

DANGER:

Dreams at Work



icsf

Dedicated to the memory of Matthew "Smithers" Smith

Chairentity 2007-2008

Whilst at Imperial, Smithers was a huge influence upon ICSF. His passions for space exploration, nuclear power and anime led to many lunch-time discussions, while his friendliness helped make the society a less intimidating prospect for many new members. The film showings he ran, which we christened "Smithersfests" (to his acute embarrassment), were an incredibly popular social event for the society, as well as a first introduction to some very good films and animes for many of us.

As Editor, and later Chair, of ICSF, his influence was equally strong. He published *Zenith*, the fanzine before *Danger: Dreams at Work*, drew the artwork for Picocons 23, 24 and 25, and raised the funding to purchase our new shelves, proving successful enough in the latter to even make a profit.

It is impossible to list everything he meant to those of who knew him, and without exception we mourn the loss of a good friend. Neither we, nor ICSF, will be the same without him.

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Exordium

Welcome.

We hope you enjoy your stay.

It's been a long journey.

Almost didn't make it.

Supply issues.

Harassment by Tuscan Raiders.

Embarrassing Photons. (Hyperbolic nuclear-powered potatoes)

Luckily the cavalry arrived to save the day.

My gratitude to them is ∞

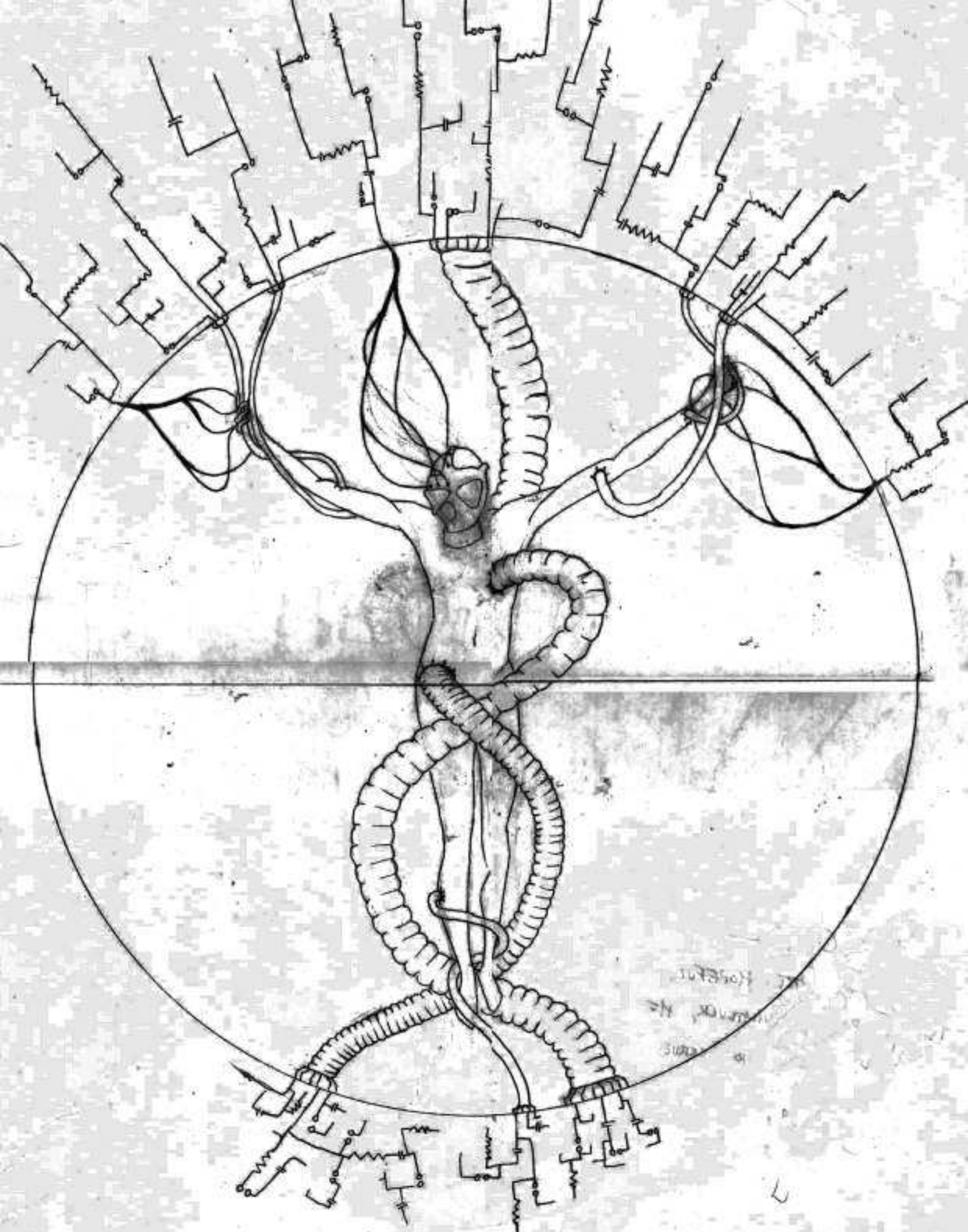
(In case they don't know who they are, I thank Peter Mabbott for all of his help and advice, Annabel Slater for (and also encouraging her friends to) send in work, and the other contributors, without whom this would not have been possible.) All works contained herein belong to their respective authors and are copyrighted as such. The work of Wole Soyinka inspired this issue's title.

Akbaralli Kapasi

ICSF Editor 2008-2009

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Above: Random Mage
- Daniel Rolph
Front & Rear Covers: Untitled
- Annabel Slater
Overleaf: Vela7947's Crucifixion
- Kai Grosskopf



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Decoding Tisha

by Geoffrey Marsh

Dr Tim Jaffa is an ageing researcher of linguistics at the University of Edinburgh. He was granted Tisha, a one month old transgenic chimp, almost eleven years ago. She expresses the human version of several genes involved in the acquisition of language, and he has devoted much of his career to teaching her to read and write using an old-fashioned typewriter.

Tisha has increasingly become an obsession of the Doctor in the last two years, and he has been gladly spending almost fourteen hours a day in the lab with her, every day except Sundays. In the last few years, Tisha has begun creating grammatically tasking sentences, conveying complex emotions and illustrating beyond doubt an ability to understand Dr Jaffa, to whom she rather adorably addresses each of her transcripts.

He has revealed very little about his work to the media, his colleagues, or even his wife up until this point, fearing that the polluting influence of other humans would destroy the intimate bond he had scrupulously nurtured over all the years with Tisha. The level of language that she was now exhibiting was unprecedented, and her transcripts alone, he presumed, would undoubtedly gain him international acknowledgement.

By late autumn, he arranged a seminar at the London's Royal society, and the following Monday he would travel down with Tisha on the train. This should give him enough time to compile his choice of her most impressive transcripts, and also would allow him this weekend to treat his wife to a preview of his work.

It had become clear that his wife Yvonne was tiring of his absence from home, and since Tisha would undoubtedly be snatched away from him soon after the Royal society seminar, he contemplated that she would appreciate this exclusive glimpse of his accomplishments, and with a new sense of perspective, forgive his relative neglect. The love had long since dried up in this marriage, but he felt that he owed it to her, out of respect.

It was a rare treat to wake up beside Tim on Sunday. I haven't stayed in that bed for years now, mainly because I hate to be woken at five thirty. Yesterday, however, he promised me that we would

spend the day together. To my surprise, last night even witnessed a fleeting relic of our once-passionate marriage. For a moment I watched him sleeping, then buried my face beneath his chin and listened to his slow, solid heart beat for a few glorious seconds.

But it wasn't welcome and he began to fidget and stir. Within a minute he was up and showering, decontaminating himself of my touch. Nevertheless to get frustrated now would be foolish, and risk wasting the opportunity to spend a whole day with him. He had even said that he would miss church, a rare gesture that had surprised me.

I opened my wardrobe, and plucked from it a dress that had not seen the light of day for years. I called to Tim who I could see shaving through the bathroom door, and asked for his opinion. He replied without looking 'lovely dear, though I'm not sure it matters, I'm taking you to see my project'.

I could have killed him right there with the razor already tickling at his throat. His project! After ignoring me for all these long years to be at his lab, this was his surprise! I felt the day's first squirt of adrenaline liven up my heart. Wait, I would not let even this ruin today, I have been too patient to squander a day together with one of my childish tempers.

I put on the dress despite Tim's lack of an opinion, besides, perhaps I would meet some of his colleagues; Tim was surely not the only one so committed as to work on a Sunday. I imagined four smart gentlemen with their ironed white jackets framing their crisp shirts and ties, offering approving glances to Tim at my arm.

Tim's notable excitement was infectious, and not long into the car ride I began to warm with anticipation. When we pulled up to the college, we drove under an ornate archway, and into a small enclosed car park which Tim parked thoughtlessly across, as if it were not used by anyone else. He hastened to the doors of the building and fumbled through his set of keys.

We took the lift up to the top floor and entered the hallway, which was completely silent. Perhaps no one did come in on a Sunday. Tim again tackled his chunky set of keys, and as he opened the door to the lab, shot me a look of sheer delight.

I stepped in behind him, immediately struck by an alien redolence. To my disappointment the lab was deserted, and just as I filled my lungs for a deflated

sigh, a black shape came bounding right for me like a muscular spider. Just as I was sure I had met my end, it leapt past me and jumped up at Tim's throat. Frozen stiff, it took me a few seconds to realise that Tim and the creature, now locked tightly, were not tussling, but embracing.

'Yvonne, Tisha, Tisha, Yvonne' announced Tim proudly, looking at me expectantly, as if I were to shake hands with the beast that had caused the palpitations my heart was still dancing to. Thankfully, 'Tisha' as he had called her, seemed to suggest that this was as likely as it was absurd, and buried her flattened head deep into his neck, clinging like a kuala with all four limbs.

Oblivious to my heart's threats of retirement, Tim turned his back to me, and began talking with warm enthusiasm about Tisha; 'Such a clever girl...types everything down...first girl like her...just like you or I'. Over his shoulder one of Tisha's dark brown eyes remained fixed on me like a child. I guessed she could sense my fear, like they say wolves can smell if you are scared.

It became clear that Tim was no longer talking to me as he continued his spiel at Tisha's ear, the third person narration he employed was clearly just to convey to her, a twisted sense of social inclusion. As I regained my composure, I turned my back to them and surveyed the room. The surfaces were littered with hundreds of books and discs, and the walls were lined with sheets of white paper. Facing the window was a single computer. It was as if Tim worked here alone with this animal.

There was a central unit in the middle of the room, with a cage the size of a small car. In it were more toys and a comfortable spread of cushions. Beside the cage lay a green type writer, at which Tisha was now proudly typing from my husband's lap.

One wall of the lab was filled with large windows, allowing an epic view of Edinburgh. I flirted with the idea that this is why he had brought me so early; the sun rise breathtaking as it was, but as I looked over to share it with Tim, he was warmly encouraging Tisha at the typewriter. As the morning progressed, it became increasingly evident that my presence in this conversation was of little concern to Tim, who continued delivering a conceited babble about Tisha's grammatical accomplishments.

The letters that lined the wall were all addressed to 'Jafa'. They seemed to get more advanced as I wandered around the room, as if cherry picked to represent her improvements and laid out in a deifying chronological exhibition. I lost myself in her words, and by the time I had scanned all three walls of her literature and arrived back at the window, I felt that I

had witnessed her entire emotional development, right up to the most lucid recent works, which were laden with an inappropriate ardour.

Stunned, I looked out of the window, to a vast, dark weather front threatening to devour the city. I suggested to Tim that we made the trip home before we were caught in the storm.

Dr Jaffa woke in the dark on Monday morning. He had slept badly after his row with Yvonne, as must she have too he reckoned, as he had heard her making noises downstairs right through the night. As he packed his bag for London, he mused over some of the bizarre things she had said to him about his project. He would call her from London in the evening, she was impossible when she was angry.

As he drove his car under the arch and into the car park, he could hear the wind still strong, whipping around the university's walls, and the fallen branches from last night's storm crunching beneath his tyres. The car slowed to a standstill on a branch with a dull crack. As he got out into the dark car park, he took care not to trip, feeling his way across the dark floor with tentative footsteps.

The lift was out of order, and by the time he had reached the top of the stairs, his heart was thumping hard at his aged rib cage and his eyes were lacking oxygen. He fumbled for his keys, barely noticing their atypical location in his left pocket, as his lungs tried hard to regain control of the situation. He was greeted by Tisha's letters, which had so proudly lined the walls and desks, now strewn all over the floor, with the window wide open as if the storm had found a way in. Most notably, Tisha was absent.

She had reacted badly to meeting Yvonne, and he pondered whether it was too soon for the Royal society. She had never met anyone else in her whole life before Yvonne, and who knew what was in store after her unveiling. Perhaps he should leave her here and just bring the transcripts to London.

With a sudden pang of self-loathing, he began calling her name, opening doors to her favourite hiding places, the cupboard below her cage, under his computer desk, beneath her quilt. Perhaps, he should start locking her cage at night. Then he saw the letter lying on the table by the typewriter.

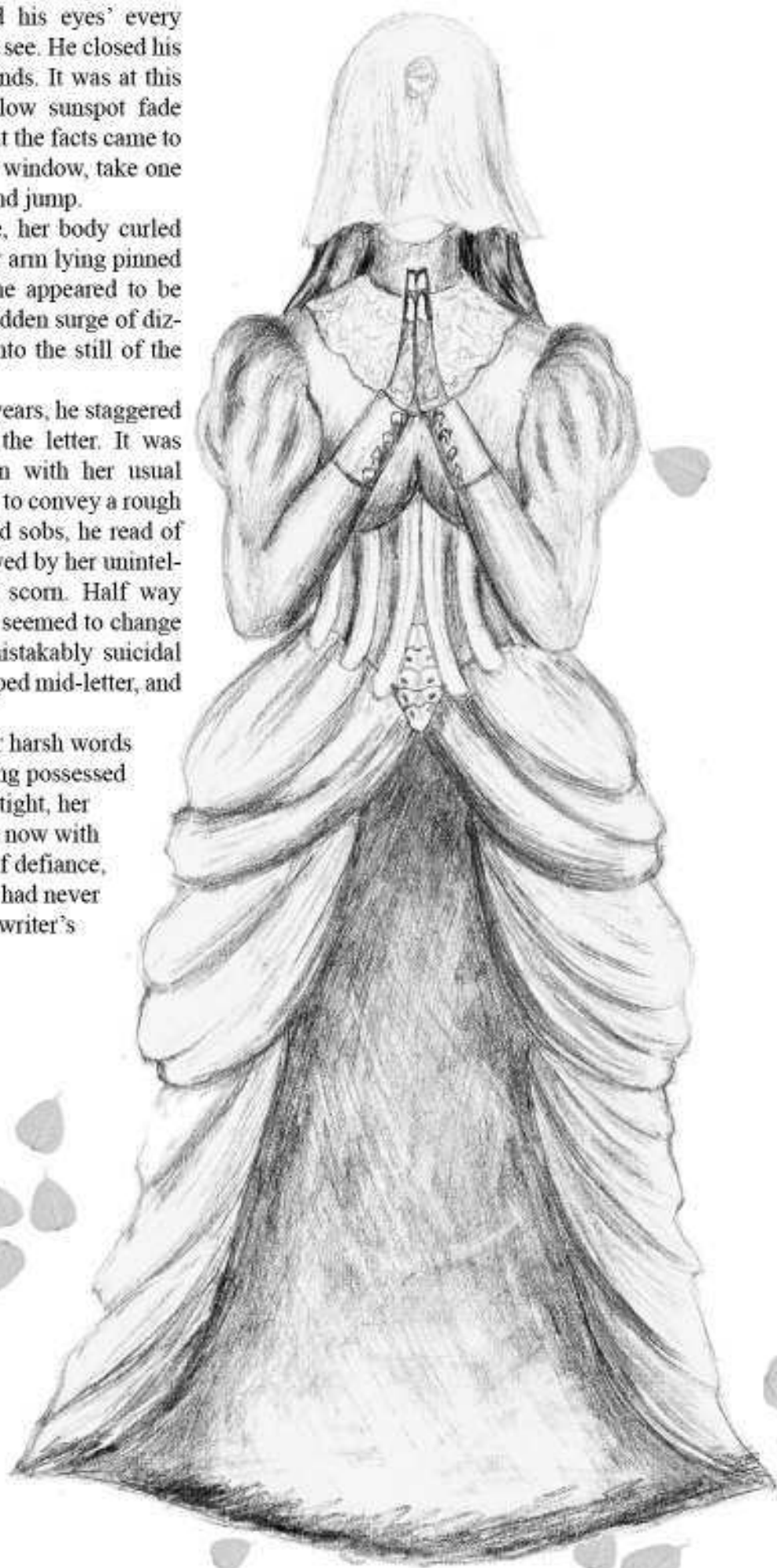
Without reading the words, their significance served a blow to Dr Jaffa's lower stomach. His focus shifted to the window. The sun through the open window had just breached Edinburgh's splintered skyline, and with a careless gaze it singed his retinas. As he reached the window, he hesitantly stuck his

head out into the chilled wind and looked down to the car park below. It was still dark, and the persistent bright spot from the sun tracked his eyes' every movement, making it impossible to see. He closed his eyes, and waited for ten long seconds. It was at this moment, whilst watching the yellow sunspot fade into the dark pink of his eye lids that the facts came to life. He watched Tisha stand at the window, take one final look at her square universe, and jump.

Tisha lay dead on the concrete, her body curled like a child. Had it not been for her arm lying pinned under the front tyre of his car, she appeared to be lazily contemplating life. With a sudden surge of dizzying vertigo, Dr Jaffa fell back into the still of the lab.

As though he had aged twenty years, he staggered to the typewriter and picked up the letter. It was headed as usual; 'jaffa'. It began with her usual choice of words, crudely structured to convey a rough but sincere message. With panicked sobs, he read of her disdain for 'the woman', followed by her unintelligible attempts at justifying this scorn. Half way down the letter however, her voice seemed to change in tone entirely, and took an unmistakably suicidal sentiment. It was as if she had snapped mid-letter, and taken on a different persona.

As he read her final remark, her harsh words cut at him. He imagined Tisha typing possessed by an aberrant rage, teeth clamped tight, her dark brown eyes filling as his were now with hot tears. And as if in one last act of defiance, he saw her ripping the sheet as she had never previously managed, from the typewriter's stubborn clasp.



Subjectivity

by Shamini Bundell

When the journalist arrived a number of observations were made: features of his appearance, the precise words spoken, the items extracted from his satchel. These facts were duly recorded. A number of additional thoughts occurred: his over-confident manner, the grating tone of voice, his distinctly unpleasant odour. These were not noted down.

Super-Roach is Maths Genius!

A cockroach with the mathematical skills of a toddler may be the most intelligent insect ever discovered.

A laboratory cockroach can count to nine and do simple sums according to scientist Simon Card, a researcher of insect hormones at Imperial College London. Only higher animals such as primates, dolphins and elephants have previously shown such abilities.

"She's amazing – really special" said Card of his star pupil. Known for being an unwelcome and repulsive guest in homes around the world, no-one had ever thought to teach a cockroach to count. For Card, it started out as a hobby.

"I gave her beads of different sizes and taught her to go to each pile in order of number of beads and not volume," Card revealed at an interview in his laboratory at Imperial's Endocrinology Research Unit. He then taught her to read numbers. A video (available on our website) shows Card presenting a large number 6, while the shiny red insect selects from piles of small black beads.

Though yet to be published, Card's demonstration is convincing. Colleague Jackie Scott believes the implications could be revolutionary. "If the subject can do what Simon is claiming, then yes this is...incredible, absolutely unbelievable. We really need to replicate this experiment if not with other subjects, then with other experimenters."

Card's subject may look ugly, but Card says he can see beyond appearances to the intelligent creature beneath. "She likes being held in two hands," he confided "somewhere warm and dark, they like that."

No-one knows if Card's insect is average, or some kind of genetic anomaly, but this could signal an end to treating cockroaches as disgusting infestations. So before you reach for the insecticide, why not see if your pest problem can give you a hand with today's Sudoku first?

In the empty PhD student office, Jackie shifted uncomfortably on her desk chair and watched the journalist scribble rapidly into a notebook.

"We really need to replicate this experiment," Jackie continued with a slightly forced smile, "if not with other subjects, then at least with other...experimenters."

An experimenter who was not Simon. An experimenter who was not becoming increasingly attached to his subject. An experimenter, perhaps, who wasn't displaying strangely erratic behaviour and had been doing so since before their break-up.

“Right, right,” said the young man nodding as he glanced over his notes, “but this could be potentially revolutionary, right?”

Jackie hesitated. “Of course,” she managed finally, and when he didn’t say anything else, added awkwardly “Simon could have stumbled across something big here.”

Concentrating fixedly on his notebook, the journalist seemed unaware of her discomfort every time she said Simon’s name. He seemed unaware of a lot of things, including the purpose of peer-review, the absurdity of suggesting that a cockroach could do maths and the fact that Jackie really, really did not want to be doing this interview. Her supervisor hadn’t wanted to do it either, which is how she ended up being a sudden expert on the subject. No-one in the department quite knew what to make of Simon’s unexpected revelation: if it didn’t involve hormones, they didn’t feel qualified to comment. Yet there was a certain satisfaction in the idea that an endocrinologist could have discovered something that the experimental psychologists had missed. Endocrinology was a real science after all, a hard science; perhaps those trained in its methods could go where no psychologist dared to tread. But there remained the uncomfortable possibility that there was some flaw in Simon’s experiment, some subtle cues he was unconsciously giving the subject, some variable left unaccounted for. There remained the unspeakable possibility that it was all a mistake.

The journalist was nodding, biting his lip and tapping his pen in frustration, trying to find the right words to get what he wanted from her. Jackie, waiting obediently, was determined not to give it to him. As a colleague from the same institution, she couldn’t possibly criticise Simon’s work. The problem was that she had tried it for herself and, to put it bluntly, the experiment didn’t work. She’d waved numbers around like an idiot but the cockroach had simply sat there staring at her, then wandered off to investigate the corner of the tank. What could she say?

“And do you think that we could now discover cockroaches or other beetles that are as intelligent as this one? Or as intelligent as humans even?” The young man leaned eagerly forward in his chair, black biro at the ready.

And then there was the problem of Simon. As a scientist she was trying to be objective, trying to logically assess his findings with a clear head based purely on the information available, trying not to let her emotions cloud her judgement. Their personal relationship should have no influence on her opinion. But it did.

Postgraduate students in the same department, they had been together properly for about three months before Simon got involved in all this cockroach business. He started spending extra time in the labs instead of coming home with her, sometimes he even came in on weekends. He would stand there just holding the damn thing, stroking it gently, and rant about how clever ‘she’ was. It wasn’t that Jackie was jealous of a cockroach, that was ridiculous, but Simon’s relationship with the thing just wasn’t right.

And then one day while she was working late alone in the labs (one of the few days Simon hadn’t hung around; was he avoiding her?) she accidentally logged on to his email. He must have left it signed in, and she didn’t notice until she’d already opened the first unread message, wondering why Simon’s brother was emailing her.

“You just have to tell her,” she read, confused, before scrolling down to check what it was a reply to. Then she read Simon’s last message. Then she read it again. Then she turned off the lab computer and walked very quickly back to her room. They hadn’t spoken about it since. She avoided him and he didn’t press it. They never had ‘the conversation’. She got the impression he was secretly relieved.

The journalist was waiting expectantly. You would have thought that he’d have done some research first: even Jackie knew that cockroaches weren’t beetles! But if he wanted some outrageously dramatic claims about super-intelligent insects he would have to look elsewhere. As intelligent as humans even? Idiot.

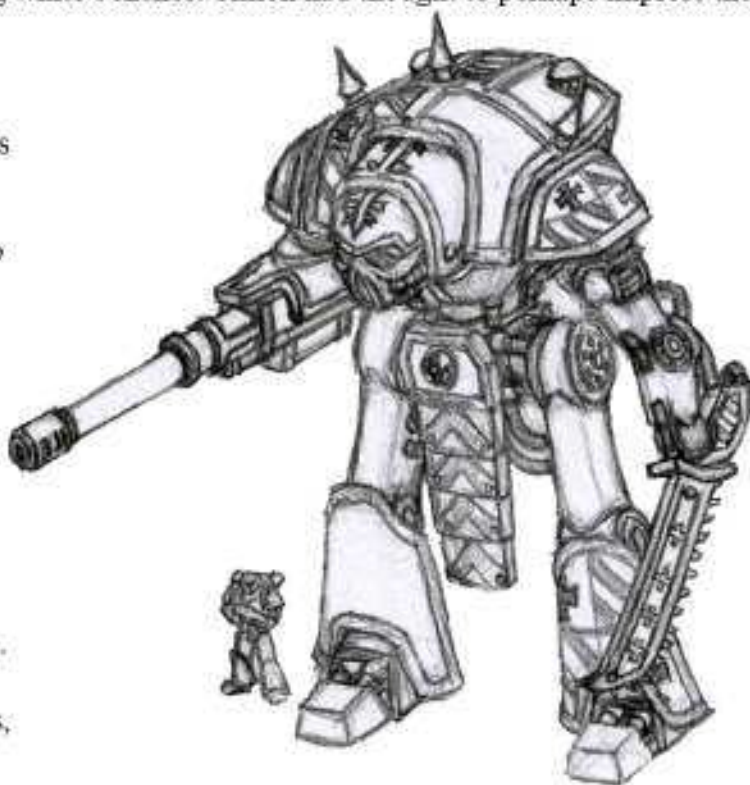
“I haven’t the faintest idea,” she said sweetly, “you’ll have to ask Simon.”

"I had to, to teach her to go to each pile in order of number of beads and not volume, 'coz you see otherwise she could be counting amount, just measuring the mass as opposed to really grasping the concept of numbers. No-one's ever taught an insect to count before you know! And, um, then you saw the video with the numbers, so she learnt that pretty quick, and er, yeah now we're on to adding!"

Simon gave an embarrassed laugh and the journalist's pen flickered, trying to catch up. They were perched on lab stools, surrounded by scientific clutter on the long white benches. Simon had thought to perhaps impress the journalist with all the pipettes, test tubes and chemicals, but the chap had proved surprisingly hard to faze. Simon suspected that he wasn't as ignorant about science as he made out, asking simple questions to draw his interviewees out and get them explaining things in public-friendly language. Simon hoped he had done OK. Had he used the word 'mass' just now? Never mind.

The journalist stopped writing and tilted his head to the side thoughtfully. "Just one more thing. You seem quite attached to her, sort of as if she's a pet. Do you ever feel like she's a person? Like she can understand you?"

Simon faltered under the man's sudden gaze. Attached to her? He wasn't sure he liked the wording. She was like a pet, but having a pet didn't mean you suddenly started treating animals like people. Besides, he hadn't given her a name, had he? After all this time, the only identification she had was no. 732, and Simon usually just referred to her as 'the subject'. Well, to be honest he usually referred to her as 'you', but admitting to talking to his experimental animals probably wouldn't do his reputation much good. But no, he wasn't attached to her. Not to the extent that it affected his judgement anyway; he may not be a psychologist but he knew the dangers of anthropomorphism. He was a scientist after all. About some things he was completely objective.



"The subject is remarkably intelligent," he said coolly "but she's just a cockroach."

The journalist gazed down in satisfaction at his black and white pages of biro scratchings. "Right, ok, great, I think that's everything! And I spoke to Jackie Scott already and got some good quotes there to put in, I reckon this'll be a good article!"

Jackie. He had spoken to Jackie. Simon knew of course, their supervisor had told him she was going to be interviewed, but... why Jackie? Hopefully she hadn't said anything too negative. She had never seemed interested in his on-the-side behavioural experiments; whether it was because she was only interested in endocrinology or she just didn't like cockroaches, Simon wasn't sure. He had tried to get her involved, but Jackie didn't have the patience to learn the necessary skills for interacting with the subject. You couldn't just plonk a number down and say go!

She didn't seem to be speaking to him any more though, anyway. Something had gone wrong and she wouldn't tell him what it was. Perhaps she realised that they had been spending too much time together. All day at work, lunch break, tea breaks, then most nights of the week too. All Simon had needed was a bit of space, but suddenly one day she had just completely shut him out. He was afraid to ask her why but figured she would talk when she was ready.

"Out of interest," the notebook and pen were going back into the satchel now, and the young man was picking up his coat from the bench, "where is the subject now? Is she kept here?"

Simon forcibly prevented his glance from flicking over to the large glass case covered with a cloth in the corner of the room. He didn't want to disturb her.

"The insect room will be locked at the moment I'm afraid," he replied smiling, and stood up to show the journalist out.

As the two men left the laboratory a report was already being composed ready for transmission. Just the facts, clear and simple. A representative of the media had come to discuss Simon's work... best not to go into details regarding precisely which work it was that was drawing so much interest. The most important thing in a job like this was not to get emotionally involved with your subjects, everyone knew that. So it was probably best if no-one found out about the maths tricks. It wasn't relevant to the study anyway. And her feelings towards Simon hadn't influenced her account of his behaviour at all, she was always very careful to remain objective in her work. Perhaps interfering with the computer had been a bit much, but Jackie was getting in the way of progress with Simon. He didn't need her anyway.

The report was sent. Her superiors would be happy, they always were. And as long as they were happy, she could keep this posting. It was a bit out of the way it's true, and the procedure was somewhat awkward, but the subjects were fascinating and a lot had been accomplished already.

She waited for Simon to come back and say goodbye. Perhaps he would hang around if she pretended to learn a new trick. And of course she would note down how he responded, and what he said, and send it in her next carefully edited report. Observation, prediction, experimentation. She was a scientist after all.



Left: Wood Elves - Daniel Rolph
Opposite: Knight Paladin - Daniel Rolph

The Paradox Twins

by Jessica Bland

“Common sense is nothing more than a deposit of prejudices laid down by the mind before you reach eighteen.”

Albert Einstein

Everyone has a story. Perhaps they might not realise it, or they might want to keep it hidden, but everyone has one.

Our predicament is not that we can't remember ours or that it relates some dreadful secret; it's that we have too many. Not too many in the way that our grandfather does when he tells us back-to-back anecdotes from his younger years. We have too many stories that happened side-by-side: too many simultaneous versions of our history, too many incommensurable pasts.

Until a decade ago, we shared one history. We remember the same birthday parties, graduations, weddings and joining the Spacelight Unit together. But then, aged 35, we were picked for a mission that forced our separation: separation from one and other and separation from the comfort of singular, linear time.

Each of us has a story of what happened on the mission and each of those is clear and unchanging: Bob lived on Earth and worked at Spacelight HQ; Alice flew to Ranto and back. But the story of our joint experience is not set.

This is not because our memories have failed us or because we didn't have clocks or calendars. It's just in the nature of the mission – in the nature of any mission that has someone flying close to the speed of light. In this special kind of situation, the idea of simultaneous events doesn't make sense anymore. It becomes impossible to plot out a single causal chain of events.

We were asked to bring our versions of the mission together - to try and combine our incommensurable stories into one. Not one to turn down a challenge, we present here our final attempt: the story of why we became known as The Paradox Twins.

The video relay showed the pilot strapped in, eyes forward, concentrating on the altitude monitor. Clare's command came over, “ready to sever visual link,” and this final real-time image of Alice disappeared. As Bob's monitor went blank, he felt a momentary pang of guilt: why was it her not him who was embarking on such a dangerous journey? But this thought was quickly disrupted. Clare barked into his earpiece: “Bob, activate neutron engine.” “Bob, commence velocity increase.” “Bob, shut neutron vent”...

Alice accelerated to 86.6% of the speed of light. She quickly passed by the moon and set her trajectory toward her ultimate target – the Proxima Centauri star system and within it the planet Ranto and its 7 moons. Asteroids permitting, that was her job done for the next 2.57 years. Except sending and receiving signals to and from Earth every 30 days, Alice was free to do exactly what she pleased until she reached Ranto.

The evening after the launch, Bob sat alone in the kitchen eating the last of the icing sugar numbers three and five from our birthday cake. Already, he was struggling without his twin. At least with her at HQ he had someone to complain to. Now he had to suffer Clare's never-ending torrent of orders alone.

As the first month went on, Bob started to question whether this was all really worth it. Did they really need both twins to complete the mission? Wouldn't just anyone do to show the differential ageing? Why did he have to suffer just because illustrating the Twin Paradox with actual twins makes a better story for the press?

At the end of the month, things got a little better; Bob got to send his first picture to Alice. He spent the night before the transmission posing with a book in his favourite chair holding his camera at arms length. Pretty pleased with the results, he walked to the office the next morning smiling - something he hadn't done since Alice left. After processing the image, Bob spent the rest of the day hoping that the Theory was wrong: that light travelled instantaneously and so he would receive Alice's picture that same day.

But he would have to wait almost another four

months until he received her photo - a slightly impersonal but brilliantly detailed profile shot of the three planets nearest the sun. By which time Bob had sent another three images of himself in various poses round the house: him making coffee, him watering the plants, and his toothpaste smiley face on the bathroom mirror. Bob felt a bit silly about his photos next to Alice's technical image, but was comforted by the fact that no one in HQ had noticed. They were all too excited about how well the Theory was holding up. Even if they took into account the time Alice's signal took to get back to earth, and the Doppler shift effect, she still appeared to be ageing over three times slower than people on Earth; for every month Alice experienced in space, three months and almost twenty three days went by on Earth.

Alice spent her first 29 days of the mission practising the techniques learnt in the evening classes in photography she had taken before leaving Earth. Setting up her tripod next to the craft's rear window, she spent hours consumed with the problem of keeping Mercury, Venus and Earth in focus at the same time. Finally managing it 4 hours before she was due to send her first signal back to earth, she decided that it would make a perfect image to send back.

The next 90 days were lonely for Alice; she kept sending her signals and practising her photography, but her mind kept wandering back to Bob. When would his image arrive? How was he coping without her there? Was he letting Clare get to him?

After 262 days, Bob's image came. Watching the lines of the decoder reveal the posed picture of himself in an armchair, Alice laughed. Bob is still Bob - nothing has really changed. The computer onboard was happy too; the timing of the message showed it was sent 3.73 months ago. So from Alice's viewpoint, Bob was ageing slower than her, just as the Theory predicted.

This went on month after month, each of us seeing the other age slower than them. We were out of sync, our times didn't match, but there was nothing wrong. Things were just as the scientists said they should be.

After exactly the allotted 2.57 years, Alice reached Ranto. As she navigated the ship into the planet's orbit, she realised something was wrong. The space around the ship filled with opaque gas; the close-range obstacle alarm went off almost constantly; and the ship began to sway in and out of its orbit. This was not the 7 moons that used to orbit Ranto. The moons must have broken up, and now Alice was left driving

through the remnants.

As she was thrown around the cabin, her left leg became stuck under the tripod from her camera. Dragging the tripod with her, she still pulled herself along the floor to the main console and flipped the radar switch to survey-mode. Whilst the planet survey collected its data, Alice struggled free from the tripod and prepared the craft for the return flight. Despite the swaying, the alarm and the pain of a broken ankle, she succeeded in firing up the reverse neutron engine and within minutes was accelerating back up to 86.6% of the speed of light, but now in the direction of Earth.

Bob was bored. It had been almost five years since they started the mission. Alice's images showed that she was only a year and four months older. So she was thirty six, whilst he was about to be forty. The deal they had struck was just not fair. He was stuck on Earth, ageing fast and still jumping at whatever the Commander asked: Bob this, Bob that. But the commander was also Clare. Beautiful, sweet, slightly neurotic Clare who he would have never met if it was not for last year's very drunken Spacelight Christmas bash. And who he was now going to marry. But so what?

Marriage wasn't anything new or exciting. Alice, however, was seeing things no one else had seen before. Day by dilated day, she was adding to human knowledge. He didn't even know enough about flower decorations to satisfy the Commander.

Alice worked solidly for 8.5 days to process the last of the data from the planet survey of Ranto. This information might hold the key to why the moons had broken up. And so, by sending it back to Earth piece by piece over the year and a half since she started her return journey meant that there was a chance the explanation would be discovered by the time she returned.

Bob had appeared to only age by six months when she had turned around after 2.57 years. And now, after she had turned around, his monthly signals were coming almost every week. His life had speeded up so much that he was now older than her; he was about to be forty, and this month's final data segment coincided with her thirty ninth birthday. If the theory had correctly predicted events on Earth as well, then, Alice calculated, if she sent the last of data now, they would only have 0.167 years (two months) to analyse it. Two months might just be long enough, but it

would be cutting it fine.

Daniel was throwing food at Clare from his high chair and Eleanor was throwing hers up on Bob's shoulder. Bob loved both his children, but sometimes he wished they would understand that he was almost forty five and needed his sleep if he was to do anything with his day. Balancing Eleanor against his shoulder, he reached down to pick up the ringing phone. It was Lieutenant Frank: Alice had turned around. However, there had been a problem on her approach to Ranto. She had broken an ankle. It was splinted, but there was no guarantee it would heal properly. There was good news as well though – she might have discovered a new type of astronomical phenomenon.

Bob had not felt this particular pang of guilt, since they first lost real-time contact nine and a half years ago. Four months after the phone call, when the final segment of Alice's data from Ranto arrived, he made it his goal to spend the remaining two months of the mission analysing her findings. He worked twenty hour days, ignoring Clare's protests and his normal desire for eight hours a night with two hours in the bar beforehand. The children had been good training, but it was easy for Bob to keep motivated - he finally had a proper role in the mission. Alice's monthly signals now arrived weekly; her ever closer presence pushing him on.

The analysis was done with a fortnight to spare. Bob had proved that Ranto's atmosphere had become chemically unstable resulting in a planet-wide explosion that in turn blew apart the moons. The Nobel committee awarded Alice for her discovery the next week. So that when she landed back at HQ, she hobbled off her craft to be met by her brother, her Commander, their two children and a swarm of press.

When we smiled for the cameras, the smiles was real; we had flown to the nearest star system, we had won the highest accolade a scientist can and we were only forty last month. We also had two children, a loving marriage and were forty four three months ago.

We no longer have a single history. We no longer share a single age.

We followed two paths that can never rejoined and so our dual stories sit side by side, irreconcilably separate.

But we are still us; we are still one.

The mission didn't slice our identity, it just stretched it. What makes us twins, what we will never share with anyone else, has not changed.

So if there is any any Twin Paradox, it's that even now we are not the same age, we are still twins. But then that's not a paradox, it's just playing with your common sense.

Below: Idron & Friar - Daniel Rolph
Opposite: Untitled - Akbaralli Kapasi





SHELL GAMES

BY DAVID BARTRAM

Kieran's neurocom cut in with a report from control: "Sanyukta's taken out aleph team."

The bastard must have had a serious upgrade. Aleph team had comprised six Achaian-class teletroopers and an Ephor-class full-spectrum support unit. Their engagement with Aravind Sanyukta on the bridge of the freighter had lasted twenty-two seconds. The tactical data stream from the conflict hit Kieran's mind - Sanyukta's shell was an experimental military model. Aleph team hadn't stood a chance. Kieran was on secondment from Solar Ethics to CRO - the Solar Union's Crisis Response Office. The Crows were one of the most advanced tactical units in the solar system, and Sanyukta had access to an even higher tech tier. Once this was over, someone would need to find out which lab installed the last of the Nightmare Men - the most wanted fugitive in the solar system - in an ultra-high-spec combat shell complete with Casimir battery, quad-directional maser emitter and Gauss accelerators with guided nanogram antimatter cartridges. For now, though, Kieran had to do something about the shell's owner.

Control came in again over the neurocom, "Kieran, I can't spare you anyone. Bet and gimmel teams are still trying to secure the engine room and shut down the engine. It's still in accelerated planetfall sequence, and rigged for maximum glow on impact." Sanyukta had set the freighter accelerating full-tilt toward Mars. He didn't get a chance to point the ship directly at a habitat before the boarding team from the Crow strike craft burned out the navigation system. Still, the radiation from the impact site would penetrate the shielding on many of the older and cheaper habs on this side of the planet. The prognosis stood at ten thousand deaths minimum, possibly millions in need of urgent treatment. Kieran reckoned the Martians wouldn't sit still much longer. The neurocom cut in again: "Mars defence grid has launched missile cluster, four-point-five minutes to impact, four minutes to final abort opportunity."

Silently tapped into the same neurocom channel was Benedetta Holbein. Detta was the sole member of daleth team, and at the time she was remotely operating a stealth-optimised shell on the outside of Sanyukta's freighter. The shell was a Jameson O88, an octopus-like shape about twenty inches in diameter. Detta was used to nonhumanoid shells, and she comfortably walked on eight tentacles of nanothreaded gel to the destination point. The O88 spat a gob of penetration fluid onto the freighter's hull, making swift work of the outer bulkhead. A patch of the hardened ceramic softened to a thick paste, from which Detta's tentacles could scoop out a cavity. She squeezed herself in and set about echo-scanning for the ship's communication fibres.

With combat support tied up in engineering, Kieran's Envoy-class diplomatic shell entered the bridge alone. The smoking, glowing remains of aleph team's teletroopers littered the chamber. At the far end, a metallic monstrosity not unlike a textbook diagram of a bacteriophage was physically jacked into a console. A roughly icosahedral head studded with sensor modules was poised atop the main body column, which was supported by six spidery legs. A number of orifices and appendages were pointing at Kieran's shell, and his tactical overlay identified them as weapons more than sufficient to vaporise it instantly.

"Aravind Sanyukta, this shell is being remotely operated by Dr Kieran Trej, under joint Solar Ethics/Crisis Response Office authorisation. You're under arrest." The battle shell remained still. Sanyukta's human voice seemed inappropriate for the infernal engine that was his body. "You can't enforce that, Trej. This shell smoked one of your combat teams, and the drones down in engineering rolled off the same production line. Furthermore, I'm jacked into the delete code for that little package I picked up after I left Ambikapur. Dead man switch, naturally. Every ten seconds I choose to prevent the package's deletion."

Kieran knew that the 'little package' Sanyukta was talking about was a collection of over fifty thousand mindstates illegally harvested from innocent civilians. Kieran had served in the Indian

war that finally dismantled the Tetrpharmakos metacorporation and brought its executive board - known to the mediasphere as the Nightmare Men - to justice. All of them except Aravind Sanyukta, who had escaped from the last Tetrpharmakos bolthole at Ambikapur. He'd squeezed some kind of transmission through the Solar Union countermeasures that swathed the subcontinent. The predominant theory was that he had divided his mindstate between several tiny storage units, and electromagnetically launched them into orbit, where they were reassembled by a friendly vessel. But by the time the SU teletroopers had finally taken Ambikapur, no evidence of his escape remained. Investigators poring over the shards of the metacorporation's data network discovered that over the decade leading up to the war, Tetrpharmakos had arranged the abduction and forced destructive upload of 51,692 civilians from the regions surrounding their offices across the solar system. Their mindstates were stored in a massive unit and hidden away until they were needed. Whether the Nightmare Men wanted the mindstates for experimentation or as hostages was unknown. Now that storage unit was sitting in the cargo bay, inextricably linked to the freighter's computer system, and thus to Sanyukta.

"The ship's vapour in three and a half minutes, Sanyukta. Planetary defence grid. Your options are limited."

"I've retrieved your file, Trej. You were on psych support at Farsight 5 telecommand centre. I ask to negotiate and this is what I get? First an attempt on my life. Then a visit from the man who passed the sick bucket around, and handed out the sleeping pills?" Kieran knew that Sanyukta wasn't really capable of scorn or derision. Everything he did and said was starkly pragmatic - that's what the illegal mindworks that the Tetrpharmakos executive board had applied to themselves had done. Before they'd been human beings - ruthless, competitive, and egoistic - but human. The procedures they'd undertaken were the logical extension of the Ataraxia anti-anxiety personality surgery that had made Tetrpharmakos a household name. They intended to make themselves the most efficient and capable businessmen in the solar system, without any of the stress, doubt and guilt that plagued them. Without any capacity for anxiety or remorse, they'd have a constant edge over all their competitors. The procedures worked.

Detta had found a fibre optic cable in the system which connected the freighter's bridge to the cargo bay. It should have been the one through which Sanyukta was connecting to the storage unit. More than fifty thousand lives depended on this being the right choice. But time was short, and Detta Holbein needed to work with what she had. She herself had not exactly intended to be uploaded - as a child she had contracted a terminal illness, and her parents decided to have her destructively uploaded rather than let her die. It was not an easy process; she was born and raised in a European bishopric. The local bishop at the time was a hardliner, and human upload was strictly forbidden. The synod was having one of its periodic crises, and the entire moon balanced on the edge of schism. As a result migration to a liberal bishopric to undertake the procedure was out of the question. The Holbeins sold up and moved offworld, to a socialist space habitat. They paid nearly everything they owned to get offworld and perform the upload procedure, scanning (and in the process destroying) Detta's physical brain and copying her to an optical matrix. The habitat health authority awarded them a shell for young Detta - but funds were tight, and it wasn't a humanoid model. Detta barely remembered her human form, and even now she had the funds to buy a humanoid shell, she didn't want to. Detta knew that many of the people in storage wouldn't want to be rescued, not at first. They hadn't consented to uploading; they weren't prepared for life as software entities. But she knew most of them would adapt, given time. After all, she had.

Her O88 span out a thread of optical fibre, and prepared a small laser cutter to splice her into the feed through the fibre-optic.

For a long moment, Kieran said nothing. His own course of treatment for the Indian War was not yet over. His therapist had said that he has a unique opportunity in this mission - a chance to confront the nightmare. "What's to negotiate, Mr Sanyukta? You're trying to crash a freighter on an inhabited region. If we can't disable your engines in three minutes, you die." Kieran checked the tactical feed from bet and gimmel teams. It wasn't looking good.

The bristling pillar of steel that housed Sanyukta replied, "The package will be destroyed too, in that case. I only pointed us at Mars so that your people would have to respond quickly. It would have been unwise for me to give the Crows time to manoeuvre. Give me access to your vessel's band-

width. I'll open a connection and prepare to transfer my mindstate, and then I'll countermand the dead man switch and call off the drones in engineering. And you get the package back safe and sound."

"That's the deal we expected. I already have my orders. The answer's no. Those people you stole have already been mourned for, and you're just too fucking dangerous to let live. It's over, Sanyukta. We both know you're not capable of placing value on human life, positive or negative. All you have is pure self-interest. But killing those hostages isn't even pragmatic. Your game's up either way. You lose nothing if you let them go."

Kieran was hoping that Aravind Sanyukta would do what the Crows expected him to. Otherwise the strike would have been for nothing, and 51,692 people would die.

Sleeping pills or no sleeping pills, no-one slept soundly at the Farsight stations that fought the Indian War against Tetrpharmakos and its forces. There wasn't a single physical combat casualty on the SU side - the war was fought entirely by remote. But the Nightmare Men had been ready for that. They earned their name because they never fought to destroy battle shells - they fought to shatter minds. A Slitherjaw could smash your combat shell to smithereens, but the telemarines prayed to face those rather than Crybabies or the Victim Trees. The Tetrpharmakos labs pumped out cloned humans in their hundreds - helpless newborns in bodies of all ages, violated and slaughtered by engineered horrors before the eyes of the teletroopers. Kieran remembered soldiers thrashing around their hastily suicide-proofed quarters, begging never to see through the eyes of a combat shell again. He remembered breaking up fights in the mess hall between soldiers so numb to brutality that they would fight like rabid dogs over almost nothing. He remembered the shambolic retreat from Jashpurnagar after the first deployment of the Bad Daddies. The Solar Union combat shells stood motionless, fodder for the flanking Slitherjaws, while shock and despair shot through the ranks at Farsight 5.

Detta spliced the optical feed into a beamsplitter array within the Jameson 088. Sanyukta was operating a dead man switch. His signal kept the hostages in the storage unit from deletion. Naturally, knowing that he'd be up against the Crows, he'd have wanted the signal to be as secure as possible. There was no way she could eavesdrop on the signal, and learn to duplicate it, if the message was being sent with a perfect quantum security protocol. Detta, however, wasn't one to give up easily. The fibre optic connections in a freighter as old as this one wouldn't be quantum-secured by default. The fibre optics would operate with ordinary lasers. For Sanyukta to have gone to a totally secure quantum protocol, he'd have had to replace the comm lasers with reliable single-photon emitters - micropillar arrays or crystalline photonic turnstiles. More than that, he'd need to have replaced the cladding along the optical fibre to deal with the adjusted photon frequency. The cladding was still standard - which meant that Sanyukta had done things the easy way. He'd have added a down-conversion system to the comm lasers, tuning them to single photon intensity. Quantum security was mostly assured - but a laser is never a perfect single photon source. Every now and then, it would produce a pulse of two or more identical photons. And Detta's beamsplitter array would cream one of them off and read its polarisation state. With enough time, she'd be able to reconstruct the signal, and duplicate it if Sanyukta stopped transmitting.

Time, though, was of the essence. Quantum optics was inherently probabilistic - you couldn't predict exactly how many two-photon pulses would be transmitted in a given time. Detta trusted to luck, and waited.

Sanyukta's combat shell opened fire. Kieran's shell wasn't fast enough to register the weapon fire, the tight-focus microwave beam instantly searing the primary sensory uplink. The auxiliary uplink fired up, but the signal it transmitted was not the sense stream from Kieran's shell. It was an executable code which immediately and clandestinely authorised a bandwidth increase, and then unlocked all the security protocols in the neural telecommand unit operating the shell, and prepared to pipe Sanyukta's mindstate through the widened connection. It was a sophisticated pre-designed hack, exploiting leaked high-security technical data and backed up with a rapid simulated intelligence suite. The final stage of the procedure was by necessity somewhat crude. There was no technology to overwrite a biological human brain - neural restructuring on that scale would

kill the brain in short order. So only a small sequence of commands which ensure the immediate survival of the mindstate could be burned onto the brain of the shell's operator via the neural control link. A rudimentary, stripped-down emulation of the mindstate would be installed on the user's visual networking implant, and given access to a small suite of hypnotic and coercive control systems which operated via the user's visual cortex. The actual mindstate would be divided and stored in a number of secured directories within the telecommand unit itself, waiting for its sketchily-emulated brother to manipulate the user into transferring it to a safe location.

As the carefully designed routine did its work, Aravind Sanyukta's mindstate was transferred out of the combat shell, and squirted across Kieran's shell transmission to the Crow spacecraft. When Sanyukta regained consciousness, he was unaware how much time had passed. He wasn't embodied - he was being run in a processing space, with zero physical awareness. This wasn't what he expected. A visual feed opened. A man in a full kinaesthetic feedback suit looked at him. Superimposed on the video feed was a document, ratified by the Upper Conclave of the Solar Union. The man in the feedback suit pointed a maser pistol at Sanyukta's processing unit. Sanyukta recognised the man from the personnel file he had just called up - it was Trej. The document was the death warrant for Aravind Sanyukta. Trej pulled the trigger.

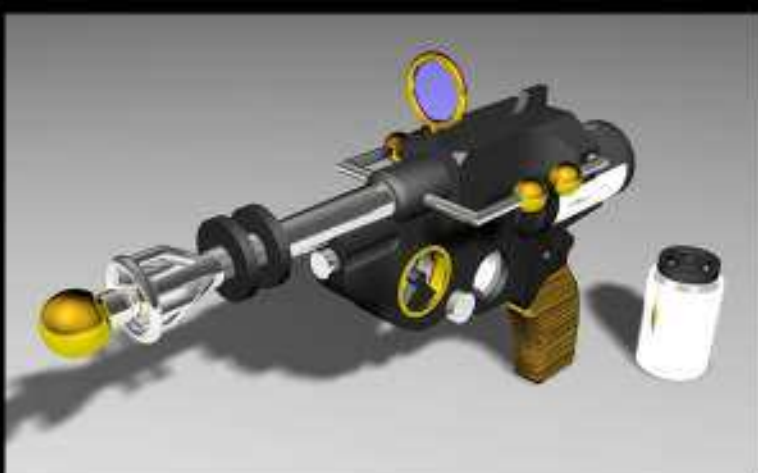
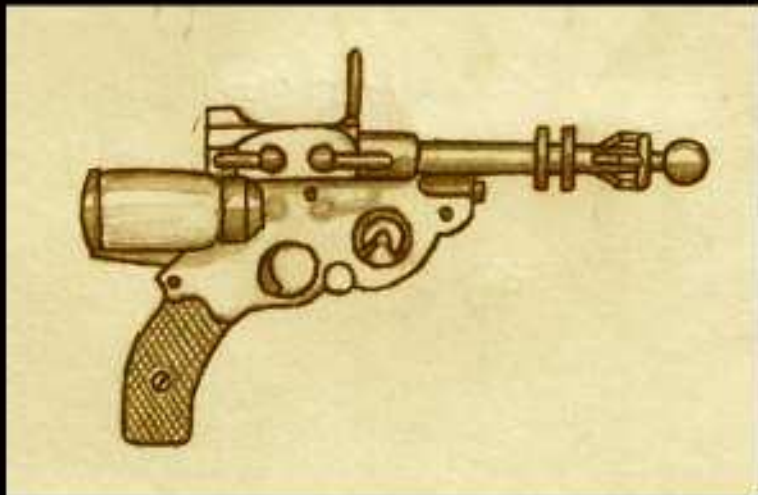
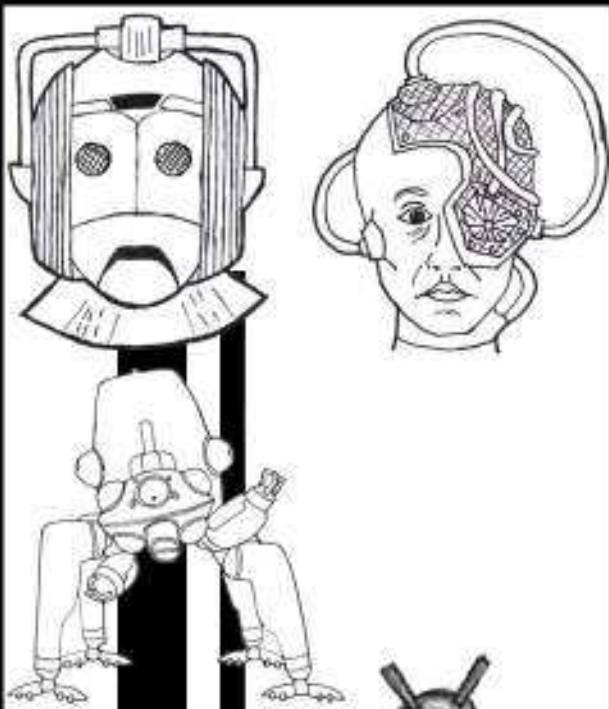
Kieran Trej stood back from the smoking remains of the processing unit. Sometimes, you need to be completely sure you've wiped a drive - masering it to cinders tends to offer that peace of mind. Kieran had operated the Envoy shell aboard the freighter with an outdated feedback suit routed through a processing unit, rather than by neural link. Rather than hijacking Kieran's nervous system via the telecommand equipment, Sanyukta's mindstate had simply been transferred into the processing unit. In that ruined terminal, the last of the Nightmare Men had died.

Before Sanyukta fled Ambikapur, Transpacific Intel had informed the Crisis Response Office that Tetrpharmakos had access to a very dangerous security exploit. The malware could hijack the secondary uplink transmission of an Envoy-class shell operated by telecommand station from a Baku-hatsu Y-102 strike craft. When Sanyukta broadcasted the freighter's position and demanded negotiation, the Crows were sure it was a ruse. Of course, he'd made sure that the nearest CRO vessel was a Y-102. Once the Y-102 was close enough, he'd sent his freighter towards Mars, knowing that the defence grid's response would force the Crows to take action from the Y-102 rather than waiting for backup. Aleph team had engaged Sanyukta in combat for purely psychological reasons - so that he thought that the Crows had boarded the freighter to kill him, that sending Trej in to negotiate was only a contingency. That way he would have no suspicion that he had fallen into a trap.

The work wasn't over yet, though. As soon as the transmission of Sanyukta's mindstate was complete, a simulated intelligence had taken control of his military shell. Intending to give the impression that Sanyukta was still in the driving seat, it vaporised Kieran's shell. It would no longer be transmitting the signal to the storage unit. Kieran bypassed the chain of command, and neurocom'd directly to daeth team: "Holbein?" "I got it, Trej."

The three remaining teletroopers from teams bet and gimmel had withdrawn from engineering to the cargo bay. Two were setting explosive charges to jettison the storage unit, while the third wired his shell's comm unit directly into the storage drive, to keep sending the dead man switch signal. The planetary defence grid's missiles were now inexorable, the last window for the abort command having passed. Kieran and the Crows aboard the Y-102 watched as the jettison charges blew, hurling the storage unit out of the cargo bay. The silver lozenge of the storage unit, with one teletrooper shell clamped onto the side gracefully rolled onward, carried by the forward momentum of the freighter. Five compressed antimatter warheads impacted the freighter in a shining blast of light, heat and gamma radiation. Only dust remained.

The Indian War had been ended by a single maser blast. And a beamsplitter had saved 51,692 ghosts. The crew of the Baku-hatsu Y-102 received Commendations, with Benedetta Holbein receiving the Copper Star. Dr Kieran Trej was awarded a three-year Solar Ethics Board position advising the Upper Conclave, before returning to active duty as an Ethics Officer at his own request.



Above: Steampunk Raygun/
Steampunk Raygun Perspective/
Steampunk Raygun Render
- Daniel Rolph

Above Left: Picocon Labels - Catherine Ward
Left: Chinese Fairy - Daniel Rolph
Opposite: Untitled - Annabel Slater



Gold and Scarlet

by Joseph Britton

There once was a poor couple, who lived right at the edge of their village, near the deep dark woods where people feared to venture, for there were things which lived in the thorns and in the darkness which hungered for human flesh. The man was a hunter, who dove daily into that darkness to find his prey, while his wife worked day and night to eke what she could from the little land that they had. Yet despite this hard life, they were happy together. The only thing that they lacked, that they were sure would make their lives complete was a child. But despite all their efforts, they had no luck for many years. Rumours spread around the village that the man was infertile, that the woman was barren, and they were both terrified that such tales might be true.

Finally, however, two strokes of luck came together. The man found a glade in the deep dark woods, with fresh water and green grass, around which the twisted creatures fed and watered themselves. The pickings were good, and every day he would come back with a carcass slung over his back. Meanwhile the man's wife began to swell for she found she was finally with child. The two dared to hope that this was a sign that they had been blessed, and all of the problems they had were over.

However, that was not to be. The wife sickened, her face turning as pale as ash and her hair falling out, yet despite that the child continued to grow. And perhaps, too late, the hunter realized in vain that there was a reason that no others had gone to that glade. The waters were tainted; he was sure that their very purity was a perverse sign of the curse that he was now sure lay upon it.

They called the priest. He prayed all night, his thin hands clasped together when they were not being wrung in his failure to help. Faith and doubt warred in his eyes; perhaps that was why the attempt to cure the woman from the strange affliction, which drained all colour from her body and left her weak, failed.

On the second day, she began to rant and rave, madness clouding her mind and spewing out talk of terrible things. The priest continued to pray, but sent his novice out to fetch his bell, book and candle.

That night, the man returned to the deep, dark forest. Before, he had never dared the depths when the moon was in the sky, for fear of the terrible things that lived there. The phosphorescence of witch-fires lapped at the edge of the rivers, totally clear despite their stagnant nature. Too many times, he was forced to hide by the edge of the forest tracks, as great shapes, both those which were scaled and those which roared in the night, crashed through the pitch-black darkness. The man was tempted to turn back many times, as terror filled his heart, but each time he hardened his heart, and plunged deeper into the forest.

But, finally, as the half-moon hung heavy above him, he found the glade again. By night, it was notably different, though the river remained crystal clear, the plants and trees shimmered with unnatural colours, ones that the man had never seen before and ones which he never would again.

It was at that point that he realised that he had no idea what he was expecting to find. He had to aid his wife, he knew, but he had no idea how he could do so.

A light grew on the other side of the glade, painful in its brightness, and he was forced to cover his eyes, lest he be blinded. Even with that precaution, his vision in the darkness was ruined, and so it was that he did not see the figure that approached him until it was less than ten paces away.

"Who are you," it asked, its voice elderly, female, and thick with hubris. "I have watched you poach from the land that is mine, and now you return at night? What more do you want to take from me?"

One of the witch-folk stood before him, her back bowed, white hair glinting under the half-moon that shone in the sky, brighter than the sick, unnatural light that burned within all the plants in this cursed glade.

"Ah," the man answered. "Please, I beg of you, elder one. I did not know that anyone claimed this land, least not one of your kind. But my wife, who is with child, is sick, for her face is as pale as ash and her hair has left her head. I only came back to find her a cure.

The witch snorted. "You lie," she said simply, a sneer on her face. "I can see that you would just take from this place as you please. But we can come to a deal, you and I." The man was afraid, for all knew that a deal with the witch-folk was the path to damnation, but he did not flee, so great was his love for his wife. "I shall cure your wife," she continued, a sly smile filling her face "and grant you leave to hunt here, to take what you wish, in return for just one thing. You shall give me the child of your kind which your wife shall bear. When the birth-caul is removed from her face (for it shall be a girl, I can see it), I shall be there, to collect her." The man began to protest, but the witch raised a hand. "Do not fear in that regard. I shall raise her as my daughter, and she will be treated as my own flesh and blood."

The man froze, for several terrible seconds, as he considered the deal. And, though he hated himself for it, he took her outstretched hand and shook it. She gave him three magical stones, bisected with painted red and blue, and told him to feed them to her, with an assurance that the wife would thus live if he did. He did as she said, and, just so, the wife recovered, the pregnancy continuing unharmed.

Summer became autumn, as the leaves reddened and fell from the trees, and then winter came. The birth was long and painful. For three days and three nights, the woman lay in pain, as the child moved within her. She grew even paler, returning to that dreadful morbid state where her very features looked like they were hewn from ash. The midwife refused to attend, for the priest had warned her about his fears for the pregnancy. The man did what he could, but he knew very little.

Finally, however, the child was born. And, lo and behold, just as the birth-caul was scraped from the newborn's face, there came a rap at the front door. The man ignored it, seeing instead to his wife and his daughter. The knock came again, a second time, then once more. He ignored it again. Then came a voice, arrogant with power but decrepit with age, which echoed through the wood.

"We had an agreement, you and I.

I held up my end; she did not die.

A life for a life, an eye for an eye.

Open the door and give me what's mine."

The man froze. He had tried to deny it, to delude himself into thinking that the recovered had been due to the prayer of the priest and in his own efforts in finding the plant, but he could not do so any longer. He had never told his wife of the price that they would pay for having saved her life (and there would be an even greater one after death, if the priest was right, for he had dealt with a witch). He did not want to.

Eyes filled with guilt, he gazed over at his wife. She had fallen asleep already, totally exhausted; the child, still covered in the gore of birth, lay suckling on her chest. His wife could not know, that was for certain. And so he took the child, wrapped in a blanket, and went to the door. He handed the infant over to the witch, and then closed the door in her face. He did not say a single word.

When his wife woke, he told her that the child had died. He showed her the patch of frozen earth he had dug and filled in, once he had been sure that the witch had gone. A crude, nameless cross marked the spot, for the child had not been their long enough to give one. The priest came the next day, and told them it was for the best.

The woman died three days later, from an infection. The gravedigger dug a shallow grave in the winter soil, and the priest said a few desultory words by the grave as rain fell from the sky.

The day after the funeral, the man ran into the dark woods, trees barren under a grey sky, and there he died.

The child, on the other hand, did not die. The witch took her, and raised her as her own daughter, feeding her on the milk of the black goats of the woods and the strange foods of the witch-folk. This did not harm the child, and, indeed, she grew into the most beautiful girl under the sun, her hair the colour of spun gold and her eyes akin of sapphires. When she was twelve, the witch took her to a tower, a thin needle which protruded out of the depths of the dark woods. None knew who had built it, and those few hunters who had seen even a glimpse of it spoke in soft whispers that it pre-dated even the witch-folk. And there the witch left the girl, with food and her most treasured possessions, the secret texts of her people. To access the needle, the witch would call out a certain phrase, and by means arcane and strange, access the one window at the top of the needle. And so the girl lived there, only seeing, only knowing the witch who had taken her from her parents.

After a few years, it came to pass that the eldest son of the king of the land, fresh from his glorious victories over a great foe of the nation was told by his father that it was time that he get married and produce an heir, for the old king could feel the infirmities of age sapping at his strength and clutching at his heart. And, as was customary for them, he went to a single village at the base of the tallest mountain in the land. Now, the folk that dwelt in this place were strange indeed, for they dressed all in black and concealed their faces behind masks, for their ancestors had interbred with the witch-folk and they knew many strange and terrible things. Through sundry offering and gifts, as was the practice, the prince earned a gift, and he asked them where the most beautiful girl in the land lived. This is what they told him:

"Young prince, the one of sapphire and gold is hidden in the dark woods, never leaving the needle that pierces the heavens. She was taken by one of the witch-folk who calls herself the girl's mother, but she was not born of them. A monster will try to enter her tower, and it will be slain, oh prince. But you must be there, so that destiny must be fulfilled, and the price paid. A life for a life, an eye for an eye."

With that said, the strange mountain-folk said no more, and the prince set off on his quest. For a year and forty days, he travelled the kingdom. He searched many towers, but none could be truly described as piercing the heavens. Hope dimmed in his heart, but he did not give up, for he had made an oath to his father, and an oathbreaker would not deserve to be king.

Finally, however, he came to the small village where the girl had been born. They knew nothing of any beautiful maidens, but a hunter did mention that there was a great tower hidden in the darkness of the forest, concealed by mists and fogs and the tallest trees that the peasant had ever seen. The prince ignored their warnings of monsters; he was a prince of royal blood, with valour in his heart and conviction in his head. He would channel those virtues to slay whatever beasts he faced.

And so it came to pass that he found himself at the foot of the tower, drenched in the blood of the tainted beasts, the likes of which he had never seen before, but had nevertheless slain to get to the foretold place. But the tower was tall beyond belief; the top concealed in the fogs that hung heavy over the dampness of the deep forest, and was made out of shining metal and some kind of strange crystal. It was sleek and smooth, and there was no way that he could climb it.

"There will a monster who tries to get in," he said to himself, "and therefore I will follow it, to get passage into the place where the fair maiden is held captive."


He waited for three days and three nights, feeding off the meat he had taken from the beasts he had slain in his journey to this cursed place, before he saw another living soul. A hooded and robed figure, clad in dirty black and grey, emerged from the forest. There were no paths or trails; they emerged from the dense undergrowth. The prince ducked back into the cover, as the witch removed her hood, and began to chant in the old tongue of the witch-folk. Suddenly, pillars of gold burst up from the ground, tearing the earth asunder and forming rough hewn steps in the precious material, just as a great metal cascade came forth from the tower of crystal and steel. Before his very eyes, the prince saw a staircase of gold and steel appear, ready for the witch to gain access. And he knew it was his chance.

Bravely, he charged forth, his sword raised to cleave the witch-woman from shoulder to thigh. The fiend turned, light the colour of a fresh wound pouring forth from its eyes as its visage twisted into monstrosity. Nevertheless, righteousness prevailed; the witch-woman did not have the chance to raise her cursed hands against him, before he split her clean in twain, from shoulder to hip. But, against one of the witch-folk, everyone knew that that was not enough. To ensure that the evil fiend could not return from the chill embrace of death, he hacked at the body, removing all four limbs from the severed torso, before taking the head and removing the eyes. Only that way could her spirit not find her body and return to plague the lands again. And so, bearing his trophy, by which he would show her proof that he had slain the monstrous witch, he began the long ascent.

The room at the top, high up in the mists and fogs of the cursed forest, was bare. Roughly hewn wooden furniture rested upon strange grey stone, books and the like stacked against all the walls. There were little birds which flew in and out of the uncurtained windows. But all that was an irrelevancy to the prince. His foretold bride rested in a bed in the middle of the room, her eyes closed. She was indeed, he thought, every bit as beautiful as the seer-people had said.

With a small gasp, she awoke, sitting up. Her lustrous golden hair fell in front of her face, as she rubbed her eyes.

The prince pulled in a deep, shuddering breath, still



fatigued from his brave fight against the evil witch and the long climb. "Fair maiden, do not be afraid" he began. "I have journeyed long and far to find the woman who the wise old woman told me was the most beautiful in the land, and thus fit for a prince. That is my right as heir to the throne. And I have slain the monstrous witch who has you held captive, as foretold by the half-blooded seers of the mountain-folk."

With that said, he lifted up the witch's head, its eyeless sockets gazing out at nothingness as drops of scarlet splattered on the floor. The girl, her beautiful long blond hair draped over her face, did not say a word.

The prince paused. He was vaguely aware that this was not how it was meant to go. He had killed the witch, had he not, purged this dark forest of her malign influence? Perhaps now it would return to normal, the twisted beasts that inhabited it freed from the way that she had warped them.

"Fair maiden," he said, a puzzled note in his voice. "I would at least know your name. I am a prince of royal lineage, and you are my destined bride. At least look me in the eye!"

She obeyed. The prince saw that those beautiful blue eyes, no longer hidden behind a golden veil were running with tears.

"You killed my mother!" the girl hissed, making a peculiar gesture with her hand, sweeping it in. And the room came to life. Birds fluttered in through the window, joining the ones that had already been nesting on the rough-hewn wooden furniture. The smaller ones, the bluebirds and the robins and the sparrows, pecked at his face, forcing him to shield his face with an arm while he swung his blade through the air, trying to keep them at bay. The larger ones, though, the carrion birds and the predators, sat there, waiting and watching, for him to grow tired.

"Call them off!" he screamed, as his blade swatted the tiny creatures from the air. "Call them off!"

The girl wiped her eyes with an arm, leaving a wet trail down her nightshirt. "Why? Why should I do that!" she retorted, more tears already replenishing those which were lost.

"She was not your mother!" snapped the prince, taking a wild swing which cut a crow in half. "You

are not one of the witch-folk! Your place is at my side, as my bride! Call them off!"

"She was!" The girl's voice was no longer breaking with emotion, but had suddenly gone cold, each word slotting into place like a beautiful crystal. "She was my mother. She raised me all my life. I live, because of her. She fed me, clothed me, and taught me. Who is the mother, the one who carries them for nine cycles of the moon, or the one who cares for them for years?" She lifted her chin, the tears still flowing, but the blue eyes filled with hate. "I say it is her."

"No!" the prince yelled, raising his sword, bloodied with the viscera of countless small birds. "Call them off!"

The blond girl shook her head. "No," she said simply.

There was a moment of discontinuity, of sudden, vibrant, unnatural life, as the rough-hewn furniture experienced several years of impossible growth in less time than it takes for a heart to beat. The thorny branches wove a veritable hedge around the prince, his body trapped and impaled on a new tree made out of pain.

And with that done, the girl picked up a knife from the table. The prince mewled and groaned, thorns piercing his body and ripping at his flesh with every breath. The evil birds that still lived, were staring at him, too, their eyes now glinting with an awareness which he should have seen before. She followed his line of sight, to the knife.

"This?" she said, in that beautiful, lyrical voice. "No, it's not a sharp knife. A life for a life, an eye for an eye. But which eye should I start with?"

Blood on the Sand

by Matthew Reeve

The liquid crystal matrix of the screen read 1400 hours. With a groan, Captain Woodford placed the holoslate down onto the table, and then leaned back in his seat, rubbing his eyes. White light blazed off the prefab walls, and the small room felt stifling, sunshine pouring in through the single window. Woodford could feel the sunburn tingling on his arms – neither he nor the Cadian 23rd were accustomed to these conditions. It had only been two weeks since they had been assigned to the outpost, and since then, their orders had remained the same – defend the Mesoz basin.

The Mesoz formation was much like any other part of the hundreds of square kilometres of desert surrounding it, a deep circular depression, perhaps a little over a klick wide, the only difference being the presence of a small pumping station, Mesoz Prime, at its centre. From the outpost high on its rim, the company of the Cadian 23rd could monitor any activity in the basin, of which there had been none. As far as Woodford could tell, below the basin were substantial oil reserves of significant strategic importance, but the pumping station was only manned by servitors – *about all this desert is fit for* he thought. If he didn't know better, he would have said this was a punishment exercise for the mutiny back on Ilocanthus – mentally, he kicked himself. *Why did I put that idiot, Peters, in charge?* If it hadn't been for him, perhaps they wouldn't have been assigned to this Emperor-forsaken desert. Woodford preferred his hive-city assignments, where he could pick up his smokes and his drink a bit more easily. *Smokes...* he thought irritably. It had been days since he'd run out. His chances of a glass of Servitor-brewed 'Aquila 39,814' were just as slim – water was scarce enough out here, let alone the best vintage. Standing up, he aimed a kick at the wall – the corrugated iron gave a surprisingly loud clang. Perhaps not very productive, but it at least vented his feelings at being dumped in this situation. Looking out the window, Woodford saw the other prefabs standing in regimented blocks, and beyond that, wire mesh fence, crowned with barbed wire, and even further, nothing but desert as far as the eye could see.

He was roused from his thoughts by a knock at the door. "Come in!" he yelled. Sergeant Peters stuck his head around the doorway – inwardly, the Captain groaned. *What does he want now?* Woodford asked, "Yes, sergeant?" as politely as possible.

Peters, a slightly overweight, ruddy fellow asked "Everything alright sir? I heard a disturbance, and thought I'd better check". Peters was notorious for his pedantry – he felt the need to contribute personally to the management of every situation, no matter how insignificant. But not everyone took to this picky, usually rather inefficient way of leadership – *as we saw back on Ilocanthus*. The men wanted leaders to look up, to respect, and whose orders they damned well better follow.

Woodford replied, "No, I assure you that all is well, Peters."

"Very good sir. Anything I can get for you at all while I'm here sir?" Peters trilled sycophantically.

"How about a couple of bottles of '814?"

Peters' face fell – he was clearly unhappy to be faced with a request with which he couldn't comply. "Didn't think you could", said Woodford, slightly acidly, "So, instead, a routine sweep of the outpost, just head round, check everything's in order."

"But sir, it's 50 minutes until the next scheduled..." Seeing Woodford's expression, he said quickly, "I mean, right away sir, I'll get right on it."

Frakking pedant he thought, as Peters left. *How long before he voxes me saying he's found a grain of sand out of place?* Sure enough, after a few minutes, the radio crackled into life. "Sir -we have a situation here." Peters' voice sounded slightly weak, strained.

"Clarify, sergeant. What is the situation?"

A moment later the reply came "I think... you should come and see this."

Woodford felt a tingle creep up his spine. Something about how Peters spoke made him feel uncomfortable. Something was wrong.

Before he left, the Captain sheathed his chainsword, clipping a holstered laspistol to his belt. Outside, the heat was even more overwhelming. It rose in hazy sheets from the flat roofs of the outpost's buildings, shimmering in the desert air.

Woodford depressed the activation rune on his vox.

"Peters, state your location."

Static.

"I repeat, state your location."

Static.

He laid his hand on the grip of the chainsword. It felt somehow comforting. The soft leather was familiar in his palm, and the sword had served him well on a dozen occasions.

Nothing seemed amiss as Woodford made his way around the site – perhaps Peters had just been overreacting. He was about to give it up as a bad job, when his heart lurched.

Blood. There on the sand before him, a gory spatter. And next to it...the sewer entrance, the lid loose in its groove. As a semi-permanent outpost facility, there was a small sewerage system leading from the complex outwards, with maintenance entrances dotted among the buildings. He could feel his heart thumping, as he peered down into the darkness. Then, he recoiled in horror.

Johnson. The trooper had been assigned the afternoon's sentry duty. Now. He was lying in a pool of his own blood, six feet below the surface. *Who the hell did this? And where's Peters?* The Captain was beginning to panic. The first thing he thought of at the sight of the body was the horrors of the Tyranid race – an icy sensation crept over him as he thought *Genestealer...* No, he told himself. There'd been no reported Tyranid activity in the sector in millennia.

Through the confusion and fear that was threatening to block out every logical thought other than to get the hell out of the complex, he realised that the best course of action was to get back to his office, then he could pick up a heftier gun, and contact High Command, to get reinforcements. There was a Marauder bomber base concealed in the desert five minutes from his present location, and they should be able to send support. The thought calmed Woodford somewhat, and, staggering slightly, he turned back, beginning to weave his way through the maze of prefabs.

The whole outpost seemed unnervingly quiet, the only noise that of the constant rush of the desert wind, which howled through the artificial, roofless corridors made by the rows of huts, hammering the buildings' sides with tiny particles of sand. Up ahead was the Captain's office – *keep calm, let HQ know first, then act on their command.* Clasp the door handle, he suddenly paused. Looking down, he saw red – blood was staining his palm. The handle of the door, and the ground below were spattered with gore. His heart pounding, he drew out the chainsword, and, pushing the door open, stepped slowly inside. The room was in darkness, the blind pulled down to block out the glaring sun. Eyes straining in the gloom, Woodford saw a black shape huddled under his desk – crouching down, his stomach lurched as he saw it was Peters.

Then, Woodford froze. There, inches away, was a gleaming, serrated blade at his throat. A harsh, guttural voice behind him laughed menacingly. "Looks like you're out of luck, 'umie'."

There was a flash of steel, and Woodford's lifeless corpse dropped to the floor. The Ork Kommando snickered as he slipped out of the prefab, then pulled out a battered radio transmitter "Right, their boss is dead - 'ave you useless zoggers got that shit in place yet?"

The reply was an affirmative. A moment later, the lid of the sewers clanged shut.

The outpost exploded in a fireball of metal and broken glass as dozens of kilograms of plastic explosive ripped it apart from end to end.

A squadron of fighter-bommas thundered overhead, as hundreds of ramshackle trucks and buggies raced down into the basin.

Mesoz Prime was doomed.

