there, apparently with the intent of listening in. The professor couldn't help but crack a little smile that the ShipMaster showed some interest in their research.

First on the docket was the cultural history team, headed up by Professor HouseFramer, who was assisted by two of his promising graduate students. Professor ArtifactFinder, nodded to Professor HouseFramer, who jumped right in to his summary debriefing.

"Thank you Professor ArtifactFinder. Here's our summary of the furnishing, art work, and cultural architecture of this building. To start off with, the furnishings, while highly degraded now, all appear to be similar to 15th century furnishings. They are made mostly of wood with crude iron junction anchors. The wood appears to be of a very high-quality solid hardwood. However, we have not been able to tell the species of the tree. It appears similar to the SouthEast Oceantop, yet has some distinct differences. It is almost as if we are looking at a wood species that is now extinct. I should also mention that, while this place is next to the Ocean, the almost constant North-Northeastern wind keeps it very dry here as the air moves slightly from land to ocean, never allowing the humidity of the ocean to come onshore. This has allowed parts of the wood, while now extremely fragile and weak, to become almost mummified.

"Moreover, our survey of the building suggests that although some of the debris piles look disheveled, in actuality all the furnishings appear to have been very neatly positioned and put in their place, as if a cleaning crew had come through, organizing everything, and was expecting the residents to come back at any time. Yes, when items decayed and fell or created a pile, it looks ransack. But if you trace back to their source, everything was very neatly left when the inhabitants departed.

"The furnishings of the rooms suggested that this was somewhere between an inn and a communal compound. Most of the sleeping quarters had bunk beds, suggesting space was at a premium. Most of these rooms also had a small table and a couple chairs. The disproportion between room residents and chairs suggests that the tables were more utilitarian, than a gathering location; reinforcing that The Mess Hall was the main gathering area.

“After the common sleeping quarters, there were also several rooms that looked to be for couples – a larger bed with a larger table, storage bins, and what appears to be bookshelves, although I’ll let Professor LandMarker discuss that. In addition, there were also several smaller rooms that seem as if they were for a single individual. The rooms were the same depth, but about half the width. The marked difference in sleep density between the common sleeping rooms, and the couples/single rooms suggest significant wealth or status variations.

“And then there was what we called the Chief Servant’s room. It was unique in the structure, and about the size of 6 couples rooms, with ample tables, chairs, padded benches, cabinets, etc. It was very ornate compared to the other accommodations.

“With regard to the more functional areas, The Mess Hall is the most significant. However, we have not found anything that suggests it was anything more than a common gathering and eating area. The kitchen, pantry and storage areas to its north also support that conclusion.

“What we found in the Kitchen and Pantry, were also what one would expect to find in a 15th century communal dwelling. The odd thing here is that while everything looks 15th Century, from our models of the decay of wood in these type of conditions, we estimate that this place was abandoned not 400 years ago, but about 5000 years ago.”

Professor HouseFramer attempted a dramatic pause at this point to see if anyone was impacted by this dichotomy. But at this point most of the team had seen similar discrepancies, and he couldn’t make out any real reaction from the audience, so he continued.

“Art wise, we really didn’t have much to work with. There were some signs of artwork around the complex, but all of it was almost completely disintegrated. You can make out a little of the wood artwork in this room, but there was no metal or stone artwork. So, while very regrettably, we can tell almost nothing of what these people expressed via their art.

“There is also one last item of interest. While sand has somewhat built up around the structure, it appears that if you take the sand away, the original walkway was almost 2 Ls below the bottom of the door. So, something should have been filling up that space much/most/all of the year or the doorway would have been usable.

“Of course, we will write up all of this in much more detail and give you all a chance to review it as we make our way back home.”

With that, Professor HouseFramer was essentially turning the floor back over to Professor ArtifactFinder, who then called on the historical engineering group.

“Professor YazeshoeMaker, can you give us your debriefing?”

Professor YazeshoeMaker was fanning himself and looking around. Everyone could now clearly feel the imposing heat flooding in from the outside through the entrance as the support crew was carrying out the crates of equipment. He both felt sorry for them having to work in this heat as well as grateful it was not him having to do it.

Professor YazeshoeMaker slowly started. “We, the engineering department team, the three of us, well, we’ve seen lots of odd stuff here. Of course, like all of you, we’ll write it all up on the way back. There’s much too much to go over all here. But let me share with you some of the highlights, if you can call them highlights. Maybe it’s better to call them significant findings. Yes, let me share with you the significant findings.

“I remember the first thing we found unusual was that the water cistern – the circular recess in the northeast of the building near the northeast door – or what appears to be a door – we actually never opened it. Anyway, the water cistern. It seemed strangely small, only about some 800 mQ²¹. Maybe enough for a day or two when they were at full capacity – or what we think was full capacity. In an arid, hot place like this, you would expect them to be putting much more emphasize on a large fresh water supply. It was as if they were not concerned about replenishing their supply, nor with having to resupply so often. It would cause you to believe – or should I say lead you to hypothesis – that the supply was close by. But we haven’t seen any freshwater reserves since before we crossed the End-of-Rain-Line.

“Next, in investigating the cistern – we went inside and looked around – where the stone cracked in almost a helix fashion – going round and round the cistern but in a constant increasing up/down fashion. We made a small hole and found that just an inch or so behind the wall was circular hole inside the stone wall, coursing through the stone – but much closer to the interior than the exterior of the stone walls.

“We were then able to trace it back through the floors and walls to the bellow hearth near the ovens. When we first saw those bellows, we thought ‘of course, they are just part of the oven’. But they

²¹ 800 mQ = ~1000 Gallons (1 mQ = 1/1000 cubic L = ~ 1.977 Gallons)

weren't. No, the four bellows feed four duct systems through the walls. That is, when the hearth was going and the bellows pumping, they would have been pushing hot air through the boundary walls of almost the entire complex. And the cistern of course. It was as if they were trying to warm the inside of the building – and the water. And why would anyone ever want to do that here?

“So that was mystery number 2. Well it wasn't actually number two – we found a lot of mysteries, but in the order I'm describing them, that's the second significant finding I'll mention.

“The one place we didn't find the heating ducts was in the pantry, food storage, and meat locker section. That all seemed to use some sort of natural exchange system. This was just the most bizarre – well, not actually the most, as I said there was a lot of bizarre stuff; maybe just very. Yes, it was very bizarre. As you've seen, this was in the northwest part of the building – at the other end of the building from the ovens/hearth – and the cistern, of course. Here, we found 4 rooms behind rooms. The stone walls between these rooms were relatively thin – only about 2 dL – much less than the 6 dL thick stone walls in most of the building. And between each row was an equally thick door with some writings on them - which I'll leave to Professor LandMarker to tell you about. Anyway, based on what we found in each of the rooms, working with Professor Houseframer to help understand what they were, each of the rooms were used for separate functions.

“The most inner room was a pantry – dried goods, spices, non-perishable canned goods. Stuff that can last for long times at room temperature. The next layer room was large containers of what looks like seed and plant pods that can be using in making bread and other staples. These usually hold up better in dry cooler environments. The next room had things like containers of milk, fruit, vegetables, etc. The type of foods that do best in a cold – but not freezing - environment.

“But if that wasn't enough to blow your mind – the next one is a dozy. First let me tell you that this room is next to the outside – on the other side of the wall is the outdoors. Second, this wall was only about 6 cL thick. These are by far the thinnest walls in the entire complex – so they provided almost no protection from the outside elements. So what did we find in there? Hooks and animal bones. You got it? Yeah. This appears to have been a 15th century meat locker – although it's hard to tell that as categorically true – I guess you could come up with other theories. But the hooks combined with the large animal bone – and we're talking almost full or half skeletons – made a compelling case.

“But why the heck would they be putting their meat right next to outside temperatures of 35 to 60 fB? Did they have some special treatment that preserved the meat better in hotter weather? And what

about the milk and other foods in the next room? Could they have had some mystery way of pulling heat out of the room? If so, maybe they used it on the entire complex. Maybe it worked so well sometimes that they had to warm the building? I don't know, it's all very confusing. Or another possibility is, .."

With Professor YazeshoeMaker already over his allotted time, Professor ArtifactFinder took his opportunity as his colleague took a quick breath, "Thank you Professor YazeshoeMaker for that debriefing. It is clear there are many more questions than answers here. We look forward to reading your reports as you draft them on the way back."

Professor ArtifactFinder continued, "And now for the last team, the Historical Linguistics team. Professor LandMarker please share your general findings."

Associate Professor LandMarker was a very shy man. Professor ArtifactFinder found it ironic that someone who studied the history of language, would have such a hard time saying anything. Professor ArtifactFinder gave him a little nudge and flick of the hand to let him know it was time to talk to the group, something Professor LandMarker did not like.

Professor LandMarker started, "If I may please, if I could, could I..." his hands pointing in the direction of the Map on the wall, as if he wanted to go over there to talk.

"By all means Professor LandMarker", as Professor ArtifactFinder moved out of his way. Professor LandMarker then hurriedly walked to the Map, and started at it for a few moments, his back still to his colleagues. "Professor LandMarker?", Professor ArtifactFinder inquired.

"Sorry. Let me start by saying we haven't found much to go on here. We have this map of course. There are also the writings on the doors in the Pantry area. But not much more than that. We did find that it looks like there used to be quite a few bookcases here, but most of them, and their books, had crumbled and mostly turned to dust. We did discover some remnants of books that may have fallen early or were left on a stone ledge. But these almost evaporated into dust as soon as they were touched. Moreover, any lettering on the binding or outside of the books were far too faded to have any linguistics value."

Professor LandMarker, still avoiding looking at anyone by holding his eyes to the floor in front of him, then shifted some, as if uncomfortable with what he was going to say next.

“Still, this map and the symbols are in reasonable shape. To be honest, I was able to decipher them within the first couple days here; the language appears to be an offshoot of a precursor to ancient Estonian. But it seemed so fantastic I didn’t want to share it until we had collaborating evidence; which, sadly, we haven’t found. So let me go over this map.

“So first, look at the building on the knoll in the map and the wording above it. It can best be translated as ‘North most building’ or maybe ‘Northern Outpost.’” Professor LandMarker was now able to turn around and look at the map instead of the people in the room, and he seemed much more comfortable with that situation.

“And over here” moving to the left of the building symbol on the map and pointing, “this path to what looks like the coastline to the west of the building on the map. This wording right here can be interpreted to say ‘trail from building to ocean’. Of course, when outside we can easily see that this building is surrounded by water. Yet, although this map isn’t to scale, it makes the ocean to be 5 to 10 KL to the west of the building.

“Next, take a look at this wording describing the trough around the building. That can be translated as ‘Ancient’s dig’, suggesting that the trough around this knoll was here long before whomever made this map.

“This symbol here in the upper left corner of the map that looks like an arrow pointing northwest?” The professor quickly glanced backward to see if everyone was following him. “The wording there is ‘Ice Reef’, possibly suggesting sheet ice in that direction.

“And this path going along the coast from the south of the map to the trail from the building to the ocean, the map has it labeled as Northern Trail. The writing next to the arrow pointing down below where the tail ends on the bottom of the map says “North City”; in this case North is a noun adjunct, not an adjective”, at which a few members looked at each other.

Professor LandMarker continued without pause, “And this trail that goes to the east for just a little bit then fades away, the wording at the end of the trail reads ‘East Icesheet’.

“So in the end I don’t have enough content to make many determinations about the structure of this language, much less what the people were doing and thinking. However, I can read enough to be completely baffled. We can see that ocean nearly surrounds us, and it is hot as an oven here. Yet the map shows the ocean KL away, and a surrounding frozen landscape. It could be that some storyteller

made this map of a fantasy world he made up. Or it could be that there is something more inexplicable going on here.”

Few had heard Professor LandMarker talk with such resolute confidence when in front of a crowd as they did in that last paragraph. And there was several moments of silence after that, with no one wanting to break the thoughts that everyone was contemplating.

Eventually, Professor ArtifactFinder broke the silence with “OK, thanks everyone for the debriefings. Please head out to your cots now and rest per the routine, being sure not to risk any heat stroke. The ship’s crew has just about finished taking the creates to the ship, and when they are done they will shut the front doors like they were when we got here. Later, when it cools down again, they will seal them up too, so the seal of dust and dirt that we broke when we first opened them is restored. As soon as they are done with that, we’ll pack up the rest area, go to the ship, and break anchor and start the journey home.”

And with that he headed to the door, and everyone followed starting to talk among themselves. But Professor ArtifactFinder was lost in the thought that Professor LandMarker had just indicated there might be a city to the South of here. If he could just convince the University Board to fund another, longer trip next year, and find a better way to deal with or combat the heat, that discovery might make this one pale.

Lost in thought, he almost ran into Nart ShipMaster as he made his way out. Nart gently grabbed his arm motioning for him to stay until everyone had cleared out. Once they did, he faced Professor ArtifactFinder and asked “So would you say your find here is significant?”

Barely able to hold back a chuckle of understatement, Professor ArtifactFinder emphatically stated, “Yes Nart, I would say our finding is significant.” Nart ShipMaster looked off into the distance and grimaced. “I was afraid you were going to say that”.

Somewhere between concerned and mystified, Professor ArtifactFinder asked “Why?”

“Well,” Nart retorted, “my orders were that if both you and I agreed the finding was significant, instead of returning to SouthEast City, I was to set course for a direct route to SouthCentral City and get you back for the SouthCentral Science Conference.”

The Professor’s face went flush as it also drooped in disbelief. “What?” he asked.

Nart, understanding that was a rhetorical question, let the silence hang until Professor ArtifactFinder regained his composure and could ask an intelligent question.

“I don’t understand”, the Professor finally continued. “I have never heard of someone attempting a journey like that. We will be 10’s of thousands of KL from the coast, going right through the middle of South Ocean. Do you have any idea what is out there? Do you even have the fuel? What about the time? It would take us about 4 dY to get back there and the conference is in 2 ½ dY.”

“I don’t know what is out there,” Nart calmly replied. “But you are the research head of research teams on a research ship, so I guess it will give you a chance to do more research and find out.”

At this point, Professor ArtifactFinder wasn’t happy with Nart’s almost mocking tone as Nart broke into a small smile.

“It will be OK Professor. My crew is very good at navigating by the stars. We will have no problem navigating there. Fuel is another matter. We loaded up with as much extra as we could when we left, and that small flotilla we encountered at about 10,000 KL south of the End-of-Rain-Line was a resupply group that also replenished our fuel. We’ll make it. Just barely by my calculations, but we’ll make it.”

Professor ArtifactFinder was only slightly comforted by Nart’s plausible answers. “What about the time?”, he asked.

“That would definitely be a problem, except that we have some upgraded turbine engines that we should be able to push to 30 KLpcD, although we have never really tested it for more than a couple days of running. But we also brought 2 spare engines. So as long as we don’t have more than 2 fail due to mechanical rather than heat, we should be OK. And that should get you back just in time for your conference. I hear they have reserved the last day for just you and your teams.”

The Professor’s head was spinning, as it started to hit him. First, he was going to be able to see his friends and attend the SouthCentral Science Conference in just 2 ½ dY. But second, he only had 2 ½ dY to prepare for the biggest presentation of his and his team’s lives. So he was now even more anxious to set sail so he could start working on both getting home and getting prepared.

Chapter 3 – YazeShepherd

Associate Professor YazeShepherd gazed into the area that was reserved for the Plain Sloths. It was just one area of the expansive and relatively new SouthCentral City Zoo. Being only the second of the new class of permanent and publicly accessible zoos in Necedah, it had only opened a couple years ago. For a public hungry to know about their world, these new zoos were a great improvement over the menageries of traveling animals or private collections.

In the short time the zoo had been opened, Professor YazeShepherd found he had settled into a pattern of spending a fair amount of time there. Being that he was a professor in the School of Animal Studies at SouthCentral University, most people would not find that all that unusual. But in reality, he didn't accomplish much professionally here, he just found it relaxing and allowed him time to think without being interrupted like he found would constantly happen at the University.

Today wasn't the best day to be here. Being midday on LowSun day, there was a slightly larger weekday crowd than typical for winter. People like him who had taken this day off to have some personal time. While he would have normally found the larger crowds distracting, today he had a lot on his mind, which helped him tune out those around him.

Professor YazeShepherd's specific area of expertise was animal populations – how many there were, how many the land would support, how fast were they growing, what were their birth and death rates, etc. He had decided to pursue these studies after growing up watching his father and grandfather and great grandfather tend to large herds of commercial Yaze and seeing them toil to assure they were grazing them over large enough areas and keeping them feed a sufficient supplemental diet while getting the exercise a Yaze needed to stay healthy.

His current focus of study was the rate of growth of animal species throughout habitable Necedah. His area of study, like many others that had come into being since the start of the Age of Discovery, was relatively new. As such, there was very limited historical research, and even less historical data. Much of his particular science was based on data. However, since there was so little of it, most of the theories – really hypothesis – were based on 9 parts conjecture and 1 part facts. At this point, as much as he hated it, the discipline was more philosophical than scientific, and would continue to be until more data was available.

He felt very uneasy that a branch of science that should be based on facts was, instead, so based on what people thought. He had devoted his life to changing that; to gathering as much data as he could and make theories based on hard evidence and numbers.

Which lead him to his current perplexity.

It was widely known that there were, generally speaking, a far greater number of faster animals than of slower animals. The current wisdom was that the greater speed gave them more access to resources and opportunities, and therefore there were more of them. But Professor YazeShepherd didn't buy it. He just didn't think that made sense. Just because an animal was faster didn't mean it had more advantages than another slower animal that filled a different niche in nature. Moreover, habitable Necedah was vast, about 50,000 KL by 100,000 KL, or 5 billion KAs²², with plenty of opportunities for all classes of animals. Why would speed be such an overwhelming benefit over strength or flexibility, or natural protection, or size, or a dozen other attributes? He just didn't see it.

So, he had started looking at population size from many different angles. How did population size vs. lifting strength, pulling strength, mass, height, length, density, and a few other measures, relate to each other. He found that all of the relationship correlations were largely gibberish except for speed which clearly had a relation. He then went in the other direction and focused in on speed. He then plotted population size against short distance speed (fastest an animal could go), medium speed (how much they could travel in a day) and long distance (how far they could travel in a dY).

He spent nearly 2 years collecting data on the last two measures for a dozen different species, as no one had ever scientifically collected that data before. But it did pay off. Population Size vs fastest speed definitely showed a correlation, but was rough. Medium speed was better. But long-distance speed showed the cleanest RMS trend line of all of them. But he still couldn't really understand why.

So he then took it in a slightly different direction. Rather than population size, he looked at from population growth rates of wild animals. The populations of the fastest animals such as those of the Yaze family were thought to be essentially steady state, with the death rate roughly matching the birth rate. There were probably several 10s of billions of Yaze over Necedah. Enough so that they could overgraze entire regions causing hunger and early death among the local herds, leading an overall equilibrium to be established.

²² 1 KA = 1.058 sq. miles; 5 billion KA = 5.288 billion sq. miles (All land on earth = 0.2 billion sq. miles)

But just about all slower animals were still growing in population sizes, some quicker than others, but again usually related to how fast they traveled. But instead of looking at the absolute numbers, Professor YazeShepherd looked at the *growth rate* for the species; their percentage growth per year. Unfortunately, that was a hard number to come by. The professor had to scower the published papers and materials from all the Necedah Universities to find population estimates over time. In most cases he would only find one population size of a species recorded for the region. In many cases, none. But in a few places, he found two estimates at different times allowing for a crude growth rate estimate. In a few rare instances he found 3 or more, allowing for an even more accurate estimation.

Of course, finding this data wasn't easy. Although he had the research libraries of the close by SouthCentral University, getting the research from other Universities was far harder. Between sending the request and getting the documented studies, it could take a Y or more. However, over the course of about 6Y, Professor YazeShepherd was able to get very crude growth rates on almost 18 species.

When he plotted growth rate against long distance speed, he was sickened. There seemed to be no correlation. Was all his time wasted? He then took the growth rate and compared it against all the earlier attributes: strength, size, etc. Again, no correlation. He fell into despair.

Almost out of desperation, he started looking at other comparisons. Growth rate against population again wasn't all that useful, other than you could see the decline in growth rate as you got to the near or at equilibrium larger populations. But it was enough of a relation to make him look deeper.

So, he started looking at other possible calculations that he hoped might prove interesting. He looked at the population saturation percentage vs. growth rate and population – nothing. Total mass of species versus population growth – nothing. Average annual roaming distance vs population growth – nothing.

Dejected, he went back to his growth rate vs. population size charts. As he stared at it for hours, his eyes saw nothing, but he sensed something there. Not really understanding how he logically got there, he started a new and somewhat distant relationship calculation. He took the growth rate against the population size and calculated the day-one of the species. That is, when, according to the math, there would have been just two of the species (presumably male and female). He then did this for all the species for which he had data and plotted it on a graph. Then something unexpected jumped out at him.

Of course, the day-one date for species in equilibrium was infinity. For near equilibrium species it was very long ago. And as the population sizes went down, the day-one date became closer and closer. It

was as if the faster animals had been created before the slower animals. But looking at the graph, it was very clear that there was an asymptotic day-one date of about 4000 years ago. Moreover, the smoothed graph line approaching the asymptotic leveled out about halfway through the species so that those had a day-one date of between 6000 and 4000 years ago. The only oddity was if you put man in this graph too. Even though man was twice as slow as any other species (even the plain sloth could easily outrun a man over a dY of motivated travel), they had a day-one date of almost 20,000 years ago, which was clearly an abnormality on the graph.

Of course, he had much better growth rate data on man, and knew how it changed over time, going back to the start of written records. He wished he had better data on the other species. If he just had a few more data points, he could be much better estimates. If he had enough data to get the first derivative of the growth rate, or the rate of change of the growth rate, he could be more accurate. It would be even better if he had the second derivative of the growth rate, or the rate of change of the rate of change of the growth rate. He strongly felt that with that data, he could much more accurately calculate the day-one date of even the near equilibrium species. But it would be many generations before they would have that much data collected to make that leap.

Nonetheless, he finally had something that laid out a mathematical reason for the different population sizes – they started at different points in time. But, of course, that was absurd. Necedah had been here for many millions of years or more. What had happened 5ish millennia ago that these populations started from scratch? And why did the slower ones appear to start more recently? Maybe it was just the data he had. But why would it be so consistently slighted?

He was very perplexed.

He contemplated trying to publish a paper on his finding and seeing if anyone else could make better sense of it. But with the SouthCentral Science conference just 2 ½ dY away, it would be much more fun to hold a local session with other interested scientist on his findings and discussing it among themselves. He was really looking forward to that conference.

Chapter 4 - DirtMover

Graduate Student Zemp DirtMover heard the soft chimes sounding and looked up from the papers, books, graphs and charts surrounding him and studied the pendulum clock across the otherwise deserted study hall of the SouthCentral University library. “Arrg”, he thought to himself as he saw the time was 12 ½ cD. It was the depths of the night, and pretty much everyone was in the middle of a good 30 cD sleep cycle. “No self-respecting person should be awake now”, he further concluded. But with yesterday having been LowSun day, he knew that he only had about 2 ½ dY before the SouthCentral Science Conference, and he wanted to be ready to discuss his finding. If he caught the ear of the right professor, it might help get him elevated to graduate and become an Assistant Professor by next year.

In that quest, he was happy to have the resources of the central library available for him now. He had so much additional research to do and he found he could focus when working late. The central library, like all public buildings all over Necedah, was never closed. People could come and go and use the facilities whenever they wanted. Of course, staff wasn’t going to be available in the middle of the night, but anyone who wanted could come in and browse the books, they just couldn’t check them out until staff was back during the day. There had never been a problem with people not respecting the rules and thus requiring the building to be closed and locked. In fact, locks throughout Necedah were very rare. People didn’t lock their houses, even in the big cities like SouthCentral City. There were ample resources to go around for everyone and it just wasn’t a problem with people going where they shouldn’t or taking what wasn’t theirs. The only place locks seemed to be found was where you needed to keep children out of, or where there was dangerous contents that a person might innocently stumble upon and hurt themselves or others.

So Zemp was taking advantage of the open library to prepare his findings before the science conference.

Unfortunately, he didn’t quite know yet what his findings were. It was great to be alive in this Age of Discovery. There was so much more being learned every day. Moreover, there were new techniques and procedures and discoveries happening that allowed other things to be analyzed and tested and discovered. And that was the quandary he found himself in. He had been collecting soil samples for years all over SouthCentral Necedah. Some of them very long tubes that were about 6 cL wide by about 4 L long.

There weren't a lot of surprises when he first took the samples. He had first become interested in the study of geology, and specifically what the soil could tell him about geology, when he was working with his father and grandfather digging up dirt to be moved and packed in other locations. There weren't a lot of DirtMover families in the SouthCentral area, nor in all of Necedah for that matter, as far as he knew. People normally just built on the flat ground as it was. It was only very special projects that required a DirtMover, such as building a room below ground level (for what good reason he never really understood) or to build a water hole to swim in.

He learned early on that, as you dug down, the soil had a very distinct and consistent pattern, oscillating between medium brown layers and very dark brown, almost black, layers. The pattern was very regular, with the topmost layer being a full depth of medium brown dirt. There was also something odd that he always found, and which made every dirtmoving job harder: the medium brown layer just below each black layer was especially hard to dig through, as if it was denser. He found that to be true regardless of where they dug.

As he grew into his teen years, he grew to wonder why were there the color and density variations, and why were they so consistent? When he asked his dad or grandfather, their response was, essentially, "Because it is." As an inquisitive boy and being unsatisfied with that answer, he asked his teachers in school. But their normal response was a look of bewilderment at why he was even asking the question, with a retort questioning why he would even care. It was as if he was asking them why water is wet or the sun shines; it was a pointless question.

Except for one of his science teachers in his final year of standard school. That teacher had encouraged all his students to ask all sorts of questions, even those that were unanswerable. "By asking those questions", the teacher would lecture the class, "and looking for answers, even the unanswerable might eventual be answered." So when Zemp asked his teacher the question about "Why does the soil have color patterns when you dig down?", instead of being rebuffed or chastised, the teacher responded with, "I don't know. That is a very good question. What do you think the answer might be?" (After a while, Zemp found that the teacher was very good with answering a question with another question). Over that year, they would spend several post-study sessions discussing possibilities and how to potentially test them. Of course, this drove them to the relatively new study of physical geography and all the science behind that which might yield answers. He found himself checking out books from Professors of Geology who talked about things like what the snows in the north did to the grass and

other vegetation, or why the land south of the End-of-Rain-Line was made of sand rather than dirt. But none about the strata in the soil.

Eventually, towards the end of his last year of standard school, with the recommendation of his science teacher, Zemp applied to SouthCentral University rather than joining his brother to take over the family profession. When given the news, his father brashly told him that this new way of not staying in your family profession, was not only bad for society, but was also going to hurt his entire family and they would be poorer and worse off by Zemp “abandoning them” and choosing instead to go to the university to “ask stupid questions about unimportant things”. His family then, with the patriarch’s inducement, ostracized him and cast him out. He had not spoken to them since.

So now, 6 Y later, after having studied mathematics, physics, chemistry, biology, as well as the required coursework in history, literature, writing and other essential knowledge academics were expected to have, he found himself now in graduate studies to become an Assistant Professor of Geological Science. But almost as much as the validation he sought in becoming a professor to prove to his family that he had value in the world (and, although he would not admit it to himself, would hopefully lead them to accept him again and welcome him back), he wanted to know the question that had been confounding him for the better part of the last decade. So all his energy and time were devoted to this one quest, to the point where he only got about half the sleep, or about 15 cD per day, that a normal person would get each night.

Which lead him back to the stack of books, papers, graphs and charts surrounding him in an empty library in the middle of the night. He had to have some key findings ready for the science conference, but the findings from his soil samples were confusing.

From his studies of other professors’ data over the years, he did know that it was estimated that new dirt accumulated at about 2 cL per century. No one really claimed to know where this was coming from, but the conjecture was that the loose sand below the End-of-Rain-Line would be picked up in the strong southern winds and slowly redeposited in habitable Necedah from the constant northern breeze that must (it was assumed) be coming down over the pole and coming from the central part of the planet.

The brown strata segments in the soil samples were about 90 cL deep. At 2 cL per century, that came out to about 4500 Y, assuming the soil accumulation was the same during the entire period. Throughout the top and current strata the consistency and chemical makeup of the soil was largely the same,

indicating the climate, supply of new soil, chemistry and biology was largely the same throughout. This seemed to repeat between every black strata, for as far back as the samples went.

The black strata segments were about $\frac{1}{4}$ the depth of the brown strata, or about 25 cl. Unfortunately, he had no measure of how fast that accumulated, so he had no idea how long it took that strata to accumulate; it could be 100 Y, 5,000 Y or 100,000 Y. He just couldn't tell.

But there were other elements of the black soil that was very interesting. The physics department couldn't really determine anything specific about it. However, the chemistry and biology departments got intrigued enough that they consulted each other using microscopes and chemical analysis techniques to see what they could determine about the sample. They even used a new technology called *chemical spectroscopy* to analyze the light spectrum of the soil to tell them about its chemical makeup. What they reported back was that they believed this part of the soil had a high concentration of now dead organic biomass that exhibited signs of slow decomposition in reduced oxygen. One of the biologist said what he saw was similar to something he read about the decomposition of microscopic organisms at the far northern areas of habitable Necedah during the depths of winter. The article, so the biologist said, was from a professor at NorthCentral University, but what Zemp had sent him seemed to be, in his opinion, much longer term and with much less oxygen present, as if it had happened under a very large, air-tight, block of ice. Zemp had asked for the reference to the article, but he was still waiting for the reply. He hoped he wouldn't have to request the article from NorthCentral University, as that could take a full Y for him to send the request and receive the article copy via Yaze courier.

Of course, both the chemistry and biology departments had sent him all sorts of graphs and charts to document their findings. These were now spewn across the table in front of him and he was still having trouble making sense of what they sent. While he was a scientist, he was neither a chemist or a biologist, and it seemed like he needed to be one to understand all the data they were sending him.

But the oddest thing was the compression layers in the brown strata just under the black strata. These compression layers were about 20 cL deep and were very dense, as if they had had immense weight placed on them. They had defined horizontal layers to them and were so compressed that it was difficult for water to soak through (or a shovel to dig into them). In fact, according to the research he had done, the compression was so much that even the roots of plants couldn't take hold.

But there was one thing that seemed very out of place in the repeating strata. In all the previous brown soil strata, about the top 20 cL, or about $\frac{1}{5}$ th of the top of the 90 cL strata, consisted of this compressed

strata, getting more compressed as it got higher. He had done the calculations, and without this compression, the depth would have been about 100 cL. The current brown layer – the one that he would walk on if he went outside - was about 100 cL but showed no signs of any the compression layers. Why?

He would keep working it, and hopefully he would have some satisfying “findings” by the start of the conference. Zemp glanced up again just in time to see the clock strike 13 cD.

Chapter 5 - Horc

Horc is a massive man. He is also a brilliant man.

To call him a genius would be to understate his mental abilities, which amazingly exceed his physical prowess - standing almost 50% taller and weighing almost twice as much as the average man, almost all of it solid muscle.

He is also, a complete and total psychopath.

Horc looked down at his chains, and then up to his surroundings - a specially built dual hull cage transport carriage, guarded by 18 specially assigned Mediators. This had been his “home” on a long journey of nearly 3.2 years. As a feared “violent, mentally disturbed” criminal, this was his plight.

But it hadn't always that way.

As a baby, he was a dream, smiling and giggling; almost never crying. As he grew, he learned to talk at an almost unbelievable young age, yet was polite and kind from the very beginning. People would constantly comment to his parents on what a polite and friendly child he was. Horc seemed to learn early that he could endear people by being friendly and complementing them.

Even as a young child Horc became a master of the warm smile and conquered enchanting small talk. He quickly learned he could control his environment by gaining the acceptance and fondness of the adults around him, and that a few properly placed words, with the right inflection and right facial expression, could almost always get him what he wanted.

He excelled at all the academics – Mathematics, reading, writing, history, social studies – all were trivial exercises for him. He couldn't understand how anyone wouldn't grasp them almost instantaneously. He would read and comprehend an entire book almost as soon as it was given to him. It didn't matter if it was math, geometry, algebra, philosophy, logic, or any of the other studies – as soon as he was exposed he would comprehend, understand, and absorb the material. Likewise, sports were almost nothing more than light exercise for Horc. He could run faster, hit the ball harder, or throw the ball with almost pinpoint precision. His teachers and coaches were never able to challenge him.

However, Horc became fascinated with interaction with others. In that endeavor, there was no books or formulas to direct his actions; yet there were voluminous rules regarding it – they were all just unwritten. So Horc spent most of his time learning how to interact with others to get what he wanted.

The right smile, the properly timed sadness, the right inflection of eagerness, the correct hint of caring and compassion – all could be played to get others to react in certain ways. This was challenging, this took effort, this was fun.

By Horc's tenth year, he had become beloved by the entire community. His teachers loved him, the coaches loved him, the local mediator loved him, the local shop keepers loved him. Wherever he went he would smile and greet the towns people, ask how they and their family were doing, always remembering all their names, birthdays, significant dates, etc. Horc could always cause a smile on the face of those that he met; and they, often without even knowing it, would grant him whatever he was trying to achieve.

The community Horc grew up in, Farmpoint 52032, wasn't a large community - a small township of only about 5,000 people about 10 ML southeast of NorthWest City. But as the local farming collection point, it was the largest town for almost 100 KL in any direction. Because it was so small, everyone knew the wonderful boy Horc.

Throughout his formal education, Horc excelled, achieving almost perfect scores in all his studies. But in his sixth year of education, Horc encountered a teacher the likes of which he had never encountered before, Nent Teacher. This teacher seemed to see through his manipulative behavior. Horc was fascinated by this, a person that he not only couldn't manipulate, but who appeared to see right through his attempts to flatter, support, encourage, uplift, or ingratiate. He was excited to have the opportunity to learn how this person was able to see through him, and how he could hon his skills to learn how to manipulate him too.

Horc had decided to attempt an inflection point at the third writing of the sixth year. In Necedah, the sixth year was considered a pivotal year; where childhood gave way to adolescence. As part of this every student of every sixth year class was asked to write three papers. The first was *Why is it important to be Nice to Others?* The second was *What are the central responsibilities in being Nice?* And the third was *What are the challenges to be Nice to Other?* All harkened to a core belief in Necedahian culture. But while the first two had formulaic answers, the third was undefined, allowing for insightfulness and introspection. It was the separation between childhood and adolescence. For Horc, it was his chance to engage his teacher.

Horc had to endure the intellectual pain of just giving the almost childish rote answer to the first question, which was essentially a reciting of the 3rd Necedah Top Chief Servant, Zeht PeopleServant, known as the greatest of all Chief Servants, that:

“Being nice to others allows us all to have better lives. By being nice to your family, colleagues, associates and strangers, we can all be both more effective for the common good, as well as be happier. That is, by considering others first, we all live better and happier. So by taking care of others, you also take care of yourself.”

A few months later, Horc similarly, and painfully, regurgitated the expected response to the second paper, which was what came out of the first Nice conclave:

What are the central responsibilities in being Nice?

1. *Always be nice to others above yourself;*
2. *By being nice to others first, you are actually being nice to yourself.*
3. *If anyone isn't being nice, you need to let them know.*
4. *If someone continues to not be nice, regardless of age or position, you need to tell a Constable or Servant so they can let the person know.*

He then added a paragraph about that by doing this we all prosper. Of course, he received an almost guaranteed perfect score.

But Horc tired of the simplicity, and wanted to understand his teacher's pivot points on this final paper. So, he went well beyond the normal writings, to gauge and try to manipulate his teacher's response.

Horc grimaced and knew he had not optimized the situation when he got his paper back – a Level 2 low. Horc had never received anything other than a Level 1 and Level 1 high before in his life. He had thought at most he would give a Level 1 low and have to talk it up. But he could not allow his record to be blighted by this one low mark. So Horc decided to try and control the situation as he had so confidently and expertly done on untold occasions in the past.

“Instructor Nent, can I please talk to you about my grade?”, Horc asked his teacher. It was common within a profession to call people by their first name, as most, if not all, had the same last name.

“Yes Horc, of course. What do you want to know?”, a confident Nent Teacher replied, having expected this conversation.

Horc beamed a warm, friendly smile. “I’m not sure I’m showing the correct score. It says Level 2 Low. Yet I felt I meant and exceeded all the requirements.”

“Horc,” Teacher Nent responded, “you missed the objective on a few points. First it was a somewhat simple question, ‘*What are the challenges to be Nice to Other?*’, which required a proportional – that is simple – response. Second, it was only supposed to be about 1 page. You went into much more depth, which was not in the spirit of the question, as well as went off topic, and took 5 pages to do it. That’s why I gave you a Level 2 Low.”

“Thank you Instructor Teacher for the reasonable explanation,” Horc instantly responded, using additional formality to indicate respect. “However, the paper was also meant to illicit deeper insight for the individual, and I thought I excelled at that. Moreover, the instructions were ‘No less than 1 page’. It gave no upper limit. Thus, I think I meant all the requirements and then some.” Horc renewed his smile, injecting a little sadness into his eyes suggesting he would be hurt to not get a revised grade.

Teacher Nert responded without hesitation, “While I respect your viewpoint, it is not correct here. Instead of staying on point, you drifted into somewhat fringe thoughts on the hostility within us. You used this as a platform to voice your internal struggle, not the point of the paper.”

“Wow”, Horc thought to himself, is this guy psychoanalyzing me? But without showing any reaction, he continued, “Thank you for your honesty. However, I don’t think that is germane here. You did ask the question ‘*What are the challenges to be Nice to Other?*’. So I cited some very relevant foundational tenants.

“First, I cited Chief Servant Zeht”...

“Top Chief Servant Zeht”, Teacher Nent corrected.

Horc paused momentarily, while his teacher spoke. For the first time in his life, he felt something that he would later realize was irritation. Nonetheless, he picked up where he left off, still smiling, “Top Chief Servant Zeht, in his famous Nice speech in 531, over 1400 years ago, spoke about the hostility we would have to overcome to reach a more prosperous society by being nice. It may not be often discussed, but it is still there.”

He could see Teacher Nent start to move to respond, but Horc started again before Teacher Nert could start a syllable, “Then I cited where the first Nice Conclave not 3 years later in 534, documented

rampant and sometimes egregious hostility and violence around them that needed to be curtailed for Necedah to prosper through mutual Niceness. I documented the referenced in my paper.”

Horc continued, “Third, I cited the current theories of Professor Fowl Teacher.” Horc could see Teacher Nent’s face tensing up both in defensiveness and being affronted in his views by this child. Nonetheless, he continued to try and make his point, “He has suggested a ‘Replacement Complex’, where deep down every son has a primal urge to kill his father and marry his mother.”

“Enough! I won’t have such sick and dysfunctionally antisocial ideas voiced in my classroom,” Teacher Nent bust out. “I read what you put in there. It’s on the border between socially inept and socially insane. That is why I gave you a Level 2 low.”

Horc smiled inside. He thought he was losing control of the situation by his need to make his points. But the emotional outburst put him back in the situational control.

“I’m sorry Teacher Nent if I upset you. I really wanted to impress upon you how much effort I put into understanding the subject matter and putting historical context to it. That’s why I added that. But I think I did a really good job and think I deserve a Level 1 grade.” Horc has intentionally slipped back into simplistic language in that last sentence so that he would appear the more sympathetic 12-year-old boy that matched his body.

Horc took on a sad, softly pouting look, confident that Teacher Nent would soften and relent.

“My job is to grade these papers in contrast to the lesson requirement and writing expectations. You missed those. My grading stands.”

Horc was both annoyed and enticed by the challenge Teacher Nent was presenting. Time for a different tack. Horc got closer to the desk and put his hand on top of Teacher Nent’s hand, knowing that creating a person-to-person connection could soften his resolution to what was clearly an emotional reaction.

“Professor Nent, I’m really sorry if upset you. I worked really hard on this. I tried really, really hard to do the best that I could. Can you please reconsider and give me a Level 1?” Horc knew he was recessing into the vocabulary of a 10-year-old. It was what was needed here.

“Horc, time for you to go. You’ll see the grades posted later this week.”

Clearly, things were still not going as Horc needed them to. Time to exercise some of his new abilities. Horc changed from having his hand on top of Teacher Nent’s hand, to grasping it. He tightened.

“Teacher Nert. You’re a fair man. I think you know I deserve a Level 1. What do I need to do to get you to agree to that before I leave?”

Teacher Nert looked at Horc, then at his hand, then at Horc again. “What are you doing? Let go of my hand!” He tried to pull away. But Horc had a firm grip by this time. He tighten more.

“Teacher Nert, you need to be reasonable here. We both know I clearly deserve a Level 1 plus. I asked for Level 1 to meet you midway. You know you are being unreasonable here and just trying to make a point that you don’t have to give me top scores like all the other teachers. OK, you’ve made your point. But now it is time for you to give me the grade I deserve.” Horc tightened his grip more.

“I did give you the grade you deserved.” Teacher Nert flatly asserted. But inside, he was thinking I can’t believe how strong this 12-year-old is. Can he break my hand if he continues?

“That’s not the right answer. The right answer is ‘I changed my mind and I promise I’m going to give you the Level 1 you deserve’. Just say that and I can be on my way.”

“Please Horc, stop! You’re hurting me. Why are you doing this? I gave you a fair assessment.”

“Sorry Teacher Nert, still not the right answer.” Horc not only tightened his grip but also twisted his hand in a way it wasn’t supposed to go to increase the physical stress.

“OK, OK, I’ll give you want you want, just let go.”

“Sure Teacher Nert. Just say ‘I changed my mind and I promise I’m going to give you the Level 1 you deserve’, and then we can be done here. You know it’s the right thing to do.” Horc tightened and twisted more.

“Yes, yes. Horc, I changed my mind and I promise I’m going to give you the Level 1 you deserve. I’m sorry I didn’t give it to you in the first place.”

“Thank you Teacher Nert.” Horc said as he released the teacher’s hand. “I really liked how we could have this talk and come to a reasonable, mutual outcome. I’ll expect to see that Level 1 grade reflected in the scoresheets at the end of the week, otherwise I’ll come back and we can discuss this further.” Horc took on a friendly, cooperative smile.

Teacher Nert quickly drew back his hand, caressing it with the other to get the blood flowing and to sooth the pain. “Yes Horc. Yes. Can you please go now?”

“Of course Teacher Nert. Thanks for the talk. See you tomorrow!” And with that, Horc trotted off to his next session.

The next day when Horc returned to school, he was pulled out of his midday session and asked to go to the School Primary Servant office. His parents were there too.

“Horc, we were given some very unsettling news yesterday.”

“Really Primary Servant Tubt? What is it? What can I do to help?” Horc took on an appearance of friendliness, concern and inquiry.

“Horc, Teacher Nert said you hurt him in trying to get a better grade from him? What do you say to that?”

“That’s not the case at all. I did talk to him to see what I did wrong on the paper and how I could do better the next time. In discussing my paper, he did eventually say he changed his mind and promised he was going to give me the Level 1 because he said I convinced him I deserved it. There may have been a misunderstanding.”

“He said you were crushing his hand and you wouldn’t stop until he gave you a better grade.”

Horc produced a nervous half-chuckle. “I don’t see how I could have hurt him. I did go to shake his hand as a thank you after he agreed to record my grade as a Level 1. The handshake did go longer than normal as he kept saying what a great student I was. I don’t want to speak bad of Teacher Nert – he’s a great teacher – but maybe I just shook hands a little too hard - he is kind of a fragile teacher - and it hurt him after I left?” Horc gave a concerned smile.

School Primary Servant Tubt, nodded. “Horc, we all love you here, and we all think you’re a great student and athlete. And yes, Teacher Nert is a bit fragile. But he typically doesn’t exaggerate. He’s also scared. So I am taking you out of his class and putting you in Teacher Jenni’s class. She is looking forward to having you in her class. Teacher Nert has asked that you stay away from him, and if I could reiterate that; he doesn’t affect your grades anymore, and you will just cause problems if you try to see him.”

“Of course, Primary Servant Tubt. I don’t want to cause any problems. I’m terribly sorry for the misunderstanding. I’ll try to be a better student in Teacher Jenni’s class. I know she’s a great teacher too, just like you’re a great Primary Servant.”

To his word or because of fear, Teacher Nert did give Horc a Level 1 on his grade. But Horc never talked to Teacher Nert again. However, Horc couldn't risk others starting to think badly of him. So, over the next few dYs, with a few strategically placed rumors and innuendos, soon even the other teachers were having concerns about Teacher Nert. Within another couple dYs, Teacher Nert was gone; "moved away" was the line he heard repeated. Shortly, teachers were telling Horc he was a wonderful student, and they were sorry that Nert has spoken poorly of him. All Horc could think was "These people are incredibly gullible", all the time smiling and thanking them for having confidence in him.

By that time, Horc's reputation was fully restored. Over the next few years he continued to grow in strength and stature. By the time he was 16 years old, even though he was two years behind his most senior fellow students, he had become the star athlete as well as the most handsome and popular man on campus. Everyone wanted to be his friend.

Especially the girls. He had noticed over the last year or so that the girls had started to treat him differently. They had started to sit closer to him, hugging him more, grabbing and holding his arm as they walked besides him. And he had felt new sensations inside himself, especially when they held him close.

Having read medical texts on his – and their – anatomy he intellectually understood the changes, and the new experiences coming his way. He had spent some time studying the techniques he would be expected to know and mastering them as best as he could without actual experience.

When he finally engaged, he was perplexed by what happened after. The girl he shared his first experience with had always been trying to spend more time with him and be a friend. Yet after the event, when he treated her just as before, she soon became distant.

Horc couldn't understand it. Clearly, he had given her pleasure – probably more than she would know for the rest of her life, yet she seemed negatively affected by the entire episode. When he asked her about it, she said she thought after what they shared she would be special to him; to which he responded of course she was special, just like all the other wonderful friends he had.

Although she seemed to be hurt for a while, she eventually started socializing again and fell back into a friendly pattern. But soon, she was asking if, even if they were not going to be a couple, if he would be with her again; which he happily obliged, thus providing evidence that he was as good as he thought (of course).

This pattern repeated with the next two girls Horc was with; after their clear pursuit and interest, he would pleasure them, after which they would drift away for a while when he would not commit to being a bonded couple, only to then have them come back ask for a more physical friendship. While the interaction had a definite pleasurable aspect, he was tiring of the effort the relationship took. He wondered if it was worth it.

Of course, he didn't really feel close to any of his friends; not really. They were instruments in his tool chest to reach his goals. He would make them feel good about themselves and convince them that he was always going to be there for them, and they would do almost anything he asked.

However, there was one girl that he felt an unusual draw to – Bekky GrassFarmer. While she wasn't the most attractive girl in the school, he felt for sure that this was just because she came didn't spend the time or effort to make herself look pretty. She came to school in drab clothes, with no particular attention to herself. Horc thought if she put half the time the other girls did on her appearance, she would easily be the most beautiful girl there.

Of course, out of all the girls that wanted to be Horc's friend, Bekky seemed to not have any interest. He would say "Hi" in passing, and she would just nod acknowledgement and keep going. He would sometimes sit near her and try to strike up a conversation, only to have her wave him off while she read her book. But Horc was most attracted to her because of how smart she seemed to be – not anywhere as close to as intelligent as himself, but far more than any of the other girls. During a break period, he once caught her reading a book on basic calculus on her own time. While he had conquered calculus years earlier, this was the closest he had come to finding someone who might actually be able to, somewhat, keep up with him intellectually.

Horc pursued her. Asking her to come along for his athletic competitions, go out to group eating events with other of his friends, or even to come over and study (this actually excited Horc the most). She graciously declined all his invitations. Until he asked her to the traveling faire. While she didn't say yes, she did say she was going with her brother, and if they ran into each other, maybe they could keep company with each other for a while.

At the Faire Horc was in his element. Saying hi to all the towns people. Complementing all the men he met with how well their business was doing or achievement they had marked or how fine their prize Yatz appeared. For all the woman he made a point to say how fine their dress complemented them, or how wonderful the hat brought out their face, or how stunning they looked this afternoon.

But he put on the full charm when he strategically ran into Bekky near the game booths.

“Good day Bekky and Srac”, as he introduced himself to Bekky and her younger brother. “I was hoping I would have the pleasure of running into you today.” Then looking at Srac, he added “I heard the Yatz you entered into the pulling competition took first place. You must have really trained him well to get him to win over all the others.” Srac took on a wide and proud smile. To have his accomplishment acknowledged by someone like Horc make him feel even prouder.

“I bet you developed some pretty strong limbs in training him,” Horc teased. “How about the three of us throw some orbs at the block game?”, Horc asked. Srac grinned – he was making friends with Horc. “Sure!” Srac quickly replied. Horc noticed a smile on Bekky’s too, as she saw her brother start to glow.

Horc knew that the block game, like all the other games, were rigged. Hence, he had been sure to talk to the game tender earlier in the day. He had met him just about every time the faire had come to town; he always used it as an opportunity to learn what was going on in the rest of the region, and Horc knew it was always good to make friends that could help him impress others. And today was a day to leverage that investment. So, he had arranged to have the friends he brought over to win big that day.

“Go ahead Srac, grab a ball and try to knock the block off the table to win the prize,” Horc urged. Srac eagerly grabbed the orb and quickly threw it with all his might, and entirely missed the block.

“Good try Srac, but next time, focus your attention on the block. Then throw the orb with control. Focus on accuracy more than power,” Horc coached.

This time Srac took his time, with all his focus on the block. His windup was measured and gradual. When he let go, the orb hit the block square in the center, easily knocking it off the table.

“Wow, that was great Srac. See how much easier it is when you use your mind and body together,” as the gamekeeper gave Srac his prize.

Srac again beamed with pride. “Thanks Horc. Yeah, that really helped.” Horc noticed Bekky smiling too about how happy her brother seemed.

“OK, Bekky, your turn,” Horc continued. “How about trying for the giant stuffed Yatz?”.

“I don’t know Horc, that’s a pretty big block. I don’t think I could knock it off even if I hit it,” Bekky objected.

“How about you just give it a try Bekky? If you focus Like Srac did, I bet you can do it.” Horc confidently put his hand on her shoulder and looked into her eyes as to both encourage and give her confidence. But it was also to make her feel comfortable with him touching her.

“Yeah Bekky, if you just focus like Horc said, it’s supper easy!” Srac added.

“OK, I’ll try, but I told you it seems like an awfully big block for such a petite girl.”

Then Bekky grabbed the orb, and just like Horc had advised, focused on the Block and with clear intent and purpose wound up and let the orb fly. Much to her surprise, she hit it – not in the middle, but enough to make it a solid hit. But even more to her surprise, instead of just moving a few cLs, it slid entirely off the table with a noticeable “thump” as it hit the ground.

“A WINNER!”, cried the gamekeeper, as he grabbed the giant stuffed Yatz and gave it to Bekky. Bekky grabbed it and gave a big smile to Horc, but there was also a smirk that softly said, “I know what you did, but thank you.”

“Hey what do you say we all ride the Big Wheel? I hear at the top, you can see all the way to NorthWest City.” Of course, Horc knew that wasn’t the case, but it added excitement to the invite.

“Yeah, that sounds fun,” Srac exclaimed. Bekky was a little more subdued but cautiously accepted, “OK, I guess that will be OK.”

As they walked over to the Big Wheel, Horc and Bekky and Srac exchanged questions and answers about their families, what they liked or didn’t like in school, any fun things they had done lately. This was the first time Horc really got an appreciation for why people though Bekky was so sweet and caring - besides being a straight level 1 student, she volunteered at the local doctors office as well as volunteers to help tutor young children that were struggling in school. Of course, Horc inwardly thought such volunteering was just a complete waste of time, but outwardly he was smiling and telling Bekky how wonderful and selfless she was.

When they got to the Big Wheel, Horc went to the front of the line and checked in with the gamekeeper, then went back and told Bekky and Srac, “Come on, I told the gamekeeper what Bekky has been doing for our community, and he’s going to let us on the next chairs”. Of course, that was a complete lie, Horc had slipped the gamekeeper a little something extra, but it suited his goals to make Bekky think he admired her.

“Sarc, there can only be two of us per chair, so is it OK if you go in one, and Bekky and I will go in the other?” Bekky looked down with a shy little smile. At the same time, Srac looked back and forth at both Horc and Bekky, then expressed a “OK, I get what is going on” little smirk.

Horc and Bekky let Srac get on the first chair, then got on the second as it spun around. As they got towards the top of the wheel Horc looked over at Bekky and told her “You looks so beautiful in this light.” Bekky blushed with an embarrassed smile. Horc then brushed her face as he put his arm around her. Bekky didn’t protest; in fact she snuggled into him a little closer. For the rest of the ride of four more rotations around the wheel they both pointed out far buildings and landmarks, while both basked in the moment. For Bekky it was being with someone who seemed to like her and she felt herself liking back; for Horc it was the rush of feeling impending victory.

As Horc and Bekky got off the Big Wheel, Srac greeted them. “That was fun. Thanks Horc. But I’m going to meet up with Zelk and Brol. I think you want to be alone anyway.”, as Srac broke into a playful grin.

“Alright Srac,” Bekky responded, “let them know I’ll catch up with all of you later.” With that Srac, ran off, leaving just Horc and Bekky. “You want to go for a little walk? ,” Horc asked. Bekky replied with a shy “OK”.

As they walked, Horc asked more personal questions of Bekky. What did she want to do after graduating? Did she have any idea what she wanted to do with her life? And with those questions, Bekky started to open up to Horc, who took her hand at first, then put his arm around her as they walked. At one point, they found themselves walking near a somewhat large, dark, unoccupied tent. It looked to be a storage and equipment tent. “Hey, want to take a look inside here and see what’s in there?” Horc asked.

“I don’t think we’re supposed to go in there,” Bekky flatly stated. “It’s OK, I know the owner of this faire, Wilb Gamemaster. We go back a long way. I’m even worked for him at some of the past faires. It would be fine with him,” Horc confidently responded. Horc hadn’t ever met the owner, much less worked for him, but knew if he spoke confidently enough Bekky would believe him.

“Well, OK, if you’re sure it’s OK with him...,” as he led her inside. Once inside, by the light of the faire and the night, they could make out various contraptions and devices scattered around the fairly large tent. Horc lead her with intent towards the far side of the tent, inspecting items along the way, and making commentary about some of them that made Bekky laugh.

As they got to the far side of the tent, Horc saw a row of crates stacked high and several deep. Once they were near the crates, Horc stopped, turned around and faced Bekky, looked into her eyes, and leaned in for a kiss. Much to his delight, Bekky returned his kiss with seeming equally enthusiasm. He then leaned into it more, moving her so that her back was to the crates, without ever stopping the heart pounding kiss going on between them.

As they shared the passionate kiss, Horc heard her breathing deepen, as he had heard in the other girls when they were ready for more. So Horc began to explore her body.

She voiced no objection at first, but as soon as he started probing more intimate areas, Bekky suddenly said "I should get back to my brother." But instead of stopping he continued, moving to even more intimate regions.

"Horc, maybe you misunderstood me. Please stop. I want to leave the tent." In all of Necedah, where everyone was respectful and nice, and never hurt each other, this would have elicited an immediate stop with profuse apologies for the misunderstanding. But Horc was not all of Necedah. And instead of letting her go, he further pinned her against the crates, continuing his kiss and exploring.

"Bekky, I need to show you what you have been missing," Horc said as he continued his assault. Bekky, never knowing someone to not respect her personal space wishes before, was completely at a loss at what to do next. There was no cultural protocol or modeled behavior of what she should do. So instincts kicked in. She pushed back against Horc, trying to get away. But Horc was much, much stronger than her. She tried harder, but it was useless. She was now a pawn for Horc to play with. She started to cry.

"I will show you pleasures you never knew, and will never experience again. I am giving you a gift," Horc said as he threw Bekky to the ground. Now becoming submissive, she sobbed as she fell. Free of Horc's embrace, she had the hope of freedom, and tried to get up. But before she could even sit up, Horc was upon her.

"Don't resist. You will like it, I promise you." Horc's assault was relentless. Now on top of her, he started to disrobe her. Now, not really comprehending what was happening, Bekky was sobbing uncontrollably.

Just as Horc was exposing complete access to her, he heard something at the tent entrance. "What's going on in here?" shouted out the voice at the entrance.

Horc knew that voice. It was Mediator Grob Fairmaker. Horc did not like Fairmaker. He was always getting in other people's business. "Where are you going?", "Where are you coming from?", "What are you doing?" was standard questions that Grob Fairmaker would ask. Of course, Horc always answered his questions with a smile, and joked with him afterwards and asked about Fairmaker and his family, and Mediator Fairmaker would likewise be friendly and cordial with Horc. Most citizens would say Fairmaker was just doing his job as a mediator to be sure that he was ensuring everyone was being good and abiding by the Nice Laws; that was his job. Still, Horc didn't think he needed some nosey civil servant asking about his business. Moreover, despite their friendly interaction, Mediator Grob Fairmaker had seemed to be much more focused on Horc's doings ever since the Teacher Nert incident.

"Hi Mediator Fairmaker. I'm so glad you're here. Bekky fell and hurt herself." With that, Horc grabbed an iron tent stake that he saw was laying near him and Bekky as he got up. He then moved towards Mediator Fairmaker who stood about 3 ½ L away.

As Horc moved towards him, Horc though this might be an opportunity for him. He could terminate Mediator Fairmaker and tell everyone that Mediator Fairmaker and Bekky ran off together. That Bekky had admitted to it during their time together. While unusual, it wouldn't be unheard of in Necedah. Of course, that meant that he would have to terminate Bekky too; after he finished showing her the pleasure she was missing, of course. That would be unfortunate, but the situation called for it. He could come back later that night and dispose of both their bodies in the forest, and no one would ever be the wiser. Violence was almost unheard of in Nedecah, and he could use that to his advantage.

"Mediator Fairmaker, can you please help me get Bekky up? I think she hurt her leg," Horc asked as he approached. In the background, Bekky continued to sob uncontrollably. Horc started to tense up and ready the iron rod in his hand to deliver a fatal blow as soon as he was in range.

Just as he was within striking distance, the tent entrance flew open. "What is going on here? We saw you bolt in here then heard the commotion." It was town Chief Servant GeneralMerchant and 5 other towns people behind him. With his tone, Chief Servant GeneralMerchant was asserting his authority to take control of the situation by asking Mediator Fairmaker for a report.

"I heard Bekky crying and I came in here to find Horc and Bekky," Mediator Fairmaker reported. "I was assessing the situation when you came in," Mediator Fairmaker added.

With that, one of the towns people that came in raised his lantern to illuminate the tent. As soon as Mediator Fairmaker made out the form of the partially undressed Bekky, he raced to her to cover her

with his coat. While Mediator Fairmaker was making his way to her, Chief Servant GeneralMerchant noticed the tent stake that Horc was holding behind him. "What are you doing with that tent stake Horc?", he asked. Horc, trying to be quick on his feet offered, "Bekky tripped on this as we were leaving. I was picking it up when Mediator Fairmaker entered."

"Then why are you holding it behind you?" GeneralMerchant asked. "I'm sorry, I just didn't want anyone hitting it as they entered," Horc quickly retorted.

Just then Mediator Fairmakler asked "Bekkly, what happened?". Horc started to move in the direction of Fairmaker and Bekky, but GeneralMerchantant gently grabbed his arm with a look of "stay here". Horc complied.

"Horc, he,he....he.....he hurt me," Bekky uttered before starting to sob uncontrollably again. Horc felt himself sink. Up until now he could have got out of this by convincing everyone that Bekky had just tripped. He didn't doubt that he could have gotten Bekky to believe it too and go along with it. But now it was out there; it was said, it was a Level 1 violation of the Nice Laws. And that triggered a formal process to start.

With those words, this became Mediator Fairmaker's responsibility, so he took back control. "Chief Servant GeneralMerchant and Citizen YatzKeeper," Fairmaker directed, taking control, "Please take Horc to his home. And Horc," as Fairmaker looked directly at Horc, "Don't leave your home until we call for you and escorts are sent. That is by order of the citizenry," which made it an official home confinement order.

On the way home, as Chief Servant GeneralMerchant and Citizen YatzKeeper questioned him, Horc continued to profess his innocence. "Bekky Tripped on the iron tent stake." "I was picking it up with Mediator Fairmaker came in." "I was helping Bekky." "Her clothes must have caught on something as she fell." Horc knew that if you repeated a lie enough, people would start to believe it. He hoped if he could convince Chief Servant GeneralMerchant and Citizen YatzKeeper, it might help when the Regional Mediator came to town to hear his case.

A dY later, when the Regional Mediator came to hear the case, Horc was further discouraged. The former Regional Mediator, whom Horc had built up a good rapport, had retired. He never met the new Regional Mediator, so he didn't know what ways he could induce him in his favor.

When Mediation day came, Horc reiterated his story with conviction and authority. He also was able to enlist an entourage of character speakers saying how they couldn't believe Horc would ever do anything this heinous.

Then Mediator Fairmaker said what he saw, followed by Chief Servant GeneralMerchant and the others who came in. In accordance with the Nice Laws, they tried to give their recount without editorializing or injection of emotion, much to Horc's dismay.

Then Bekky came in to share her story. She never looked at Horc. When she addressed the Regional Mediator, she told her story as best she could. That her and Horc had shared a fun evening. That she had willingly gone into the tent. That she had willingly let him kiss her. But when she said stop, he didn't. In fact, he had started to force himself on her. And when she resisted, Horc had said how he was going to "Give her more pleasure than she could imagine, and she should just submit". And then he threw her to the ground and was starting to remove her clothes when Mediator Fairmaker came in and stopped it. As she made her way through her recount, she started crying more and more; by the end she was trembling and crying uncontrollably, as if she was back in the original moment. Her family then lead her out of the room.

That was followed by an entourage of Bekky's character speakers who spoke of her volunteer work, how she cared for people she didn't even know, and how she had never spoken a mistruth as long as they had known her.

At the end of the speakers, the Regional Mediator addressed the attendees. "Horc, you have been a valued member of the community for almost your entire life. The community seems to like and respect and believe in you. And it seems that many established members of the community, your community, believe you didn't – couldn't have – done this." With that, Horc felt some relief come over him. In the end, they were going to blame Bekky just like they blamed teacher Nert, and they would run her into seclusion due to being a false accuser, just like teacher Nert. Horc felt the controlled excitement of victory coming over him again.

"But all the voices in the world can't refute the clear evidence here," the Regional Mediator continued. "Everyone agrees that when Mediator Fairmaker entered the tent, Bekky was on the floor crying, partially disrobed. You claim," – the Mediator was clearly talking to Horc now – "it was due to her falling. Yet no one can substantiate any factual settings that would have caused that to happen with her clothes also being removed. Moreover, we find no reason that Bekky would claim this when it didn't

happen; there was no motivation on her count. Furthermore, there was the iron tent spike which Chief Servant GeneralMerchant saw in your hand, and you supposedly trying to hide it behind your back according to his testimony. You claimed Bekky tripped over it. Yet there were no marks on the ground or her person that would support that claim.

“So this Mediator finds you did commit these acts, and in claiming otherwise, you also lied to this assemblage and your community, both clear Level 1 violations of the Nice Laws, which this Mediator has not seen in many, many years.”

Horc could feel himself start to waiver. This was not going as he intended.

“Since you are young, and your community seems to hold you in such high regard, the citizenry will mitigate what you must do to redeem yourself,” the Regional Mediator continued.

“First, you will be under home confinement for 3Y. You are not to leave your home, unless called by and accompanied by an official of the community. This means you are stripped of attending school with your peers and your parents will be responsible for finishing your education.” At that Horc laughed inside. He was already beyond a university graduate in his academic accomplishments, and well beyond his parent’s intellect.

The Regional Mediator continued, “Following that, for a period of 1Y more, you can only leave your home when conducting family or personal business. You cannot languish or participate in social functions.

“At the end of that, if you have committed no further offenses against the community, we will be allowed to again be an equal member of this community.”

Outwardly, Horc shamefully hung his head, and while admitting to nothing, agreed to all the demands. But inwardly, Horc was furious that all these simple, weak minded others around him would dare cast judgement on him. Him! Someday he would get his vengeance.

But unfortunately for Horc, the next few years were not kind to him. While the rest of his peers that he once called friends were becoming normal adults, Horc continued to grow. Already large and strong, he continued to grow larger, and in a way that slowly transformed him from the handsome star athlete, to an increasingly deformed, almost freakish, giant.

When Horc obtained permission to venture off his family farm more than 3 years later, he was disgusted with everyone's reaction to him. In those 3 years, stories of wonderful, friendly, attractive Horc, had been replaced by stories of the disfigured, rapist, giant, freak. When he walked down the street people hardly recognized him, but whether they did or not, they almost always moved to the other side of the street as he approach; the women with additional intensity. No one said hi to him, "How are you doing Horc?", "We missed you Horc", or even "What have you been doing with yourself?" Everyone appeared to fear him and kept their distance.

So for that remaining 1Y, Horc just did his minimal duties and returned home. But that year was even worse than the last 3, for Horc also lost his parents in a carriage accident. So Horc now found himself the owner of his family's farm, with the additional responsibilities and burdens that brought with it. At 20, the once loved and adored Horc, was now alone and despised. At that point, he wished it would all just end.

To dilute the pain, he poured himself into trying to improve the business, searching for new ways to make it more profitable. His first major focus was improving lighting so he could more easily read year-round. While it was light out almost for the entire day during the summer, the winters had almost no natural light. While most people used candlelight, he found the flickering would fatigue him after a dD of reading. Horc knew from his one experiments that if he put enough electricity through a wire it would glow before it melted. So Horc scoured the academic papers on heat tolerant metallurgy and was able to find a combination that would glow brightly enough to give off light and still hold its form.

This had two problems. First, it would eventually get a burnt coating when interacting with the air. He solved that by encapsulating the fiber in a glass container. He found that by doing that, it would last for almost a dY before deteriorating and giving out. As long as he made several in a batch, he could replace them and get by for long periods of time.

The second was supplying the electricity. At first, he created a pedal machine that would generate the light, but that required constant activity. So he rigged up a crude, small steam engine – similar to what they used on the new steam ships – to create a constantly moving pedal system to constantly generate electricity. With a little more research, Horc refined this into a system of rotating magnets and metal coils to create much more efficient electricity output, effectively creating the first automatic electronic generator in all of Necedah.

With that, Horc could study 10 dD per day – whenever he wanted.

He used that to focus on how to make his dairy production more efficient. The main problem was that Yatz milk would go bad in about 1 to 2D, which made distribution and production very time sensitive. But Horc found that by using a process to pre-heat the milk and then cool it, it would last for up to 5D, and with much more consistency.

This gave Horc a tremendous advantage over his competition. Soon, he was ramping up production and selling his “healthy” milk not only to the surrounding community, but to communities up to 100KL away.

Horc’s healthy milk was a great success, increasing his riches greatly, while making it very difficult for other dairy farmers to compete.

With the additional resources, Horc began promoting and selling both his night lights and electricity generators to regional merchants for them to sell. These too were very successful, even increasing Horc’s wealth more.

But this also caused some concerns amongst the area businesspeople that were concerned about the prospect of competing with Horc’s products or questioning the source of his success.

This fomented with all the local businesspeople decided to speak at the next town meeting. They asked where was the proof that Horc’s healthy milk was really healthy” Maybe it was less healthy and Horc was just claiming it was. After all, despite the Nice Laws and social pressure about being truthful, this was the man who tried to force intimacy on a young girl and lied about it. And if he was lying about the milk, maybe the night lights and electric makers were risky too. Maybe they could cause fires or electrocute someone. They called for these new products to be taken off the market until they could be properly tested.

The next day, Horc received a letter by courier from the chief town servant:

“Horc, by order of the town council, you are to cease selling all unapproved products until further testing is done to verify their contribution to our and the surrounding communities. If you wish to dispute this order, please come to the next town council meeting in one dY and present your case.”

Of course, Horc was furious. With the stroke of a pen, his business went from a thriving success, to shutdown until some undefined future date. He had grown weary of these inferior intellects around him rejecting him, interfering with him, trying to control him – when it was they who should be deferring to him. They would all be far better off if he was in control and could enrich those less capable people with

his solutions and allow him to bestow the gift of his superior intellect on all of them. Now Horc had time to formulate a plan. And he did.

Almost all of Necedah was a wonderful place to live. There was plenty of food, land, housing and resources to abundantly go around. Likewise, almost everyone was friendly and helpful and honest with each other. Although much of this was mandated by the Nice Laws, even more fundamentally it was just how everyone lived their lives- “Work to make everyone else’s life better, and your own life will be enriched.” But some people excelled at this more than others. And a few, very few, just seemed a little out of place.

Horc had realized this long ago. At one time he thought how horrible it must be to be an outcast, and now he found himself to be one. As such, he had oddly found himself gravitating to a couple other outcasts in town. One was Lrak Cleaner, a cleaner who tended to work at night when businesses were closed. The other was a Bvad Stablehand, who tended to maintaining the stalls at the local community stable. Both tended to keep to themselves and avoid others. Over the last year or so, Horc had built up a comfortable friendship with them. To them, with Horc’s mental manipulation, Horc was the once popular citizen, who had been wrongly accused and put under restraints that caused him to become deformed. He had talked to them about how the other people in the town kept them all down and kept them from prospering. That they too should share in the wealth the community had; that they deserved to have their fair allocation, rather than have it kept from them just because they were different.

In the dY preceding the next town meeting, Horc ratcheted up the fever amongst them. He convinced them that they were being taken advantage of. That everyone was not only not being nice to them, but in fact being cruel to them by keeping them down just because they were different. Wouldn’t it be great if they could turn the tide and make the others serve them, instead of them serving the rest of the town people?

Horc convinced them that if they just work together, against those that oppressed them (never defining who “them” were), they could make things right – that all of them could get what was rightfully coming to them. That they would be calling the shots. All they needed to do was follow him. And they cheerfully agreed.

So, on the day of the next town meeting, Horc put in play, part 1 of phase 1 of his plan. Horc, Lrak and Bvad went into town about 2 cD before the town meeting. But instead of going to the Town Hall, they

went to visit Mediator Fairmaker. There were many things that Horc was looking forward to today, but this payback was one of his most anticipated.

The 3 entered the town mediator's place. Mediator Fairmaker looked up with concerned curiosity as the three came in.

"Hello Horc. And welcome Lrak and Bvad. This is an unexpected and unusual surprise. What can I do for you today?"

"Hi Mediator Fairmaker, " Horc offered. "We are here today with the hope that you can help us right a wrong."

"Well of course. That's why I'm here, although I like to act before there is a wrong. Can you please tell me what the situation is?", Mediator Fairmaker returned, while also noticing that Lrak and Bvad were casually, but effectively fanning out on the sides while Horc stayed in front of him.

"We have found evidence of some citizens in this town being subjugated and unfairly made to serve others," Horc offered.

"Well that is a very serious charge, and if true, we will attempt to undo that with expedition," Mediator Fairmaker responded, feeling like Horc was stalling, while noticing that Lrak and Bvad were now slightly behind him on either side. Mediator Fairmaker, for the first times in his life, felt unsafe and threatened.

Taking a more forceful tact, Mediator Fairmaker continued, "Horc, if there is something you want, please say it directly. I am responsible for making everyone be heard, respected, and being justly treated. I need facts rather than speeches to make that happen."

Horc thought that was very rude of Mediator Fairmaker when he had only uttered two sentences. But he also knew Mediator Fairmaker was on to what they were doing.

Horc accusatively said, "Mediator Fairmaker a little over 4 years ago I was falsely accused. Now it is time for someone to pay for that. You."

With that, Lrak and Bvad came at Mediator Fairmaker from the sides, while Horc came at him directly. Mediator Fairmaker reached for his small animal control rod, but Lrak and Bvad were too fast for him and grabbed him before he could get any grip on it. Horc then ripped it from his hand and then just as quickly struck him with it over his head. As he did it, Horc wanted to bring it down with much more force, like he wanted to back in the tent so long ago, but he needed Mediator Fairmaker alive.

Horc landed enough of a blow that Mediator Fairmaker fell with pain and astonishment that someone would hit him. As he did, Horc pulled out the rope.

“Lrak, tie him up like we practiced. Bvad, go get the animal kill sticks from the back.” With that, Mediator Fairmaker grew scared.

“Horc, what do you want with those? They are only meant for killing diseased and dangerous animals. We have only 5 for this entire area, and they are locked up for a reason.”

“I know,” was all the Horc said. In the back, they all heard Bvad using the animal rod to open the cabinet the Animal kill sticks were in.

“Lrak, you have him tied up good?” Horc asked.

“Yup, just like you showed me. He’s not going anywhere,” Lrak said proudly.

“Good job Lrak,” Horc said, feeling himself go back into his manipulative mode. The job Lrak did wasn’t really that good, but it would suffice.

Bvad came back with 3 of animal kill sticks. Horc then took them and put a round in each one.

“Lrak, take this. Keep it aimed right at Mediator Fairmaker. If he so much as says a word or moves a mL, shoot him in the head.” Horc then looked right at Mediator Fairmaker and slowly nodded with a grin that communicated that was exactly what was going to happen if he did either of those.

“We’ll be back after we have conducted our other business.” With that, Horc and Bvad headed out. Lrak was left sitting near Mediator Fairmaker, holding the animal kill stick right at him. Inside, Lrak was hoping Mediator Fairmaker would do something so he could take revenge on the way Horc had convinced him he had been treated all these years. But Horc told him he needed Mediator Fairmaker alive. But Mediator Fairmaker didn’t know that. They stared at each other.

Horc and Bvad made their way to the Town Hall. By this time everyone was inside and already talking, probably waiting with anticipation of seeing Horc to come in and defend his position. They would not be disappointed, but in a way they never imagined.

Horc and Bvad quickly and forcefully entered the Town Hall, visibly brandishing their animal kill sticks. As they practiced, Bvad took a spot in the back of the Hall, leveling the weapon at the crowd. Horc proceeded forward down the walkway between the seats towards where the Town Servants sat.

Besides the animal kill stick, Horc had in his other hand a long iron pipe that he had specifically brought with him for this situation.

Seeing Horc coming up front, Chief Servant GeneralMerchant got up and briskly walked toward Horc. “You cannot bring those animal kill sticks in here Horc. Take them out immediately and then we will deal with you.”

As Town Chief Servant GeneralMerchant got close as they were walking towards each other, Horc swiftly and powerfully brought the iron pipe down on the head of Town Chief Servant GeneralMerchant, instantly splitting it open and causing him to fall to the floor with a loud thump, blood splattering in all directions around them.

“Don’t worry everyone, Town Chief Servant GeneralMerchant will be fine once we have the doctor look at him. Just a minor push to get him out of the way,” Horc confidently said to the attendees. Horc felt his old charm coming back, even if he didn’t have the dashing looks to go along with it.

Those members of the audience that were near the center and could see Town Chief Servant GeneralMerchant laying on the floor, blood pouring out of his head, clearly dead, started to cry or scream. But those further out who couldn’t see, seem to be soothed by Horc’s assurance that he would be OK. “I still have it,” Horc thought to himself.

Now at the front, on the raised dais, towering above the seated town servants, Horc began his proclamation.

“From henceforth, you will all live a much better life,” Horc started. “No longer will you be held back by the sluggish progress of the Union.” Everyone looked at each other, not really understanding what Horc was saying. “From this moment forward, all the residents of this township, and the 8 adjoining townships, will fall under my control. There will be no need for bureaucratic review or submission of plans to the Regional Chief Servant. Instead, everything will be quickly approved or denied by me. It will be much faster and efficient, and tuned for what is best to this New Union of our 9 townships, all run by myself for the betterment of all the citizens of these townships.” In actuality, Horc didn’t care if things went better for these pathetic minions, just that he wasn’t subject to the rule of idiots anymore.

As Horc surveyed the audience, he still sensed a lot of confusion and misunderstanding. That was not unexpected. The current union of townships had existed for centuries. That structure was both unchallenged, and to most something different was nearly incomprehensible. “Listen,” Horc continued.

“for the betterment and safety of everyone, I’m in charge now. You must do what I say. The rules of the Union no longer apply to you. If you don’t do as I proclaim, you will be imprisoned, beaten, or put to death, as I judge fit.”

Horc looked out and saw continued confusion. These concepts were so foreign to these people who had led such a simple and peaceful existence, that this was going to be harder than he thought.

“OK, let me try to make this simpler. To make this new system work better for everyone, If you don’t do as I have instructed you may be imprisoned – that means kept in the Mediator’s Office holding cell for as long as I see fit. Or I may have you hit with a stick or club or other object until you are injured or have bones broken. Or, I may cause you to die because of injuries I have ordered inflicted on you – all because you failed or follow my orders.” That seemed to get through to them, as many started crying or talking amongst themselves.

“Alright everyone, I think you understand now,” Horc spoke out, almost joyfully. “Go home and tell all your neighbors. Spread the word. There is a bright new wonderful tomorrow – and it is here now.”

With that Bvad lowered his weapon and allowed the people to start leaving, which they did in a rush. Many people looked down that the lifeless body of Town Chief Servant GeneralMerchant, although no one stopped to check on him. So quickly, the people had been moved to regressing to thinking of just themselves, which played exactly into Horc’s plan.

As the last person left the Town Hall, he and Bvad followed them out. Horc smiled as he noticed that all the townspeople started to run once they were out of the Hall. They, probably for the first time in their life, felt fear; exactly as he wanted.

Horc then turned to Bvad, and told him “As I said, we’d have 3 main things to do today. Now off to the third. Off to the GrassFarmer Residence.” Horc was about to get retribution and gratification at the same time.

As Horc and Bvad road to the GrassFarmer residence, he was both excited at the revenge he would take, as well as angry at how his life had been ruined in his prime by that selfish bitch Bekky GrassFarmer. He had just wanted to take care of her and give her the best pleasure of her entire life, and she had turned on him. He was going to enjoy getting his turn now that he was in charge.

Upon arriving at the GrassFarmer's house, Horc and Bvad went right in as if they owned the place. They didn't knock and announce themselves, as would have been normal etiquette, but the front door didn't have a lock, just like all other homes in Necedah; they just weren't needed – until now.

Mr. and Mrs. GrassFarmer shot up from their chairs as Horc and Bvad quickly entered their house, but both also paused in place as Bvad leveled the animal kill stick at both of them. Neither seemed in fear, but you didn't want any misunderstanding when a kill stick was aimed right at you. Horc knew the fear would come soon enough.

"Hello Mr. and Mrs. GrassFarmer. I am Horc. You may remember me from a few years ago, when your daughter falsely accused me of horrible crimes. Please sit back down. My friend Bvad here, with an animal kill stick, is instructed to shot one or both of you if you don't do exactly what we tell you to do." With that, Horc saw the alarm start to fill their souls, and that made Horc feel both powerful, and the satisfaction from his in-action revenge.

Horc gestured for Bvad to come over to him, which he did, and at which time Horc took the kill stick from him. "Bvad, go upstairs to the second door on the right and bring down Bekky."

Mr. GrassFarmer started to get up with that, but Horc leveled the kill stick at his head and made it clear, "Mr. GrassFarmer, if you don't sit down right now, I will put a bullet right through your head, forcing you to sit back down. Your choice." With that, Mr. Grassfarmer slowly set back down.

At the same time, you could hear Bvad quickly open Bekky's door, and Bekky scream in response. There was then a little scuffle that ensued with both yelling and crying. Then in a few minutes, Bekky came down the stairs; reluctantly at first, then in a rush as she saw her parents under gunpoint. Horc thought she looked even more beautiful than before. A young adult before, she was a full woman now.

Bekky started to run towards them; but Horc grabbed her at the same time he handed the kill stick back to Bvad. "Don't you remember me, Bekky. I'm so happy to see you, but would be so hurt if you didn't remember the deep friendship we had."

Bekky looked at him. It took her a second to make out that the grotesquely large and misshapen man in front of her was the once hansom and popular Horc. The boy who had so viciously attacked her. As she made the connection, her expression turned to fear – for the second time in her life.

"Aw, Bekky, I see you do remember. I am so touched. Now I just have some *questions* to ask you."

Horc then turned to Bvad and reminded him, more for everyone to hear rather than Bvad: "Bvad, I'm

going to take Bekky into Mr. and Mrs. Grassfarmer's bedroom and ask her some *questions*. Keep the kill stick ready. If either Mr. or Mrs. Grassfarmer get up, shot them in the head. Of course, I hope that will not be necessary. I have a strong feeling Bekky will need the support of Mr. and Mrs. Grassfarmer once I am done asking her questions." Horc then let out a big smile and looked at Mr. and Mrs. Grassfarmer, who blankly stared back with unimaginable terror for their daughter. But Horc knew that by placing the notion of Bekky needing them *after* what was about to happen, that there was very little chance they would try anything knowing they would likely be killed and not around to help Bekky after whatever was about to happen.

Horc then took Bekky into the Grassfarmer's bedroom, shut the door behind him, and had his way with her. Horc made a point of not doing anything to minimize the sounds and noises coming from the room. He knew that every time Mr. and Mrs. Grassfarmer heard something, they would want to help; but would be restrained by knowing that they had to stay alive to help Bekky after.

Horc also took all his anger and resentment out on Bekky, as well as satisfied himself as he had wanted to before. But this time he had no interest in giving her pleasure – although Horc thought that probably couldn't be avoided – but was just interested in satisfying himself.

When he was done, dressed again, he walked out of them room, leaving the door open. As he looked back, he noticed that the screaming and resisting Bekky had been replaced by a limp, naked body just laying there looking at the ceiling. He felt satisfaction that he had won.

"OK Mr. and Mrs. Grassfarmer, I'm done questioning Bekky. Should she tell you that she wants to be questioned more, please let me know," Horc smiled, satisfied that he had gotten his revenge.

Horc and Bvad then left the Grassfarmer house, hearing screams and crying as they walked to their Yatz. Once they were riding back into town, although Horc had said they only needed to do 3 things today – and all of those now accomplished – there was one more thing to do.

Once they got back to the Mediator's office, Horc went over to Mediator Fairmaker.

"Alright Mediator Fairmaker, at first I thought it best to kill you, but I have instead decided to let you go. But you must leave the new Horc townships and never come back. These are now controlled by me, and you will be shot if we ever see you back here; understood?"

Mediator Fairmaker, from the corner of the holding cell nodded that he understood. "Very Well. Please release him," as Horc motioned to Lrak. Lrak looked at Horc disappointedly as he took the keys out of

his pocket and moved towards the holding cell door. “I really wanted to kill him”, Lrak whispered to Horc as he passed by.

Once Mediator Fairmaker was out of the holding cell, Horc told him, “There are a number of Yatz out front. Take whichever one you want, but know this: If you ever come back, you will be killed. If you come back with others, they will be killed too. This township and the 8 surrounding it are mine too. Any attempt to interfere with my control of these townships will lead to all those interfering to be killed. Do you understand?”, Horc asked.

Mediator Fairmaker, exhausted, thirsty, tired and in pain, nodded to Horc. He then hurried out of that office, quickly found the most powerful looking Yatz, and headed off towards NorthWest City. Horc knew he was coming back; in fact, he was counting on it as part of the core of his plan.

Horc knew the ride to NorthWest City was about .7dY. Hence, he knew the earliest response would be about 1.5 dY. Horc used that time to prepare. He had Lrak and Bvad visit all the families in the townships and made sure they all understood that Horc was who they answered to, and that all taxes normally paid to the Union would now be paid to him. They were also to notify the authorities – that is Horc, Lrak or Bvad – if any tax men showed up asking for taxes. The three of them then road through the adjoining townships during their townhall meetings. If the local Mediator was there, they would bring him into the crowded Town Hall, make a spectacle of putting a kill stick on him to their head, then beat them so it left visible bruising and marks, making sure everyone saw it, and then send him scurrying off. Horc wanted them to go away telling stories and being visible examples of the horrors being committed by him and his cohorts. After everyone saw the Mediator run off, Lrak or Bvad would then make the same proclamation that Horc did and assure them of penalties if any of them disobeyed.

Back in Farmpoint 52032, four other outcasts came forward and wanted to join Horc’s crew. Horc quickly started training them and putting them in charge of various duties – giving them a sense of power and control that they had never felt before. Along with Lrak and Bvad, Horc taught them all how to shoot, and how to work together as a team. Practicing at least 2 dD every day.

He also trained them in what he told them would be a mock exercise. However, he had read all the Mediator documentation, and had a good idea of how this would all go down.

By the time 1.5 dY had passed, Horc had everything in place. There would always be 3 of them manning the Mediator’s office, and at least 2 of the others in the back. And they waited.

By the time 2.5 dY had passed, Horc started to be concerned that maybe he had scared Fairmaker too much, and he had disappeared into the fabric of NorthWest City. But Horc, discounted that. He had known Fairmaker all his life, and he knew he was dedicated to his profession. So he kept vigilant.

And then one afternoon, they came. Horc thought they would probably come in the afternoon, so he had always manned the Mediator's desk during that shift. They came in just as he expected, just as the manuals instructed. There were 3 of them, just as the manuals suggested for a "forceful response".

Horc had seen them coming from the distance, made a quick pre-arranged signal to the others so they could take their positions. Horc himself immediately took up a relaxed position, leaning back in his chair feet on desk. He laid his kill stick on the far side of the desk, almost ½ L away from him, so there was no way he could quickly grab it and be a risk to anyone. As they briskly walked in, Horc casually looked their way, with a look of minor inquiry.

As the hometown Mediator, Fairmaker lead them, followed closely by the other two, each brandishing an animal kill stick. Each of them held their kill sticks forward but leaning towards the ground.

Menacing, but not immediately threatening. They also fanned out, again just like the manuals said; one in the center, and one to each side a little forward of the center man, so that they formed a loose, wide arc around Horc.

Fairmaker was the first to speak. "Horc, by order of the Regional Chief Servant, you are ordered to accompany us to NorthWest City to stand trial for what you have done here."

"Is that so?" was all that Horc replied.

"Yes, and you must immediately surrender your animal kill sticks," Fairmaker continued.

"You don't say," Horc retorted. Fairmaker quickly shot his eyes over to the resting kill stick on Horc's desk, but then quickly brought them back to observe Horc.

"Yes, you will be placed in these bindings during our trip back to NorthWest City to assure everyone's safety," Fairmaker said, his voice wavering, holding up some typical hand restraints.

"Is that so?", Horc replied again.

"You will be treated fairly and compassionately, both on the journey and after your trial," Fairmaker continued, his voice now breaking and his eyes darting back and forth across the room. He clearly had

expected Horc to have resisted and tried something. But Horc's relaxed attitude was making Fairmaker even more anxious.

"Why thank you Fairmaker. How kind of you." Horc could tell Fairmaker was really getting unnerved.

After a few moments of silence, Fairmaker asked, as if he was scared of the answer, "So Horc, are you ready to go?"

Horc just stared at Fairmaker for a bit, enjoying seeing the sweat pour off him. "Can you just tell me this Mediator Fairmaker? You were gone 2.5 dY. What took you so long? You could have been back a dY earlier," Horc asked.

Fairmaker, responded – glad to have some conversation to defuse the tension - but his tone with decreasing authority, in fact it was almost embarrassed. Fairmaker slouched slightly, while his eyes darted up and down keeping an eye on Horc, "They didn't believe me at first. They made me talk to a psychiatrist as they didn't believe anyone could act with as much violence and disregard for others as I described to them. They had never heard of such atrocities before. It took the other Mediators you had brutalized getting to NorthWest City and sharing their stories to convince them."

Now, having gotten that out, and with the recall of how evil Horc's actions were, Fairmaker seemed again empowered and resolute in his mission to bring Horc in. He stood up straighter and again looked Horc in the eye. "Time to go Horc," he now said confidently.

"Just one problem with that," Horc offered, followed by a moment of silence. "If I was you, I wouldn't make any sudden moves, but those friends of yours should *slowly* look up in the corners behind them and off to their sides." As Horc said that you could see them tense up and start to slowly look up and to the side, only to see men on a platform built high in the room – so high that they didn't notice them when they came in – pointing kill sticks directly at them and close enough that even with the inaccuracy of them, they would still probably make their mark.

"But I wouldn't want you Mediator Fairmaker to be left out. If you look straight ahead in the middle of that bookshelf there, you'll see a kill stick pointed right at you."

Horc gave it a few seconds for the reality of the situation to settle in on them. "Now, fellow citizens, if you would be so kind as to *slowly* lower your kill sticks and put them on the ground, we would much appreciate it," Horc suggested with a smile.

The three Mediators quickly looked at one another, then slowly lowered their weapons to the ground and then just as slowly stood back up.

Horc looked at all three of them, smiling approvingly. “Thank you for your cooperation.” Horc smugly offered. “We just have one problem to deal with. When I last saw you Mediator Fairmaker, I told you if you came back you would be killed. Moreover, I’m pretty sure I told you that anyone who came back with you would be killed too.”

The 3 Mediators stayed still, but their eyes were moving all around. Horc knew they were considering if they should try and go for their kill sticks. Time to wrap this up.

“Now I need to be known as a man of my word.” Horc paused. “But I also want to be reasonable leader. So how about we compromise. I’ll let you live, Mediator Fairmaker, but for the other two, it’s *kill time.*” And with that pre-arrange phrase, the two platforms erupted in fire, with each hitting its mark. The two outside Mediators fell, large holes in the side of their heads.

Mediator Fairmaker was tensed up, as if waiting for the shot for him to ring out. But after a few seconds, he opened his eyes and looked at his two compatriots lying to his sides. He then looked back at Horc, who now was standing next to him.

“But, of course, I can’t let this transgression go unpunished.” And with that, Horc slashed Fairmakers face with a sharp knife. Nothing that would be fatal, but that would cause a lot of blood for effect and leave a scar.

Fairmaker staggered back, then fell to the ground. He brough his hands up to his face, blood gushing through them.

“Yeah, looks pretty bad doesn’t it.” Horc said to Fairmaker, as Fairmaker looked back in horror. “But not to worry, I knew we’d have to take care of you, so I have Doctor Medicinehealer right outside.” With that Horc gestured and Doctor Medicinehealer scurried in, fear in his eyes too, as he started to look at Fairmaker’s wound. Then Doctor Medicinehealer looked up at Horc and informed him, “I’ll have to use stiches to mend this.”

“Do what you have to Doctor, but make it quick,” Horc ordered.

Fairmaker took in his surroundings at what just happened, and he felt like a fool. Horc had had this all planned out. He knew exactly what was going to happen and how it would play out. “We never had a chance,” Fairmaker thought to himself, wincing in pain as the doctor put in the stiches.

When the doctor finished with Fairmaker, Horc again spoke down to Fairmaker, “I’m letting you go again. There won’t be a third time. Tell the NorthWest City Servants, that these townships are mine. If anyone tries to come back again, I will kill all of them, and 100 citizens for every Mediator they send. And if they keep harassing me, I will wage continuous battle on them, and that will not end well for them. Now go and don’t ever, ever let me see you again.”

With those words, Mediator Fairmaker again scurried out of his office, and on to his Yatz, and took off as fast as he could.

As he disappeared in the distance, Horc again smiled to himself. Everything was going as he planned. The next part was going to be the most difficult yet, and this time he wouldn’t have any manuals to help him know what they were going to do. Of course, Mediator Fairmaker would check in, and next time they would be coming back in much larger numbers. Next time, without a manual to go by, it would be a battle of wits between him and them, which made Horc feel very confident. But he knew they would have to pull in Mediators from all over the region, so it would be at least 3 dY before they came back, so plenty of time to prepare.

There was actually less preparation to do now than before. He already had most of the plans laid out, so there was just training to hone everyone’s skills. Surprisingly, after all his victories, many came forward to join his group. He could have had a fair contingent of enforcers if he wanted, but that would have been counterproductive to his goals. Instead, he enlisted a select few of them as laborers – reinforcing the Mediator’s office walls and boarding up all the rear and side entrances, putting special placements in the upper floor of the building across the street and too the sides, and coating them with special materials to help make them flame retardant. In return, he let most of those select few labors have free days, where they could do anything they wanted, to anyone they wanted, without punishment (as long as it wasn’t against the enforcers).

The Mediators had left 3 more kill sticks, giving them a total of 8, for his core group of 7 enforcers. Just about right.

For the next 2 dY, Horc relaxed the mood a little. Not working him men quite as hard but keeping them satisfied with going after the tax men when they appeared in any of *his* townships. He didn’t want them

dead; just believing they would be dead, and made to believe so in a public way, if they ever came back again. Horc of course confiscated all tax revenues. He in-turn paid his men well so that they could indulge themselves.

But then as the third dY after Mediator Fairmaker left approached, Horc tightened up the reigns again. Making work schedules much more rigid and demanding more discipline from his enforcers. They ran through scenarios and responses, learned how to work each of the various placements around the Mediator's Office, and what their primary, secondary and tertiary duties were at each of those stations.

This time, the Mediators appeared in the latter morning; apparently having stayed far away the night before not to risk being uncovered, and then coming in as early as they could considering the ride. And this time, there was 17 of them, all with kill sticks and ready to use them.

Again, Horc received warning a couple mD before they arrived, which was all the time they needed to take their positions. Horc, Bvad and Lrak all took up fortified positions in the Mediator's Office, two took reinforced positions on the second floor of the building across the street, and two other took positions atop the roof of the building on either side of the Mediator's office. So 7 of them total.

As the Mediators arrived, they didn't try to walk in like before. Instead, over block away, they fanned out so they could approach from both directions. Their approach was slow and meticulous – going maybe a DL forward, assessing their surroundings, and repeating. From each approach, there were two columns, each with four men, and each column hugging close to the buildings on their side of the road. Each column communicated with the others using hand signals and gestures.

One of the columns was lead by Mediator Fairmaker. When Horc noticed this, he couldn't help but feel a little admiration for Fairmaker. Horc had put him through a lot, yet he didn't shy away from his duties; he was devoted to his purpose and mission.

The 17th man took point in the middle of the road between and in front of the columns approaching from the north. He was clearly the Lead Mediator.

Just as they had practiced, Horc and his men hung back; quiet and invisible from the street, waiting for the right moment.

Nearing the Mediator's office, the Mediators started gathering together, the distance between them shrank to only a man's width between them, as did their height as they hunched over more and more as they got closer. It was clear they had practiced this during training for this mission. When they were

only about 7L away on both sides, the Lead Mediator could be seen trying to make out what was the status of the Mediator's office. He saw the door had been reinforced and was shut tight. The windows had been boarded up, and the entire building seemed to have a whole extra layer built around it.

He then moved in the middle of the street, right in front of the Mediator's office, and called out, "Horc, by order of the NorthWest Regional Servants council, I am ordered to take you into custody. If you surrender yourself, you will not be harmed." The Lead Mediator stood there waiting for a response.

Horc knew he only had a few moments to make a move. While the Mediators might feel safe pressed against the buildings on both sides of the street, they were actually very vulnerable once his men showed themselves; much more so then if they were bunched in front of the Mediator's Office and below the front overhang.

His strategic move would have been to take out the Lead Mediator, sowing disorder in the rest of their ranks. But today's strategy was far larger than this tactical encounter today, and Horc also had a reputation to uphold; he couldn't not keep his word twice, despite the newfound admiration for Fairmaker; so his opening shot hit Fairmaker square in the head, taking him down immediately.

That opening shot was also the signals to everyone else to open fire. As they rose, the four enforcers on the other buildings each had a clear shot on 4 Mediators on the other side of the street. Likewise, Bvad and Lrak had fairly clear shot to the north and south columns on the other side of the street as well as the Lead Mediator. All six of them shot at roughly the same time, taking down 4 of the Mediators, and severely injuring and incapacitating the Lead Mediator. With 5 Mediators out, the odds were now 7 to 12.

But while the kill sticks gave the ability to kill at a distance, besides not being highly accurate, they were also not fast to reload. And now all their positions had been revealed, with a very narrow protected space. As the four exterior enforcers rose to take another shot, two went down. But the other two were able to take out two of the mediators. Likewise, Horc and the two enforcers took out 2 more. Odds now 5 to 8.

For the next round of shot, one of the external enforcers was taken out as he rose, but the other scored a shot as well. At this point, Horc and the other two didn't have good shots from their position. They shot, but all missed. Odds 4 to 7.

Knowing the position of the last external enforcer, most of the Mediators trained their fire in preparation for him coming up; and when he did he fell under a hail of cross file. Odds 3 to 7.

Horc could see the discipline of the Mediator's training was starting to succumb to the chaos and disorder of battle. Their lines were loosening, with each man starting to act on his own and forgetting his training to work cooperatively as a group. This was evident as they started to lay siege to the Mediators office. Instead of staying close to the ground and using the buildings for cover, they were moving to the middle of the street, shooting towards the Mediator's Office without a clear target. And instead of ducking again to reload, they just stood there like in a trance. Two more Mediators down. Odds 3 to 5.

Horc started to get concerned. As things were going, they were in a very good position to win this fight, and that would set his plans back at least nearly a full year, and in that time, he and his followers might well become so entrenched as to not be able to be dislodged with what this society had to muster against them; but he would not be able to muster what he needed to rule all of Necedah.

The Mediators were now arranged in an absurd arc around the Mediator's office, standing in full view, as if by will alone they could evaporate the front wall; while Horc, Bvad and Lrak were behind strong fortifications. The Mediators were at least shooting for the loopholes, but with little chance of any real success. Two more Mediators down. Odds even at 3 to 3.

At this point, Horc went back, picked up the second killstick, went forward so he could get clear aim, and then shot. Bvad and Lrak fell to the floor without ever knowing what hit them.

Horc then opened the door a crack. The 3 remaining mediators were almost catatonic with fear and mental chaos. Horc needed to be careful, as their actions might not be reasonable or predictable.

Horc yelled out, "By the Mediators rules, and addendum 7 of the Nice Laws, I am surrendering myself to you for safe passage to a Regional Mediator. You are sworn to take me there safely."

The Mediators stood in an almost daze, but as the gunfire was overtaken by the silent calm, thought and reason were coming back to them. Like coming out of a coma, they started to acknowledge each other and talking to one another.

One of the Mediators yelled back, "Yes, if you surrender yourself, we will safely transport you back to NorthWest City to see a Regional Mediator. But you must come out unarmed and with your hands in plain view. If you do not comply, we will shoot you. Understood?"

“Yes, understood. I’m coming out now slowly.” Horc edged the door open more, than slowly walked through it, his hands extended in front of him. Moving towards the Mediators, he noticed all the kill sticks pointed right at his head. He hoped none of them was overly anxious and fired by mistake.

When Horc was right in front of them, they looked at each other with a common “what now” expression. “I believe according to the Mediator’s manual, you are supposed to restrain my hands and secure me in such a way that I cannot run away.”

“Oh, yes, OK.” One of the Mediators then clumsily looked for and found a rope, and then put it around Horc’s hands. Horc knew it was a poor job and he could easily have gotten out of it, but he played along.

That night Horc spent the night “locked” in the room of a local inn. Again, he could have easily escaped but instead just looked out the window. He saw wagon loads of people start to arrive. By what he could make out, they were largely the likes of psychologists and support staff to help the local citizens deal with the violent horrors they had lived through. He had to give credit to the planning of the NorthWest Regional Servants, although their confidence in winning the battle with him was clearly excessive. But he would gladly concede their success, as long as it got him what he wanted.

The ride back to NorthWest City was long, but comfortable enough, at least as comfortable as it could be riding a Yatz 5 dD each day. A different set of Mediators had come in to take him back, apparently taken from an area to the east who knew little of what had happened. Along the way, he used his old charm techniques to befriend them – funny, smiling, laughing, never threatening. It wasn’t that far into their journey that the Mediators were no longer being vigilant about assuring Horc’s hand restraints were firm, nor restraining him at night with more than a blocked door. Horc had promised to cooperate. And he did, because it benefitted him.

When they arrived at NorthWest City about 1 dY later, the regional and local Mediators were not as friendly. They didn’t know Horc, but they had heard about the unthinkable acts he had committed. There he was put in shackles and locked in a cell in an otherwise vacant facility each night, except for 5 Mediators who were to watch over him.

Despite all the horrible things he had done back home, Horc knew he needed the Regional Mediators to cement that intellectual knowledge with emotional revulsion as well. One night, in the depths of darkness, Horc broke his shackles and quietly broke out of his cell and then proceeded to brutally kill all 5 guarding Mediators. He didn’t try to get out of the facility. He just sat there.

When the morning crew came in, they saw the bloody carnage, and called for help. Soon, a multitude additional Mediators rush in and Horc let them overpower him and put him in chains – chains on his hands and feet, all somewhat tightly connected to a metal neck collar with 10 round hooks around it – a unique contraption they obviously had had specially made and waiting for him. When the Mediators came to get him now, 10 Mediators with 2L metal rods would come and attach their rods to Horc’s neck collar without ever coming close to him, then spread out around him. That way, he was always 2L or more away from any of the Mediators, and he had no hopes of overpowering all 10 of them. When they made their way in or out of the Regional Mediator’s chamber, it made for quite an impressive spectacle.

Horc’s trial was short, with Horc confessing that he did everything they accused him of doing. Moreover, Horc said his only regret was not defeating the Mediators and keeping those townships for himself, and he would try again if he had the chance, and didn’t care who or how many people he would have to kill to make that happen.

The Regional Mediator took a while after the mediator session to render a judgement. This Mediator had never presided over someone accused of violence before, much less such horrific acts of violence. None of his colleagues had heard or read of such a crime. In fact, he had difficulty finding any relevant Mediator findings before. But in the end, he knew exactly what he needed to do.

“Horc,” the Regional Mediator started, “You are the vilest person I have ever seen, in fact ever heard of, in all the annuals of history.”

Horc smiled.

“There is very little legal guidance here; there is no case law. Nothing like this has ever been recorded before,” the Mediator continued.

Horc smiled.

“You show no remorse, in fact you have said you would do it again if given the chance. “

Horc nodded, and smiled.

“But the finding here is fairly clear.”

Horc’s smile grew.

“Horc, are you familiar with the Violent & Criminally Insane Institute in SouthEast City?”, the Mediator inquired. Horc gestured no, but gave a little grimace, letting the Mediator know he was being played

with. In actuality, Horc was intimately familiar with it – at least as much as you could be from about 120 ML away. He knew all the inmates as of the last report submitted to CentralCentral University. He knew their names, their crimes, their public history. He knew how many guards were there, the size and layout of the facility, and all the publicly available instruction manuals for the facility.

Nonetheless, the Mediator felt compelled to go through the ritual of informing him. “The Violent & Criminally Insane Institute is a special facility – home – that the Necedah Union has constructed about 100 KL northeast of SouthEast City. Its sole purpose is to house and help those that the Mediator system has found to be unsuitable to live freely in society due to violent or chronically criminal behavior. Luckily, in all of Necedah’s 500 Million citizens, only about 100 have been sentenced here.”

“103,” Horc thought to himself.

The Mediators tone changed from compassionate caretaker, to objective judge.

“Due to your frankly unimaginably violent behavior over much of your lifetime, you are hereby committed to be interned in the Violent & Criminally Insane Institute in SouthEast City. Hopefully for you, but also society, they will find a way to cure to what is so disturbingly wrong with you.”

Horc smiled wide.

“There, you will stay until you are cured of your mental defects or live out your natural life.”

“In your delusional dreams,” Horc thought to himself. “In a few years, you will all be bowing to me,” he continued in his mind. He smiled.

“Because of your considerable violent actions in the past, I am ordering a special transport cage be built for you so that you have no risk or hope of escaping until you are delivered to the Violent & Criminally Insane Institute. You will be held in our holding facility until that transport cage is ready for you.”

Horc’s smile dimmed slightly. He had not counted on the delay of having a specially built cage made, but it was small in the overall scheme of things.

About 2 dY later, Horc was led to his transport vehicle. It was very odd looking. The carriage section was all metal, and there were side seats for 6 Mediators who would be riding on the outside of the transport cage. The carriage looked very heavy with 12 large, powerful Yatz harnessed to pull it. There was also 6 Mediators on Yatzback in front of him and another 6 behind – for a total of 18 Mediators assuring he stays in custody. Getting close to the cage, he noticed it was a cage inside a cage, each layer

with a door that locked solely from the outside. Both cages had a small window on both the left and right so that Horc could get a tiny view of what they were passing by as they travelled. He also noticed that each of the side seats looked to have a small hole the Mediators could open for their kill sticks to shot inside if needed. The central cage had a slightly raised and isolated metal grate floor, walls and ceiling. He also noticed 3 large enclosures on the back that looked like it could be large batteries. So it seemed they could electrify the cage if Horc ever got out of control. Horc assumed the chains he would be placed in at the middle of the cages would be grounded, so it could be a very unpleasant situation if that every happened.

The ride to SouthEast City and the Violent & Criminally Insane Institute was a long one, taking just about 3.2 years. They made fairly good time; about 7 KLpcD riding 5dD each day – even in the dark time of the cold season. Hence they make about 350 KL per day, but the overall distance was about 112 ML to travel.

Along the way, Horc was a spectacle. People would line the streets looking at the Evil Monster as Horc's procession made its way through towns along the way. Horc always smiled when he saw this. He knew someday soon they would be greeting him when he came to town; not as a criminal, but as his subjects.

The biggest scene was when they went through CentralCentral City on their way to SouthEast City. While SouthCentral City might be the industrial hub of Necedah, CentralCentral City was the administrative hub, with CentralCentral University housing the Grand Servant Chambers. And the leaders of the City, in fact of the Necedah Union, made a point of using this as an opportunity to talk about why it was important for everyone to be nice for their own benefit, and why the Nice Laws were so important. There were people lining the streets long before they made it to the city. When they did, they were greeted by 50 additional Mediators from all over the CentralCentral region, to help escort Horc's moving prison through the streets, under a guise of providing additional protection should the Evil Monster escape.

Horc even noticed that they made a very unusual stop midday in the center of the city. Although the sound was muffled and he couldn't really make out what people were saying, he could tell they were making grand speeches about him and society.

After about a 5 cD delay, they continued onward, the crowds still lining both sides of the street; but they thinned out as did the city as they made their way, until eventually it was the same flat, green landscape in both directions just like almost everywhere else along their journey.

About 3.2 years after starting their journey, Horc noticed that it was LowSun Day outside. He knew very soon they would be arriving at the Violent & Criminally Insane Institute about 100 KL northeast of SouthEast City. Almost 5 years in the making, he would finally be able to implement the last phase of his grand plan. He just had to convince the other 103 inmates to join him in his plan to dominate all of Necedah. This was going to be fun.

Chapter 6 – ShipBuilder

Contributor Vanc ShipBuilder looked down at the beautiful morning sun. Well, it wasn't actually all that beautiful, laying very low in the southern sky, when it was technically well into the day. The orb would barely fully cross the horizon for a short time, only to quickly recede back down, well before the day ended. But it *was* the start of a new day (even if well into it), and *that* was always a beautiful thing.

Appendix A – Conversion Tables

Temperature		
Necedah	Earth	
fB	Fahrenheit	Celsius
-17.8	0.0	-17.8
-15.0	5.0	-15.0
-10.0	14.0	-10.0
-5.0	23.0	-5.0
0.0	32.0	0.0
5.0	41.0	5.0
10.0	50.0	10.0
15.0	59.0	15.0
20.0	68.0	20.0
25.0	77.0	25.0
30.0	86.0	30.0
35.0	95.0	35.0
40.0	104.0	40.0
45.0	113.0	45.0
50.0	122.0	50.0
55.0	131.0	55.0
60.0	140.0	60.0
65.0	149.0	65.0
70.0	158.0	70.0
75.0	167.0	75.0
80.0	176.0	80.0
85.0	185.0	85.0
90.0	194.0	90.0
95.0	203.0	95.0
100.0	212.0	100.0

Distance		
Necedah	Earth	
	Imperial	Metric
1 cL	0.652 inch	1.655 cm
1.535 cL	1 inch	2.540 cm
0.604 cL	0.394 inch	1 cm
1 dL	0.543 feet	16.551 cm
1.842 dL	1 foot	30.480 cm
0.060 dL	0.033 feet	1 cm
1 L	5.430 feet	1.655 meters
0.184 L	1 foot	0.305 meters
0.604 L	3.281 feet	1 meters
1 KL	1.028 miles	1.655 km
0.972 KL	1 mile	1.609 km
0.604 KL	0.621 miles	1 km
1 ML	1028.412 miles	1655.064 km

Volume		
Necedah	Earth	
	Imperial	Metric
0.2206 uQ	0.0338 oz	1 ml
6.5232 uQ	1 oz	29.5735 ml
1 uQ	0.1533 oz	4.5336 ml
0.2206 mQ	0.2642 Gallon	1 l
0.8350 mQ	1 Gallon	3.7854 l
1 mQ	1.1977 Gallon	4.5336 l
6.2460 mQ	1 cubic foot	28.3168 l
1 mQ	0.1601 cubic foot	4.5336 l
0.2206 Q	1.3080 cubic yard	1 cubic M
0.1686 Q	1 cubic yard	0.7646 cubic M
1 Q	5.9297 cubic yard	4.5336 cubic M

Speed		
Necedah	Earth	
	Imperial	Metric
0.4379 KLpcD	0.6214 MPH	1 Kph
0.7048 KLpcD	1 MPH	1.6093 Kph
1 KLpcD	1.4189 MPH	2.2835 Kph

Time	
Necedah	Earth
3.8324749 uD	1 second
1 uD	0.260928 second
0.2299485 mD	1 minute
1 mD	4.3488 minute
1 cD	43.488 minute
1.3796909 cD	1 hour
1 cD	0.7248 hour
0.1379691 dD	1 hour
1 dD	7.248 hour
0.3311258 D	1 day
1 D	3.02 day
0.9837469 dY	1 month
1 dY	1.016522 month
0.8349253 Y	1 year
1 Y	1.197712 year