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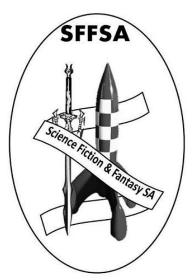
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# PROBE 166

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### Editorial

### Gail

We come to the end of another year... It seems a bit of a cliché to bemoan the rapid passing of time, but I get older it seems to fly past with increasing rapidity. I often think of the scientific and /or mystical concept of there actually being no time and space but that as we are physical beings we have to conceptualise our lives and so create the perception of past, present and future.



I rather think that an author with a creative bent could write a very interesting time travel story about a being who could move along this cosmic pattern at will.

But to return to the more concrete side of life..... I present to you another issue of PROBE.

This issue contains a couple of stories from the 2014 Nova short story competition and a previously unpublished one from the 2013 competition. There are also the four Wormholes that were written during the 2015 MiniCon. It always surprises me that a couple of fans can sit together for less than an hour and put together a 99word story which can make us sometime smile wryly.

This issue's "Blast from the past" comes from PROBE number 72 which was published in 1988. It is a very South African offering and is very "tongue-in-cheek". We haven't seen Elaine Coetzee for many years now and reading her story made me wonder where in the world she is now. I "Googled" her name but there are just too many "Elaine's" and I wasn't able to find her. Pity, it would have been interesting.

I've also reprinted Bill O'Connor's "Robotic Perversions." Bill was at one time a pretty prolific contributor to the artistic side of PROBE. "Google" found even more "Bills" so I didn't get anywhere there either.

Also an article from "The Star" on self-driving cars. I wonder how many of us remember the story by (I think) Robert Heinlein called (I think) "The Road must Roll" which was all about these very same cars. It seems that this is one area in which Science Fiction actually will have been accurate in predicting the future.

Last night we had one of the best end of years functions that I can remember. Digby Ricci spoke on the first three "Star Wars" movies and I don't think that I will ever watch them in the same way again. He was at his scintillating best and we laughed and were entertained and learned things about George Lucas that we had never know before. A wonderful end to a year of really good speakers. Do yourselves a favour and come along and join us at one of our meetings!

#### **Chairman's Note**

Hi all. Well... it seems that it has been over a year since my last chairman's note. Sheesh but time flies and each year passes faster and faster, and things do not appear to be in any mood to slow down either! Things are still as busy - if not more so - than ever before. Sigh... you really do have to take the time to take a moment, relax, and just try to gather yourself together... which is probably how I managed to start writing this note:)

Anyway, I was thinking about books. Those wonderful volumes of paper filled with other worlds, places and people with adventures to explore and new species to discover. I think they are the reason why most of our members have joined our club, we love reading books and especially those of the Science Fiction and Fantasy variety. However, looking towards the future, I don't see that hold in your hand, lying on the couch reading a physical paper version being around nearly as much. It is a shame really, I love to read, though I should probably mention that I have not read an actual book in years!

What you may ask? How can we have a chairman of the club that many of us consider a "literary" club not read books? Especially when we have an awesome library filled with books which anyone in the club can easily use? The answer there is simple: I read comics. Come now, don't laugh, I am being very, very serious. For those who have not looked at comics since they were young, you will find that many of the comics nowadays are really not for children. The first thing is the price, they really are getting quite expensive and the more you collect (I do have quite a collection) the more you spend each month, and this is not likely something you will do for your kids. The other is the sheer variety of stories you get in comics nowadays. They very often delve into the Science Fiction or Fantasy genres, and many are not suitable for children. So like I said, I love comics because they combine two of my passions, namely reading... and art. I love Science Fiction and Fantasy art. I have almost 200 art books, I collect digital art and even have a quite a few sketches of original art. So that is why I read comics, I get a LOT of reading out of them (like I said, I collect quite a lot) and I also get to enjoy the drawn art pictures therein. So there you have it, I may not read books any more, but I can tell you that I certain still do read a lot!

Anyway as I was saying, I don't see the future of books (or comics) as being a physical, paper variety. I think we have all seen that the local bookstores no longer stock as many books as before. Then all you have to do as look at the younger generation and see what they use: smartphones, tablets or even laptops. The youngsters of today are being brought up in a digital world where everything they use has a touch screen or LCD screen. They only get exposed to books at school,

and none of them really want to read school books at home. So instead they use their devices to interact with each other and the world, and if they do want to read something, they can just download it and read on the device of their choice. So in other words they are being brought up expecting to hold a phone or a table in their hands when they are reading something, ergo, the future will be digital and not paper.

What do you think? Oh don't get me wrong, I don't see physical books per se disappearing anytime soon, there are still plenty of people without access to this whole digital malarkey and too many publishing houses and places that love reading the physical books, e.g. London where magazines and books are still very popular for those travelling on the tube, or Japan where manga (Japanese comics) are still going very well. So the decline of physical paper volumes is still a long, long way away. However the physical paper variety that all we older types are used to will likely slowly fade into old dusty libraries no one visits any more. And even if or when it does, books themselves will never die out, they are simply too popular and too many people still enjoy reading, though in the future it will likely be on your phone, your tablet or even on Google Glass.

Until then, I will still enjoy getting my physical comics from my local comic store, and then spend hours on the couch reading through all one of them, enjoying the stories and the art, and I hope you will enjoy reading as well, however and on whatever you do it.

Cheers

Andrew

# NOVA 2014 THE HOUR OF THE RAT

# FINALIST CASPER CLOETE

In a world swept away by a tide of change, there were those at the fringes of society who could only be spectators. One such person, an old man, kept to a routine which had become almost as timeless as the sun which rose on his changing world. In the early mornings the old man could be heard making his way down the streets, pulling behind him a trolley whose worn wheels rattled and screeched and sometimes reminded the people living in the houses to put out their rubbish. Each day had its route and the old man knew that if he kept to the routine he had a chance of finding an object of great value, or at the very least something to fill his stomach.

The old man's name was Abel, which is a fine biblical name of which the old man was proud, but sometimes when his feet ached at their worst he felt it could rather have been Cain for all of his wanderings. Abel's body was rather wiry under the layers of his mismatched clothing, and he was remarkably fit for a man of more than sixty years. The trolley, which had become somewhat of a ball and chain, had given him immensely powerful arms. His face was wrinkled and carried some scars which, for him, had become like bookmarks to the violent episodes of his life. Even so, his eyes were clear and alert and could easily spot a sparkle from a drainpipe or the rough.

Abel had been following the runs of the refuse trucks for many years. On Mondays his route started out in the business centre. In the dumpsters behind the trendy cafes and cocktail bars a hungry man could find plenty to eat. Then, just around the corner, was an unkempt park with rusted benches where the drunks often lay sleeping during the morning hours. The old man disliked the drunks and drug addicts and he thanked the Lord that he was not with them. He knew he had little and had squandered many of the blessings bestowed on him through stupidity and pride. Admittedly, there had also been long stretches of bad luck, but such was life. And then, and perhaps most significant, was the dark and heavy part of him which had always dragged him in a wayward direction. That too, was life, and the old man had come to accept the darkness with the other cards that life had dealt him.

After the park he went past nondescript, shabby businesses and featureless apartment blocks. Hidden between the dreariness was an unassuming little establishment which sold costumes and dancing outfits, and there the old man always stopped to look through the widow. Sometime before he had found a magic wand, snapped like a twig, in the bin at the back. He had mended the wand with some adhesive bandages and kept it with his other things, for a reason unknown to himself. Today a mannequin, dressed in a glittering purple mini with matching 1920's cloche hat, stood frozen in the window amongst festoons of tinsel garlands and strings of fairy lights. Abel tied a shoelace and got going, looking up at an apartment block where a woman had once thrown peanuts at him from a balcony. Now all the balconies were deserted and silent, except for much higher where he saw a puff of smoke which was followed by a rattling cough and then a door slamming. The streets too, were empty.

As the old man pressed onwards the tall buildings made way for suburbs and some open spaces. The sun had now risen, the cold wind had died down just like that and it looked to be a fine day. A small bridge took him over a babbling stream and on the other side he stopped to see if his friend who lived in the lee of the bridge was home. The young man could help him with the trolley on the final and hardest part, and then have his share of the takings. He called the friend's name, but received no reply and after some time he took up the trolley and hurried on past a tranquil cemetery with its ancient stone walls and naked oaks. Today I will find something good, he assured himself.

The road steepened into a series of sharp turns. Abel cursed his own stubbornness and pulled the trolley until the burning in his shoulder joints became unbearable. He

was forced to the rear where he could push and maximise the strength of his legs. It was hard going for an old man. With no steering, the trolley kept veering into the curb, even with the handle tied down. As soon as he left the back to correct the steering, the trolley would start rolling downhill and he was compelled to use his foot as a stop. The pain was intense in his tired old man's feet and Abel knew that the damage he was inflicting upon himself was madness. He swore at his luck and the trolley and the hard life and kept pushing. Near the summit, the rope with which he had tied the handle became tangled up in the front axle. Abel left the trolley standing, punched his stack of possessions with great satisfaction and sat down on the curb. He rested while he ate a stale croissant and watched a robin flutter in the trees above.

At the summit he had sight of his destination - the towering arches of the grand entrance to Nirvana Lifestyle Estate. Soon he drifted past its ornate cast-iron gates and the guard room where the men from the night shift lifelessly sat staring at security monitors. Abel saluted them and one of them waved back in slow motion. The refuse bay, a cubby in the high walls of the estate, was neatly hidden between some small trees a stone's throw from the entrance. The guards had no direct view of its sheet metal gates where Abel stopped his trolley.

Perched on the wall this morning were two crows, which noisily took to wing as the old man unlatched the gate and stepped into the rancid semi-darkness. Rows of wheelies, left there by estate maintenance, lined the inside, and as he worked through them the old man realized that it was impossible to ever become used to the repulsive stench of refuse, or the way it felt on the hands. It is because it is like death, he thought, but even so, there is almost always something of value in the trash of the rich. Then he heard the main gates of the estate opening. He froze, thinking that it might be a guard, but there was the noise of a vehicle pulling off and fading away. Inside the bay it had become very quiet. He carried on looking, and was soon rewarded with a strange, expensive looking electronic device the size of a cigarette box. Although he had no idea what is was he put it in his pocket. Moving on, he noticed a partially open bin near the far wall.

He checked another, and finding nothing let fall the lid. A cat went hissing past his shoulder. Abel staggered back, tripped on his coat and crashed into some of the bins behind him. He grabbed wildly at something in an attempt not to fall, but only managed to topple a bin onto himself as he hit the ground. His head was throbbing and his hip was on fire, and as he lay hurting in the rubbish he began doubting the wisdom of his trip to the estate. What a stubborn and stupid old man you are, he told himself.

Then he remembered about the electronic thing in his pocket. Still on the ground, he felt in the pocket and found that it was empty. He got onto his knees and fumbled around on the floor, only finding refuse on the cold cement. Maybe the thing hopped into the bin, he thought, and felt around in there. It was then that he touched the stiff fingers. A chill ran up Abel's spine, he made a groaning sound and pushed himself back against the wheelies, his eyes glued to the bin as if some monster was going

come springing from it. It was hard to see clearly into its dark bottom, but somehow he had no doubt as to what he had touched.

When he thought again of how the fingers had felt he cringed, but the silly part of him was still curious and he leaned forward in the semi-darkness. He could just make it out - a petite hand with slender fingers sticking out between some vegetable peels, the rest hidden by trash. Even though the nails were unpainted he guessed it was the hand of a young female, perhaps even a child.

Then he reached out, slowly, and touched the cold fingers again, and taking the delicate tips of the middle and index fingers he pulled. The hand came free from the garbage and he yanked back his arm as if he had been bitten by a snake. It was lying just outside the bin now, palm down, and Abel could only stare in transfixed horror, his reason shouting at him to flee and leave everything behind. Shock and fear kept him sitting there for what felt like a long time. Then as the worst of his panic had ebbed away, Abel wiped the sweat from his eyes and hunkered down to look at the hand in morbid fascination.

The skin on the back was a mess of reticular cuts, giving it the texture of tenderized steak. Abel felt his stomach heave. The hand might well have gone through a leaf shredder, yet none of the fingers were twisted or damaged, the nails perfectly manicured. And there was no blood. Fighting back his revulsion, he looked closer and saw something like electrical wires sticking out from where the hand had been severed. Now Abel's mind went racing. He remembered having once been told about the robots of the rich by his friend, the young drug addict, who lived by the bridge.

He recalled being told that there are robots that look and talk like humans. A robot cost more money than an honest man could make in a lifetime, yet there were many who had them and even more who would sell their souls to own one. Abel could never understand what made these things so valuable. A man could have children of his own, of his own blood and in his own likeness and that was the greatest blessing from above. God had never blessed him in this way but it had to be for the best because God knew everything, including the dark parts of a man's heart. But now people were making themselves. And they were worshipping their creations, just as Israel had knelt before the golden calf. Nothing good could come of it, the old man thought.

Abel picked up the hand carefully and held it to the light, marvelling at the life-like and delicate fingers. The skin on the palm was undamaged; he felt it with his rough finger and its softness reminded him of the tenderness of his wife and her hand, somewhat sweaty and tightly locked in his, long, long ago.

There was nothing else to be found. Abel gathered his takings, hiding the hand between some of his things. When he passed the guard house the guards were sleeping.

#

The place the old man called home was an abandoned factory which stood in limbo on the outskirts of town. The factory had dirty red walls of clay brick and the sooty windows on ground level were mostly broken. Four stump chimneys poked stiffly into the air, and jutting through holes in the walls and running around the structure was a broken network of rusted pipes, the severed arteries of a once functioning system which could never work again. In its heyday the factory had given life and hope to the men who had oiled its great machines and swept its floors, but the day the men left it had died suddenly, and was now slowly decaying behind a fence of razor wire. Abel pulled his trolley to an overgrown corner where he knew of a gate, mostly hidden from plain sight by a clump of elephant grass.

He pushed aside the grass, the dazzling white plumes swaying lazily in the sunlight, struggled briefly with his trolley through the small gate, and hurried across the empty parking area where weeds and grass had gone rampant in the cracked cement. He slowed down after rounding the first corner, passing numerous faded signs which warned trespassers. High up the streaked wall a date stone read 1942. A back door in the shaded part of the factory swallowed the old man and his screeching trolley.

Inside, the factory floor was littered with nesting material from the pigeons which fluttered high above. Shards of sunlight fell through the shattered windows but there was more dark than light. Abel went down an aisle flanked by the remains of dead machines and some open spaces, where exposed anchor bolts told of factory organs that had been ripped from the ground. His feet were as painful as ever and he felt great relief as he headed to the foreman's office at the back of the factory floor, wondering how many more days like this there were going be. There will be one day when it all will end, somehow, he thought. But tomorrow I will rest and the feet will get better.

He had been living in the tiny office for some years, and in him there was the essence of a feeling of homecoming as he let the trolley handle fall and shambled inside. He was surprised to find his young friend waiting for him. His friend, whose name was Frankie, was sitting on an overturned paint drum with a steaming cup in his hand.

"Where have you been, old man?" he asked, all smiles.

"Doing the Monday run," said Abel as he eased himself into a cracked plastic garden chair.

"I found some coffee," said Frankie. "Here, have some."

Abel sipped the warm liquid from the tin. He drew in the strong aroma and felt himself rising to a different, happier place. Then he put the tin aside, and using his arms, fingers locked, he lifted his legs in turn, rotating each foot slowly. His old man's ankles cracked and popped and he remembered being told that there is no better feeling than the absence of pain.

Frankie had been studying the old man in silence. Now he said, "You must come and retire out where I live. The clean air is good for people of, uh, an advanced age."

"And colder too," said Abel, taking another sip of the coffee and passing the tin back.

"We'll find a young lady to keep you warm. One with enough fat and a big bosom."

Both men laughed and then sat in silence for a while. Frankie took the glasses from his eyes and tinkered with the frame, bending it ever so slightly here and there, and, satisfied, polished the lenses with his dirty shirt and fitted it back onto his face. The glasses remained obstinately skew, as they had always been, but for now he seemed resigned to let it go at that.

Frankie was in his twenties, already balding slightly, which together with his high forehead and the crooked glasses made him look somewhat like a maths teacher who had been on the bend of a lifetime. Indeed, there had been a time when he had drifted around a university campus; he had studied electronics and read the likes of Nietzsche and Hawking, while slowly tying himself up in a web of substance addiction. He knew the old man well enough not to speak of it, even though the lives of the street people were there for everyone to see, least of all to their own kind. Once there had been an intervention by the family. A middle aged man in a sport jacket with restless, shifting eyes - obviously the father - had been walking the streets, asking for a youngish chap with glasses named Frank who needed his help. Abel had pointed him in a direction, and had been given some small change and a resigned thank you. Two weeks after that Frankie was back, but the man in the sport jacket never came around again.

"I found something you might find interesting," said Abel.

"Interesting enough to sell?" asked a grinning Frankie, his stained teeth flashing in the dim light of the office. "Here, have the last of it."

"You must look and tell me," said the old man mysteriously. He swallowed the last of the coffee and got up with some effort, straightening his threadbare coat and testing his legs.

Then he stepped outside and Frankie heard him untying his bundle and got to fiddling with his glasses again. Abel came back into the office carrying the robot hand in front of him like some devilish offering. Frankie's eyes widened.

"Don't worry," said Abel. "It's not real. Here, look." He held out the hand. "Come, take it."

Frankie reached out warily, saw the wires and seemed to forget about the dirty office and the old man. He studied it in silence while Abel sat down again and observed him with pleasure.

"This is the latest technology out there," Frankie said after some time in a voice of childlike wonder. "Where did you find it?"

"At the estate. Bottom of a wheelie."

Frankie leapt to his feet. His eyes had a manic look which Abel had never seen before.

"We have to find the rest!"

"There's nothing else. I would have seen if there was more."

Frankie scratched his head, seemingly unwilling to accept the answer.

"Who would do this?" he asked, sitting down again. "Robots like this are worth more than you and me will see in a lifetime."

"Maybe the hand is broken," offered the old man.

"Then you get it fixed," said Frankie. "There are people who can open it and repair it if something is not working. Like human surgeons."

"It might be beyond repair."

"It can always be fixed. The skeleton is made from an almost unbreakable polymer, and it is done while still on the robot. Like with an operation." "Then I don't know," said Abel resignedly.

"And see how cut up the back of the hand is. That was no accident." Frankie was inspecting the hand like an archaeologist would do with a fossil, his eyes shining.

"These cuts were probably made while the hand was still on the robot. This is some sick shit."

"Can a robot feel - pain?" asked Abel tentatively.

"Yeah. Not like humans though. But it has sensors which work like nerves. Damage is relayed to the processing unit, like pain. But it is bursts of static, which uses algorithms to disrupt normal processing in devious ways. Very distressing to a modern robotic brain. Very complicated science too – the guy who invented it won many awards. Then he just disappeared one day..." Frankie saw the confused look on Abel's face.

"The short answer is, yes, robots of this type can feel pain. Makes them more like us."

#

Frankie was having a restless night. He sat sleepless and shivering in the dark under his bridge, watching the sullen waters of the stream flow past. The melancholy cry of a nightjar sounded in the distance, and closer there were the occasional rustling sounds of little animals scurrying in the undergrowth. The cool air was still. Some time before he had been woken by a powerful vehicle that had come screaming over the bridge at terrifying speed, mercifully releasing him from a weird, disjointed dream which had gone bad.

In the dream there had been fragments of people from the present and some who had passed away, and they had all been there with him in an amorphous landscape, re-acting the same senseless scenes, while Frankie had been impotently wheeling and dealing to obtain some magical substance which was to give him the intimate high. Then his mother had appeared like a ghost, arms outstretched and her hands full of cuts, her eyes brimming with tears yet empty of any feeling for him, bringing with her an inescapable feeling of shame which had pulled at Frankie like the gravity of a black hole.

Frankie shuddered and stood up, stumbling in the darkness to the water's edge. His body was stiff and full of aches from the morning chill and from lying on the uneven ground. He knelt and washed his hands, sipped a few handfuls of the cool water, then splashed some on his face which he dried on the rough tweed of his jacket's sleeve. In the undergrowth of the riverbank he found some kindling. Soon he was warming himself by a smoky fire, awaiting the slow coming of dawn. His stomach was empty, but also gnawing at him were the relentless pains of withdrawal, and his thoughts turned towards making the hurt go away.

The drug dealers he frequented had given him as much credit as even the most generous of a dealer could be expected give a homeless junkie. Word was that some of these guys were rather anxious to have a talk with him, but Frankie was wary of the type of conversation they made. He rubbed a tender spot on his chin that had been the conclusion of a meeting with one of his regular suppliers the day before. That friendship had turned ugly faster than the face of a meth addict. There had to be some other way. Frankie carefully placed a wet branch into the heart of the fire and waited for its sap to boil.

Then a tiny voice spoke up in Frankie's mind. The voice was not unlike the voice of the old woman who opened the door to her house of bread in the story of Hansel and Gretel - innocuous enough and sweetly beguiling. What about Zed, the voice asked. Frankie thought about this. Zed could give me credit, but Zed's drugs are known to kill. We all die sooner or later, the voice countered, and those fools could have OD'd on anyone's drugs. Frankie pushed the voice to the back of his mind and rearranged some of the sticks in the fire which was beginning to die down. The flames flared up and the sticks hissed and cracked and Frankie felt the pleasant and embracing warmth wash over him like the hit from a narcotic. So what about it then, the voice persisted. It's an option, Frankie agreed with a feeling of defeat. But now another sound made its way into Frankie's consciousness.

The sound, a far-off rattle and screeching, just audible over the noisy sparrow chirrups of early morning, was unmistakable. What day is it, Frankie asked himself. Of course, it is Monday and the silly old man is headed for the estate. You can set your watch by that old coot. Then he remembered about the robot hand of the week before and in him there sprung an enthusiasm which, for that moment, drowned out the crooning voice of addiction. He hurriedly kicked some dirt on the fire and made his way from under the lee and up the embankment to the side of the road. The old man came drifting down the road with his back to the rising sun, looking like

someone left behind on a planet where everybody had departed overnight for another place.

Frankie was holding his thumb in the air as the old man came near. "You are late, old man," he said joyously. "Look where the sun is already sitting."

Abel let fall the handle of his trolley and stretched his back. "The sun is turning," he said. He pointed to some willows on the banks of the stream and said, "The trees are budding early this year. Soon we will have rain and your stream will become a river and wash you to the sea."

"I'll like that," said Frankie, his eyes softening. "I'll lie on the warm sand with the sun on my back and the sound of the ocean in my ears, and never get up again."

"It is good to dream," said the old man, taking up the handle again. "But come, now you must help me with the trolley. You go at the back."

They went without speaking for a while, and for the first time Frankie noticed that spring had indeed come – the plum trees on the fringe of the cemetery were exploding with pink blossoms and further on a noisy weaver bird was ripping at the leaf of a palm tree for nesting material. And now Frankie imagined having felt the rumblings of distant thunder through his troubled sleep of the night before - although there had been no rain - and he also got to thinking about the dream again. He needed to remember if there had been anything in the dream of significance, perhaps hoping to find a self-consistent and unbroken piece of the old himself which had bubbled up from a deeper consciousness. But the fragments of the dream were trickling from his memory like fine sand from a clenched fist, and he was only left with the overwhelming cravings of addiction which had contaminated it all. When the image of his crying mother came to his mind again he was breathing hard at the back of the trolley.

"What did you do with the hand from the robot?" he asked Abel.

"It is at my place," said the old man. "I do not know what I am to do with the thing."

"You must keep it. For now."

"I can sell it."

"It'll be hard to sell," said Frankie. "Those types of robots are custom made. It will only fit properly on one robot."

"I can sell the inner parts."

"The manufacturers run a monopoly," said Frankie in between his laboured breathing. "They make, sell and repair. They have all the knowledge. They own the patents. There is no place for the little man."

"The world has always been like that," said Abel. "The thing is worthless. I must throw it away."

"Keep it," said Frankie. "Wait, let's stop for a moment. I need to catch my breath."

Abel wedged a rock under one of the wheels and the men rested for a while, watching the sun light up the valley below. It was a fine morning. Frankie drew deeply on the crisp air and coughed a few times. Then he looked into the bright light of the rising sun and felt his head go spinning in a wild kaleidoscope of colour.

"Sit down," said Abel, seeing his young friend swaying. He squatted next to Frankie.

"When last did you eat?" Abel asked.

"I don't know," said Frankie. "I had something small yesterday. Don't worry about it."

"Here, have this," said Abel, taking half a wrapped sandwich from his coat's pocket.

"I'll have it later," said Frankie. He got up unsteadily and polished his glasses, and putting it back on he stood looking at the last stretch of the road and somewhere beyond. "Do you think she is beautiful?" he asked Abel.

"Who?" asked the old man uneasily.

"The robot. The one whose hand you found."

"I have not thought about it," said Abel. He dislodged the rock from behind the wheel and threw it to the side of the road.

"Ready?" he asked.

Frankie nodded and they got going again.

"I wish I could see her," said Frankie, as if to himself.

It was not long before the men went past the guard room of the estate. The guards were new, and stared at the two hobos with raised eyebrows.

"We need to finish fast today," said Abel, looking uneasily down the road. "You go that side."

They hid the trolley from view and rummaged through the bins with the efficiency that comes from experience. It was not long before Frankie found some items of value. There was a cracked vanity mirror with a polished metal frame, a full loaf of bread, a frayed roll of extension cord which could be sold as scrap metal. He put these things on the floor, feeling strangely let down, and quickened his pace.

"Now here's something," he heard the old man say. His heart leapt, and he turned to see Abel wrestling with something heavy at the bottom of a wheelie. "What is it?" he asked breathlessly, going closer. "Let me help."

"It's OK," said Abel, lifting with some effort a portable fin heater from the wheelie. "Enough scrap metal here to build a battleship."

"Maybe I can get it working again," Frankie said abstractedly, starting on another bin.

"I'll strap it to the trolley," said Abel. He had his wiry arms wrapped around the heater and kicked open the door. Frankie heard him whistling happily before the door swung shut.

Frankie's hands trembled with nervous anticipation. He did not want to admit to himself what he was hoping to find. He found a frying pan with a broken handle that he tossed aside. And some edible food that he ignored. Not a bad take for any other day. But even so he was feeling increasingly done in, like a spoilt child who unwraps one Christmas present after the other, frustrated at not seeing the one toy that all the other kids are getting. Then, as he was digging almost manically, his torso in a bin and legs kicking in the air, he saw what looked like human skin.

I knew there had to be more, he told himself and grinned. But just then there was an unknown voice outside.

"You're gonna have to clear out of here pops," somebody said.

"We're just looking for some scrap metal," he heard Abel say.

"This is private property. You are not allowed in the bay. Can you read the sign? See - it says 'No vagrants'. That means you pops."

Frankie got a hold on what he had seen in the bottom and pulled it out. It came loose from the trash easily enough: a slender robotic arm without a hand. He held it to his chest like a thing of great value, for a moment oblivious of the trash falling from his shoulders and the voices outside.

"Why are you making a big deal out of this?" Abel said from just behind the door. "It's only rubbish."

"Listen guy, I told you, this is private property. We have many important people living here. Some of them are even famous, you know, and do not want to have their trash turned over by bums."

Frankie stuck the robotic limb halfway into his pants and buttoned his jacket over the rest. He had another look at the bin in which the arm had been, and read the address – 15 Riverside – just before the gate swung open.

"Let's not forget you here in, professor," said the guard with a smirk on his round face. "After you." The guard latched the gate behind Frankie, then turned to the men and said, waving a finger, "Now get out of here. If you show up again I'm gonna get tough on you."

When they were out of sight Frankie brought out the robotic arm.

"I found the next piece of our puzzle," he said. "See how the skin has also been sliced."

The old man held back from touching the arm, frown lines running deep in his weathered face.

"You think there will be more?" he asked after some time.

"Who knows? We'll wait and see," Frankie said with a touch of emotion. "That's if moon face up there lets us past next time."

"Maybe it is better that way," said Abel. "There are other places we can try." He made to go.

"I got the address of the house," said Frankie. The old man stopped and slowly turned around.

"You want to go there? How will you get in?"

"I can slip in behind a delivery truck or something. I'll wait and take a chance. There has to be some way."

"Why do you want to do this?" Abel asked. "It is not yours."

"She is being destroyed. I - we found the parts for a reason."

"You'll get into trouble. You will go to jail."

"Look at me Abel!" Frankie said in a quavering voice, pounding a fist on his chest. "Do you think things can go any worse for me?" The emotion surged up in him until it rang in his ears, and pushed against his eyes like a mass of water behind a dam wall. A single tear ran down his face. "It's - it's something I have to do."

Abel put his hand on the young man's shoulder. "What will you do if you find it?"

Frankie took a deep breath. "I don't know, I don't know. I just feel I have to go there."

Abel sighed. "Sometimes we have no choice in the things we do. If you want to go, go, and do what is right."

"Keep this for now," said Frankie, giving Abel the robotic limb. After Abel had hidden it between the things on the trolley he looked at Frankie with concern.

"Think carefully about what you will do," said Abel. "Rest first and eat the sandwich."

"I'll see you later, old man," said Frankie.

He watched Abel and his trolley grow small down the road and disappear, took cover in the thickets from where he could observe the main gate and guard house, and waited. As he ate part of the sandwich without tasting anything, the waves of withdrawal pounded inside him with increasing urgency. It was the longest he had ever neglected the monkey on his back and he was getting a taste of its wrath. He decided to think about the robot, and began forming an image in his mind of the person who owned her, a rich sadist, full of arrogance and devoid of compassion for

others, the epitome of a modern society which he could never join again. He grinded his teeth, and some part of him wanted to run down the only avenue of escape he knew well. Down there he would be sheltered from the memories of the robot parts and the pictures his mind had painted around it. Down there would be no apparition of his weeping mother. He decided he did not care; he would destroy himself because this damn world was not worth anything. Then a pained expression flashed across his face, as if in that moment he had grasped some cruel irony.

#

Much later, when the bats were swooping after prey through the twilight and the lights of the stately houses were coming on one by one, Frankie stood hidden in the shadows of the estate grounds. He had slipped in at the boom gate shortly after Abel had left him there, taking his chance while an argumentative visitor in a SUV had kept the guards busy. Once inside, he had beelined for the nearest thick shrubbery in the landscaped gardens, finding it to be a perfect little oasis complete with a pond where ducks paddled beneath the branches of a majestic willow. From the pond a little waterfall fed a stream which meandered deeper into the park-like grounds. Frankie had hidden himself there until sunset, fighting the increasing withdrawal in his body by trying to sleep through it.

Now he remembered the Riverside address, and keeping to the shadows he headed along the bank of the stream. The early evening air was laden with the sweet scents of spring and the smell of the wet earth by the water's edge. Suddenly a dog barked near Frankie, and he had barely enough time to hide before some residents strolled past. They were following a trail between the trees on the upper bank, but the dog broke away to the water's edge, and picking up a smell turned to look at Frankie, who had glued himself to the trunk of the closest tree. He was hardly breathing. The dag barked once more before a man's voice summoned it back, and it bounded back to the footpath, casting a last look at the wide-eyed young man huddling in the shadows.

Frankie waited until the voices became lost in the chorus of frog and cricket song before he thought of getting up. He willed his body upright like a much older man and wavered, then slumped back into a little heap as if he had been shot in the head. His whole body became a cramping knot of pain. Then his ears started ringing, louder and louder, until he felt his skull might explode. He clawed at the damp earth and groaned softly before he slipped into unconsciousness.

When he came to the stars were shining. His face was smeared with dirt and down his jacket front were bits of the sandwich he had eaten earlier. He touched around in the darkness for his glasses, suddenly feeling very frightened and alone. The glasses were under some leaves, and as he put them on his face his panicking mind shouted at him to turn around and get away. But there was the difficulty of the long walk back, while the fierce storm that was raging inside his body made him want to curl into a little ball and die. He decided to push on, leaving the river bank to where he could see the street names. Shortly he was standing at the junction of Riverside drive.

Frankie slipped from shadow to shadow though the well maintained gardens of the street, his heart pounding. What's the time, he thought. He could only guess at how long he had been passed out, but most of the houses were dark, and the tree-lined street deserted. It felt like midnight or later. He was nearing what he thought to be number fifteen when a vehicle turned down the street, its headlights momentarily washing over him. He made for the nearest cover, a hedge of privet, and sat silently as the car, which had the markings of estate security, purred past.

Number fifteen was a neoclassical monstrosity with a columned facade, which reminded Frankie of a mausoleum. A pebbled driveway lined with lollipop trees snaked to the front of the house where the ostentatious entrance was well lit. All the street facing windows were dark, but somewhere further back some feeble tight was showing. Frankie flanked that way. He kept to the brush, trampling through flower beds, tripping over irrigation, and swearing softly as the thorns of a rose bush ripped at his skin. Finally he had sight into the lit window from a hiding spot he had found behind a tree, about fifteen meters away. He could see part of a couch, but the light, which came in flashing bursts from what had to be a television, showed little else. He had to move closer, and was soon crouched beneath the window sill. He peeked inside.

In an instant he took in a long leather couch, and lounging in a corner, a young woman, dressed in what looked like an evening gown. She was staring at a spot just to the left of where Frankie was standing. Immediately he sank back into the darkness, realizing that the television was probably mounted on the wall next to his window. His palms had gone sweaty, and he now found himself locked up in nervous indecision. Just as he had gathered the courage to peep in again, the car from security rumbled past for the second time. He went stiff as the vehicle seemed to slow down, his mind made up to bolt if it stopped. But it sped up again, and was gone. It occurred to him that whoever was inside would be unable to see him if he kept his head in the shadows. So he decided to have another look.

She was standing in the window, looking right at him. Frankie tumbled backwards, painfully falling on the small of his back. Even so he became instantly hypnotized by her piercing eyes, which seemed to emit a softly pulsating light. The young man slowly picked himself up, unable to look away. Once on his feet he felt more composed, and took in the rest of her. Her face was as pretty and flawless as the face of a doll, with a black bob curving to under her sharp and perfect little chin. Then he noted the asymmetry of her body. His jaw might have dropped, and she too seemed to grasp something, but then she was gone like a ghost.

He stood there, feeling strangely unafraid – waiting for an alarm, dogs, security - but he only heard his own, hard breathing with the other sounds of the night. Inside, the room was empty in the flickering light of the television. He decided to walk around the house and look for a way in, overcome with a reckless determination to speak to her.

As he rounded a corner to the front of the mansion he saw her standing in the doorway at the main entrance, as if she had been waiting there for him all along.

Slowly he climbed up the stairs to where she was standing. She did not move or speak. In the light that flooded from inside her flowing white gown became translucent, the obvious perfection of her body only emphasized by the empty sleeve.

She saw his eyes pause there, and taking in his dirty clothes and haggard face she finally said, "You found something that made you come here." "I had to see," he began, but fell silent.

"I'm Daphne," she said. "You may come in." At his nervous glance over her shoulder she added, "It's quite all right, I'm alone."

She led him though the entrance hall with its wide flanking staircases, her bare feet silent on the marble floor. The natural elegance with which she moved made Frankie feel as if he was in a dream, and a good one for once. He was so enchanted by her graceful movements that he lost track of where she was taking him in the house, until she turned around, and tearing his eyes from her, he recognized the room he had seen from outside. She switched off the television and turned up the light, and he was speechless at her beauty.

"I always watch the crime documentaries," Daphne said, making herself comfortable on the couch. "It's morbidly fascinating. Come, sit down."

Frankie took a seat in the opposite corner, at once feeling conscious about his appearance. Daphne had one leg folded under the other, her arm resting on the back of the couch, staring languidly at Frankie who was still trying to think of something to say. He scanned the room, saw some framed photographs on a side table. One was a photo of her, smiling, with an older man.

"It's from our holiday in Italy," she said.

"Why is he doing this to you?" Frankie demanded in a voice whose passion startled himself.

"You mean this?" she said, casting a look at the empty sleeve. "It's my fault, in a way." She looked back at him, but her beautiful green eyes seemed to lose focus, and then she said, "You must be hungry and thirsty. Would you care for something?"

"What do you mean it's your fault?" Frankie felt an anger rising in him, but with it came a debilitating weakness and intense pain. He lay back in the couch, the room spinning wildly.

"Are you all right?" asked Daphne, moving next to him with concern on her face.

"It will pass," groaned Frankie. He bent double as the pain ripped and clawed inside his body.

She sat stroking the back of his head until the spasms subsided. Her fingers moved delicately down his neck.

"Are you very ill?" she asked, noticing the sweat streaming down his face.

"Yes." Frankie looked at her, his face in pain. "I'm going to die... I'm already dead. But first I need to know what is happening to you." "I can get you help," she said softly.

"I'm beyond help." He grabbed her by the arm. "I want to know!"

She pulled back, saw his determination, and said, "Very well. I will tell you."

Frankie rested his head on the back of the couch, his eyes tightly closed and his face twisted. He forced himself to breathe as he listened to her calming voice.

"He hurts me because of the things I did to him in the past," Daphne began evenly. "He is not an evil man, please understand. But sometimes he remembers these things, and it builds up until he can only make himself better by hurting me. Only then can he become himself again."

"What did you do to him?" Frankie asked incredulously. "What can be so evil as to justify this?"

"I don't remember specifics," she said, and stopped. Now she got a faraway look, her face as empty as the face of a mannequin. As she sat, suddenly lifeless, Frankie wondered if there was a possibility of her artificial thought patterns having deadlocked - thinking back to university theory - but then from somewhere deep in her robotic brain a spark returned, and she carried on as before.

"He talks of the times I betrayed him. The times I abandoned him. That I am a liar and a slut. He says that I destroyed a part of him each time I did these horrible things. And then, when he becomes – like that, he keeps saying that he wants me to feel the pain I caused him."

Daphne's voice had remained even throughout, but now a restlessness moved in her face.

"And you don't remember these things?"

"I don't think so," she said, staring out the window into the night.

"Do you remember this?" asked Frankie, grabbing the framed picture from the table and holding it to her.

"No."

"Why do you think you don't remember?"

"Maybe I don't want to remember. Maybe that's how my thinking works. It - it doesn't matter – he's my owner and can do with me as he likes."

Frankie shook his head, staring at the people in the photo for some time.

"Listen to me Daphne," he finally said, taking her hand. "The person in this photo isn't you. I'm sure of that. And I also believe you did not do the things he said."

She seemed to think about this and said, "Maybe you are right. But I still belong to him."

"He will keep on doing what he does until he destroys you! Don't you understand! What will that achieve?"

"It makes no difference. I'm his."

"I won't allow it!" Frankie left something go in his head before a blackness swept across his vision.

When he regained consciousness he was on the floor, his upper body propped against Daphne, who was gently rocking him.

"I – I won't let it happen," he whispered. "I'll kill him."

"Shh." She tenderly ran her finger over his eyebrow as his mother used to do when he was a little boy, and held him to her. "Shh."

As Frankie closed his eyes he felt a calmness return to him that he thought he had lost long ago. Daphne did not let him go, holding tighter and tighter still, and he was tumbling uncontrollably down a place of unknown ecstasy.

#### Wormhole #1

#### Rescue AL du Pisani, Iain Sinclair, Norman Pringle

Here fumes rust the sky

A croaking vulture gliding by

Wasted humans work the mine

Alien foremen watch them pine

A rebel faction plans to fight

Currently, no help in sight

Watching from an unseen height

The Space Patrol observes their plight

In the spaceship plans are made

And men prepare a daring raid

Coded flashes in the stars

Alert a rebel from the wars

He wrecks the aliens' radar gear

Their laser weapons cannot bear

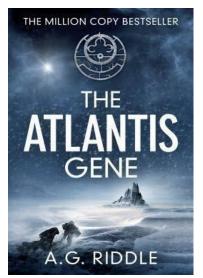
Below, the miner's spirits soar

Down the troopers shuttles roar

Aliens to their doom we send, the end.

#### **Book Reviews**

#### The Jamiesons



#### A.G Riddle The Atlantis Gene

Buried deep in an iceberg thousands of years ago, and only now revealed it can't possibly be man-made, but it is.

50 000 years ago mankind suddenly started an upward climb to where they are today. What caused it? Utterly ruthless men called the Immari believe they know that it is about to happen again, with disastrous consequences for us.

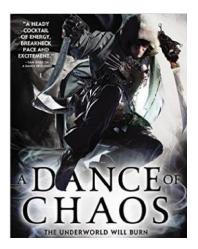
Geneticist Kate Warner has been working with autistic children, and has recently been having amazing results. The Immari believe these results may help save some of mankind. Enter Intelligence agent David Vale, who has to save Kate Warner and the planet.

Most of the time Riddle is a very entertaining author, although there small sections which are poorly written and appear to have been written by someone else.

However the whole premise of the book does not make sense. The blurb at the back of the book states: "Faced with an extinction level threat, they believe mankind's only chance of survival may well mean sacrificing 99% of the planet's population."

REALLY Ian 3/5

### **David Dalglish A Dance of Chaos**



One of these days I may just read a Fantasy novel where the bad guys, whether they are evil lords, dragons, elves, wayward characters etc., actually win. I don't mean the odd good guy getting killed, but that mankind is subjugated or even destroyed forever.

The Sun Guild, under the mastery of the elf Muzien, has taken over control of all the other Guilds in the city and Haern the Watcher discovers the peace he had brokered is no more. And then to top it all the dark lord Karak has unleashed his Orcs, under the control of a powerful necromancer.

Thus reads the story. But, we know that the good will eventually prevail, although some of the good guys are psychotic murderers, and everyone lives happily ever after, sort of.

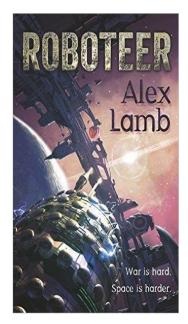
By the novel's end I was shuffling passages, because, although well written they added nothing to the story.

3/5 lan

#### Alex Lamb Roboteer

Will Kuno-Monet is a Roboteer, a master at the job of controlling, through his brain, the thousands of robots and their weapons which are necessary to run a spaceship.

He and his kind have reached the stars, but are hated by the billions on Earth who wage a savage war against them. Greatly outnumbered, Will and his fellows have been forced to adapt with technology and genetics in order to survive. Now Earth has discovered a devastating new weapon and Will and his Captain and crewmates have to investigate. They discover that an ancient alien race have left an intelligent A.I. with huge powers to determine if Humanity is fit to survive and they require



one man to decide. Will, of course.

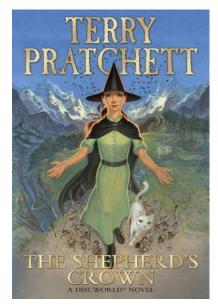
The story is written from several people's points of view, but always coming back to Will. The story is a bit uneven and Will goes through terrible, but not described, torture.

Several parts are completely unbelievable. (a friend of mine often remarks: But lan, it is Science FICTION)

But it is still fairly entertaining.

3/5 lan

#### Terry Pratchett The Shepherds' Crown



The title of this book is a bit of a misnomer as the Crown has very little to do with the story, and only comes in near the end.

The boundaries between Plains are becoming very thin and the Elves are on the move again.

When Granny Weatherwax dies, someone has to take her place, and Granny's first choice is Tiffany Aching, who really doesn't want the job. However, Tiffany with Granny's old cat, You, and the Nac Mac Feegle, is voted into the position of non-leader of the Witches. (Witches never have leaders....)

Together they must stand

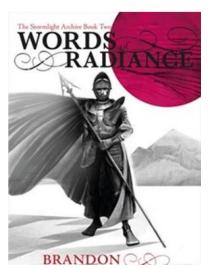
against the elves and the elven king. They use the ex-queen of the elves apparently she wasn't nasty enough and Peaseblossom has taken her place.)

I haven't mentioned the boy, Geoffrey and his goat, Mephistopheles, who (the goat that is) can count and use the privy, but he does add to the charm of the story.

If you like Pratchett, you will enjoy this book, and if you don't it is still a fun read and the last of the Discworld saga that we will see from the late Terry Pratchett.

3/5 lan

#### Brandon Sanderson Words of Radiance Part I



We continue to follow the story that began in "The Way of Kings" which takes place in a fantasy world, one of actual gods, bizarre magic, knights with superpowers, spirits and sorcery, monsters, demons, and magic sword called Shardblades. It embraces the fantastic, and does so with an astonishing amount of creativity. For just one of many examples: The spirits called the spren, which are basically humans ideas and emotions, are completely foreign, but such a natural part of the Stormlight world that it works – and they become

characters in some cases, like Syl whom is the constant companion of Kaladin, the Bridgeman

who somehow survives all odds to become the protector of Dalinar.

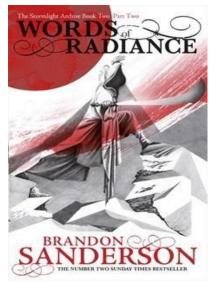
Sanderson has created a completely different world and a number of strange cultures, at times confusing but always interesting.

I really enjoyed the flashbacks that are used to introduce us to the character of Shallan and there were times that I laughed aloud at her down to earth view of this strange world and some of the characters found in it. Just to note that Part 1 and Part 2 are really just a way to enable us to actually manage this large heavy book

#### Brandon Sanderson Words of Radiance Part II

The Saga continues. The Alethi continue to battle the Parshmen and at times these battles become a little tedious for me, but it holds enough interest particularly as the Parshmen seem to be building up to an all or nothing finale.

I like the interplay between Adolin and Shallan and the more serious interaction between Kaladin and Dalinar, who has some sort of connection to some strange power that I guess we will become more familiar with as the story continues.



I feel that this second chapter of the saga flows much more smoothly than the first did and it may have something to do with the large amount of world building that had to be performed in "The Way of Kings".

#### Nova 2014

Sanderson creates an intriguing picture of a very strange world and somehow provides a combination of politics, war, race, religion, secret conspiracies, magic, assassins, gods, and more, but in a way that somehow, against all odds, holds together.

I see that there are meant to be 10 volumes in this saga and I suspect that I will read them all.

Gail

# Editor's choice THE SANFEY CAVE Anita Louise Jay

Jake discovered the cave while exploring on the beach with his sister. They were alone. Their parents were sleeping in their holiday house at the back of the sand dunes. They had only been staying on the Cape West Coast for two days, and, as usual, Jake was looking for adventure.

"Hey, Sussie, come and look at this," he shouted. His sister, Kristie waded out of the water trailing a long tail of brown seaweed in one hand. She came towards him squinting her eyes in the bright sunlight, as he stood at the entrance to the dark opening in the rocks.

He led her into the interior which was a wide arched cave. Towards the back it sloped away into blackness. As they ventured further from the entrance, Jake took out the little torch he always carried in the pocket of his shorts, and shone its dim light around the space. He caught his breath.

"Come here. Look at this Kristie. This must have been a shelter for the Bushmen people in the past. They painted hunting scenes on cave walls." He was really excited by their discovery.

They inspected the beautifully executed drawings of animals and men, apparently depicting a hunt as the men carried spears or bows and arrows. Jake moved the torch around viewing each section in turn. The animals appeared to move along the walls in the wavering, reflected light from his torch. He was delighted. He planned to be an archaeologist and explorer, when he graduated from college. Their greatgrandfather had been a famous hunter and explorer in the former Rhodesia, whose first wife had actually been killed by a lion in the Bush. Jake thought this story very romantic; surely not an opinion shared by his great-grandfather or the late wife. His ancestor's spirit of adventure ran strongly in Jake's blood. He could not wait to leave his dull city life in Pretoria to travel the world.

Slowly they moved further into the cave, as they followed the long procession of animals and hunters. Towards the back they had to bend down to avoid bumping their heads on the roof. They could hear water dripping somewhere in the distance.

Jake whispered reverently "This is so cool." then added, "I think the sea must come into this cave at high tide, see the shells on the floor and the tide mark on the sides." Kristie shivered "I'm glad I didn't have to live here. It's very cold and dark."

Just then Jake dropped his torch. While endeavouring to retrieve it, he bent down on hands and knees, feeling around on the ground. The torch had gone out. When he found it and switched it back on, he discovered the light was illuminating a low tunnel stretching away in a downward direction. "Look at this. Let's explore. It must lead somewhere."

Kristie worshipped her brother, she would follow him anywhere. They had always been inseparable, and many people thought they were twins. They were both thin, tanned and tow headed. But Jake was extrovert and Kristie quiet and thoughtful. Jake had got her into trouble many times in the past while instigating wildly imaginative plans, which resulted in pain and suffering for Kristie. However, undaunted, she still supported him faithfully in all his ventures. His scaling of the large tree in their garden at age eight had resulted in a bad fall and broken arm for his accompanying seven year old sister. They had never reached the Cloud City Jake had promised. When swimming across the lake to reach the Wild Jungle of Gomo, Kristie had tired halfway and had to be rescued. That escapade had resulted in a severe bout of bronchitis for her, following the extended time spent in the freezing water, and a severe reprimand for Jake. Now aged twelve, he was more intrepid than ever.

She bent down and crawled into the narrow tunnel after her brother without a second's hesitation. The tunnel was low and damp. It narrowed even more as they descended. Eventually the downward slope was so steep that they found it easier to sit and slide along on their bottoms, pushing with their hands on either side. The rock surface was wet and slippery from the constant dripping water from above, so it was easy to slide. Suddenly Jake's progress began to speed up considerably and Kristie behind him saw that the slope descended sharply. She was horrified when he unexpectedly disappeared from view. Then she was falling too, ....... down, down, to land on top of her brother in a heap of arms and legs. Due to the fact they had been sitting, they both landed feet first, and apart from shock and a few bruises, they appeared none the worse for the fall. Clambering to their feet, they found themselves in a lofty cavern with the sound of waves breaking on the shore in the distance. They could also hear a humming sound, a kind of chanting.

They made their way silently hand in hand towards the sound. They could see daylight in the distance slanting down from a large crack in the rocks above. They stopped and crouched behind a boulder as they neared the source of the sound. Peering from behind the rock, they were amazed to see a group of very small brown creatures dancing around a fire, chanting and whirling in frenzied motion. In the flickering firelight, the children noticed that the walls of the cavern were covered in drawings of animals and hunters similar to those in the previous cave. The dancers were singing in a language unintelligible to them, but it sounded like a trance song.

The dance continued for ages. Eventually the dancers fell exhausted to the ground.

A huge bear-like animal appeared in the entrance to the cavern and stood looking towards the dancers, his tongue hanging out. Jake and Kristie almost cried out, as they expected the animal to attack the group. However to their surprise, the one who appeared to be leader called out with a guttural, clicking sound, and the bear padded up to him and sat patiently by his side, as he put a gourd container to his lips to drink. He then offered the water to the huge animal, patted him on the lowered head and holding onto the long fur around the creature's neck pulled himself up onto its back. Lifting one of the females up behind him, he uttered another clicking sound and the animal padded from the cavern with the two riding securely on its back. The others stood and followed on foot heading for the sound of the waves breaking on some distant shore.

Kristie turned to Jake with wide eyes, as he signalled to follow the group. They crept quietly from their hiding place, and keeping some distance behind, they tracked the group out of the cavern along a wide tunnel and onto the open shore.

They emerged onto a beach which resonated with the sound of crashing waves. The small group in front of them, dressed only in skins, and shell necklaces, made their way along the shore. Jake and Kristie could now see that the beings were about the size of small children, but the animal was enormous, much larger than any bear they had ever seen in pictures. Its shaggy coat was a dark brown colour, and it appeared to be quite tame. They continued to follow, keeping well back out of the sightline of the group, until the bear swung to the left to climb a low hill onto higher ground. Reaching the top, he stopped before a wind-blown tree. The two riders climbed down and together with the others in the group disappeared into what appeared to be another cave, the entrance half hidden by dense undergrowth and the lower branches of the tree.

The children hid behind some bushes, until the bear padded away towards the North. They watched from a safe distance until the bear had disappeared from view, then venturing gradually closer, they crept up to the entrance of this new cave. They saw that it appeared to be the home of the strange, little people, for it was laid out with animal skins on the floor, apparently for bedding down. Many gourd containers filled to the brim with berries and seeds were stacked inside. The residents had moved to the further recesses of the large cave and there was enough daylight shining into the entrance for the children to make out details. Jake was fascinated. He was considering whether to openly approach the beings, when a large black eagle swept down from the skies to attack him. He put up his arm to ward off the imminent danger and Kristie cried out, alerting the little people to their presence. Jake had seconds to decide on their next course of action. They could try to run away, but he did not think they would get very far under attack from the guardian eagle, which was still circling and seemed ready to make another stoop. He guessed their chances would be better in the cave rather than outside, so pushing Kristie before him he ran inside. Having eluded the eagle's second attack, he stood bravely in front of his sister and waited for the group to advance towards him. They were uttering strange cries and gesturing wildly as they approached. The apparent leader stepped forward. He poked a bony finger up into Jake's chest, which took

some courage, as he was half the boy's size. Then he pulled a sharp, stone dagger from the waistband of his skin garment. Jake stood quite still to reassure the little being that they meant the group no harm. He did not feel afraid, only curious. The others surrounded them now poking with their fingers, and feeling the texture of their clothing. Then Jake had an idea, he took the torch once again from his pocket, it had luckily not broken in the fall. He turned it on and shone it towards the back of the cave. He thought the little ones would be interested; in fact it proved to have the opposite effect entirely. They scattered, terrified, to the furthest reaches of the large cave where they huddled together. They obviously had no experience of objects which lit up without the impetus of sparks from a fire. He smiled. He now had the advantage. He waved the torch around to demonstrate its ability to light up all corners of the dark cave. The few animals painted on the walls appeared to jump and run. Then he aimed its beam towards the roof of the cave. A shimmering pale circle of light hung on the damp rock surface. The little people threw back their heads to watch in awe.

Then the leader, as if coming to some resolution, crawled forward on hands and knees towards the entrance of the cave. Taking a small stick from the ground beneath the tree, he scratched a circle into the earth and pointed upwards to the sky. At first, Jake could not grasp the meaning of this action, but when the little leader drew a "C' shaped pictograph next to the circle, Jake immediately understood.

He turned excitedly to Kristie saying

"They think I have a miniature moon here." He turned off the torch. "It must seem like magic to them."

He faced the group, first pointing to his torch and then towards the sky. He nodded his head and once more shone the torch onto the roof of the cave and indicated the arc of sky visible outside the cave. Their mouths hung open in wonder. Jake stood smiling impishly. "I have captured the moon, Kristie!"

The little people chattered together animatedly in their guttural tongue. Shortly thereafter they were to demonstrate that they had their own brand of powerful magic. Beckoning and leading the children back down the path to the shore, their leader waded into the sea, and standing chest deep in the water he gave the same clicking cry he had made to call the bear to his side. Within moments, the waves were alive with the fluid shapes of dolphins frolicking towards them. They came close enough for the children, standing in knee- deep water, to reach out and touch them. Kristie was enchanted.

"I've always wanted to get close to a dolphin." "This really is magic Jake."

The dolphins stayed to give a prolonged display of leaping, surfing, diving splendour.

"The little ones seem to have power over the creatures here," said Jake in wonder.

Eventually the dolphins gave one last synchronized leap from the water, turned as one, and swam back out to sea.

The children smiled their thanks at the little beings, although they were not certain if the motivation behind the display had been entirely for their entertainment or as a display of power for their benefit. The inference the children gathered was that if the little beings had power over the wild animals, they certainly possessed strong magic.

The children followed the group back to the cave. They were invited by gesture to sit on the hard ground and share the meal of berries, nuts and seeds. They drank clear, cold, spring water. Jake surmised there must be a source of fresh water nearby, hence the choice of living area. This cave was also raised up above the distant beach, so would be safer from periodic high tides, and the entrance was facing away from the prevailing winds. He found out soon enough that he was correct in his assumption about a fresh water source, as indicating some big ostrich eggs, holed at the top, they were invited to collect two each and follow the leader to the freshwater spring, which they came across by following a narrow path into the bushy undergrowth. It was a well located living space, as fresh water would certainly be at a premium so close to the sea. The little beings had chosen well.

On the return journey carrying the full eggs they came to a clearing. As they were crossing the open ground, Jake glanced to his left and noticed a full-grown lion watching with golden eyes from the shelter of the long grass. Their little leader must have noticed at the same moment, he began to back up warily. He gave his guttural call, and once more the black eagle circled and with one lightning dive directly at the lion, he scared the predator into a slinking retreat.

Jake muttered to his sister "Eagles do have their uses."

Kristie replied "So the little one's magic doesn't work with all the wild animals in the veld."

"True" returned Jake. "We might find that useful when we need to leave." He added,

"It's growing late. I think we should get back before the tide on our beach comes up into the cave."

On reaching the cave of the little people, they carefully placed the water-filled eggs onto the ground and sauntered outside. The leader followed them. He indicated Jake's pocket into which he had seen the boy drop the torch. Jake took out the torch, and the leader held out his hand for it. Jake shook his head and backed away. Before he could turn around, the rest of the little beings had encircled him, chanting in their clicking tongue and several of the males taking out small daggers from their waistbands. Jake was not about to hand over his torch. He and Kristie would need its light to find their way back through the dark tunnels, out of their cave and home. He quickly summed up the situation. He had one possible opportunity. He pointed off in the direction where they had encountered the lion, putting on a terrified facial expression, and mimicking lion growls deep in this throat. The little

beings were obviously terrified of lions, for they backed away to the cave entrance leaving a space for Jake and Kristie to make an escape.

"Run, as fast as you can" shouted Jake to his sister, grabbing her hand and pulling her away, heading in the direction of their lion encounter. As they ran, he was praying that the lion had moved away from that area. He had not forgotten about the eagle either. As they ran, he reached up and pulled off two branches from the overhanging tree, pushing one into Kristie's hand as he passed her. "Use that to beat off the eagle if it attacks us" he yelled. As they emerged from under the tree cover, the eagle did indeed dive at them, but Jake used his long branch to beat it back. He hit it a glancing blow on the side. He appeared to have damaged one wing, for it faltered in flight and swung away. The eagle's attack was not repeated.

They reached the shoreline exhausted, but unhurt. Jake was elated "What an exciting day" he remarked, as they stopped to catch their breath.

"Yes, but we still have to climb out of the caves" reminded Kristie.

Heading north they trudged through the sand until they found the entrance to the cave where they had first encountered the little beings. The grey ash was still in the fire circle. The painted animals still appeared to move when Jake shone his torch on the walls. They passed the big boulder behind which they had hidden, and made their way to the rock slide. Jake reckoned that if he stood on Kristie's shoulders, he should be able to pull himself into the tunnel and reach down to pull Kristie up after him. Kristie valiantly braced herself while her brother balanced on her shoulders and with strong arms managed to pull himself up. Lying precariously on a narrow ledge, he reached down to grasp his sister's outstretched hands. Then she too was beside him in the narrow space. They crawled back along the rising slope of the tunnel, holding on to jagged rocks at the sides, pulling until their arm muscles ached painfully, skinning their hands and tearing their nails as they did so.

It was with relief that they re-entered the cave on their beach, glancing at the rock art in the torchlight as they passed. They noticed that the sea was already entering the mouth of the cave. Kristie picked up her long abandoned strand of seaweed as they stepped out of the darkness into the fast approaching dusk of evening.

Looking upwards they saw that the silver moon was just rising. Jake shone his torch upwards and laughed, "My moon can rival yours" he shouted.

Hand in hand they made their way to their holiday home to the roasting they knew would be waiting for them.

Later that week, their parents took them to the West Coast Fossil Park, where they attended a slide show. There they learned that the shoreline on that part of the coast had changed dramatically over the years, the Park standing where once there had been deep water. They also discovered that in the distant past the coast had been peopled with little humans called the San, or Bushmen, who had lived in caves and decorated the walls with paintings of animals, who were called to the hunters by the magical power of a shaman. They also found out that many wild animals;

including lions, sabre-toothed cats, African bears, elephants and giraffe, had once roamed that shoreline. Sadly, most were found there no longer. Man had killed them or driven them inland.

On the last day of their holiday, Jake and Kristie returned to the same beach and looked for the cave with the San drawings of animals and the little people Kristie had named "San fairy folk".

They found the cave. However, despite an hour of searching, they were unable to find the tunnel at the back of the cave leading out to the Sanfey World – the secret Portal had closed forever.

#### Wormhole #2

#### Here fumes rust the sky Gavin Kreuiter, Ron Cowley, Stephen Tatham

Daisy sits on her wooden milking stool, pondering reality. Things had changed radically in the past few years.

The deep underground shelter that her parents had bought into in case of world war three, was a paradise at first but is now starting to show its age.

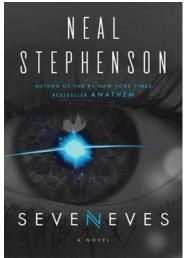
In the twenty-five years since the war the community had grown to over a hundred, with the livestock as well. This was straining the eco systems.

The geothermal power lines were attached to the metal dome that limited her entire universe.

The sweet smelling flatulence of the bovine members filled the air.

### Book Review Derek Hohls

**Neal Stephenson - Seveneves Harper Collins, 2015** 



Neal Stephenson's "Seveneves" is an interesting - though at times awkward - mix of plot line and technology lecture that covers a wide sweep of events in both space and time. I confess that I skim read many of the fairly technical parts because I wanted to see where the story was going. I will be reading this again to ensure that I get to grips with those parts and enjoy the way that a descriptive narrative can be so fluid.

Overall, I enjoyed the read. Neal Stephenson

has remained one of my favourite authors ever since "Snow Crash", and I am awed by the sheer volume of the works he produces ... to be prolific and creative while remaining a great story-teller with a fluid style is, I think, a very rare talent!

"Seveneves" is a long book - 771 pages - broken up into 3 parts (though parts I and II are effectively part of the same story and part III is quite different). Although written as a single book, I think it's actually a trilogy which contains only the first two parts of a "whole" story.

There is a reason that trilogies are popular in science fiction (and fantasy): they allow for a Great Saga to be told on a Grand Stage. Any reader of the genre will probably have their own favourite - Asimov's "Foundation", Adams' "Hitchhiker" or Le Guin's "Earthsea" for example - and many trilogies have gone on to spawn successor after successor. "Star Wars" was conceived of as a trilogy (well, a trilogy of trilogies) for much the same reason.

Part I of the trilogy (which in my head I call "Seveneves: The Agent"), set close to today, deals with the evacuation of Earth after a cataclysmic event; Part II of the trilogy ("Seveneves: The Habitat") deals with events a few thousand years from now. Part III of the trilogy seems to be missing - if I were to think of a name, I would call it "Seveneves: The Mission"; and it would be set even further in the future with mankind undertaking an Expedition (deep space / interstellar) to resolve the reason for the key event that took place in Part I. This missing part would place Neal Stephenson's work right up there in the "grand saga" category - both as a fascinating story and an amazing extrapolation of technology over the short and long term.

It's obviously unlikely that Neal Stephenson will write a third part - otherwise this book would already have been published as two separate books - but I suppose I can supply my own "what if" to overcome the sense of what is missing here and speculate on why he never chose to write the complete story... Recommended.

PS If you want an overview of the plot, see https://en.wikipedia.org/wiki/Seveneves but be aware of spoilers...

#### Wormhole #3 Eileen Jamieson, Erna Jacobs, Gail Jamieson

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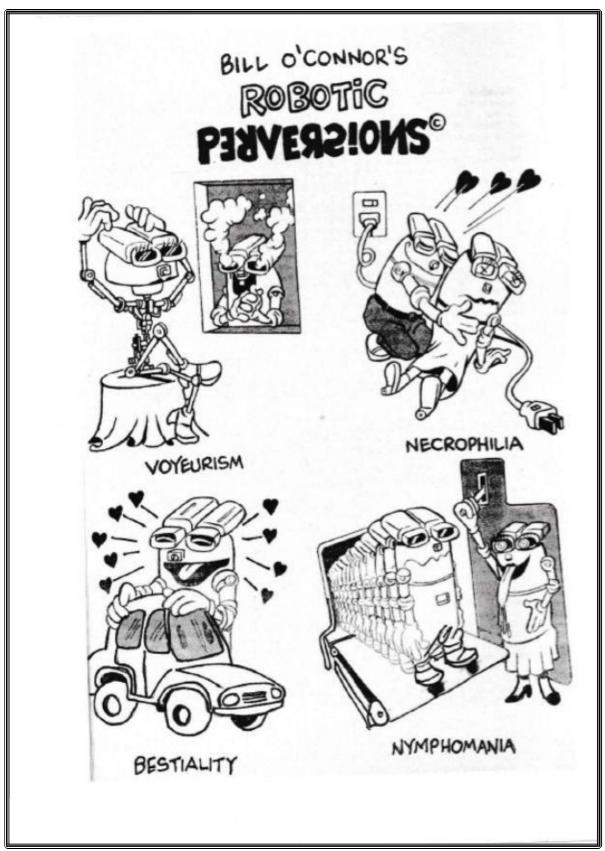
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#### BLAST FROM THE PAST MISSING DRAGONRIDER OF NERP

from PROBE 72 MAY 1988 THE

BY Elaine (with apologies to Ms McCaffrey)

The People

Their Dragons

M'fanny, Dragonlady Brookleth (red)

F'loor Carpetleth (white)

T'rash Worthleth (blue)

T'ripe Trotterleth (purple)

T'art Pennileth (yellow)

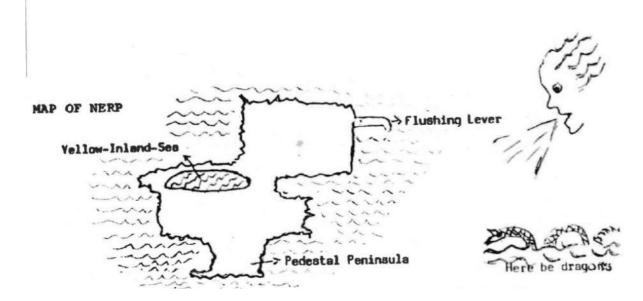
C'lash Thymboleth (orange)

B'um Motherleth (polka-dotted)

K'rap Thitleth (brown

M'ike, son of Dragonlady Dragonleth (sorry, read dragonless)

V'an No dragon



The hatching cave at Flushing Level on the planet Nerp was packed from floor to ceiling for the annual impressing ceremony of the hatchling dragonettes. Dignitaries – and the not so dignified – from most civilized planets were present in great numbers to view the unique ceremony. Even from as far afield as the banks of the Limpopo River, South Africa, third Planet, Solar system Sol, came the intrepid Van Der Merwe, travelling incognito as V'an

In the arena, surrounding the clutch of ten eggs due to hatch within the hour, stood the nervous twelve-year -old candidates. Aside, trying unsuccessfully to hide his large bulk, stood the fifteen-year-old M'ike, son of M'fanny, Dragonlady of Flushing Lever. It would be M'ike's third attempt at impressing a dragonette and he was painfully aware of his inability to impress. A hatchling would take one look at his ungainly torso, his number fifteen dragonhide boots, his crooked teeth (one incisor missing), his oily frizzy hair, and retreat back into the egg-shell. Definitely unimpressed: But M'fanny was determined that her son should become Dragonrider.

There were ten eggs and ten would-be riders. If she could help it no candidate would leave dragonless. Long gone were her aspirations for a gold for M'ike – a little checked or pin-striped runt would do.

V'an, sitting in the £ seats, chuckled when he observed how much M'ike resembled his much travelled pal, Mike Shutter, from his home country. At least some of Shutter's bragging appeared to be founded on fact. What Shutter's offspring did not suspect – and in fact no-one knew – was that V'an had done a little tampering with the eggs the night before. At the bottom of the Yellow-Inland sea lay one dragon egg which would never hatch and in its place......Well let's get back to the ever hopeful M'ike at the impressing ceremony.

Fanfares blared, the dragons roared and belched and made even ruder noises. The candidates advanced on the eggs. The din alone was sufficient to cause the shells to crack. A great cheer went up as the first egg cracked and little B'oobs impressed the pink dragonette just emerging. The in quick succession eight more eggs hatched and were impressed. There remained only one egg and candidate. You guessed it: M'ike.

Shouting encouragement, M'fanny called upon her dragon, Brookleth, to bellow, chew braai-brickettes and blow flame for all she could. The egg showed not a sign of cracking. M'ike advanced on it in grim determination. A voice from the crowd yelled, "Skop hom" which, freely translated, means "Kick the bloody thing."

Reflexively M'ike obeyed. The egg burst into flying fragments

Like a taut spring uncoiling, like a mamba striking, what appeared to be a huge wingless dun-coloured dragon, glistening sickengly, emerged from the shattered shell. Roaring fearfully it rushed at the hapless M'ike, snapping its awesomely toothed jaws. Displaying remarkable agility from one so gross of build, M'ike leapt into the air and catlike, simultaneously twisted away, even as the dragon's snapping jaws found purchase on the heel of one dragonhide boot.

A piercing scream rent the air, diminishing like the whistle of a passing steam train as M'ike went "between".

Speculation has it that M'ike must be on some distant planet as he has not yet reappeared on Nerp.

V'an is a little apprehensive that by some quirk of fate M'ike might have gone as far "between" as Planet Earth, more specifically somewhere near his croc breeding farm. One never knows how far afield M'fanny's influence in interplanetary affairs is felt, which could be damaging to his extensive trade in genetically engineered supercroc hides.

But what a good story he would have to tell around the bushveld campfire!

#### Here fumes rust the sky Nial Mollison, Nick Heyns, Simone Puterman

Here fumes rust the sky

Don't know what, don't know why

Shall we find out? Let's give it a try.

Is it industrial gunk

Or other chemical junk?

A placid volcano pouts with a sigh

Since the humans all fled, or did they die?

What's that on its way, going thunkety thunk?

An ancient steam liner that hasn't yet sunk!

Captained by the last mechanical monk!

"Ahoy faithful brother, how do you do?"

"Going through the motions, just like you."

"My orders are stern, my task it is hard

I have to obey the dictates of every punched card

# Who's responsible for a self-driving car in a crash? Dennis Droppa

(Reprinted from "The Star Motoring" September 2015)

Science fiction author Isaac Asimov coined the following Three Laws of Robotics to ensure that humans would never be harmed by the autonomous machines they built.

- 1. A robot may not injure a human being, or, through inaction allow a humanbeing to come to harm
- 2. A robot must obey the orders given it by human beings except where suchorders would conflict with the First Law
- 3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws

We are reminded of these laws now that the era of the self-driving car is nearly upon us, and rules governing the behaviour of autonomous machines come out of the fictional universe into real life.

Autonomous driving will be a fixture of future mobility thanks to its many advantages: greater convenience, less stress, lower fuel consumption and the potential for improved road safety. However, just as many of Asimov's robot-based stories involve robots behaving in unusual ways as an unintended consequence of how they applied the Three Laws in tricky situations, the same could apply to autonomous cars. For instance, in an impending collision, would a self-driving car choose to crash into a pedestrian walking alongside the road, or turn into a motorcyclist that had turned across its path?

Before we set robotised cars loose on the world, there is a wide range of legal and ethical questions to be answered, and to set the ball rolling Daimler last week hosted a symposium on "Autonomous Driving, Law and Ethics" in Frankfurt. More than 100 experts from business science, politics and the media discussed the challenges.

"Who is responsible for autonomous driving – the driver, the vehicle owner, or the manufacturer?" asked Prof Julian Nida-Rumelin, professor of Philosophy at LMU Munich and former state minister for Culture in his keynote address on technology ethics" Since robots cannot act like humans or be treated as them, we must clarify how to assign our criteria from criminal law, civil law and common morals to the new technologies." he said.

Several carmakers also recently teamed up to create a 32-acre "city" at the University of Michigan in the US, where self-driving cars are being tested before they are let loose in the real world.

Dubbed M City, the facility simulates the chaos of a busy urban environment with a range of complexities vehicles encounter. It includes roads with intersections, traffic signs and signals, pavements, traffic circles, simulated buildings, street lights, and obstacles such as construction barriers. Robot dummies occasionally jump into the street to simulate the unpredictable behaviour of real pedestrians.

Carmakers involved in the project so far include Ford, Honda, Nissan, Toyota and General Motors.

A growing number of modern luxury cars have semi self-driving features that guide them in their lanes, keep a safe following distance, and automatically brake to avoid an errant car or pedestrian, but it's not fully autonomous driving as the systems only work if the driver keeps their hands on the steering wheel.

Several prototype autonomous cars have made journeys without the aid of human intervention, including the Google Self-Driving Car being tested on US public roads.

Audi recently set an automated RS7 loose around Germany's Hockenheimring track at speeds approaching 240 k/h with no driver aboard. It used specially corrected

GPS signals transmitted via Wi-Fi and backed up by a simultaneous high-frequency radio signal, to orientate itself on the circuit.

Apart from such cool stunts there are still many obstacles to overcome before we can simply sit back in a car and say "Home James", not the least of which is that a car's computer could potentially be hacked. However, the day of robotised cars is getting ever closer and it's estimated that they will account for up to a quarter of car sales in 20 years' time.



A robotic Audi RS7 zoomed around the Hockenheimring with no driver aboard. But how would it apply Asimov's Three Laws if cut off by a minibus taxi in traffic?

#### **Books Received**

#### **Book Promotions/Jonathan Ball**

Anthony Ryan. Queen of Fire. Little Brown. R330.00

Alex Lamb. Roboteer. Orion UK. R335.00

Robert Galbraith. Career of Evil. Little Brown. R335.00

A.G. Riddle. The Atlantis World: Trilogy 3. Head of Zeus. R210.00

Charlie Fletcher, The Paradox, Little Brown, R335.00

### **Magazines Received**

#### Via email:-

Newsletter of the Middle Tennessee SF Society (aka The Nashville SF Club)

Reece Moorhead reecejbm@gmail.com

Issue 155 September 2015

Issue 156 October 2015

Issue 157 November 2015

David Langford news@ansible.co.uk

Ansible 336 September 2015

337 October 2015

338 November 2015

#### **NOVA 2013**

#### **GENERAL SECTION FINALIST**

#### AT THE CROSSING OF THE MOONS

MICHELLE MALAN

Mila tied the unicorn to the tree and walked away, pacing out exactly nine steps and turning widdershins three times before seating herself cross-legged on the ground beneath the sacred triple elm with the setting crossed moons behind her.

She'd travelled exactly the ninety-nine leagues beyond the Crystal Castle in the direction of the first moonrise, just as laid out in the instructions her grandfather, Pape, had left. She had traversed the Silver Plains, and passed beneath the Rock of Entwined Lovers. Her steed was a unicorn born exactly one year before the start of her journey; the entire trek was accomplished while the third moon was in the eclipse of the second. She had set out on the day of the first blooming, in her twentieth year. All this was exactly as she had been instructed.

But this was where the instructions stopped.

Here, apparently, she was supposed to receive some kind of mystical sign, a talisman that would guide her steps through the rest of her life; determine both who she was and what she was. This totem would forever shape her prospects and control her destiny.

If only she could believe in it.

She knew for a fact that she would see something, if only because the entire journey had taken place as part of a greater fast, and she was somewhat delusional from hunger, not to mention the hallucinogenic spores of the grasses that made the plains silver and the effects that the tidal forces of having one of the moons eclipsed by another for an entire week would have on her body and hormonal levels. And, of course, the well-documented narcotic effects of extended solitude, all combined with

a strongly ingrained awareness of the spirituality of the pilgrimage, guaranteed that there would most definitely be a sighting of some kind, although the veracity and applicability of said sighting was highly suspect.

Mila had long believed that the visions experienced by her ancestors on these little trips of theirs were highly exaggerated, especially by the younger men who undertook the task, in an effort to assign some importance to themselves that they did not, in fact, merit.

She sat restlessly, occasionally muttering to herself, fully aware that she should be attempting to achieve calmness and serenity so that she would be open to receiving her "gift from the great ones". The problem was, she had seen for herself what that "gift" had done to her Pape, and she knew that she had grown up motherless because of this ritual. To be perfectly truly honest, she wanted no part of this "blessing" that had cursed her entire family. These archaic practices had no place in the modern order of the tribe, and she knew full well that all her peers referred to her grandfather as "the Relic" when they were being charitable, and "the crazy old madman" when they weren't. Much as she loved him, Mila had to admit that deep down inside, she agreed with them. The power in the tribe no longer lay with the Magician – it lay fully and squarely with the Moot, and they were elected by the people, not nominated by blood and old gods. In times past the Magician had been, if not Mootchief, at the very least his (or her) most highly regarded adviser. But those times were well and truly past, and Mila believed that they were never coming back. The power would never again lie with her family, unless she brought it into the family by being voted into the Moot, and there would not be an open seat for another year at least.

Mila wanted power. She knew exactly how she would use it, and who among the tribe could best be used where to make the tribe the first among all tribes, the most highly regarded and powerful of all tribes once again, just as they had been before.

She had tried explaining this to her grandfather, tried to rationally point out that politics was the path to the future, not superstition. Her point of view had not been well received, to put it mildly. The silent disappointment that had oozed from her grandfather's every pore had made his part of the argument far more vehemently than any of his rhetoric on maintaining the family traditions and the importance of the spiritual quest in attaining true maturity.

"Mila, you will go. There is no argument. There is no debate. There is just the simple fact that you WILL go."

"But why? There is no point or sense to it!"

"There is no need for sense, only senses. No need for a point, only need for a point of faith. You are the last of the family. You are the only hope that we have to ensure that a vital part of what makes us a tribe is not lost as so much has been lost. I had hoped that you would have a man and children by now, you're well past the age that your mother was when you were bor —"

"Stop. Right there. I've told you time and time and time again: none of the BOYS in the tribe want the motherless scion of the local madman as a wife. Not that I want any of them anyway."

"You have a moral obligation to breed, Mila," her grandfather said, every word clearly spoken and laden with duty. "What about Ruben? He is no boy, like those that you so scorn. He's been serving this community for many years and is a highly gifted lacksmith."

"He's old." Her grandfather's wrinkled brow lifted.

"I must be truly ancient, then, since Ruben is fully forty years younger than me."

"Oh Pape, you know what I mean. He's nearly twenty years older than me. And besides, I heard that he's walking out with Sondjya."

"I would listen less to the gossip of the village twits if I were you."

"Don't call them that! Those twits are my friends!"

"You do not have the luxury of friends. You know that. Your purpose is so much greater than theirs. And your duty so much clearer. You must carry on the bloodline so that the magic will continue to the next generation. We will crumble to dust if you do not."

"I WANT children – I want to get married. But I will NOT marry and pop out babies just so that I can promulgate some archaic and ludicrous myth! When, if, I marry and or bear children, it will be for me – no one else!"

"You do not have that luxury either, child. I wish you did."

"I AM NOT A CHILD. You just can't see that, can you? How ironic. You want me to be a mother but treat me like I'm still a babe!" Mila took a deep breath to fuel her rant.

"I am not going on the Wandering. I don't believe in it and I'm not going!"

Her grandfather sat silently, his rheumy eyes never leaving hers, until at last she was the one who broke the contact. Then he spoke, softly, without raising his voice, but with an authority that laid the law down with no room for argument.

"You will go. This is the time. It will not come again for another nine years, and by that time I will be gone. This is the only chance that I will have to train you. And you will be trained. After the Wandering you will believe."

"I'm sorry, Pape, but I won't. There's nothing to believe in. There might have been once, but no longer."

"You are mistaken, child. And while you act like a child, I will treat you like a child. Your Wandering begins as the first rays of the moons hit the Castle tomorrow night. Go to bed."

Only when she was nearly asleep did Mila realise that she had obeyed as though compelled by a will not her own, without question or demur.

And now here she sat, waiting who knew how long for who knew what, while deep inside she knew that she had hurt her Pape deeply – far more deeply than he had shown – and that there was no guarantee that she would ever be able to make it right. She loved the old fool, despite his delusions and unwanted ambitions. He was her only family, and the only one who actually cared for her at all. She knew that none of the other young people in the tribe would even notice if she failed as her mother had, and never came back from this Wandering. She often wondered if her mother hadn't simply kept wandering, abandoning both the ritual and her daughter to escape the unbearable loneliness of being a destined Magician.

To be honest, it was a large part of why she had always been so reluctant to bear children. She wouldn't even have had to marry, really. As the magician-to-be she was exempt from the normally harsh tribal laws and moral mores that censured unwed parents. But Mila knew that if she'd had a child she would never have been able to contemplate just walking away from her whole life, into the wilds where she could easily survive by herself or to another tribe that would no doubt quickly take in a willing worker. If she went far enough she should be able to find a tribe that had never heard of the magicians and their destinies.

Mila shifted her seat again. The moons were setting behind her – she could feel their pull lessening as they sank in unison beneath the far mountains. According to the tradition she should remain seated in this exact position – not moving nor eating nor sleeping – until the vision was attained. If no vision came by the end of the Crossing of the Moons – 3 nights from now – it would be known that she had displeased the great ones, and that the tribe would dissolve like a dust devil in an opposing gust. Of course, if she hadn't seen anything by tomorrow morning at the latest, Mila had already decided that she would use the journey home to concoct a suitably impressive tale of visions and epiphanies. Impressive but believable of course – she had no need to prove her virility to anyone.

With an exasperated sigh, Mila tried again to reach the pure calmness required for a meditative trance. She regulated her breathing and concentrated on her limbs one by one, slowly allowing each to sink down into a state of complete relaxation until she was a whirling mind above a heap of soft, yielding flesh. Her thoughts, however, still caromed out of control across all sorts of topics, mostly along the lines of "this is stupid".

At last she had managed to completely relax her physical body, and her mind also began to drift off – largely due to the extreme exhaustion of long days journeying without food and very little sleep. She sank deeper and deeper and deeper beneath the surface of herself. With the darkness of unconsciousness came a few sparks of memory, flashes of the time when she had believed her grandfather's stories and trusted his judgement implicitly.

"Mila mine, why must you learn these things?" Laughter and sunshine had floated into their cramped little hut, inviting Mila to leave the lessons she had only half begun and join in the game that the other children were enjoying. Her distraction had led to her to forget the answer to a relatively simple question, prompting Pape to put on his most disappointed tone.

"So that I can guide the tribe one day, Pape." Mila's tone was full of the boredom and longing for freedom that she could not openly express to her grandfather.

"That's right. So you can guide the tribe. If you don't learn, you won't know what to do when the beasts fall ill, or when the planting omens appear, or if the wind is telling you that the harvest will fail and the hunters will have to work through the winter to keep the food stores high enough. You won't know where to find the fattest fish, or if the water has gone bad. You won't be able to ease births and aid the mothers who weep after their child is apart from them. These are all part of your duties, and there is so much more that you still don't know about. One day you will stand between the tribe and the darkness. One day you will face the abyss and lead our people over it. One day you will have to soar higher than the clouds and bring back word of the far off places that march to war. Yours will be the days of great change, and you must know where you stand, so that you can know where it will be safe to walk. You must learn!"

"Yes, Pape. I will learn." But it was then that the seed of rebellion took hold and wormed into Mila's heart; that day when she learned that she would never laugh with other children.

She sank lower into the trance, a faint echo of distant laughter in her ears and sun beyond the red of her eyelids. As she sank so sank the sun in front of her, replaced by the first moon and then the conjoined moons dancing behind it in their anti-solar orbit. By the time that the second and the hidden third moon had cleared the horizon Mila was fully submerged beneath her own subconscious. She swam languidly in an empty ocean, fully relinquishing all her ties to her body and releasing all of its discomforts that seemed so far away from being part of her.

The moons reached the zenith of their combined orbit, the silvery light that emanated from them seeming doubled rather than halved by their eclipse. Mila's motionless form was seated directly beneath the brightest of the lunar rays, and she seemed suspended in a mercury pool. The ground even seemed to take on a liquid-like ripple as she inhaled and exhaled. After the longest breath, Mila realised that she was viewing the scene, herself in it, from a vantage point removed from the almostcorpse on the cliff's edge. She felt ephemeral, and gently allowed herself to be turned by her own breath as she surveyed the panorama before her. Never before had she seen that the land lived. She had never noticed its breath, never heard its heartbeat. Never before had she noticed how deeply the trees were rooted within the being that was the earth, never understood how they acted as its pores, releasing the poisons of the day into the night. And now she saw truly how the beasts were intruders, and none more so than the people who claimed that they owned the land which merely gave them grace to survive for a season.

Mila breathed more deeply, drawing the light of the moons and the stars into herself, drinking it like wine, bathing in it like cream. And then the owl swifted over her divorced body on its silent wings and hovered before herself. And the owl, the creature not tied to the ground, the hunter that needed no spear, bowed before her and offered her the use of its wings. Without thought Mila ghosted into the flesh of the fowl and saw with a jolt through his eyes. The world became red; all was either danger or meal. The owl shuddered, and she let it go, thanking it silently as it went.

A deer came next, infinitely connected to all the life that surrounded her, through the cud that she chewed and the life of the fawn at her side. She, too, allowed Mila within, and showed the awareness that every wild beast has of the infinite cycle that births life from death.

The predator came, and the prey, and over all the light played, and Mila laughed with the stars.

The moons began to lower themselves once more towards their daytime beds, and Mila again felt their pull on her body, but this time she welcomed it, and, rejoining her physical self, she followed it. Still filled with the light she rose from her seated position and sprang lightly off the spar of the cliff, allowing herself to float to the embrace of the waves beneath, her toes kissing their tips at the exact moment that, on the horizon, the moons did the same.

Sinking both physically and metaphysically this time, Mila dropped to the floor of the ocean, where the powdered white sand had caught the moons' rays over uncounted eons and flooded the whiteness across the ocean bottom. Taking no thought for breath, Mila walked beneath the waves, knowing that while the moon's light was in her and around her, she was not part of the world nor ruled by its laws and could therefore in no way be harmed by any part of it.

She walked on the ocean's floor as she would across the green at home. A dim, distant part of her observed cynically all that she did; disdainful and unbelieving even as she embraced the miracle of who and what she was. Mila could hear her own scepticism in the back of her mind, and she accepted that part of herself as well: the part that would always question and seek and thereby speed her growth and help her to stay in touch with the rest of the tribe, those who had the same outlook as that currently-distant piece of herself.

Very soon she came to the base of the rocky outcrop that jutted up as an islet in the bay formed by the cliffs. As if following a very detailed map, Mila made her way to the cleft that she knew lay on the far side. Without thought of darkness or danger, still entranced and led by knowledge much older than herself, Mila swam up the length of the tunnel to the cave which occupied the entire internal volume of the islet.

Mila erupted out of the water into the air pocket held with the islet's heart. The atmosphere was lit by the cold fire of thousands of phosphorescent creatures and plants; a concave moon that would never see the sky. A rim of pristine white sand edged the water that she trod, the ripples of her emergence still fluttering the glow of

the agitated plankton. With a stroke as measured as her breathing she made her way to widest part of the snowy beach.

Still weightless and unconstrained by physical conventions, she ascended from the water with the same weightlessness that she had experienced when she descended from the cliffs. Mila herself was glowing with the light of the organisms which clung to her as she dried, and she seamlessly joined with the radiance that reflected and refracted around and through her.

She lay motionless within the land-locked, ocean-encircled lunar replica. Mila was physically aware of the ebbing and rising tides and the passage of time that they presaged. She was minutely aware of every passing moment, each of which both stretched out to infinity and passed so swiftly as to barely register as time at all. And she heard it all. The cavern echoed ceaselessly with the history of her people, her family, and her heritage. She became one with the entire passage of the tribe through time as seen through the eyes of its Magicians. When evening fell and moonrise was imminent, Mila knelt upon the shore with bowed head and began to speak.

"I'm ready. I see now that everything, everyone, that has gone before has merely paved the way for me. I see, I understand, and I fear. I know that I will stand between the tribe and the darkness. That I will face the abyss and lead our people over it. Please let me have the strength to be able to face the burden that will lie on me, and enable me to see my way clearly. There will be changes that will not be welcomed by the aged and traditions that will be scorned by the youth, but without both past and future the present is nothing but an empty space without meaning. I know what I must do and I am afraid. I can see what awaits me at home, and I weep. I see how my mother was never strong enough for this burden, and I mourn for her and for the life I should have had. But I am ready, and I will do what I must. And my child will return, and his after him. This I swear by the light of the moon that pulses through me. The ways will not be lost and the people will not stray.

I'm sorry. I am so very sorry for the disregard I have had for the ways that make us, that make me, who I am. Please forgive me.

Light my path." The light within the chamber pulsed to blinding brightness just once, eliminating all shadows and blasting through Mila. She knelt still with her eyes shut, allowing the glow to flow through her and fill each crevice of her being with the light that is hope. She knelt like that until the moons had set once more, the penultimate night of the Crossing. When she could feel that they were fully set, she slipped silently into the water, not once turning back, resolutely facing the path before her.

Once again she traversed the sea floor. Upon reaching the foot of the cliff she saw, outlined clearly against the white sand floor and white rock wall, the dark yawning opening of a cave. Without hesitation or doubt she entered the cave and followed it upwards as it mirrored the path of the tunnel into the islet. Eventually it led her out of the water and into an adit terminating beneath the triple elm where the unicorn was

still tied, patiently munching the bark it had stripped from the sacred tree with its horn and waiting for her.

A restless urgency was in her now. She knew that the unicorn would only bear her until the moons set tonight, and she wanted to be as far along the journey as possible, since it was still a long, long way back to the tribe and she would be walking most of it. Digging her heels into the unicorn's flanks, she goaded it to a gallop across the dimly dawn-lit plains towards the Crystal Castle, knowing that she would be lucky to cross even a tenth of the distance before the following moonset.

The Silver Plains sped beneath the beating hooves, spooling out behind her in and endless sea of earthbound moonlight that glowed even now at noon. As she travelled this ground that she had traversed but a few days before, she was newly aware of how she and her people were tied to the land, how much they were are a part of it and it a part of them. She could see so clearly how their unique bond with the moons had led them to settle here so many many centuries before, and how abandoning this country would only weaken and scatter the tribe until they were no more. The fates of the land and the people were so entwined that they should never be separated, as both land and people would dissolve and fade if no longer joined. Although man was indeed an interloper and passing stranger on this earth, this land had welcomed her people, only her people, and allowed them refuge.

Her mind began to sift through her experiences and see how they would affect, not just her, but the entire tribe. So many of the Moot thought that the time was coming for them to leave this place and make a permanent home near one of the larger cities that seemed to be springing up all around them. Until this trek, Mila herself had thought that this would be the only possible path for her people to take if they were to survive. Now she could see oh so clearly how much the opposite was true. If they left this land they would die. Not them as individuals, but their ways, everything that made them a people, would be lost. It would dissolve in the noise of the world and the world would be poorer for it. It would be almost impossibly hard to hold onto their truth while facing the encroaching world, but it was vitally important that they did, and that they clung to this land that was theirs. They would probably have to fight for the right to retain their claim, but the land would fight with them, as long as she or someone from her family could maintain the ties by following the hidden moon to the moon within the sea.

She would also have to ensure that her line continued, and so would have to take a mate. But she could see him clearly in her mind's eye, and knew exactly where to find him.

The sun was westering before her, its golden light mingling with the silver of the grasses and almost blinding her, but still she rode. The unicorn, strengthened and rested by its time beneath the elm, raced swiftly over the plains. It was only as the dusk settled around her that Mila fully appreciated exactly how fast the beast was carrying her. The ninety nine leagues of the Silver Plains were behind her, a journey that had taken her a week of full-day riding in the other direction, and before her rose the reflective walls of the Crystal Castle. She reached its moat just as the

moons rose on their very last night of the Crossing. She pulled up her steed and dismounted.

With complete confidence she approached the wide portal and passed within the whisper-thin walls. This castle was a legacy of a long-ago era, infused with magic that ensured that this fragile-seeming structure would still stand when all the mountains had eroded into the plains and the seas had dried. Knowing now that she could be back with her tribe within a matter of hours, even on foot, Mila wandered at leisure through the crystalline hallways that rang with the echo of her steps.

Part of her vision the night before had shown her that this castle was both her past and her future. Her ancestors had built it, raising it from the sands of the Plains with their combined will and the power of the hidden moon. And here was where she would establish her seat, the symbol of the power of her people. She would reign from here, with the man that she would meet .... Now.

"I almost thought you weren't coming." His voice was deep, calm and beautiful; the rolling of a gentle ocean against a calm beach. He stood very close behind her, but Mila did not turn.

"I very nearly didn't."

"I'm glad you did. I've watched you, you know. For the longest time. You almost weren't ready. So much stubbornness in one so young! But, of course, that is a family trait. The old man was mule-headed to the point of deafness if he was told something he did not want to hear."

"I am stubborn. I will always be stubborn. Can you handle me as well as you do the forge?" Ruben heard the catch in her voice and turned Mila round so that she faced him. He could clearly see the tears glistening in the moons' light.

"You know why I waited here for you." He did not need to ask, he could see the silent grief that she could not speak. He had not lied when he'd said that he had watched her. The old man had told him many years ago that he had been chosen for Mila, and Ruben had trusted the old ways enough to believe Pape. But he had also decided that if she did not want him, or if she did not appeal to him, that he would not allow either of their fates to be determined for them. And so he had watched, and he had learned her. He had known for a long time that when she was ready she would come to him, because their destinies were indeed tied so closely together that the bonds were nearly palpably visible. He had come to love her for her stubbornness, for her immense will and vibrant mind. And now, filled as she was with the power of the Wandering, her beauty blew through him and filled him as well, with a desire to support her against the unbearable weight of the task that faced her.

Mila leaned into him and allowed herself to be comforted by his size and strength. She had seen in the cave the exact moment when Pape has passed beyond this world, and had known that she was riding back to take over the duties that she had so long neglected and belittled. She was humbled by the task before her, and deeply, purely, grateful that she could know that Ruben would be there by her side.

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## The Daily Galaxy via RAS Image credits: ESA/Hubble & NASA, ESO, Ivan Bojicic, David Frew, Quentin Parker

The collage above shows 22 individual planetary nebulae artistically arranged in approximate order of physical size. The scale bar represents 4 light years. The very largest planetary nebula currently known is nearly 20 light years in diameter, and would cover the entire image at this scale.

Despite their name, planetary nebulae have nothing to do with planets. They were described as such by early astronomers whose telescopes showed them as glowing disc-like objects. We now know that planetary nebulae are actually the final stage of activity of stars like our Sun. When they reach the end of their lives, these stars eject most of their atmosphere into space, leaving behind a hot dense core. Light from this core causes the expanding cloud of gas to glow in different colours as it slowly grows, fading away over tens of thousands of years.

"For many decades, measuring distances to Galactic planetary nebulae has been a serious, almost intractable problem because of the extremely diverse nature of the nebulae themselves and their central stars," said Dr Frew, lead author on the paper, said: But finding those distances is crucial if we want to understand their true nature and physical properties."

The solution presented by the astronomers is both simple and elegant. Their method requires only an estimate of the dimming toward the object (caused by intervening interstellar gas and dust), the projected size of the object on the sky (taken from the latest high resolution surveys) and a measurement of how bright the object is (as obtained from the best modern imaging).

This is combined with the use of the authors' own robust techniques to effectively remove" doppelgangers" and mimics that have seriously contaminated previous planetary nebulae catalogues and added considerable errors to other distance measurements

The new approach works over a factor of several hundred thousand in surface brightness, and allows astronomers to measure the distances to planetary nebulae up to 5 times more accurately than previous methods. "Our new scale is the first to accurately determine distances for the very faintest planetaries" said Dr Frew. "Since the largest nebulae are the most common, getting their distances right is a crucial step".

Planetary nebulae are a fascinating if brief stage in the life of a low- to middle-weight star. Being able to better measure distances and hence the sizes of these objects will give scientists a far better insight into how these objects form and develop, and how stars as a whole evolve and die.

The new work appears in "The H $\alpha$  surface brightness - radius relation: a robust statistical distance indicator for planetary nebulae", David J. Frew, Quentin A. Parker and Ivan S. Bojicic, Monthly Notices of the Royal Astronomical Society, Oxford University Press. A copy of the paper is available.

from <a href="http://mnras.oxfordjournals.org/lookup/doi/10.1093/mnras/stv1516">http://mnras.oxfordjournals.org/lookup/doi/10.1093/mnras/stv1516</a> . (HKU)

