

Four Square Less One

**Fifteen short stories from the author
of New Bridge to Lyndesfarne**



Trevor Hopkins

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Collected Short Stories by
Trevor Hopkins

To Tas and Seb – for everything.

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Itch

A short story by [Trevor Hopkins](#)

Do you get an itch you can't scratch? No, not *that* kind of itch!

You know how it is. You get an itching, tickling sensation, somewhere in the middle of your back, and you can't quite reach to just the right place. Perhaps it's between your shoulder-blades, or just below, or to one side. Or if you think you can reach, it's never entirely satisfactory wherever you scrape or rub. Do you want to know what causes that itch, the one you just *can't* seem to scratch?

I know the reason why you itch. If you're sure you want to know too, read on.

I'm working as a Research Assistant. You know, one of those underpaid and overworked kids with lank hair and poor complexions to be found in some numbers in their natural environment – the quieter and darker corners of the science faculty buildings. The faculty itself is part of one of those red-brick Universities which was instituted in an act of Victorian philanthropy, and which has grown over time almost organically. The Uni has gradually displaced the back-to-back terraces and narrow alleys that surrounded it with newer buildings which were probably supposed to be soaring white edifices of glass and stone, but seem to have ended up as irregular piles of water-stained grey concrete.

Like Mycroft, my life runs on rails. During the day, I try to find enough time to make a dent in the seemingly endless task of completing my PhD thesis, between bouts of sleeping and eating from the nearby takeaway kebab shop known affectionately as the 'Armpit'. I spend the minimum possible amount of time in my room in a rented house I share with several other postgrads – which is just as well, since it is cold, squalid and damp.

At night, I'm working on computer models of brain function – a task as large and complex as the Human Genome project, although we're a long way off that kind of successful completion. This is one of those crossover subject areas between AI and Robotics (which has been the Wave of the Future for more decades than I've been alive) and Bio-informatics (sponsorship home of the big pharmaceutical and

healthcare companies). Basically, some of us have finally realised that we really don't know enough about creating smart systems – we need to know more about existing intelligences before it makes sense to attempt to build artificial ones.

Of course, brain function mapping has all sorts of potential spin-offs, which is why Big Pharma and the healthcare consortia are interested in what we do. So much of human behaviour is determined by our hard-to-predict reactions to external stimuli, and there's so much we could do with a deterministic model of the machine between our ears – everything from improved anti-depressants (which is a pretty big market these days) or even a better contraceptive with no side-effects. Yes, ladies, you might just be able to *think* yourself not pregnant!

Selling these big ideas to the big companies, and gathering in the resulting big research grants, is of course the responsibility of my university supervisor and his professor, leaving me the menial task of actually making the technology work.

So, I'm steadily fumbling my way towards constructing a highly-abstracted model of total brain function. It has to be a hugely simplified abstraction – even the immense supercomputer in the basement (supplied at an extremely cut price by Big Blue, who really know how to woo the Big Pharma marketplace) was theoretically capable of representing only a tiny fraction of human mental activity.

Really, I'm refining a nearly automated process. I've been developing a suite of programs, including a library of rapidly-reconfigurable heuristics, which is capable of a statistical analysis of a huge number of brain scans. We've a library of recorded scans from NHS hospitals all over the country, all completely anonymous of course, as well as access to the results of stimulus-response experiments from all over the world. With static, structural information available in increasingly detailed form from CAT scans and the like, and dynamic information from the experiments, there's a wealth of data in there which just needs a structure to pull it out.

So, my heuristics take the raw brain function data, map it to a set of conceptual ideas of brain function, and then compile it into an abstracted executable model in a form that can be executed directly on the thousand-odd processors of the machine in the basement.

In short, I've built a brain capable of being run on a supercomputer. You can't really tell what its thinking, or even if it *is*

thinking in any real way, but you can tell if the model's responses to stimuli correspond to the measured responses in a real brain. There's just enough complexity in the model to show genuinely emergent behaviour and detectable emotional reactions.

Of course, this takes vast amounts of computer power, both to compile the model itself and to execute it. It takes an hour or so of all those processors crunching away to simulate the effect of five seconds worth of what I can loosely call thinking.

Naturally enough, most of this work is done in the middle of the night, when no-one else wants to use the machine. A few uninterrupted sessions in the wee hours are exceptionally productive, when the building is dark and quiet. The whole process is directed from the networked workstation in the corner of the office I share (if I was ever here during the day) with two other RAs and an indeterminate number (it seems different every week) of research students.

Now, a large part of our brains is associated with processing optical inputs – there are other inputs as well, of course, but we are, fundamentally, visual creatures. So, part of the model itself, one of those conceptual ideas of brain function I mentioned, involves stimulating the optic nerves and modelling the corresponding movements of the eyes themselves. This coordination of eye movement and the inputs from the smallish number of high-resolution optical sensors in the retina is one of the novel features of this model, and it seems to successfully overcome some of the limitations in previous attempts to build a truly effective visual parser.

It's well-known that we use only a small fraction of our brain. Actually, that's not really true, more an urban myth. More sophisticated measurements and less intrusive techniques has allowed recent experiments to detect neuron dynamics in regions of the brain previously thought to be redundant. Still, there do seem to be some areas with no discernable purpose, and part of the research is to find out more about unused brain cells.

Basically, I showed pictures to the model. Some of these came from a library specifically for this purpose, but I found I got some interesting reactions, and in particular some dynamic behaviour in regions thought to be inert, by using images with distinctly emotive contexts. Some images were already available online whilst others I simply scanned using the multi-function printer-copier down the hall.

All was going well until I started showing the model pictures of naked people. Look, fine, this is the kind of thing you do when you're working all alone in the middle of the night, at a task which requires occasional flashes of insight, a few minutes of concerted effort and several hours of boredom. Besides, I knew about this collection of well-thumbed magazines hidden away in the back of the filing cabinet.

Of course, I expected some emotional reactions – perhaps some analogue of prudery and embarrassment in the higher regions, and some pretty direct sexual responses in more primitive areas. What I actually got was a curious mixture of disgust and loathing, even fear, and a distinctive activation of the 'fight-or-flight' reaction. If it was a real person, it would be feeling some horrific combination of stomach-turning revulsion and stomach-knotting fright.

I just had to investigate, although I've now come to seriously regret that decision. It's fairly easy to find out what part of an image the model is concentrating on, since it is, in essence, moving its eyes as it scans and comprehends the scene in front of it. I'm sure you can guess the body parts I had expected to attract. I was wrong. Over the course of an hour's run, the model's simulated eye movement ignored the external genitalia and various wobbly bits, and focussed almost entirely on a small area between the shoulder-blades.

You know, I believe this might have been the moment I first started itching in that exact place?

I carefully checked for image defects and scanner problems, and found nothing. The model's reaction to images of people with their clothes on was unsurprising, and completely consistent with its response to other, less emotive, contexts. On closer investigation – yes, I really did download all those pictures from the Internet for scientific reasons – I found that the model would display plausibly randy reactions to pictures where the back and shoulders were not visible, but fear-and-loathing when presented with shoulder-blades.

One projected use of highly detailed brain models is truly effective hypnosis – the ability to remove compulsions and inhibitions, or even be able to introduce them artificially. You can imagine the government and military wetting themselves thinking up ways of using that capability.

So, my initial hypothesis was that the model had somehow gained an artificial neurosis, produced as some obscure reaction to an anodyne part of the human body. These kinds of discrepancies

between modelled and real-life behaviour are always interesting, and often a fruitful source of material for papers to be published in some of the more obscure journals. Oh, and of course it adds to my professor's credibility in the never-ending pursuit of sponsorship money.

My objectives were two-fold: first, to reduce the variables, to avoid any side-effects of image coding techniques or copyright-tracking steganography. For this purpose, I captured an image of me, from the back, and wearing no clothes. I borrowed a high-resolution digital camera from the image-processing labs on the next floor down, and used the most loss-less image encoding format I could identify. The single picture took up a substantial fraction of my personal disk space quota. I even printed out a copy and blue-tacked it to the wall above my workstation.

My second objective was to present the stimuli and the model's reaction in a way that was comprehensible to mere humans. I set about writing a new program to extract an image of how the model itself perceived the scene it was viewing. This took a lot of programming, and I sat up over my workstation for several nights until the new interfaces began to show signs of working.

During these few days, I found myself neglecting my write-up and sleeping even less than usual; inevitably I was compensating by eating even more of the blisteringly hot kebab-and-pitta-bread concoctions from the 'Armpit', washed down by alarming quantities of caffeinated cola drinks.

Finally I was ready for a full test run. Sitting at the workstation, I reloaded the most recent model, and hooked up the new visualisation software, then typing the few commands which started the model's reaction to the image of my back.

I'd displayed the evolving picture of artificial perception in a window I'd placed in one corner of the screen. It showed a desperately low resolution at first, with each pixels worth of enhancement being painfully computed as the kilo-engine processor in the basement ground away.

Eventually some kind of comprehensible picture began to emerge from the twin mists of simulated perception and digitised noise. Frankly, I was utterly horrified. The details that emerged showed some kind of growth, a green bump embedded in my own skin between my own shoulder blades.

Somehow, my own inherent perception changed at that moment. I've heard that expression about 'scales lifting from my eyes', and that was exactly what happened. My picture, stuck to the painted breezeblocks above the workstation, seemed to shimmer and twist, a green blob appearing before my eyes and between my shoulder-blades.

Opening one of the filing-cabinet magazines showed me pictures of bronzed muscular men and compliant young women, all with one – or sometimes more than one – of the green appurtenances protruding from their backs, just where the model showed they would be.

I rushed to the gents bogs and lifted my shirt, looking at my own reflection in the rather grubby mirror over the cracked washbasin. There it was, a bright virulent green, like a really ripe green pepper – a bell pepper or capsicum – somehow seamlessly merged with normal pink skin on my own back. In the mirror, I could see a slight sense of movement, somehow pulsating gently like a TV special effect from an early edition of *Doctor Who*, its movements distinctly out of sync with my own breathing and heart rate. I was heartily sick, there and then.

I think they're some kind of symbiote, or more likely parasite. They grow on people, on everybody, their roots digging deep into our bodies. My best guess is that the growths form links into the spinal column and produces some kind of hypnotic effect in our brains which prevents them from being seen. Somehow, we all share a worldwide neurosis, an induced inability to see what quite literally sits on our own shoulder.

I've been looking at these things for several days and nights now, not sleeping much. Now, I can see them everywhere, even detect their presence under tee-shirts and fleeces. Everyone has at least one and some people – particular very slender and attractive people – have several. Perhaps the physical drain of keeping two or three of the parasites alive from your own bodily resources means you have no excess fat – and the added induced neurosis that exceptionally well-inhabited hosts are both thin and beautiful.

What I still can't work out is why the growths are not hidden entirely within our bodies. My best guess is that they are some kind of plant, and they can't quite get all the nutrients they need from us directly. So, they must retain some kind of vestigial photosynthesis, to produce some vital trace compound not available from our own blood streams.

Just for my own reference, just a way of hooking them to a name, I've taken to calling them Monkey Plants, after the expression 'a monkey on your back' in that modern sense of a serious problem that just will not go away.

I've spent some time thinking about how to remove them, and what would happen if I did. My back seems to be itching all the time now, and I know what's causing it, and I'd dearly love to rip the offending growth from my skin.

In fact, I'm not even sure that they even can be removed. I can see the Monkey Plant on my own back, but I can't touch it – not my own, not other peoples. Even though I can see exactly where it is, I can't control my own hands, or the movements of my body, to actually press my fingertips against its surface. There's something deeper in the hypnosis, something at a detailed level that my computer model won't let me reach, which prevents the physical contact. Another one of those supposedly inert regions of brain cells kicking in, I expect.

I'm not a parent, and may very well never be, but we've all heard stories of babies crying incessantly, inconsolable despite the best efforts of their increasingly fraught mothers. It must be incredibly painful, the initial infection before the first of these things has fully integrated itself with the spinal cord. A baby can't move in a coordinated way, or communicate; it has no way other than bawling to show the agony it is enduring.

I think the infections move from person to person, with some kind of seeds or spores being transmitted from parent to offspring, and growing and living with us for all our lives. Imagine our bodies aging, wearing out, drained by the incessant physical demands of feeding the things. I've seen old people, hunched and feeble, bent nearly in two by the Monkey on their backs.

These things don't think, in any way we understand the term. But they have desires, needs – they want to grow more, and the more people there are, the more they can grow. I suspect this endemic infection has pushed us, our society, in certain directions – to live in large groups, in villages and cities, and to alter our environment, our world, driving our evolution, making us invent technologies to give us the resources to support more bodies – just so that they can reproduce more.

I think the reason human beings are taking over the planet is because the Monkey Plants have taken us over.

I believe there's yet another mechanism that the plants have evolved over the millennia. If you try and talk about them, the growths on your back, you are comprehensively ignored. Not disbelieved, just ignored, as if you had said nothing at all. I've showed my results, the pictures, to my supervisor, and he just changed the subject back to the next round of grant submissions – no real difference there, then. I've tried to engage some of the other postgrads in conversation, even buying the pints in the back-street pub we occasionally visit; again, they just don't seem to hear what I say.

So, this is my attempt to communicate – to tell the world about this disease, this parasite, which is warping our bodies, and our minds, and our societies.

And, you know what, I just bet you won't believe me. Oh, you'll read my words, even declare that you completely understand what I've written. But that monkey on your back just won't let you believe, really *really* believe. It's just a story to you, isn't it?

2993 words

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Afterword - Itch

I used to say that the closest I get to writing fiction is journalism – certainly, the standards found in much of the popular press could lead you to believe that most journalists do not hesitate to simply make it up.

This was the very first short story of mine ever published; indeed, my first fiction of any kind to appear in print. The very first time that something where I had just made up got out there, as opposed to books and research papers which merely reported the truth, as I saw it, or some close approximation thereto.

I got, in the email, a suggestion to enter *Itch* in a competition to appear in the *Abaculus 2007* anthology. This turned up out of the blue, much to my surprise. The suggestion came from Danielle Kaheaku, Editor in Chief at Leucrota Press. She had apparently discovered the story browsing my web site.

As the editor of the anthology, and therefore presumably strongly influential in the final selection, it would be churlish not to put the story forward. Of course, I did enter the story, together with an early draft of *How to Impersonate a UFO*. The latter got nowhere, but *Itch* was selected to be one of twenty stories in the anthology.

I can still remember that moment in the closing days of 2007, being presented with a postal package which contained the volume itself. I was delighted – an excellent Christmas present.

After *Abaculus 2007* was published, and my author's copy had been delivered, I spend a few minutes comparing the text as published with the material I originally supplied. An insight into the mind of the editor, perhaps? There were a few words inserted, and a whole paragraph deleted – all of which meant that the story was altogether just a littlebit tighter.

Still, I was confused by a couple of substitutions: “pitta” was replaced by “pita” – presumably just one of those variations between British and American English – and “OK” was replaced by “fine”. The latter still seems strange to me, but no explanation has yet been forthcoming.

How to Impersonate a UFO

A short story by [Trevor Hopkins](#)

It all started with a chance remark last year, a question I put to my father.

My old man was a pilot in the Royal Air Force for many years, in that interesting period of world history after the Second World War known as the Cold War. He had flown all over the world, in an age where this was very unusual. He had even dropped bombs on Suez during that ill-advised political embarrassment.

Dad is, or was, I should say, a great raconteur, a pillar of the local Rotary Club and very much in demand for his after-dinner speeches. He had a great fund of stories and anecdotes, often based on his flying experiences. But there was one tale which I had not ever heard him tell, one which I discovered buried in the draft of his autobiography when I was reading the proofs. He had written that he “felt sure he had caused a UFO scare on one occasion”.

So, here’s how to do it – how to provide a convincing imitation of an Unidentified Flying Object. Don’t try this at home, kids.

For this trick, you need a night with completely clear skies – no cloud to form a visual reference – and with no moon to provide undesirable illumination.

Pick a time of year when the jet streams are blowing strongly – you know, those fast-moving stratospheric air currents that the pilots of commercial airlines like to blame for their late arrival. Wintertime is preferred. Oh, and you’ll need a military jet. My Dad did this in a Canberra, but I dare say that any modern jet fighter would work just as well.

So, off you go. Fly up to 45,000 feet over some major conurbation, and head into the wind. Now, the jet streams are probably running at around 150 knots, so you throttle back until your airspeed is about one-fifty. From the ground, you are now more-or-less stationary. If you’re equipped with a radar ground speed indicator, you can fine-tune your direction and airspeed until you are completely stopped, just hanging in the air.

Then, you turn on all the landing lights. These lights are typically distributed fore-and-aft, and on the wing-tips, and around the undercarriage. So, from the ground, you look like a disk with illuminated portholes, or engines, or whatever, all around the circumference.

You sit there in the jet stream for ten minutes or so, chuckling with your co-pilot about the stir you're probably causing on the ground. What a wizard wheeze. Then, you turn about and throttle right up, so that you are streaking through the skies. Then, just when you've reached your maximum speed, turn the lights off again. Your observers have just seen a hovering object suddenly accelerate from rest to a phenomenal speed – “no known aircraft can fly like that” – and then disappear.

Now you're a UFO. Good, huh? With a bit of luck, your appearance and sudden disappearance will be reported in the more sensationalist newspapers with banner headlines, and some no-doubt anonymous government spokesman will be quoted in the small print explaining that this was a just “an ordinary unscheduled military training flight”.

Now my old Dad has something of a reputation as a prankster. He's always ready with a joke or two, often highly politically-incorrect and downright filthy, but usually irresistibly funny for all that. He was the editor of the Rotary Club newsletter, which also gave him an outlet for his personal sense of humour and, since he was a bit of a Silver Surfer, he had taken to trawling the Internet for humorous material. I would occasionally send him ‘funnies’ in the electronic mail which I feel sure became newsletter material and I would often get something hilarious in return.

Having re-read the words from his book, I had simply assumed it was a practical joke, a lark. I tackled him on the topic during one of my inexcusably infrequent visits.

We were sitting in the small but well-maintained garden at the back of the house last summer, basking in the early evening sunshine and enjoying a glass of sherry before dinner. My wife was occupied elsewhere in the house with our children. My mother was busying herself in the kitchen, producing one of those splendid roast dinners I remember so well from my childhood, but which I feel I must resist most of the time these days, if only to keep my weight and blood pressure down.

Dad went uncharacteristically quiet for a few moments. Then, in low and serious tones, he told me what actually happened on that night back in the fifties, an episode which occurred before I was even born. He made it clear that this was not a prank, a whim, but that he had been specifically instructed to go up and perform this trick.

I already knew that, for many years, my old man was a pilot instructor and flight examiner, flying Canberras. He had countless old comrades and acquaintances that he had met in the service, many of whom he had actually trained at one time or another. Night training flights were a standard part of the instruction programme, an essential part of the military role to be able to be airborne at any time and under any weather conditions.

He reminded me that there was a three-man crew for these early-version Canberras – a pilot, a co-pilot and a navigator-bombardier. The aircraft were equipped with twin controls, highly suitable for pilot training – indeed, Dad had done his own jet training in one of these aircraft not so long ago.

My father explained that, on the night in question, the routine pre-mission briefing for what was originally a standard night training flight was unexpectedly interrupted by the Wing-Commander himself. The Wingco was a RAF officer of the old school, right the way down to the ginger handlebar moustache. He had served with distinction during the War and was widely regarded as one who did not suffer fools gladly.

On this occasion, the Wingco seemed extremely annoyed at the disruption and the sudden change of plan, though my father thought he had detected an undercurrent of nervousness uncharacteristic of the Old Man.

The Wingco was accompanied by three other men, two of whom were not wearing any kind of uniform but nevertheless had the bearing of military men. Dad never did discover the origins of these two men, but he strongly suspected that they were from the US Central Intelligence Agency. At that time, CIA pilots were required to resign their military commission at the time of joining the Agency, a process wittily known as ‘sheep-dipping’.

The third man was in the uniform of the US Air Force. This in itself was not unusual; the RAF maintained a close collaboration with the Americans at this time. In those Cold War days, there were American airbases all over Southern and Eastern England, many of

which were reputed to house air-delivered strategic nuclear weapons. As a child, I clearly remember disparaging remarks being made by my father, when passing by in the car, about the bra-less anti-war protesters at Greenham Common with their “ban the bomb” slogans and CND posters.

Of course, in spite of the close collaboration, there was a certain amount of friendly (and occasionally not-so friendly) rivalry between the air forces. My Dad summarised it thus: the Americans considered the RAF tiny and under-equipped to the point of irrelevance, while the Brits found the erstwhile colonials both arrogant and unwilling to take risks.

The USAF officer took immediate charge of the training briefing, leaving the Wingco fuming at being required to do nothing other than to lend his authority to the instructions being issued by the American.

The trainee pilot was quietly but firmly instructed to return to barracks. His place on the mission was replaced by an unsmiling man my father was instructed only to refer to as Rex, one of the officer’s near-silent companions in mufti. The navigator was retained, although it turned out that his role was very limited, since they wouldn’t be flying very far. Dad said that he was killed a few years later in a freak accident, one which was never satisfactorily explained.

At the time, the Canberra was one of the few aircraft capable of flying extremely high – well above the heights achieved by modern commercial jets. My father pointed out that this aircraft was designed as a Cold War bomber, capable of delivering nuclear weapons to foreign capitals whether they wanted them or not.

Early versions of the aircraft had a service ceiling of 48,000 feet, but in the late fifties, Canberra variants set a series of height records, in one case in excess of 70,000 feet. In fact, I understand from Dad that the official maximum height for late-model aircraft is still officially restricted information.

Of course, there were a very few other aircraft then capable of reaching these kinds of height. Dad had heard rumours of a classified aircraft he later discovered to be the Lockheed U-2 spy plane, which was by then in service with the CIA, flying intelligence missions over potentially hostile foreign soil. The U-2 could travel higher and further than the Canberra, but had a reputation of being tricky to fly and with difficult – even dangerous – handling in poor weather conditions.

The point is that there was very little else up there – still isn't, really. All modern subsonic commercial traffic is at 40,000 feet or below and, now that Concorde has been grounded, anything you see at that height is likely to be military in origin.

Dad's first thought, given the haste and obvious secrecy surrounding this mission, was that there was some military emergency, some reconnaissance that was urgently needed, and that for some reason the U-2 could not be used. But that aircraft was not equipped with cameras – although Canberras were used as flying camera platforms well into the twenty-first century – and, from that height, the human eye is more-or-less useless as a way of spotting anything on the ground.

The mystery man Rex was clearly familiar with modern military aircraft. He also made it clear that Dad was to concentrate on flying the crate while he gave directions over the intercom to the navigator, confirming the directions to set a direct course to over-fly central London, climbing to 48,000 feet and making best possible speed. He also instructed my father to keep a close lookout.

My father was a very experienced pilot, having spent at least thirty years of his life flying various craft around this planet. He also had exceptionally good eyesight. Even in later life, well into his sixties, he was more able to spot objects in the sky and to provide an instant aircraft identification much more quickly than I could ever manage.

So it was no surprise that it was Dad who first spotted the multi-coloured lights in the sky, flying on what he thought was a roughly parallel course. The laconic instruction from the mysterious American came over the intercom: "head towards the object at eleven o'clock".

At first, my father thought the other aircraft was only a mile or two away, but the true size of the other craft soon became apparent after some minutes flying towards it at 600-plus knots. As Dad described it, it was as large as an ocean-going liner, circular in overall shape and smoothly rounded at the periphery. The bodywork was a deep black, but there were lights streaming from multiple openings or windows all the way around the disk.

It was completely unclear how the strange craft could possibly stay in the air at all. It was making no attempt to get away from the following Canberra. Despite flying at nearly full throttle, Dad reported that he got the strangest sensation that the mysterious flying machine was merely ambling along, deliberately allowing itself to be observed.

Now, it's difficult to see any kind of facial reaction inside a flying helmet and oxygen mask. Looking around at his companions, Dad reported that the navigator's eyes were wide in shock. By contrast, Rex seemed unsurprised but his eyes seemed to have a slightly manic gleam of exultation reflecting the lights from the instrument panel.

The mysterious American had come aboard equipped with several cameras and a powerful torch. As Dad flew in formation with the giant craft, under and over – 'like a tom-tit on a round of beef', as my old man put it – the American shot off reel after reel of film. He also shone the torch through the canopy; they were flying close enough so that the beam of light could clearly be seen passing over the smooth black hull.

After a few minutes, the other craft dimmed its lights to almost nothing, with just an eerie blue glow remaining around some of the orifices which Dad took to be its engines. Rex's twang came over the intercom, breaking into Dad's thoughts.

"OK, I've seen enough. Break off and descend to 45,000. Head west."

Dad complied immediately. Looking behind, he could see that the mysterious craft seemed to darken and then recede into the distance. It was only after a moment that Dad realised that the machine was going straight up. It disappeared after only a few seconds.

There was an instant of strange stillness in the cabin, despite the ever-present roar of the engines. The moment was broken by Rex's voice, instructing my father to perform the strange manoeuvre I described earlier, the significance of which he did not appreciate until he heard about the reports in the those 'sensationalist newspapers'.

Why? What was the purpose of the ruse? Dad wasn't sure, but I'm convinced it was what these days we would call 'plausible deniability'. It was a provable matter of record that, yes, a military aircraft was flying over London on that day, on a course which corresponded to any sighting which might have been reported, and which had genuinely been practicing 'unconventional manoeuvres' which might have confused an observer.

In the post-mission de-brief, it was made very clear that the RAF crew were not supposed to tell anyone about this, not now, and not ever. There were appeals to patriotism, which rankled a bit in the presence of so many Americans, and there were vague threats, not

least of which was a blunt reminder of the provisions of the Official Secrets Act.

Just at that moment, Mother appeared at the kitchen door to summon us for dinner, effectively terminating the topic of conversation. Dad and I never spoke of the UFO incident again.

Dad had continued his flying career for many years, first with the RAF and more recently with a number of commercial organisations before heart problems detected by the stringent tests that are required of all commercial pilots forced him to retire. Since then, he has lived the quiet life, cultivating his garden and his little circle of cronies, and occasionally acting as a chauffeur for funeral companies.

As far as I can see, his only rebellious act was writing that autobiography, laboriously typing up his stories and anecdotes for what is likely to be, I'm afraid, a frankly miniscule audience. I don't suppose that the book will actually be published now. But I do know that he also vaguely mentioned something about lights in the sky in the same chapter where he reports his antics, although he notes that there was probably a "mundane explanation to this phenomenon". It was probably a huge mistake to write this stuff down at all.

My father died very suddenly, only last week. The funeral is tomorrow. My mother is distraught, inconsolable. I'm pretty upset about it myself, as I'm sure you can imagine. I'll miss him. Of course, this sad event can't really be regarded as entirely unexpected. He was an old man, and he had had heart trouble for many years.

In one of her more coherent moments, Mother expressed her surprise at Dad's sudden death. She said that he had remained fit and active, walking the dog twice a day and keeping the kitchen garden in good order. (I remember those runner beans lined up with military precision.) He had been watching his diet after his open-heart surgery, and stimulating his brain by contributing to his Rotary Club meetings, engaging with his circle of friends, and tackling crosswords and puzzle books.

So, despite his age, his death came as a considerable surprise, especially to his GP. I spoke to his doctor while I was helping to tidy up his remaining financial affairs. The quack said to me privately that he could see no reason why he should have passed away, but there had been some subtle but distinct official pressure to avoid an inquest, so he felt he had to enter 'death from natural causes' on the death certificate.

Which leads me to a really important question – does anyone know that he talked to *me* about the UFO incident? Now I'm looking over my shoulder all the time. Are they out there, coming for me too?

2867 words

8 pages

10/01/2008 20:33

Afterword - How to Impersonate a UFO

First, I should make it clear that my Dad is still alive and indeed in very reasonable health for a man of his age. That said, he did write an autobiography a few years ago, interestingly entitled *To Stroke a Cheetah*, which was published soon afterwards, containing a great many of his flying anecdotes.

My father was a pilot for many years, both in the Armed Forces and civilian airlines. He did indeed perform the very manoeuvre that I describe in the story – although he assured me repeatedly that this was a prank, a practical joke, and it did indeed get into the newspapers.

So once again this is a “what if...” story – a speculation on my part with a different and more sinister outcome than in reality.

The military and political backgrounds I describe are of course my own invention, although based on history and my own memory as a boy. Of course, any errors introduced are my own, rather than Dad's.

Frustration Causes Accidents

A short story by [Trevor Hopkins](#)

It all started with a business journey I was required to take, to attend a training course my company had declared was mandatory. Personally I was quite convinced it was not at all necessary; the information could have been adequately conveyed by a short written document or even one of those PowerPoint presentations which continue to be compulsory in the business world.

Several email exchanges and phone calls failed to convince the powers that be in Human Resources – a department which had always seemed to be exclusively manned by sub-humans – and I reluctantly resigned myself to a tedious day away.

The course schedule demanded that I must be there for eight o'clock the following morning. I had therefore booked a hotel so that I could travel in the evening, stay overnight, and would be suitably rested and refreshed for the rigours of the classroom session.

I also decided to take the train, since this would at least allow me to do a little work on the journey. In any case, the alternative was a long cross-country car journey after dark and on poor roads. So, after my day in the office, I made my way by car to the city centre railway station.

Irritatingly, I was not able to find a parking space in the station car park. Every single space was taken. Already feeling hugely frustrated, I toured the back streets around the station. This was a very dodgy area, and I found myself wondering if it would be safe to park there at all.

I was able to find a couple of likely places, but also managed to spot the small signs threatening clamping for unauthorised parking, with an extortionate fee for release. In those days, a commonplace approach: I had a strong dislike of these business ventures, intended to extract sums of money from hapless visitors rather than a genuine desire to prevent motorists from blocking access to premises.

I knew that I was already running out of time. As always, vital last-minute panics at work and city traffic meant that my schedule was very tight. I continued to tour the area, further frustrated by slow-

moving cars, buses making frequent stops and traffic lights turning red just as I approached.

As I rounded a corner, I was immensely irritated to see my train leaving, the tops of the carriages and the pantographs for electrical power just visible over the Victorian brickwork arches which supported both tracks and platform. I slammed my hand into the steering wheel and vented my frustration with a series of profanities which would have earned me a serious interview with the Headmaster if I were back at school. I now realised I would be forced to drive for several hours and set off in a foul mood, the swearing having done little to ameliorate my bad temper.

An hour or so later, I was still fuming. About all I can remember of the journey was noticing a line of electricity pylons silhouetted against a cloudy sky reddened by the setting sun, striding across the landscape like Martian invaders. I ignored them.

I drove the car as quickly as possible, trying to make up for lost time. I admit that I was not paying as much attention as I probably should have been on the narrow and slippery roads and, since it was increasingly late at night, I was undoubtedly a little tired, too

I suppose I am just trying to make excuses for what happened next. In any case, I was forced off the road by what I originally assumed was a large oncoming vehicle. Unaccountably I had failed to see the bright lights just around the bend; it was almost as if the lights had turned on just as I rounded the corner.

The vehicle was in the centre of the bridge, travelling fast towards me and straddling both carriageways. The bridge stretched across what I was shortly to discover was a heavily-forested ravine, in an area best characterised as miles from anywhere.

Thinking back, I could see nothing other than the array of lights. I knew it was not unusual for large lorries – Heavy Good Vehicles – to be equipped with a considerable array of headlights, presumably to provide extra illumination on dark and narrow roads, or perhaps just to blind inconsiderate motorists who fail to dip their headlights on motorways. But I would later realise that the arrangement of the lights was quite unlike anything I could imagine adorning the front of an HGV – for one thing, it would have left no space for the windscreen.

I swerved instinctively, with no time to think. I felt a thump as the tyres hit the kerb, followed by crunching and ripping sounds as branches and bushes whipped by on either side. I had left the road just

before the crash barrier, and I careened down a steep bank, deep into the wooded copse. The windscreen smashed about half-way down. Shortly afterwards the side window was shattered by some branch which also tore a deep and ragged gash in my arm which I threw up instinctively to protect my eyes. My forehead and chin were cut by flying glass and my hands were scalded by the hot gas from the airbag deployment.

Finally, the car came to a halt, having remained on its wheels throughout, fortunately. I would later discover that every body panel had been damaged in some way, including the roof – probably by some low-hanging bough. The seatbelt and airbag had kept me alive, as they were designed to do. I sat there in the silent dark, shaken and bleeding, in pain, unable to move and very nearly unconscious.

A light appeared suddenly in the woods ahead of me, then another alongside it. I tried to cry out or make my presence known, but in my dazed state I could not make my mouth move with sufficient coordination. The mysterious lights advanced towards me, looking very similar to those on the front of the HGV I have swerved to avoid and, now that had a moment to consider it, seemed to have a greenish tinge that no self-respecting trucker would contemplate.

Against the light, I could just make out a shadowy figure approaching, once which I was just awake enough to realise was not entirely human in shape. Oh, it was humanoid, with two arms, two legs and a head at the top, but the alien – I could not help but think of it as one – moved in a fluid way which would require more joints in each limb than the norm for bipedal primates.

In my dazed state, it seemed to me that the alien was looking behind itself. There was another shadowy figure, almost invisible against the brightness of the lighting. This one was, perhaps, larger and appeared to move more sedately. It waved its limbs in a complex way that suggested communication: a language rather than just agitation. In a sudden flash of inspiration, it occurred to me that the first figure looked as if it was being told, in no uncertain terms, to undertake a particularly menial and tedious job.

The smaller figure moved towards me, with just a suggestion of stomping in the movements of its limbs, despite its generally fluid and undulating motion. In one hand – I suppose the word is still applicable – the being held an object of some kind, and it gestured frantically with the other. Suddenly, something flew from the object in its hand, surrounding me in a green glow which crawled over my

skin, penetrating the wound on my arm, somehow healing and repairing flesh and skin. The substance went to work on face and hands as well. I was fascinated, watching the glowing substance through eyelids barely opened and further obscured by congealing blood that the goo made no attempt to remove.

The alien must have assumed I was still unconscious and turned away, I imagined, addressing the other figure. With more presence of mind than I thought I possessed, I managed to move my uninjured arm and discreetly scoop up a little of the green goo in a discarded water bottle I found littering the foot-well of the car.

The smaller alien returned its attention to me. It made another gesture and the goo swiftly returned to its container. From the corner of my eye, I could see the goop in the bottle trying to move in the same way, but it was unable to escape from its plastic prison.

As I watched, still feigning unconsciousness, the figure retreated, the lights dimming as it went. Shortly afterwards, the lights disappeared entirely, blinking out as if they had never existed. There was no sound, not even of the wind, but I got the strangest feeling of a sudden and powerful movement in a direction I do not know how to describe.

I sat still for a minute or two, marvelling at what I had just seen and wondering what I should do. I was able to force open the driver's door and climb out. For another long moment, I stood breathing hard and looking around me. No movement, no lights, nothing.

I had the presence of mind to fumble with the boot, which was much less damaged than the rest of the car, and retrieve the large bag I carry everywhere with me. It contains my mobile office: laptop computer, notebook and a thick wad of papers most of which I never quite get around to reading. I concealed the plastic water-bottle inside the bag, and slid and struggled my way up the bank, following the trail of mangled foliage back to the road.

The rest of the evening was uneventful. I dragged out my mobile phone, which mercifully worked even here in the middle of nowhere, and put in an emergency call. An ambulance arrived surprisingly quickly, and I was attended by the two paramedics. Later, I would be described as "miraculously uninjured" but at the time I let them carry out their standard procedures, culminating in them wheeling me on a stretcher in a neck brace to the waiting ambulance.

Before we left for the hospital, I explained to the police constable who turned up in a patrol car shortly afterwards that I had swerved to avoid an oncoming lorry in the middle of the road. It had not stopped and I was, frankly, not in a position to describe the vehicle or the number plate because of the darkness and the speed at which the vehicle was moving. The copper seemed to accept this and went away muttering something disparaging about lorry drivers from Eastern Europe.

I failed to make the training course, which was no great loss, having spent all night in the hospital undergoing tests “for observation” as well as having no working transport. I made my way back home the following morning, this time by taxi and train. The car was a write-off, of course, and I would later plod my way through the interminable processes around insurance claims and detailed explanations to the vehicle lease management team.

The following day I was back at work, already in receipt of a loan car provided by my company, and immediately immersed in the numerous details of my job. For a time, I was threatened with having to attend the next training course, but nothing was scheduled – perhaps the monkeys in Human Resources finally realised it was a complete waste of time and money. So, everything was back to normal.

Unsurprisingly, I found myself thinking about the incident on the bridge and the mysterious substance I had encountered. I toyed with many hypotheses, but always came back to the view I had formed instinctively on the bridge: that I had had a genuine UFO encounter. I imagined that the aliens had been as surprised as I was at the unexpected intrusion of a local – myself – on some vital and no doubt secret mission, and had made amends by healing my injuries.

As for the green material I had secreted, I could not help but experiment with it. I rubbed a little into a gash on my finger, which disappeared immediately, the cut melting away as if it had never existed. I found that it was capable of healing everything that I tried it on – nothing life-threatening, fortunately – but minor cuts and burns, the ache in my shoulders which I suspected was incipient arthritis. It even managed to reverse the hair loss on my scalp.

One of my earliest serious applications was to cause a new tooth to grow on the roots of the old one when I lost a crown, probably loosened by the impact of the crash. That was quite a challenge, I can tell you, pouring just a drop of the green goop into my mouth. I had expected some foul taste, but in the event the stuff had neither flavour

nor smell. Indeed, once I had got over the initial revulsion, I could barely detect the stuff in my mouth at all.

Since that night, I've thought a lot about the green substance I acquired. I think it must be some kind of nanotechnology, semi-intelligence and self-organising. I cannot believe it is of human origin. From everything I have read since the event – and I've read a lot – we just cannot make anything that sophisticated. So it must be alien, but clearly designed – or at least adapted – to work on people, ordinary human beings.

*

“Thank you for your statement, Mister Gray,” the more talkative of the two men in black suits said, “It seems to cover most aspects.”

He consulted the notepad in his hand momentarily, then looked up at me.

“You know we've been looking for you for nearly thirty years,” he said levelly, “You've been very clever, hiding and moving around for so long. And so very few rumours and clues for us to go on.”

He nodded thoughtfully, taking in my unshaven chin and the grubby overalls I have been wearing when the men had grabbed me.

“There's only one thing left to cover,” he continued, leaning over the interview room desk to look directly at me, “What have you done with the goop, the nanotechnology?”

“It's all gone,” I answered, “There's none left.”

The two men gave each other a meaningful glance, as least as far as I could tell with the sunglasses.

“That's why I gave myself up,” I said with a hint of smugness.

I held up a hand for forestall the inevitable objection.

“You don't think you could have got this close if I hadn't wanted you too, do you?”

“Now that's a real shame,” the hitherto silent man in the corner said laconically, “Our friends really, *really* wanted their technology back.”

Without warning, the entire wall of the interview room, the one covered by a mirror which I had assumed was actually one-way glass, began to slide silently upwards. From under the widening crack, a

dazzlingly bright light shone – a light that suddenly seemed all too familiar.

“So they’ll have to settle for second-best,” the first man said.

I could not move, abruptly locked rigid in the worn steel-and-plastic chair I was offered when we first entered the room. Then, the seat itself started sliding inexorably towards the source of the bright light. Glancing back, I could see the two men standing, watching impassively, the greenish light reflecting from their sunglasses.

“After all, this is the only way our friends will now be able to determine,” the talkative one said, “The exact long-term effect of their formula on the human body.”

2619 words

7 pages

30/11/2008 08:47

Afterword - Frustration Causes Accidents

I admit it – I start this story by venting my spleen at the petty frustrations of modern life, particularly those aspects involving the Human Resources (HR or, better, *Human Remains*) parts of large corporations.

By the way, the title comes from signs widely deployed on certain stretches of British roads, usually in areas where it is difficult to overtake safely, wisely reminding the driver of the risks of rash manoeuvres, even though you've been stuck behind that *blasted* slow-moving caravan for *miles*.

For those with a taste for *double entendre*, there is of course another – and much smuttier – interpretation which I shall leave you to work out for yourself.

Oh, and did you spot the reference to Oscar Wilde's novel, *The Picture of Dorian Gray*? I thought so.

Anomalous Propagation

A short story by [Trevor Hopkins](#)

“We’re right in the centre now,” Dave said, struggling with the map in the wind, while I examined the view from the hilltop.

There was nothing to see in any direction. Finally, I looked up. I could see nothing but low dark cloud fitfully reflecting the distant orange streetlights of Rochdale and Oldham. In any case, the wind blowing the drizzle more or less horizontally over the hilltop made it near-impossible to see very much in any direction.

I was beginning to wonder if we had been wasting our time, that all we had to look forward to was a mile walk in the wind and rain. We might not even make it to the pub before closing time. I thought back the sequence of events and just how we had got here.

*

I have to admit that I am a Radio Amateur – a Ham Radio enthusiast if you insist, although generally we don’t really care for the term. If pressed, I would also have to agree that this is a rather anorak-y hobby, rather like train-spotting (for which I have no enthusiasm whatsoever) – although I was certain very glad of the heavyweight waterproof cagoule I was currently wearing.

Actually, amateur radio is not all sitting in damp wooden shacks at the bottom of the garden, applying soldering irons to mysterious electronic components and speaking to distant strangers over the airwaves. In fact, there is a strong social aspect, and I am a keen member of the local radio society. The club organises a whole variety of different events, including regular weekly meetings in the community centre.

This particular fixture was a radio Direction-Finding contest, and was one of the more frequent evening activities. Now, these foxhunts have their roots in the Second World War. The scenario is that spies are communicating their intelligence using a hidden transmitter. Our task, as the Good Guys, is to track down the agents and apprehend them, using only the sporadic transmissions for guidance.

A small team – usually two people – sets out early in the evening to erect a suitable aerial in some out-of-the-way but publicly-accessible area,

preferably somewhere with trees or bushes to conceal the operators. They take a portable transmitter and a twelve-volt car battery to run the thing. I've done this myself a time or two, and I know it is worth taking an old sleeping bag and plenty of warm clothing, since you need to remain quiet and motionless for extended periods, hidden in the undergrowth. It was a cold November evening, and I certainly hoped the operators had remembered their winter woollies.

On this occasion, the 'fox' transmitter was being operated by two blokes from the club I knew quite well: Alan, known as "The Good Doctor", partially because he really does have a PhD and partially because he looks a little like a younger Isaac Asimov, and John, known as 'JS' to distinguish him from the numerous other Johns in the club.

The participants gather in their cars at a designated starting point, which might be ten or twenty miles from the hidden transmitter. Competitors are usually in teams of three: a radio operator, a driver and a map reader. The first team to locate the hidden transmitter is of course the winner, although finding the 'fox' at all is often a challenge for newcomers to the exercise.

The hidden operators make an initial transmission at a pre-designated time and using a specific frequency. They then transmit at certain defined times over the next half-hour, and then at random intervals no more than ten minutes apart. The transmissions get longer towards the end, with a final continuous transmission, to make it easier for less experienced, or just less lucky, teams to successfully locate the transmitter. All this is carefully timed so that it is possible to track down the transmitter, get the hidden operators to sign the entry form as proof, and still meet in the pub afterwards for a steak-and-chips supper and a pint or two of beer.

Originally, these events used short wave frequencies, just like the wartime Secret Agents or Resistance Fighters, depending on your point of view. These days, though, the ready availability of reliable and miniaturised kit – made in Japan as a rule – means that every Ham I have ever met would be carrying a two-metre portable transceiver in their pocket.

Now, 'two metres' does not refer to the size of the equipment, but rather to the wavelength of the radio signals. This also defines the size of the antenna used. For foxhunts, the aerial is shaped like a capital letter 'H' and is invariably homemade from aluminium rods and tubes, a variety of odd bits of plastic and copious quantities of sticky tape.

The homebrew device has long arms about a metre long (a 'half-wave dipole') set on a crosspiece, the bar of the H, about half a metre long. There is a compass fixed to the crossbeam handle, and a short cable which runs to a portable receiver (kept in an inside coat pocket to keep it dry) with headphones (usually ex-army surplus, since they are likely to get wet and muddy).

The two dipoles are phased so that the reception pattern is heart-shaped: good reception all the way around the points of the compass, except for one direction – a 'null' – so that the signal disappears when pointed at. You will just have to imagine a car park full of anorak-wearing nerds carrying silly aerials swivelling around frenziedly trying to get an initial bearing on a distant transmitter.

The bearings are plotted on 1-in-50000 series Ordnance Survey map of the area, which are usually carefully covered in transparent self-adhesive plastic – yes, the famous Blue Peter 'sticky-backed plastic'. This makes the map still readable in the inevitable rain and, more importantly, it allows marks and bearings to be made using those dry-wipe pens intended for whiteboards.

The technique is to take one bearing from the official start, then leap in the car and drive manically (I mean, 'with all due care and attention', of course) to a selected point to one side of the expected direction. The objective is to take several bearings from different places and plot these on the map. You normally expect to find the lines crossing to form a triangle, since there is likely to be a few degrees error in any reading. The hidden station is probably somewhere in the triangle, so you drive closer – to within a mile or so, and take more readings.

All was going according to plan until Dave and I took the third reading. We had screeched to a halt at the side of the road when I had heard the latest transmission, and I leapt out of the car to take another bearing. Dave unfolded the map and plotted the direction I had shouted out. The second and third lines diverged. Now, this is of itself not entirely unusual; when you've been hurried or careless, or not held the beam steady while reading the compass, it is easy enough to get it quite wrong.

We still could infer some idea where the transmitter was hidden and, after a certain amount of huddled discussion, Dave suggested that we drive as far as we could before the next transmission and see if we could get a better fix.

We tried this, and again, but whatever readings we took, there seemed to be an area of the map which radio signals just would not propagate through. The transmissions seemed to be coming from two points simultaneously, separated by a distance of perhaps a mile.

The modern environment contains huge amounts of electrically conductive material, such as the steel reinforcing rods in modern concrete buildings. If the metalwork is separated by gaps significantly smaller than the wavelength, then the radio waves just will not propagate inside the building. At this frequency, for example, an excellent Faraday cage can be constructed using just chicken wire.

Large objects containing a lot of metal, such as the skyscrapers in cities, tend to reflect and refract radio signals, leading to dead spots, as well as re-radiation where the entire structure acts as an aerial and re-broadcasts the signal.

By this time, I had begun to suspect that the Good Doctor had devised some sneaky way of disguising the origin of his signals. It was not unheard-of, for example, for a hidden station to be deliberately sited close to overheard power cables, so that the radio signals appeared to emanate from multiple metal pylons along the line of the wires.

As we were taking more bearings, we had been steadily converging on the dead zone bracketed by our measurements. I was convinced that the 'fox' team had deliberately identified some location where strong re-radiation produced the confusing signals we had detected. This was just the sort of cunning trick I expected from JS and the Good Doctor.

Even so, I was confused. A closer look at the map showed that the zone was located in remote area, well away from fixed, high-power transmitting sites (TV masts, for example) and the map showed no sign of power lines. It was just an area marked with the moors and fields of an ordinary East Lancashire hillside.

It was this nondescript point that Dave and I were currently heading for, alternatively walking and running up the hillside in increasingly poor weather, having abandoned the car at the end of a rutted track.

*

I dragged the headphones over my ears. Nothing – the receiver was not working. I took it from my pocket and noticed that the battery pack was loose again. I had cracked the plastic latch by dropping the thing on a previous foxhunt and it could have easily become dislodged during the

stumbling hike over the moor. I jiggled it back into place; it re-seated with a click, and the receiver burst into life.

The Good Doctor was transmitting continuously now, nearing the end of the competition. I was getting a very strong signal but, as I waved the beam aerial around, I could not find a null in any direction. The transmitter could not be far away, but I had no idea of the direction.

Meanwhile, Dave was swinging his torch around, looking for telltale signs of movement in the dark mounds of heather and gorse bushes that dotted the area. An essential part of the foxhunter's equipment is a powerful torch, preferably with batteries which can be recharged from the car cigar lighter socket. The portable lanterns both Dave and I were carrying were heavy and cumbersome, but were as powerful as car headlights and lit up the countryside all around.

On a whim, I pointed the beam upwards. The signal in my headphones dropped off suddenly and, almost automatically, I stiffened into a position which indicated a clear direction. I was detecting a deep null from almost straight up, as if the hidden station was somehow hovering in mid-air over our heads.

Or, the thought rushed into my head unbidden, as if some large metal object was hanging over our heads, reflecting the signal from the transmitter.

"What are you doing?" Dave bellowed.

"The signal!" I shouted in reply, "It's coming from up there!"

As one, we swung our torches upwards. There was nothing to see, other than droplets of rain glittering in the wind. Just then, something happened. There was a great sense of movement immediately above us, somehow telegraphed by strange movements of the winds. The drizzle seemed to be moving upwards, swirling around in the light of the torches, rather than being blown uniformly sideways as it had been only a few moments before.

The movement was accompanied by hissing, rushing sounds, loud enough to be audible over the noise of the wind and rain beating on the hood of my anorak. These noises were joined shortly afterwards by a near-subsonic rumbling. It did not sound like any aircraft I had ever heard before.

For a few moments, we could not actually see anything out of the ordinary. But then, there was a disruption to the clouds above us. I could see strange movements lit by the distant street-lighting as some black bulk,

impossibly huge pushed its way upwards, just visible as a contrast against the grey low-lying cloud base. Then it was gone,

What I think happened is this. Almost all radio receivers also *transmit* signals, although most people do not realise this. The super-heterodyne principle, used in pretty much all receivers, requires the use of a local oscillator. By design, these oscillators do not emit very strong signals, but they are nevertheless detectable over short distances. This is how those old TV detector vans used to work.

Whatever it was up there, it became aware of the receiver only when I reconnected the battery, and faint but detectable signals suddenly started coming from directly underneath it. We simply scared it off.

Thinking about it later, the flying object, whatever it was, possessed effective optical camouflage – a cloaking device, just like the Klingons in some old episodes of *Star Trek*. Actually, I understand that such technology is theoretically possible: the properties of certain molecules can be employed to bend light around an obstacle, perhaps, or the use of phased array optics to project a hologram of the view from all directions.

I can imagine that this technology could be made to work for kinds of electromagnetic radiation other than light, which probably explains why the object was not detected by radar. Modern radar uses millimetric waves (microwaves, as in the cookers). These obvious strong signals, with characteristics special to radar, could be managed by suitable countermeasures, absorbing or re-routing the microwave energy around the object.

On the other hand, VHF radio, like the two-metre wavelengths we were using, is populated by a large number of low-power transmitters, everything from police walkie-talkies to taxi companies. These devices are intended for local communications, and are in highly intermittent operation. There would be almost nothing to distinguish the occasional transmissions from our competition fox from any of the myriad of other radio signals in the vicinity.

So why did it run away? Perhaps we were just too close to allow the same cloaking to work, or maybe there was no need to hide itself from radio signals. But it must have easily detected our presence – we were not trying to hide ourselves, flashing our portable searchlights around – and simply decided to move away.

But what was it, really? A UFO, obviously, some kind of flying machine, but was it really an alien spacecraft, some visitors from another planet on their own inscrutable mission, hovering over an out-of-the-way

place for more than an hour? I cannot imagine what the attraction of that particular spot was. Was it attempting a landing, or perhaps waiting to rendezvous with some other vehicle?

Or was the Unidentified Flying Object of entirely human origins, some kind of top-secret military aircraft on a night-time training mission over an obscure part of the English countryside? I have no way of finding out.

It was just dumb luck that the Good Doctor had chosen to locate his hidden transmitter not so far away from the mysterious object, whatever it was. The transmitter was actually located in a wooded valley, slightly shielded in the direction of the hilltop where Dave and I ended up, but with a clear propagation path towards the official start-point.

I made a few discreet enquiries at the pub later that evening. It turned out that we were the only team to head west for their second and third readings, the only team to notice anything unusual, and so we were the only team to observe this anomaly.

Back on that wet hillside, stunned and shocked by what we had seen, Dave and I looked at each other.

“What are we going we do?” I asked.

“I don’t know,” he replied thoughtfully, “But I don’t think anyone is going to believe us, whatever we say.”

Slowly and carefully, Dave started rubbing out the lines on the map.

2699 words

7 pages

04/07/2007 08:45

Afterword - Anomalous Propagation

The phrase ‘anomalous propagation’ is a technical term referring to a variety of unusual radio phenomena. There are a number of poorly-understood physical mechanisms which permit transmission beyond the expected range. Intermittent ducting allowing waves to circumnavigate the globe, reflections from the Moon – the so-called moon-bounce mode – and strange tropospheric scattering: all are infrequently-observed effects with what are still more-or-less mysterious causes.

It is the exploration of these effects, which generally have little or no practical or commercial use, which some Radio Amateurs find fascinating. Even so, historically, discoveries of this type by an earlier generation of amateurs has led to important uses, such as the identification and careful study of the Heaviside Layer¹ – one of several bands of ionised gas that lies well above the breathable part of the atmosphere – allowed long-range practical and military exploitation of short-wave radio.

Radio direction finding also has a commercial and military history – everything from tracking down spies during the Second World War to the detection of unlicensed television receivers. Almost inevitably it was turned into a game, a sport, by enthusiastic amateurs years ago. Originally, this sport was limited to the short wave bands, but more recently VHF and even UHF operations have become popular.

I do not really suppose that any of this anomalous propagation is really caused by Unidentified Flying Objects – but it was fun to speculate on the possibility.

¹ The Heaviside Layer is mentioned in Andrew Lloyd Webber's musical *Cats*, which is itself based on *Old Possum's Book of Practical Cats* by T. S. Eliot.

Occult Express

A short story by [Trevor Hopkins](#)

When I was told I would be looking for a magic shop, I had somehow expected to find mullioned windows and heavy stone arches outside, and a dark and fusty interior with a flagged stone floor supporting cabinets fronted with grimy glass containing unidentifiable objects of great antiquity. The modern store I was now standing in front of had large plate glass windows bordered with brightly-coloured plastic signage. Through the windows, I could see neat rows of shelves lit by fluorescent lighting, professionally stacked with packages and jars.

I knew the back streets of this English university city pretty well after all these years and I thought I could make my way to the address given to me without recourse to map or A-to-Z. Even so, I felt sure I would have noticed this shop before now, during one of those many aimless wanderings that students with more time than money seem to engage in.

At first, I was convinced that this was not the place I was seeking. I walked further down the street, then turned and came back the same way. My mind was in turmoil, imagining the pain of failure and embarrassment if I had to go back to my tutor and admit that I could not find the emporium he had recommended.

As I approached for the second time, the store seemed to be drawing me to it; I could hardly turn my eyes away. Amazingly, the occasional passers-by did not seem to be interested at all, walking past without glancing at the brightly-lit windows, almost as if they were passing a blank wall.

My resolve stiffened, and I stepped towards the entrance. The door slid open automatically as I approached. I looked around. A couple of checkouts stood to one side, emitting soft beeps as items were run under the laser barcode readers by the operators, who were then packing the purchases into plain white plastic carrier bags. On the other side, there was a stack of those wire shopping baskets you see everywhere. Automatically, I picked one up.

No one seemed to be paying me any attention at all. I headed for the nearest section of shelving for a closer look. These racks stocked fresh fruit and vegetables. The first item my eye fell upon was Mandragora roots, resembling rather wrinkled greenish beetroots, packed in a black plastic tray that might have held avocados in Sainsbury's and wrapped in clingfilm, the whole labelled carefully with price, barcode and best-before date.

I knew from my studies that *Mandragora officinarum* was a powerful herbal remedy, often indicated to increase fertility in women, and had several uses in the Wiccan crafts, although it was not on my shopping list for today. I had vaguely expected that magical plants would be obtained by furtive under-the-counter transactions in out-of-the-way parts of obscure country markets, not pre-washed, packaged and displayed in a style which would put Marks and Sparks to shame. My mind swirling, I finally focussed on the sign attached to the front of the shelving. 'Special offer,' it read, '50 pence off fresh Mandrake.'

The shop was a veritable treasure-trove and I struggled against my female instinct to buy far too much stuff. In the end, I mostly contented myself with browsing. In the books and publications section, I picked up an unabridged edition of the Book of Shadows – it seems unwarranted to hand-copy in this day and age – and a small notebook with a stout cardboard cover which I proposed to use for my personal insights as a Book of Mirrors.

The hardware section included a display of tools and equipment for all of the rituals I knew about, as well as items I could not imagine a use for. I spent an interminable time selecting my knives: an Athame – which is a large, heavy but blunt knife used in rituals to channel energy – and a Boline, which is a small and much sharper knife for cutting things in the physical world. These were both sealed in thick plastic and card packaging to avoid damage and to prevent anyone touching them with malicious intent.

I found boxed candles and a couple of small crystals, also on my list. I did not select other items I knew I would eventually need for rituals and spells later on – a cauldron and a wand, for example – I knew I would be coming back for more very soon. The only thing I bought which was not on my shopping list was a tiny silver pendant in the shape of a pentacle. The price indicated was very modest and I could already imagine it nestling between my breasts.

Making my way towards the checkouts, I passed the vegetable racks again. My Green environmental sensibility was faintly outraged

at the level of – surely quite unnecessary – wrapping, although I did notice that at least the packaging was separable, so that the trays and punnets could be easily recycled.

A pimply-faced young man was manning the checkouts, wearing a discreet badge announcing his name as ‘Tim’. He smiled warily at me. Out of nervousness, I suppose, I smiled widely back at him.

“Can I help you with the packing?” he asked, smiling more broadly and looking me in the eyes rather disconcertingly.

I let him help, although I would normally have refused. He seemed so eager to please, chattering on about each item as he packed my purchases into a carrier bag. As he ran the last item under the scanner and rang up the final total, he said, “So we’ll be seeing you again, then?”

“I expect so,” I responded airily, picking up my plastic carrier pointedly, “And next time I’ll bring a reusable bag.”

*

I am learning to be a witch from the Internet – more precisely, I am seeking initiation into Wicca. Yes, I know there are all sorts of frauds and scams on the Web, but this is quite definitely the real thing. After a couple of false starts, and spending rather too much time in chatrooms and reading blogs, I finally identified a reputable correspondence course from the Cambridge Institute for Wiccan Studies.

Before I started, I researched CIWS carefully, and cross-referenced comments and recommendations from numerous sources – the web is good for that sort of thing too. Their prospectus seemed entirely consistent with mainstream Wiccan practices, and I was delighted to be accepted into a course leading to the first of the three degrees of initiation.

The first degree is required to become a witch and gain membership of a coven. Traditionally, I knew, the waiting period for initiation was a year and a day, and it was conventional for a course of study may be set during this period. It has been hard work, too, with long evenings sat in from of the computer, studying and reading extensively and working on essays and exercises at regular intervals.

*

I realise I should introduce myself properly. My name is Sylvia. I have long thought I had some kind of gift or abilities beyond the norm,

ever since my old Grandmother sought me out as a tiny child not long before she died.

“You have the Sight,” she croaked, fixing me with her terrifying birdlike stare, “It’s in your hair, and in your soul.”

These were the very last words she ever spoke to me. I had only ever known Grandmother as a wizened old lady, and I know that he cannot always have been that way. It really was a truly frightening experience for a shy girl of perhaps seven years, especially when Granny died only weeks later.

The remark about my hair refers to the blonde streak in my otherwise black hair. This tuft of yellow is quite different in texture from the rest of my locks, being much finer and wavy, unlike the straight dark hair – almost black in most lights – which extends to the small of my back. Even if I dye it (and I have certainly tried this on several occasions after being taunted at school), it looks and feels quite different, and still stands out clearly.

During the day, I’m doing postgraduate studies in Psychology in the School of Medicine. Some people – particularly my father – seem to think I am a perpetual student, but I prefer to believe that study is a worthwhile end in itself. Besides, life is too short to stop learning things anytime soon.

I do still live like a student, I suppose, sharing a house in the city with two other women. We have been friends for years. We do not exactly live in each others pockets: we each have our own rooms and whole days can sometimes go by without seeing either of my housemates.

My housemate and landlord Trish is a confirmed vegan, as well as a passionate believer, and part-time activist, for animal rights. She completed a History of Art degree a few years ago. She has some part-time work assisting the curator at one of the minor museums in the city, and is still hoping to get into a postgraduate Fine Arts course.

Trish keeps a cat, a skinny little thing called Aramis, black with one white boot. Trish has been making a determined effort to feed the cat on a vegetarian diet, but Aramis disagrees, and surprisingly vocally for such a tiny animal. So, quite often the only meat in the house is cat food.

Shakra, the other resident, is a talented musician, now doing some part-time teaching at the Music College and erratically engaged for

occasional performances at an astonishing range of venues. She has a steady boyfriend, now doing voluntary work overseas, and does not get to see him very often. I understand that her rather traditional parents, who are of Indian subcontinent origins, would not approve of her lover, and wanted her to get married to a man they had picked out themselves.

Our house is a terrace in a quiet area, still close to the Colleges but in a gentrified area where house prices have been rising rapidly for several years. None of us could not afford to live there if it was not for a generous payment made to Trish some years ago. She bought the house outright, although it is unclear to me who the benefactor actually was. We pay her rent, of course, although I suspect that she enjoys the company so much that she would let us stay her even if we paid her nothing.

I know that some people believe us all to be lesbians. It's not true, of course. Trish does not seem to be interested in sex at all. She has hinted at some childhood trauma which I do not really want to go into now. Shakra has her steady boyfriend, and disappears for days on end when they can get together. On her return, she invariably looks tired but very satisfied.

Me? Well, I like men. Indeed, outside of the house most of my friends are men and I irregularly go with them to pubs and parties, even if I do not usually sleep with any of them. I just have not found the right man yet.

We women often sit together in the shared kitchen and chat over a cup of herbal tea, or share a communal meal. We talk about everything and anything: sex lives, relationships with our parents, siblings and friends, diets and ethical eating, green politics, philosophy and economics.

I do remember some sound advice I received many years ago, written on a card pinned to a notice board in another shared student house. It read: "No Politics, Philosophy or Religion before Midnight". Presumably, after midnight, one is too tired or drunk for it to really matter. But, Trish, Shakra and I are such good friends that we can ignore this sage advice without repercussions.

About the only thing I have not discussed with my friends is my extra-curricula online education. I have an aptitude, a gift if you like, for ancient languages. My family is Jewish, although I do not regard myself as a practicing Jew nowadays, but as a child I was taught to

read and write Hebrew. I also studied ancient languages at school, so I have a working knowledge of classical Greek and Latin.

My Internet education is principally carried out using email and instant messaging. I submit my essays and research summaries electronically, and they come back annotated with copious notes and thought-provoking comments. In my more conventional University life, I have had a number of tutors, and I can certainly tell the difference between one who is doing their job well, and one doing the bare minimum. Someone out there is putting a reasonable degree of effort into assessing my work, and I feel like I am getting value for money.

I have daily web chats with my tutor, who uses the handle "Praxis". We have never met in person, or even spoken. For some reason I cannot quite put my finger on, I think Praxis is a man. He has been directing me to online resources which I would never have found on my own, and certainly do not seem to appear in the indexes of the online search engines.

Many of my exercises involve the interpretation of passages in ancient texts. I had noticed a considerable variation in these texts. Some pages were obviously scanned copies of old books, often of such poor quality that it was hard to decipher exactly what was written. The exercises often turn out to be straightforward once the twin barriers of the poor reproduction of the script and the ancient language in which it was written are overcome. Certainly, my language skills have been honed considerably over the last few months.

Other more modern websites, usually written in English, or at least professionally translated, have been directing the development of second sight. The background reading was a little confusing, with a strong but unspoken assumption that the task was to bring out and refine an innate ability, without actually really describing exactly what that ability was.

There were also extensive questionnaires, some of which I recognise from my psychology training as being tests for personality. I toyed briefly with the idea of falsifying my answers, but in the end decided to answer them as openly and honestly as I could.

After many months of steady work, I received an unexpected email message from Praxis. I opened it on the screen and read the contents with growing pleasure.

Your recent progress has been more than satisfactory. It is now time for you to undertake some practical work.

I practically preened at this.

You must assemble the beginnings of the accoutrements of a practising Wiccan.

The email continued by laying out a shopping list, and giving the address and sketchy directions to the emporium where I should purchase these items. The note concluded:

Let me know as soon as possible when you have completed your shopping. Send me a message when you get back, so that we can make an immediate start.

I made myself ready and hurried out in search of the shop.

*

When I returned, weighed down by the shopping, I carefully unpacked my purchases and placed them on my desk. Pausing only to store the plastic carrier in the kitchen for future re-use, I fired up the computer and used the web chat client to send a message to Praxis.

The response came back almost immediately.

Well done, you have passed the first part of the exercise.

I was confused.

What do you mean? I haven't done anything yet.

Again, the response was nearly instantaneous.

Yes you have. You found the shop, didn't you?

No problem. I just told you that.

Just finding the shop means that you have come a long way.

I still don't understand.

There was a pause before the answer came.

The shop cannot be found by just anybody. It is only visible to second sight and is effectively hidden from the mundane world.

So finding the shop and completing your purchases at the first attempt is a major achievement.

I was flustered, uncertain how to respond to such unexpected praise. Before I could put finger to keyboard, another message arrived.

Now it is time for you to meet members of the coven which you will join. To do this, we must meet in person. I will make arrangements, and I will be in touch with the details very soon. In the meantime, leave your equipment alone, and I will direct you in their proper handling when we meet.

I typed out some short affirmative reply, my fingers barely able to find the correct letters on the keyboard.

Following Praxis' instructions, I put all my purchases to one side. As I did so, the pendant slipped out, the brightly-polished silver standing out in the dimness of my room. I disentangled the pentacle from the remainder of the wrapping and found a silver chain necklace which I had been given as a child. When I put the chain around my neck, it seemed to nestle there perfectly, as if it had always been there.

There was a knock at the door of my room.

"Come in," I called absently, still inspecting my pendant in the mirror.

The door opened. Aramis scampered through almost immediately, followed by Trish and Shakra. For some reason, the cat seemed fascinated with my purchases. It jumped up on my desk and nosed around, then turned its head to Trish and mewed strangely.

Trish caught the flash of silver around my neck.

"New necklace?" she asked laconically.

"Yes. Do you like it?" I replied. Firming up my resolve for the second time that day, I continued, "I've got something to tell you."

Trish glanced at Shakra, then smiled at me warmly.

"Of course, but before you start, there's something that you should know, too."

"What's that?"

There was a pause, a beat, then Trish said, “I’m Praxis.”

*

With Trish’s more direct assistance and help from Shakra, my Wiccan education and initiation has gone from strength to strength. A week later I returned to the magic shop, armed with another – somewhat longer – shopping list and a new-found sense of confidence.

The same young man was operating the tills and he clearly recognised me when I plonked the wire basket in front of him. He scanned the items efficiently, but made no attempt to put them into a carrier.

“See you next week,” I said cheerily, dropping the packages into the rucksack I had brought with me.

“I doubt it,” Tim responded gloomily, “We’re being taken over by Tesco.”

3126 words

9 pages

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Afterword - Occult Express

I have been asked how I can find the time to write, and I have to agree that it can be quite a challenge fitting it in around the “day job”, as well as my numerous personal and family commitments. The short answer is that I prefer not to watch the television – in fact, I find it impossible to ignore and therefore impossible to do anything else other than watch the box when I am in the same room.

In the evenings, after dinner, I like to find a quiet spot in the house, far away from the clatter of the TV – the conservatory is a particular favourite – and type away for an hour or so. I do not always write very much – sometimes I just fool around with words I have already written – but I almost always write *something*.

This is the first story I have written in the voice of a member of the opposite sex. I certainly found this quite an interesting challenge, although I have had another attempt in *Windmills of New Amsterdam*. As for the inspiration, I was sitting in the car in a traffic jam outside one of those mini-supermarkets with names like, yes, *Tesco Express*, and wondering where a Wiccan would do his or her shopping.

Perhaps I should just add that I know next to nothing about witches and Wicca, so any or all of the details I have included may well be completely inaccurate. So, for any Wiccans out there, please accept my apologies for my ignorance.

The Desert and the Sea

A short story by [Trevor Hopkins](#)

Unerringly, the Magicians of the Convocation converged on one particular spot where the Red Desert met the sea. The most mundane rode on horses, accompanied by trains of camels and asses for provisions and servants. Others came floating down from the sun-baked mountains on ethereal faerie wings which emerged from beneath the flyers' robes. Yet others travelled at the helms of ships drawn by Water Daemons, whose fish-like tails rippled the waters fore and aft, or in boats whose sails were filled by Daemons of the Air, all but invisible except where they roiled and flowed incessantly around mast and rigging.

All of the Convocation deployed their arts and powers to best advantage: the wands and devices were wielded with the consummate skill of the Master Magician, the Scholars and Readers used their knowledge of the ancient scrolls, and the Prognosticators and Diviners invoked their techniques both various and arcane. All agreed that this was to be the Placement for the new Crossing to the Other World.

This Crossing was to be situated on the coast of the desert where a narrow corridor of sun-bleached sand was bordered by the sea upon one hand, and by a range of jagged and arid mountains upon the other. The mountain wall, weathered by daily variations of searing heat and freezing cold into knife-edge ridges and corries, effectively prevented access or invasion from the central regions of the continent beyond.

The desert coast itself was lined with reefs and shoals, sharp and treacherous, a hazard for shipping; here the corals hugged the beach while there they stretched for leagues out into the sea. It was a wrecking coast, littered by the ribs and timbers of those unfortunate vessels whose daemons had failed, or deserted, at a calamitous moment, and dealing their crews a choice of dismal fates: death by drowning in the sea or from thirst in the desert.

In spite of the reefs and hazardous channels, the sea was an important trade route along the East coast of the Dark Continent. These routes would allow for the future and no doubt profitable

distribution of goods through the newly-opened Crossing, when that momentous event finally came to pass.

The command from the Convocation was for Fair Trade: barter and purchase, not banditry or conquest, was unanimously decreed. The merchants and traders were already planning their stratagems: the sales of the spices and herbs quite unobtainable in this world; the medicinal preparations and elixirs for which the rich and sickly would pay handsomely; the opium and hashish that so many craved, and the fine wines and spirits that would enliven even the most jaded of palates.

Of course it was this promise of future riches that had persuaded the bankers and treasury-masters to open their coffers, the idle rich to speculate some portion of their estate, the emperors and minor kings all across this part of the world to raid their strong-boxes and counting-houses.

At that chosen spot on the desert coast, an array of tents and marquees for the Magicians and Sages was erected, its fabrics all in brilliant colours and festooned with fluttering pennants. At the very centre stood the great Pavilion of Convocation, itself secured by more than mundane ropes: Daemons of the Air worked tirelessly to still the flutter of canvas in the ever-present sea breezes or the occasional lashing gales.

Within the Pavilion, the Magicians of the Convocation met day after day, attended by their servants and Diviners, their Seers and draftsmen, and their guards and Familiars. All the servants, from the most senior of Major-domos to the lowliest of camel-drivers, watched and waited in trepidation while the most intense and complex of magical investigations were undertaken.

The Seers and their masters watched the Other World long and hard, opening many an exploratory portal, and sending devices and Familiars to investigate the territory through these unstable and temporary apertures. Sending human observers was regarded as too risky: none of the Convocation wished to lose a valuable slave or guard should a portal collapse without warning.

The locus of the Seers' attention on the other side was a high scrubland sparsely populated by sheep and goats, and the semi-nomadic tribes who herded them. It was a hot and arid climate, not so very different from the Red Desert, but a dozen or so chains higher above the level of the distant ocean. At first, this disparity in elevation engendered grave concern for the Weather Mages, but after long

deliberation and intensive study, these learned ones finally decided that any disruption in the flux of the air would be entirely masked by the winds that blew endlessly over desert and sea.

So, the Prognosticators and Diviners delivered their edict: the lands of the Other World were sufficiently akin in geography and climate, and thus the Crossing could indeed be opened safely.

This was not to be the first Crossing between the Two Worlds, nor the second, nor even the third. But it was to be the first for the peoples of the hot desert regions, for the navigators of the teeming tropical oceans and for the denizens of the lush equatorial jungles. It would become the pride of kingdoms and empires, and the source of revenue for the rulers and citizens of both.

The construction of the new Crossing would be a long and arduous task, now barely commenced. By the time that regular trade and commerce finally held sway, the men and women of the Convocation would be ten or more years older.

From this world, a Crossing such as to be constructed was formed from a vast dome of pure Magic, a dome a league or more in diameter and as much as sixty chains in height. A traveller entering the dome would find, at the very point of crossing itself, that the dome somehow turned itself inside-out; the whole of the Other World suddenly ceasing to be inside the dome of Magic and becoming instead the setting for an identical dome in that world.

The Other World could be entered from any point on the circumference of the crossing. This important factor had taxed the sharp minds of the Master Mages and Seers, directed as they were to selecting a location which could be effectively guarded. After all, the revenues and taxes imposed at the borders must not be evaded by bootleggers and smugglers. The near-impassable desert and the mountain ranges formed a much more effective deterrent than the most diligent of human or magical sentinels; although the region was even now patrolled by the Scouts and Explorers, the advance party of the Guardians whose role as from time immemorial was to protect all Crossings between the worlds.

Near the point where the Magicians had converged was a sheltered cove that allowed for a safe anchorage with deep water close to the shore. The Convocation ordered the construction of a harbour, and secure warehouses and markets and counting houses, and all the other buildings which would be necessary for trade and commerce to

flourish. So vast blocks of granite were quarried from the far mountains, transported with mighty effort on rollers towed by Earth Daemons, and placed in foundations hacked laboriously from the living corals themselves.

Meanwhile, preparations for the opening of the Crossing continued unabated. The precise location and parameters for the great dome of magic, its curves and arches, its dimensions and placement, were debated long and hard in many parts of the Great Pavilion. Finally, all were in accord, save for one dissenter.

The sole rebel was a Sea Mage, a master of the Water Daemons that were used to propel larger vessels of trade along the coast. He was a prudent and learned man, although as yet only a junior member of the Convocation, by name, Noah.

This Mage argued against the Placement, saying that it was too dangerous, too close to the sea, that the consequences of an error in the position of the dome would allow the waters of the seas in this world to inundate the high deserts of the other.

The voice of the Sea Mage was heard, long and loud and with increasing shrillness, in the conferences of the Convocation and the councils of the Master Magicians. Oh, there were a few of the Convocation who might have listened more diligently to the arguments and studied more closely the scrolls and dissertations. But all knew that the pride of the peoples of the region, and the pleasure of their rulers, was pinned on the opening of the Crossing.

Finally, Noah sought a private audience with the Inner Board of Magicians, the Crossing Masters, the leaders of the Convocation itself. By all accounts, Noah and his Masters put forth their arguments fully and at length, at first calmly and rationally, and then with voices and tempers raised. Afterwards, the Inner Board, now challenged in their authority and wisdom, resolved to silence this troublemaker once and for all.

The Sea Mage was arrested as soon as he left the Pavilion, and immediately sentenced to banishment. Passively accepting his fate and already understanding the implication of his punishment, Noah was taken without delay to an exploratory portal and hurled through, abandoned in the high desert of the Other World. The Master Magicians then calmly put the misguided Mage out of their minds and returned to their tasks and labours.

Now, Noah was a wise man and one well versed in the myriad ways of the world. He had spent more time in desert and steppe than most of those who had plied their trade upon the sea; indeed it was only his knowledge and consummate skill in the handling of Water Daemons that had led him to the nautical life some years before.

In his new circumstances, he was not entirely without resources or knowledge. The geography of the high desert was intimately familiar to him through long hours of study within the Pavilion of Convocation. More importantly, because of the deceptive passiveness and apparent weakness Noah had displayed in accepting his banishment, his gaolers had failed to identify and confiscate all of the magic he had drawn about himself.

He had carried with him one of the magic of Tongues, whose use allowed him to comprehend instantly a single one of the languages of this world. With magic and more mundane skills, Noah proceeded to re-form his robes to more closely resemble the garments habitually worn by the goat-herders and nomads who populated this scrubland.

Another of his meagre stock of magic was expended in tracking down a handful of wild goats and stray sheep, driving them to sweet pastures and safe waters hidden deep in a valley perhaps even the local nomads knew not. This oasis also grew dates and other fruits, and the flowers which attracted the wild bees whose honey could be gathered at the cost of a few stings that even his magic could not entirely deflect.

During his peregrinations, he happened upon a waif, a boy outcast and runaway, the youth crippled from birth by a club foot and dying from thirst in the desert heat. With time and care and more of his magic, Noah nursed the boy to health and repaired the defective foot. In his gratitude, the youth would become Noah's faithful servant and constant companion in the years ahead.

With milk and honey and fruit, and the meat of an occasional wild partridge or coney, Noah and his servant were able to survive well enough, and even enlarge the little flock as spring brought newborn animals which fattened quickly on the bountiful forage of the hidden oasis.

As time went on, Noah and his manservant would visit one or another of the more permanent settlements that served as markets and meeting places. Here, they would trade some of his livestock for the silver pieces used as coin hereabouts, which in turn allowed the

purchase of cloth for tenting and clothes, and chickens for eggs and meat, and flour for flatbreads to augment their diet.

Although already into his middle years, Noah was still a fine figure of a man, tall and strong, and he still carried the noble bearing that befitted a Mage and Sea-master. The stranger soon came to the attention of the ladies of the townships, and first this mother and then that goodwife would tentatively suggest his betrothal to their maiden daughters.

After some years past, Noah became more visibly wealthy; his livestock flourished and multiplied, and his fattened lambs were said to please even the most finicky of diners in the finest houses. He finally accepted the offers and blandishments from the mother of a daughter both strong and pretty, and accepted too from the girl's father a dowry rather larger than he had in all honesty anticipated. The wedding was the subject of gossip for a seven-day: this handsome but mysterious stranger who had appeared in their midst so suddenly and his marriage to the younger daughter of one of the town's most respected citizens.

The dowry allowed Noah to purchase camels and asses, and to engage servants and labourers, before the enlarged party departed for the hidden valley. The years that followed were long, yet prosperous. Noah and his new wife established a house and farmstead, paying off the labourers in coin and goods, and the new servants tended the flocks and farmed the bounty of the oasis.

The founding boy, now fully-grown and Major-domo of the new household, attracted the eye of the younger of the two maid-servants that had accompanied Noah's new wife from her father's home. The young man and the maiden made an accommodation, after the fashion of servants, and for ever after were regarded as man and wife.

Noah himself, ever prudent and cautious, hoarded the last of the silver coin presented by his father-in-law, and was oft-times able to add to it after a market visit. But there was money enough to provide luxuries for his wife: fine silks from China and sweet teas for evening refreshments.

In the natural course of events, Noah's wife presented him with first one, then a second and finally a third healthy son, all of whom grew fast and ran wild after the chickens. The boys were at first set with learning from their father and mother; later, a tutor was engaged for a period to instil the rudiments of civilisation in the children.

But Noah had not forgotten about his previous life, and the dangerous plans to open a Crossing to join the Two Worlds in trade. Often he would walk alone in the mountains, always watching for the telltale signs of the Seers' devices at work; or he would engage in conversation with sheep-herders and itinerants, always asking for tales of bizarre appearances or bright lights or mysterious strangers in the hills and high valleys. He found that there were many, many such stories, with ghostly visitations and shining objects appearing with worrying regularity.

Finally, Noah felt that he must speak out, to express to his neighbours and adopted countrymen the real risk that a wall of water, an entire sea, might fall out of the sky if the Crossing was opened.

However, his dire predictions were not well-received by the Council of Elders in the townships, nor by the populace at large. Too many people remembered his sudden appearance in their midst a decade before, and were jealous of his rapid rise in wealth and social standing. No matter that Noah's ascendancy was the result of much hard work, some luck and prudence, and just a little magic; he was still far too much a stranger for them to accept such an impossible prophesy.

Once again, Noah found his protestations disbelieved by all. His oratory in the market squares was met with silence, or laughter, or ill-concealed scorn; some street urchins even threw stones at him.

Disillusioned, Noah returned to his house to think, to plan, to consider his future. He could take his family and flee, but he would have to leave in the next season or so, he judged, if he was to get far enough away to be safe from the waters. But, he reasoned, suppose he was wrong, that the Crossing would be opened without incident. In that case, he would have abandoned his home for no purpose; worse still, he would miss out on the myriad opportunities available to a moderately wealthy and cultured man, one who was familiar with the language and customs in the Other World.

Finally, he hit upon a solution. He would construct a boat, a watercraft covered and stoutly built, one which could ride out the tidal wave. His mundane skills in handling sea craft would serve again, even without Water Daemons or other magical assistance.

A problem remained, however. In this region, timber was both expensive and hard to obtain. In what little time remained, it would be possible to acquire only enough materials for a boat large enough to

accommodate his family and their closest servants, with barely room for provisions or livestock.

At once, Noah engaged agents to purchase seasoned timbers, and labourers with pack animals to transport the wood and to perform some of the heaviest of the construction work, releasing them once the basic shape of the boat was complete. These labourers and most of his other servants he paid off with silver coin, adding his sincere advice to leave the region as soon as possible.

Noah also took stock of his herds, separating the sheep from the goats, keeping only the strongest and healthiest of animals, and slaughtering or selling the remainder at market.

As he returned from the market place, Noah discovered that the coarse labouring men he had engaged had evidently gossiped in the tea shops and bars. The silver he had paid them had bought much wine for the men, and their tongues had wagged wildly. Noah found himself the subject of much uncouth ridicule and the butt of many jokes, with only a few more curious and thoughtful souls wondering at his uncharacteristic willingness to sell his sheep and goats at low prices.

Fuming at the intransigence and obstinacy of his neighbours, Noah returned to his family and waited, expending the last remnants of his magic to sense the moment of the opening of the Crossing. After three days of anticipation, the expected sensation surged across his awareness; the world-twisting wrench would have been hard to miss with even everyday magical senses. Quickly, Noah directed his family and the remaining servants, and a few pairs of sheep and goats and chickens, to the cramped darkness of the little boat.

With quiet trepidation, Noah and his Ark awaited the Flood.

3145 words

8 pages

27/10/2008 20:09

Afterword - The Desert and the Sea

I wrote the first draft of this story in my notebook on the way back from a week's vacation on the Red Sea (in the Four Seasons Hotel at Sharm el Sheikh) in December 2007. Somehow, the words just flowed from my pen, in the departure lounge and on the flight home, stopping only occasionally to mop up the leaking ink – the curse of using cheap biros on intercontinental flights.

Earlier in the holiday, Tracey, Sebastian and I had taken a sunset cruise on the Red Sea, and I was truly inspired by the coastline. The corals were spectacular, as I had earlier discovered while snorkelling to view the reef at closer range, and there was a modern wreck, all broken and rusted steel, still stuck fast on the shoals.

I found myself trying to imagine what it would have been like before all the hotels and buildings had been put up. It seemed the ideal location for a fantasy tale, and then I knew just which story it should be.

The other inspiration for this story came from pondering the implications of the kind of inter-dimensional crossing I postulated in the *Lyndesfarne Bridge* series, and in this story. It seems to me that all sorts of things could go wrong, with the implication that – following *Murphy's Law* – they almost certainly would.

I had made notes on the bare bones of this story quite some time before, originally to appear as a tale told by Bret in *Death on the New Bridge*. It may still appear there as well of course (probably as Chapter 20) but I suspect that Bret would not naturally use the slightly archaic language I have adopted in this version.

Daemon Bridge

A short story by [Trevor Hopkins](#)

Good to make your acquaintance. Just call me Brak. My full name is longer and more complex. Many Visitors like you from the Mundane world find our names unpronounceable and so we simply abbreviate.

I am a Senior Sergeant of the Guardians, that body of Mages and Soldiers who police the crossing between the worlds, as we have done since time immemorial ensuring that Magic and Mundane are forever separated. It is a responsibility that I'm proud to have held for many years, as did my father and his father before him. It is an ancient and honourable profession, although in truth it can be a bit boring sometimes.

Our principal responsibility is guarding the Old Bridge over the shallow but perilous straights between the world of Magic and the Mundane world. The treacherous channel is traversed by two long causeways built with great labour in aeons past from heavy blocks of dull grey stone. The crossing proper is formed by the bridge itself, its arches buttressed by the causeways and formed from the same stone but constantly alive with orange sparkles. These lights, forever moving inside the rock itself, are the magical sprites which form the reinforcements that hold the bridge in place.

The bridge and causeway are vitally important to us all. It is the only safe way to travel between the worlds. The straights are notoriously untrustworthy and dangerous, often fatally so. In the sea between the worlds, nothing can be relied upon. Sailing boats are suddenly becalmed or blown uncontrollably off-course. Engines or thaumatological forces will fail without warning during any attempted crossing. Mysterious storms, dead spots, a whole clutch of vicious sea serpents and kraken – these days, few would willingly chance the crossing by sea.

Flying is fraught with its own dangers, and with even more chance of a fatal result. Both aircraft engines and levitation spells will disintegrate catastrophically whilst attempting a crossing, while kites

and gliders are at the mercy of any of several large species of dragon. Take my advice: don't ever attempt a passage this way.

With all these fearsome obstacles, some might question the need for the Guardians at all. The answer is plain enough. Since the bridge is the only route between the Two Worlds, our task is to prevent the import and export of Proscribed Goods and Beasts, in accordance with the ancient edicts handed down by the Mages' Convention.

Now, it is not our business to prevent Travellers from crossing between the worlds, in either direction. Whatever your mission, your purpose, we will not impede your progress, except in those very few cases where the Master Mages of the Board of Control have banned an individual from passing between the worlds. We police only the crossing itself, not what you get up to on the other side.

A Guardian acting as a soldier is almost unheard of these days, I'm pleased to say. The Old Bridge has witnessed invasion forces, twice from Mundane to Magic and once from Magic to Mundane, as ill-advised or perhaps merely deranged leaders sought to impose their will on the other world. All these attempts ground to a halt after only a few hours, as either the invaders from Magic found they had no defences against cannon and machine guns, or the invaders from Mundane were beset by fireballs and other directed magical energies that can be manifested by even the most junior Guardian thaumaturge.

Ever learning from their experience, the authorities in both worlds have installed traps – gaps in the fabric of the bridge where the roadway could be rapidly removed, cutting off the only route. On the Mundane side, the trap is covered with stout planks of wood, now so worn and scuffed as to be indistinguishable from the surrounding stonework, with strategically-placed explosive charges which would drop any invader into the sea at the touch of a lever.

On the Magical side, the trap is floored with pure magic – translucent orange which flows and scintillates incessantly, and through which the waves are clearly visible far below. Walking over the magic floor is considered a test of will for Mundane Visitors – a few cannot bring themselves to step onto the gap, and are therefore forever unable to enter the world of Magic.

Our day-to-day work is to watch, to inspect travellers and their transport to detect and confiscate contraband. Of course we employ a whole gamut of magical means of detection, but so often we rely on our intuition – the Guardian's 'nose' for Travellers with something to

hide. I understand the Guardians on the other side have different, technological means of detection, although frankly I have no idea how these so-called ‘metal detectors’ work.

There is a certain amount of trade that makes its way across the Old Bridge, since a few things manufactured in the Mundane world are useful in the world of Magic, and vice versa.

As you already know, in this world, few machines work reliably – or at all. Simple machines like wheels work perfectly, but smaller ones, like wristwatches, will just stop. And your wondrous electronic machines fail immediately – your mobile phones and computers become dead and inert lumps within seconds of crossing the bridge. I hope you have all left such devices at home!

Even so, some machine-made products – like paper and spectacles – are widely used in the world of Magic. And certain items of food and drink are hugely popular – I myself am definitely partial to the occasional glass of your Champagne!

Certain magical items, too, seemed to have some efficacy in your world, particularly where the effect is, shall we say, diffuse and psychological. Stimulants, love potions, good luck charms – all of these have willing takers in the Mundane world – and whether these effects are real or merely in the heads of the customers: well who am I to say?

Tourism is a major reason for Travelling, and more of your people than ever are braving the crossing. I dare say most of you are here today as Visitors to sample the diversions of the world of Magic. If this is your first time, well, an especial welcome to you. You may think at first that you have come to a world where, to your Mundane eyes, society appears to be stuck in a version of the late Middle Ages. But look closer, and those hidden sophistications enabled by Magic will, I feel sure, both charm and delight you.

Of course, tourists Travellers visit your world as well. People from the world of Magic are amazed and astounded by your devices, your technology: instant communications, mobile phones, your skyscrapers and your high-speed transport by road, rail, and air.

There’s also a certain amount of more human-focussed trade from Magic to Mundane. Maids, labourers, gardeners, even prostitutes – many poor people travel to work in Mundane. Even so, few stay for long, despite the considerable wealth that can be earned over there.

These migrant workers often feel that they are living their lives under a severe handicap. At home, they have become so used to performing actions with thaumaturgics – magic just a word or gesture away – they feel an extreme sense of loss at the core of their very being. And think of those poor souls banished from the world of Magic and forever unable to perform their art.

The combination of trade and tourism means that crossing the bridge is often subject to queues and delays. Part of our role is to keep the traffic moving smoothly. And what an incredible variety of transport there is. Wagons drawn by assorted beasts of burden – have you ever seen the centaurs at work? And you will see cars and trucks from the Mundane world fitted with supplementary motive power which works by Magic. These are usually tame daemons, although I'm personally not convinced that the beasts are ever really domesticated.

And therein lies a story. Most magical beasts cannot live in the Mundane world. They instinctively shy away from the crossing, somehow sensing the danger to their very existence. We have very little trouble with them. But certain kinds of creature, certain rather nasty kinds of daemons, can survive over there, although mercifully their capabilities are severely attenuated

So, let me tell about the one of my less boring experiences. It started on a busy summer's day a few years ago.

I was watching a large and ancient Mercedes coupe inch its way down the arch of the bridge towards the magic-side trap. The car had been retrofitted with domesticated fire daemons, whose heads could be seen emerging from the cowlings over the engine, awoken from their slumber as they re-entered this world.

The vehicle was so wide that other traffic was in difficulties manoeuvring around its low bulk. I was concentrating on directing the horse-drawn wagons and the teams of pack unicorns, struggling with separating the streams of traffic while being deafened by a cacophony comprising, in equal parts, the cries of panicky beasts and the oaths of the carters and working-men.

So, I was momentarily confused and distracted. While my back was turned, so to speak, a clutch of wild tree daemons slipped through to the Mundane world. Now some of you may know these creatures as nymphs or perhaps dryads, but these terms are altogether far too

innocent to describe what is really a particularly sneaky and vicious species of vermin.

The daemons were hidden in a shipment of freshly-cut fine timber destined for some specialist cabinet-maker in your world. This kind of luxury item is exported occasionally to Mundane; the resulting caskets prized more for their rarity rather than for any supposed magical properties. The creatures had concealed themselves within the trunks of the cut trees that I had failed to check carefully.

I should have spotted them sooner, but it was too late. I caught a glimpse of them emerging from their hiding places, their scaly heads and curving horns shaking as they freed themselves; their green-and-brown bodies sliding out of the cracks in the bark and the cut surfaces of the solid timber that was roped to the wagon slowly making its way down the arch of the bridge.

I could see that look of malice in their yellow-slitted eyes as they gazed back at me, their gaping mouths filled with brutal teeth seeming to cackle with amusement at my misfortune. The sunlight glinted on ethereal wings which would have allowed them to fly easily in the world of Magic but were shrunken and insignificant in the Mundane world.

The wagon, its driver oblivious to the stowaways behind him, had reached the end of the bridge proper and started along the lengthy causeway towards the coastline of the Mundane world.

The three daemons rose slightly into the air, their wings straining in an environment which is by-and-large anathema to magic. They moved slowly back along the bridge towards me, and I made ready to defend myself with sword and magic.

Then they disappeared – just vanished, before my very eyes.

Daemons have this ability to conceal themselves within the substance that gives them their name – water daemons into streams and rivers, fire daemons into hot solids, and so on. Even our best thinkers cannot entirely explain exactly how they do this, although why is much clearer: it is the ultimate in camouflage, providing concealment until their intended prey is close by.

Tree daemons, as I have already explained, can hide themselves in wood. They need a certain minimum volume of timber to conceal themselves within, so a fully-grown dryad needs the trunk of a mature tree to entirely contain its bulk.

My first thought was that they had returned to the logs they had arrived in. I ran forward, calling out to the waggoner to who had finally realised that there was something happening behind him.

Now, searching for magical creatures in the Mundane world is worryingly hard. The spells and incantations I would have used as a matter of course in the world of Magic were useless over there and, unsurprisingly, there are few technological devices which are effective in the detection of part-Magic animals.

Nevertheless, there are some techniques – tricks of the trade, you might say – which we are trained to use. But I could locate no sign that the daemons were within the logs, or indeed concealing themselves in the wood of the cart itself

To be doubly sure, I insisted that the wagon was turned around immediately and returned to our world. This was finally achieved with some noisy complaining from the carter, and much struggling with the confused carthorse being forced to back up on the narrow causeway. But it was all to no avail. My charms and invocations revealed nothing hidden in the wagon and its load other than a small cache of gold coins which the driver swore he had lost only yesterday.

In my experience, these daemons do not usually travel far from the crossing, somehow, I think, finding the proximity of the world of Magic a comfort. So I was pretty certain that the creatures had not gone very far.

I set about searching farther afield with the aid of a couple of my colleagues, as well as a small group of Guardians from your world. We must have inspected every wooden vehicle and baulk of driftwood for miles around, but without success. I was beginning to get very worried indeed.

Now, daemons of all kinds are meat-eaters and pack-hunters, and they have a voracious appetite. Over here, these dangerous pests are generally hunted and driven out of populated areas, but every now-and-then a pack finds its way to a farm. They can cause serious losses to livestock. However, they tend to avoid humans, having learned that people are likely to be armed with steel and magic, both of which are – usually – more than a match for teeth and claws.

Visitors to your world are at a serious disadvantage in dealing with wild daemons. We strongly discourage Travellers from taking edged weapons with them into the Mundane world – your civil authorities take a very dim view of strangers wandering the streets armed with

swords and daggers, for some reason. And, of course, the thaumaturgical defences which would be child's play in the world of Magic are unavailable over there.

I suppose I might have hoped that the daemons had died, or perhaps made their way to some uninhabited region to live on wild deer. If so, then I was sadly mistaken, especially after the first reports of attacks came in.

The daemons started preying on lone Travellers on the causeway on the Mundane side of the crossing early in the morning or late at night. They seemed particularly fond of those poor people who had travelled to your world to seek their fortune in menial work and were returning, richer but often weary, to their family and friends in the world of Magic.

At dusk or dawn, the bodies of returning Visitors would be found dead on the causeway, their faces always twisted in horror and their corpses partially eaten. Other people just disappeared completely – we never found any remains, any sign of what had happened to them. The beasts themselves were never seen. There were no sightings, no reports of unexplained happenings or strange creatures crawling out of the woodwork.

Not surprisingly, traffic on the causeway and bridge started to drop off noticeably. People began to stay away from the crossing, and both trade and tourism suffered badly.

People even began to try other ways to cross between the worlds, despite the well-known dangers from sea and sky. On a couple of occasions, overloaded rowing boats got into difficulties and were the subject of daring rescues by Guardians from both worlds. I was not involved myself, but they were the talk of the Guardhouse afterwards – Guardians are the worst gossips in both worlds, I'm sure of it.

Anyway, I was returning across the causeway one evening, rather later than I had hoped, after another fruitless meeting with the Mundane Guardians hoping to track down the missing dryads.

It was getting quite late in the evening. The sun was low on the horizon, and there were few Travellers about – just a straggling group of walkers, and a couple of horse-and-centaur-drawn wagons returning with their last load of the day.

I had just reached the point where the causeway where the stonework just begins to rise up and segue into the first of the arches of

the bridge proper. Somehow I got a sudden impression of something moving behind me. I span around. All three of the daemons had appeared behind me, almost breathing down my neck in their desire to make me their next meal.

The daemons had been hiding in the massive timbers that formed the floor over the Mundane trap. I mentally kicked myself for overlooking this possibility, and I had always known that the worn timbers were easily mistaken for stonework. Thinking back, the point where the dryads had disappeared was right over the centre of the trap.

The creatures seemed to have grown in size since I last saw them and were now the largest daemons I have ever seen – they had evidently been well-fed over the last few weeks. I drew my sword, although it seemed like a toothpick compared to the overgrown man-eaters I was facing.

I'm a firm believer that discretion is the better part of valour. I backed away, waving my sword to keep them at a distance, then turned and ran, shouting at the Travellers to warn them. The people and the smarter kind of working animals scattered immediately, the dumber creatures being dragged or whipped into rapid movement.

An idea flashed through my mind. I dashed towards the magic trap on the other side of the arches of the Old Bridge, desperately trying to remember the precise series of incantations which would trigger its demolition, incantations I never seriously expected to use in earnest. The daemons followed closely, moving alarmingly quickly despite their atrophied wings.

As I rushed over the flowing orange sprites of the Magic trap, I began to shout out the syllables which activated the transition. My timing had to be perfect, so that I was clear of the area while the daemons were still close to the centre of the trap.

There was a soft *whump* and a roar of wind as the trap was sprung. I fell to the ground, clinging desperately to the flagstones with my fingernails in an effort not to be dragged into the vortex I had created behind me. My trusty sword had fallen at my side, and was sucked clanking into the hole in space I had opened up.

The activated trap acts as a kind of drain into nothingness – a 'suction pump', a 'Hoover', as previous Visitors have described it. The frightful creatures were ensnared, drawn howling into the whirlpool of magic, never to be seen again.

So, now the crossing is safe once more. We no longer allow motorised vehicles or other large transport on the causeway, and we are much more careful with screening goods in transit. You will have seen that we have re-instated the Magic trap, as you passed over it on your walk across the bridge.

Have a good day, and enjoy the rest of your visit to the world of Magic.

3267 words

9 pages

05/10/2008 14:19

Afterword - Daemon Bridge

I came across some notes for a very early version of the first chapter of what eventually became my novel *New Bridge to Lyndesfarne*. I had already completed a draft of this book and was working on the second in the series (*Bridge at War*). It had been such a long time that I had almost forgotten about this attempt, which I discovered was in quite a different voice that I finally adopted for the novels.

I thought it would be fun to write a story in a different style, but sharing the same setting and characters. So the bridge and causeway is described, much as in the later novels, and the Guardians, as an organisation, make an appearance here too. But there are some differences: the two worlds are referred to as Mundane (our universe) and Magic – which I later started calling “The World of Lyndesfarne”. In fact, I had not even definitely placed the crossing at Lyndesfarne when I wrote those first notes.

Broken Box

A short story by [Trevor Hopkins](#)

Back in the 1970s, I did quite a lot of work associated with that voluntary first-aid organisation called the St. John's Ambulance Brigade. In those days, St. John's did not have the funds to equip their ambulances with two-way radio. Rather, they preferred to spend their limited resources – accrued by the time-honoured expedient of rattling charity collection boxes vigorously under people's noses on street corners and in shopping centres – on more important things like medical supplies and first aid training.

When the need arose, the Brigade would sometimes engage with a local group of Ham Radio volunteers to provide communication between their command and control post, the ambulances and their fixed first aid posts. These licenced radio amateurs, also widely known at the time as Ham Radio enthusiasts, would make themselves available for practice exercises and the occasional planned 'live' event,

I have often thought that explaining the tenants of amateur radio, especially to a modern audience, is really quite difficult. The idea that individuals are supposed to be responsible for their own behaviour in a medium that could have quite literally worldwide implications seems anathema to governing bodies in a modern world which seemed to insist on policing even the most microscopic elements of everyday life.

The published purpose of the Radio Amateur licence was to perform "experiments and self-training", harking back to the heyday of the hobby in the early twentieth century when a few talented individuals made discoveries which opened up the world to near-instantaneous communication. It was expected that one should be able to construct one's own two-way radio equipment and operate it in the approved fashion. So, it was quite legal to make radio transmissions, provided that one had acquired the appropriate a Home Office licence. In those days, it was necessary to pass a formal examination, including a two-part multiple choice paper, as well as a test in Morse Code: you know, the dots-and-dashes, Ess-Oh-Ess and all that.

I was at the time a student at one of the larger red-brick universities in the North of England. In between my studies and my sporadic social life, and quite probably to the detriment of both, I became an

active Radio Ham. Encouraged by my few friends and acquaintances, I studied for and passed the examinations, and rapidly acquired both licence and callsign. The latter was quite a lengthy sequence of letters and numbers, since it had to be a unique identification world-wide, but I soon became adept at rattling off my new callsign into a microphone.

With my wet-behind-the-ears enthusiasm, I purchased several pieces of second-hand radio equipment with money from my student grant – funds which might have been better used for books, or even food. I also started attending regularly a local radio club, which took place in a community centre building a short bicycle ride from the university, and took part in a variety of social and technical events. It was through a contact at the Club that I was first invited to become a member of the Radio Amateurs' Emergency Network, also known as Raynet.

Raynet was, and indeed still is, a volunteer organisation dedicated to the supply of radio communication in the event of local or national disaster. When that airliner came down at Lockerbie, for example, Raynet members accompanied groups in the harrowing search for parts of aircraft or bodies. As part of the training, however, Raynet members were permitted to undertake practice events – not real emergencies, but planned activities in the public eye – usually in conjunction with volunteer first-aid organisations like the St. John's Ambulance Brigade.

My first 'live' Raynet exercise was supporting the Brigade in providing first-aid coverage of a bicycle race around the streets of the city. This particular part of town was notorious for being built entirely on the slope; steep hills, cobbled streets, sharp bends winding between the buildings were amongst the hazards facing the racers. There was a high probability of competitors falling off and suffering grazes and bruising, or perhaps more serious injury: broken bones or gravel forced under their skin by their fall.

The other hazard anticipated for this sort of event was explained to me by old George, an overweight and avuncular senior first aider that I had somehow fallen into conversation with. I suspected that George had been patching up accident victims for several thousand years, or perhaps just since the Second World War. In any case, he told me that the heat and crowded streets would over-tire the weak and elderly, with a real risk of collapses and even heart attacks amongst the spectators.

An acquaintance of mine, a student doctor at the university's teaching hospital, described such volunteers in rather disparaging terms.

"First Aiders," he suggested pompously, "Can usually be relied upon only to mark the *approximate* site of an injury with a bandage."

I have no medical training, but I have worked with such first-aid groups off-and-on over the years, and my erstwhile friend's remarks are a little overstated. In my view, it is certainly useful to have people around who would not faint at the sight of blood – it always makes me rather queasy, I have to say – and were equipped to quickly get the sick and injured to professional medical attention.

As had been planned carefully beforehand, the Raynet group set up a control centre in the local St. John's headquarters. This was located in an unprepossessing suburb, and it had taken me nearly twenty minutes to cycle there with a heavy rucksack of radio equipment on my back. The other members of our squad had already arrived by the time I got there. Dave, the leader of the Raynet squad, was a weather-beaten man of middle age, wiry-thin and very fit from regular walking expeditions to the more inaccessible parts of the UK.

Dave would be manning the control station, together with a couple of those fresh-faced school-age kids known as SWLs – standing for Short Wave Listeners – to whom, with the advantage of several years of age and an operator's licence, I felt so superior. The juniors would act as runners, and assist in liaising with the Brigade top brass, who were easily recognised by their heavily braided uniforms and self-important attitudes.

When I got there, Dave was supervising the assembly of the base station in one corner of the main hall at the HQ. The headquarters was housed in a single story building with rather weathered brickwork with a flat roof which featured a curious upper floor, a protrusion from the roof presumably built to house a water tank. A month or two before, a small group from the local Raynet group, including myself, had spent some time drilling holes into the brickwork to mount a mast for an antenna. From the aerial, a thick cable ran into the building under the eaves, the remaining length of which had been stored, neatly coiled, in a corner of the hall. The team had also erected a second temporary aerial mast in the grounds nearby to allow for a second radio channel on a different band.

I had been allocated to an ambulance crew who were to station themselves at a designated spot on the race course as first aid cover, and I was to provide two-way radio communication. My acquaintance George was the leader of the group and he casually pointed out the vehicle we were to use. I immediately set about installing the radio equipment I had brought with me in the selected ambulance.

The Brigade's ambulances, which were usually acquired second-hand from the public ambulance service, were an eclectic mixture of vehicles of a variety of vintages. About the only common denominator was the custom-built aluminium coachwork. It was therefore not possible to attach an external aerial using a 'mag-mount'; the magnetic base would simply slide off when the vehicle started moving.

Pre-warned, I was forced to attach a mounting bracket to the vehicle guttering with a couple of Allen screws. On this particular vehicle, the only available place was just above the passenger side door. This worked well enough, I suppose, although it made getting in and out of the ambulance through that door a little awkward.

My lightweight portable transceiver was attached to the antenna by a short length of cable, and fed through the rubber door-seals so that the door could still close easily. It was also possible to charge the set's battery by a second cable plugged into the convenient cigarette lighter socket, although why an ambulance would need a cigarette lighter at all was beyond me.

Once I had got the equipment installed, we set off for the designated station, with me in the middle seat in the Ambulance, squeezed between the professionally taciturn driver and Old George, with the transceiver sat precariously on my lap.

The remainder of the group of first-aiders were transported in the back of the ambulance, and a surprising number of individuals of all shapes and sizes were decanted from the rear of the vehicle when we arrived. Each was dressed in the distinctive uniform of the St. John's Brigade, including a para-military peaked hat. Most were carrying a large box with webbing handles filled with the sterile dressings, rolled bandages and sticking plasters which are the stock-in-trade of the jobbing paramedic.

As we set up our first aid station, I found a moment to look around at the surroundings, finally properly appreciated the difficulties of the situation. The races themselves would traverse the normal streets and

concourses of the town, which was reputed to have been built, like Rome, on seven hills. Although, as a regular cyclist myself, it certainly seemed like a lot more than was identified by the official description.

This event was held in the middle of that repeating period laughingly known as the English summer. Normally, overcast conditions with occasional periods of rain were to be expected. On this occasion, we were enduring, with typical British stoicism, an unusual spell of hot weather.

As well as the cycling events, there were stalls selling food and drink, a small funfair set up on the green at the bottom of this particular hill, and an open-air market featuring an eclectic collection of stalls. The police had closed much of the town centre to traffic. There were many people moving up and down the numerous and often narrow streets, and it was quite crowded, with the warm sunshine drawing much of the populace outside. All together, there was quite a party atmosphere.

Once the races had started, it seemed that there was little to do, except wait in the warm sunshine and watch the cyclists whizzing past. I was required to spend much of the afternoon sitting in the passenger seat of the ambulance, listening to the radio sat on my lap, since the internal battery in my second-hand set could not be relied upon, and the box had to remain connected to the cigarette lighter socket.

The radio-telephony traffic hinted at some minor incidents elsewhere on the temporary racecourse. I could hear Dave measured and laconic tones directing an ambulance here, passing on messages requesting additional supplies of medical supplies, or commenting on the need for more drinks to prevent dehydration. I was beginning to think that we would have passed the entire day with nothing more serious to worry about than keeping ourselves in the shade.

I was, of course, quite wrong. Towards the end of a long day, perhaps getting tired and less able to concentrate, two riders collided at speed not twenty yards from the spot where we had set up shop. One of the competitors was thrown by the force of the collision into the pillars which supported the roof of the little shopping arcade under which we had taken shelter.

George and his team rushed over eagerly; this was, after all, exactly the reason why the first aiders had been stationed here all day. As far as I could tell from a distance, the fallen rider had broken bones

in his arm, and seemed to have some kind of head injury as well. Following their training, the Brigade members were taking care to avoid moving the wounded rider until the full extent of his injuries were known.

The other rider had also sustained injury, and was currently lying unconscious on the pavement a few feet away. It rapidly became clear that both riders would need to be taken to the Casualty department of the local hospital, and would occupy both of the available berths in the ambulance.

It was just at this inopportune moment that an elderly person collapsed in the pressing crowd surrounding us. The old woman had been hemmed in on all sides, but a space rapidly opened up around her as she crumbled onto the ground.

Unhesitatingly, the St. John's group leader swung into action.

"Come with me!" George instructed one of the first-aiders, leaving the remainder of the team to deal with the fallen riders.

The two men moved swiftly to the woman's side, urging the pressing crowd to stand back a little further. George checked the woman's pulse and breathing, then rolled her on to her back and started a vigorous resuscitation procedure.

"We need a second ambulance," George called, glancing up from administering the old woman the Kiss of Life.

In the panic, I had leapt from the ambulance to find out what was going on. A split-second later, I heard to my dismay an expensive-sounding crash from behind me. In my youthful enthusiasm, I had failed to disconnect the set from the cables which led to the antenna and power socket. My transceiver was yanked from my hands and smashed on the ground, with pieces flying off in several directions.

I must confess I used a number of very rude words at this point but I was really desperately embarrassed. This was my first opportunity to show just how effective Raynet – and I – could be in a real emergency, and I had fluffed it.

I bent over the pavement, reaching desperately for the pieces of my broken set, trying to find some way of getting the box back together again. A man appeared out of the crowd at my elbow. He was a rather odd-looking old boy with flowing grey locks and beard, and he was dressed in a tightly-buckled brown mackintosh despite the heat of the afternoon.

“You need help?” he enquired gently, in a soft barely-audible voice. I nodded imploringly in response.

From somewhere, he produced a rather bulky and old-fashioned portable transceiver with a short flexible aerial attached directly to the socket on the front panel. At the time, I assumed the other man had been carrying the box around to listen in on the exercise, as I myself had done on previous occasions, and must have seen my mishap.

“Use mine,” he said, pressed the equipment into my hands. I was not paying very much attention at the time but later I wondered if he had made a few strange gestures in the direction of the set, and there might have been a brief glow, a sparkle around its casing, visible even in the bright sunlight.

“Keep it for now,” he said, “You can return it after the event.” He tapped at a callsign stencilled neatly on the casing of the box.

I needed no second urging. I took the equipment from his willing hands and removed the flexible antenna, instead connecting it to the larger ambulance aerial for greatest range.

For all its age, the box appeared to work efficiently. I quickly turned the dials to the Raynet channel on 144.8 Megahertz, and put in a call to HQ to report on the situation. To my utter relief, Dave’s calm tones were clearly audible in response. I gave the sitrep in breathless tones and was relieved to hear, a few moments later, Dave directing a second ambulance to our location.

I turned to thank the other Ham, but he had disappeared completely – just, I assumed, melted back into the gawking crowd which was still thick around us.

Meanwhile, the first aiders had scooped up both of the fallen cyclists, handling them gingerly and transporting them to the rear of our ambulance. I could hear the doors slammed shut behind me. The group that had rushed to the assistance of the old granny appeared to have got her breathing again, and were moving her to the recovery position

Without medical training, I could be of little assistance at this point, and I spent the time scooping up the fragments of my own box, tossing them into the ambulance footwell in disgust.

Fortunately, the second ambulance was not far away and arrived in less than three minutes. The fallen granny was rapidly moved to newly-arrived ambulance. Meanwhile, George asked me to put in a

second call to HQ, and we were immediately instructed to take all the patients to the casualty department at the Royal Infirmary.

The incident had also attracted the attention of the police, and a car drew up at the curb-side, evidently having followed the speeding ambulance. The coppers within appeared to be known to old George, who quickly apprised them of the situation.

“Get in, get in,” George instructed me, pushing me inside the vehicle and squeezing his own bulk in afterwards. Both ambulances set off in convoy, following the blue lights of the police car escort, and made rapid time to the hospital, leaving me with nothing to do on the way except sit in the passenger seat listening to the radio-telephony chatter.

I would later learn that the old woman who had collapsed so suddenly had indeed had a fairly severe heart attack and that the rapid transport to the hospital almost certainly saved her life.

By the time we had decanted our casualties at the hospital, the cycling event was over. I clambered back into the ambulance with the crew, and we made our way more sedately firstly back to our original station to collect the remaining members of our team, and then returned to the headquarters.

On our arrival, I shook hands with a variety of the St. John’s members, both on my own and the other ambulance, who thanked me profusely for my assistance. I was left with the distinctly pleasurable feeling that I had actually contributed, genuinely helped with the objectives of both organisations.

I then set about carefully removing the antenna from the ambulance, together with the borrowed set I had been using. I also picked up the sorry remains of my own equipment, which had been kicking around in the footwell of the vehicle, wondering vaguely if it could ever be made to work again. I carried the various bits of equipment inside the HQ building and placed it all on one of the tables set out in the main hall of the centre, making ready to pack it all into the rucksack for my return bike trip.

I found myself wondering how to thank the mysterious ham who had appeared in such a timely manner and indeed how to return his equipment. I would need to get his QTH – this is Ham speak for one’s home address from the official register of callsigns available to all. Later I would discover that the callsign must have been used fraudulently. It had belonged to a local Ham who had died recently –

“Silent Key”, as the expression is – leaving me with no way to track down the owner of the equipment I had been so fortuitously loaned.

At the time, though, I was simply astonished by the coincidence of the other Ham’s location – a miraculous appearance in the moment of need. And there was something almost magical in the way he had coalesced out of the crowd and produced the transceiver from under his coat. How could he have been concealing the bulky box I could not understand.

While I was mused, I slowly became aware that the transceiver had gone silent, not even emitting the usual low hiss which indicated an unused channel. It had probably had been so for some time, and I had simply not noticed in the turmoil. It’s probably a loose connection, I thought, just needs a bit of jiggling. I certainly did not want to return the set broken – that would have been far too embarrassing, especially after the unidentified Ham had done me such a favour.

I took me just a few moments to identify and undo the battery cover. To my surprise, there were no batteries inside. I felt sure that they must have fallen out somewhere. I looked around on the floor, to no avail, and even returned to the ambulance, now parked outside in the settling dusk. There was nothing I could find anywhere in the vehicle.

Puzzled, I returned to the hall. The box I had been given was still sitting on the table where I had left it. Even without batteries, the set seemed very light, something that I had not noticed up until now. With increasing curiosity, I undid the casing. There was nothing, absolutely nothing inside: no batteries, no electronics of any kind, and the controls on the front panel were not actually connected to anything. Even the labelling on the controls themselves, now that I looked more closely, seemed blurred and sketchy.

It could not possibly have worked in the fashion in which I had so evidently used it so recently. It was just an empty box.

3602 words

9 pages

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Afterword - Broken Box

Both the Radio Amateurs' Emergency Network and the St. John's Ambulance Brigade are real organisations, both of which have performed sterling work over many decades. I have tried to portray their work fairly; of course, any errors in my descriptions are entirely my own.

As you will probably have guessed, this story is based on my own real-life experiences as a Radio Ham. I certainly did take part in a Raynet exercise with the Brigade, much as I have described, although I should stress that the life-threatening events I described in this story did not, in reality, come to pass.

The Ghost of Computer Science

A [short story](#) by [Trevor Hopkins](#)

“So where did you see this ghost?” I asked, mildly amused by the tale being told by the old porter.

The other man grunted, clearly relishing the opportunity to spin a yarn. He must have noticed, but seemed prepared to ignore, the scepticism visible on my face.

“It always shows up in that stairwell behind the lecture theatres, at the upper ground level,” he replied laconically.

The man I knew only as George was a wizened old gnome, wiry and bandy-legged. He struck me as surprisingly hairy about the ears and on the backs of his hands, which contrasted with the compact and polished dome of his head. He was apparently one of that group of men known as porters, who delivered the mail, moved the furniture and acted as general factotums to the academic staff at the University. Old George had told me that he had been in the Computer Science building ever since it opened, back in the 1970s.

In this day and age, the porters act as the security staff, and are on duty twenty-four hours a day. While any member of the faculty could come and go as they please, they rarely did and there were usually not very many people in the building in the middle of the night.

It was two in the morning, and we were standing in the otherwise empty foyer. For some reason, I only ever encountered George in the middle of the night. Perhaps it was his preference for the night shift. Tonight, the porter seemed to be in a garrulous mood. I fully admit that I was incredulous, entirely disbelieving, but the old man seemed to be utterly serious.

“It’s always been there, as I recall. There were occasional sightings when I first came here,” he continued, with a slight shake of his head at my youthful intransigence.

“Mind you, in those days, months or even years would go by with a visitation,” he continued, “The apparition’s appearances seem to be getting more frequent.”

I shook my head but, before I could make any intelligible response, old George straightened from the slouch he had adopted.

“Well, I can’t stand around here nattering all night,” he muttered, “I’ve me rounds to do.”

And with that, he stalked off down one of the darkened corridors, soon to be lost to sight.

I suppose I am still a student of sorts, now undertaking post-doctoral work in the School of Computer Science. The Computer building at the red-brick university I have hung around for more than a decade is itself a monument to 1970’s structural design. The architectural vernacular of the time was for steel-reinforced concrete framework clad in – yes – red bricks with tall narrow windows fitted with darkened glass, arranged in serried rows on all four sides.

The building has several floors above ground level where lecture theatres, classrooms and laboratories for practical work can be found, as well as rooms full of personal computers for use by students. The latter seem to be always in use, even in the middle of the night. It always amused me to see just one or two hunched figures, widely separated amongst the rows of quietly humming PCs.

The need for a large number of rooms must have given the building designers a headache, since much of the interior is a warren of corridors and staircases. The uppermost floors are occupied by spacious individual offices for the academic staff, close to their secretarial and administrative supporters, as well as much more cramped shared accommodation for the post-docs and research students.

Further down, there are extensive basements housing the air-conditioning machinery and various workshops and storerooms, as well as several large machine rooms. These house rows of metal cabinets, these days usually painted in fashionable shades of black, containing the central computers and peripheral machines which are even nowadays adorned with green and blue blinking lights.

I have always been something of a night-owl, preferring to stay up until the wee hours whether I am working or socialising. I always rise late in the morning, even then unable to function even then without at least one large mug of the poisonously strong black coffee I favour. I am not sure just why this is. Maybe I am naturally not a morning person, or perhaps this is just a legacy of years of being a university student.

My nocturnal working habits are by now familiar to the portering and security staff. I can frequently be found working late at night. It would not be unusual for me to stay in the building all night, finally emerging in the morning, blinking in the light. Then I would stumble to the bus stop for the short journey back to the terraced house I share with three other post-grads, all of whom are attached to other parts of the Faculty of Science and Engineering.

These night-shift hours had allowed me to acquire a nodding acquaintance with George the porter, who always seemed to be on night duty. It was not uncommon for me to come across him patrolling the darkened corridors and public spaces of the School.

I occasionally found myself wondering about the story he had told and, out of sheer curiosity, took to passing by the location George had described. The stairwell was quiet and out-of-the-way corner of the building. The complicated interior design meant that there was almost always no direct route between any two points, and it was generally not much out of my way to pass by regularly on my way to my office. “My office” sounds rather grand, especially as this is actually just a desk and a couple of filing cabinet drawers in a shared room in that far corner of the building.

With hindsight, it must have been unsurprising that I did finally see the ghost. One evening, not even particularly late – certainly well before midnight – I was making my way downstairs to the machine room, picking the route through the haunted stairwell quite automatically.

It was astonishing. The whole experience was exactly what I would have expected from folklore and children’s tales. The first indication was a sudden chill, a drop in temperature which somehow did not quite feel like a malfunction in the air-conditioning. Then I caught sight of a vague shape, hanging in the air, as if a humanoid figure have been draped head-to-foot in a badly-washed white sheet. Whatever it was, it was hovering in the stairwell in such a position that taking the steps downwards would have brought me level with the spectre.

The figure had its back towards me, as far as I could tell. As I watched, I thought it made to turn in my direction but, before the movement had barely begun, the apparition faded into nothingness. The chill in the air dissipated just as rapidly, and I found myself standing mouth open and wondering whether I had imagined the whole thing.

The only thing that jarred with the bedtime storybook was that I did not feel in the slightest bit frightened. The ghost just was not scary. I was curious, intrigued even, and I resolved immediately to investigate further.

That turned out to be easier than I expected. After that first sighting, the spectre always seemed to be there, sometimes plainly visible and at other times just the mere suggestion of a presence. Strangely, it was only apparent when I was on my own; on the rare occasions when I was in company, I always found the stairwell entirely uninhabited.

I made opportunities to talk with some of the other postgrads, and even some of the younger members of staff. But, having asked around a few times whether anyone sensed anything unusual or spooky in that stairwell, but mostly gave up after the number of strange looks I received.

I had heard that theory that ghosts are somehow representations – echoes projected through time – of a moment in a person's life, especially an intensely emotional moment close to death. Logically, this means that graveyards are the last place you should expect to find ghosts, since people almost never die there except under the – I hope! – rare circumstances of being buried alive.

From its beginnings in Victorian philanthropy and mock-gothic majesty, the University buildings had grown organically over ground previously occupied by rows of back-to-back terraced houses – a classic *Coronation Street* scene now bulldozed flat. The Computer Science building was in fact squatting on a foundation of broken bricks and torn-up cobblestones – the remains of homes for thousands of workers in the early ages of industrialisation.

These old houses must have seen any number of births, deaths and marriages over the years. I have seen black-and-white photos of the Computer building under construction, on posters decorating the otherwise bare breeze-block walls in out-of-the-way corridors. As I saw it, the level of that haunted stairwell was at the height of an upstairs bedroom of an old terrace – just the place where a bed-bound person might have lived their last, and died.

The haunting was beginning to prey on my mind and I felt I needed someone to talk to. I wanted to find some explanation of what I had witnessed.

Finally, I was struck by a brainwave. I tracked down one of the younger lecturers in the School, named Tony Howarth. Tony had a rather studious, even anxious disposition, forever glancing around through thick-

rimmed glasses. He generally spoke and moved quickly, as if bursting with nervous energy.

The reason I had picked Tony as my confidante was that I had recently discovered that he was a subscriber to the *Sceptical Enquirer* periodical, as well as being part of an enthusiastic – if slightly nerdy – group dedicated to investigating, and debunking, claims of UFO sightings and ghostly hauntings. He displayed a sharp and enquiring mind, always ready with a plausible mundane explanation for apparently paranormal events.

Sitting in his small office, Tony listened with great interest to my story and then asked a few questions, such as whether I had searched for hidden projectors or wires. I admitted that I had not – it simply had not occurred to me that the presence on the stairs was anything other than completely genuine.

I think Tony could hear the earnestness in my voice and was apparently satisfied that I was not attempting to wind him up as a prank. After a few moments thought, Tony said that he had not heard such a claim but was happy – even eager – to investigate. He said he would make some gentle enquiries around the building and from the University authorities, and asked me to come back the following day.

Tony's report was non-committal. He had explored the area himself and had sensed nothing himself – a situation I had somehow anticipated. He also said that, as far as anyone knew, no-one had ever died in the Computer Science building, but it was impossible to be sure about the residents of the former houses on the site. Finally, Tony said he would talk to some of his contacts through the *Enquirer*, undertake some further investigations and let me know anything he discovered.

This was a far less positive outcome than I had hoped for, with limited scope for some kind of a resolution. I started to avoid that part of the building, which was always dimly-lit and quiet – especially after dark, when the massed hordes of undergraduates had returned to their usual evening haunts of residential halls and public houses.

Even so, in a hurry one early evening, I casually decided to take that route back to the office. I was shocked and horrified to find Tony, on the floor, apparently dead. The poor man surrounded by a litter of apparatus – assorted cameras, tape recorders, lights and other devices with more obscure purposes – all tied together with a rats' nest of cabling fixed to a latticework of aluminium poles and garden canes with heavy-duty gaffer tape.

I hurried over, desperately trying to remember the rudimentary first aid training I had received several years ago. Tony was definitely dead, already cold and I guessed he had been lying there for an hour or more.

I called out wildly for assistance and, almost immediately George himself appeared around the corner. The old porter leant over, apparently checking the body, then looked up at me shaking his head. Even through my rising panic, I could see he looked somehow satisfied, as if pleased with an outcome long anticipated.

I rushed back down the corridor towards the administrative offices to raise the alarm before collapsing in near-hysterics. I suppose I must have been in shock for a while. I vaguely recall being fed mug after mug of hot sweet tea – something I would normally have avoided – by the secretarial staff.

I imagine that some ambulance crew come to remove the body and senior members of the university management were dragged away from their meetings to handle the situation.

The police cordoned off the entire stairwell using that black and yellow tape familiar to viewers of TV crime dramas, making inconvenient detours necessary. After I had recovered some of my wits, I made a statement to the police, carefully omitting or playing down any the ghostly aspects, and merely noting that I understood Tony to be investigating reports of a haunting at this very spot.

The subsequent police enquiry confirmed the obvious conclusions. It appeared that Tony had been attempting to attach his apparatus to the banisters at the top of the stairs. Somehow, he had fallen and broken his neck colliding with the protruding concrete of the intermediate level, before crashing to the floor below. There was no suggestion of ‘foul play’, to use that old-fashioned phrase; no evidence that anyone else had been involved.

As a mark of respect, I was present at poor Tony’s funeral, which was attended by his weeping parents as well as an eclectic cross-section of the staff and student body. Later that day, there was a short non-denominational service (Tony was an atheist, apparently) in the Department itself, which was rather better attended.

After the funeral and the service, I remained in the Computer building, unsure of what to do. I wandered to the fateful stairwell to find that the police investigation had evidently finished and the barrier tapes had been removed.

Absently, I tidied away Tony's equipment, carefully collecting up the damaged instruments and broken cameras. At first, I was not quite sure what to do with it, but eventually I stacked it all neatly in Tony's office, which already seemed unnaturally quiet and faintly dusty, even though the previous occupant had been dead only a few days.

Just as I finished this task, old George appeared at the doorway, the same unaccustomed look of glee in his eyes as I had seen when he had leant over Tony's cooling body.

"What's going on?" I asked, the note of alarm in my voice sounding shrill even to myself.

He made no reply, just stood there looking at me insouciantly. Then he disappeared – by which I do not mean he simply walked away, but quite literally vanished into thin air before my very eyes.

The ghost of Computer Science is more visible, more often, these days. Other people seem to have caught a glimpse of it too, judging from the looks I see on faces emerging from that stairwell. I have not been able to persuade anyone to admit to this, yet, although I do get strange reactions from those of my acquaintances who I questioned just after I had first seen the apparition.

Personally, I am convinced that the ghost in the stairwell is Tony himself. What I had glimpsed before must have been some kind of a future echo, his shade now stronger, more persistent, now that his death is in the past. It seems inappropriately ironic that he was investigating his own ghost when he died – was this the reason for George's nonchalant reaction?

What really worries me now is the old porters astonishing disappearance. The last time I ever saw him was when I was moving poor Tony's equipment back to his office. I spent long hours, night after night, wandering the deserted corridors where previously I would also have guaranteed a meeting, without encountering any sign of him.

The mysterious porter seemed to know more than he was letting on, and I desperately wanted to learn more. I made enquiries, eventually gaining an interview with the Head Porter in the tiny cupboard that his seniority allowed him to use as an office. He was a squat toad of a man, who sat in a decrepit old armchair sipping delicately from a chipped mug of strong steaming tea.

The Head Man told me bluntly that he and the other porters in the building had never heard of George, that they did not recognise the

description I put to them. Despite my increasingly frantic protestations, he insisted that no-one of that name had ever been employed as a porter in the School.

So who, or what, is Old George? More importantly, why did he want our local paranormal investigator out of the way? What secret was he desperate to conceal – so desperate that he was willing to arrange Tony's death while investigating his own ghost?

My best guess is that George is a very capable and frankly rather malicious spirit who has been in this location for a long time – much longer than the present building. He did not want to be disturbed and felt threatened by Tony as a potential open-minded ghost-hunter. So the other ghost is both distraction and protection – although I am beginning to wonder about what might be happening on the Other Side...

2974 words

8 pages

24/10/2007 08:41

Afterword - The Ghost of Computer Science

When I was, in real life, a postgraduate student in the Department of Computer Science at the University of Manchester, there was indeed a porter of the old school who claimed that the building was haunted. And, yes, a young colleague of mine – a reader of the *Skeptical Equirer* – did make a few informal enquiries. In reality, nothing came of his investigations.

Now, perhaps any sixth sense I have was atrophied years ago, but I personally never felt that there was any kind of supernatural presence in the place despite being in the building at all hours of the day and night.

So, this story is a “what if...”; what if reality had not been such a boring party-pooper? What if there was something strange and mysterious going on in the place? What if my colleague had been a little more diligent in his investigations? On the other hand, just think that it is sometimes better not to look too closely, in case of what you might find?

Shades of Troy

A short story by [Trevor Hopkins](#)

I re-read the card on the pin board. In large clear block letters, it said: “No politics, philosophy or religion before midnight.”

Sound advice, I thought, based on the principle that, *after* midnight, everyone is likely to be too tired, or too drunk, to really care about the outcome of any discussion, and therefore there was no risk of genuine offence being given or taken. Certainly, this room had seen more than its fair share of energetic late-night discussions, and we had all managed to stay friends afterwards.

The topic on this particular evening was re-incarnation, and the usual gang was just settling in for the regular debate with, it has to be said, the usual relish.

*

We were all living at the same student hall of residence on the outskirts of the University campus. This was one of those dormitories with individual rooms for everyone, but with shared bathrooms placed at intervals along the corridor. Most meals were taken in the Great Hall – a large refectory for communal eating of breakfast and dinner, and there were little communal kitchens, again placed at intervals along the corridors, for the preparation of hot drinks and midnight snacks.

The hall of residence had separate blocks for boys and girls, but – very sensibly, I have always considered – no real enforcement of the division between the sexes. The corridors ran together from one block to another, with only fire-doors standing between visitors and their destination at any time of day or night.

This little group of friends tended to gather in Tom’s room. Why this was habitually so I never really understood, although it was conveniently opposite one of the little kitchenettes that dotted the blocks. Perhaps our gathering there was just an accident; more likely it was the host’s amiability.

For all his size and bulk, Tom himself was perhaps the most gentle and unthreatening individual one could hope to meet. A naturally tall

and big-boned individual, although with a lot of softness in his form, he exuded bonhomie and was always willing to put himself out for the benefit of others.

Whatever the reason, the corridor party would tend to congregate just outside and later inside Tom's door. The regular core of the party was a group of six friends who were, for very different reasons, not really romantically entangled – or at least, not with each other.

One of the girls, a tall and bony young woman named Jan with a serious demeanour, had a steady boyfriend back at home. He was an older man who was determined to marry her as soon as she had finished her studies and had at one time been, I think, her school music teacher.

Suzanne was determined, for quaintly old-fashioned religious reasons, to remain a virgin until she was married and perhaps found the unthreatening nature of the group reassuring. Despite her oft-stated position, she was a compassionate and rather physical girl, always ready with a peck on the cheek or a friendly hug for those in need.

The last of the girls was Steph – a student in the Computer Science Department and a really pretty girl who, perhaps in protest at always being regarded as a dumb blonde, had cut her hair aggressively short and spiky. She always wore jeans and shapeless oversized black sweatshirts. I had known her for months before I realised that she had a truly terrific bosom concealed under all that baggy clothing.

One boy – I confess, it was me – was just too shy to have anything very much to be with the opposite sex, while Steve kept the girls he was “going out with” – in that modern sense of “staying in bed with” – quite separate from the friendships he entertained within the group.

As for Tom himself, well, he never seemed discomforted by anyone's presence, male or female, but I got the distinct impression that he was waiting for The One, the right person to fall in love with.

Sometimes one of our number would be conspicuous by their absence, perhaps having taken up with a new boyfriend or girlfriend, or perhaps suddenly immersed in some new project, or fad, or diversion. Inevitably, they would eventually re-appear, looking variously tired, or heart-broken, or perhaps just relieved at being able to return to an unthreatening and non-judgemental environment.

All this took place several decades ago, in an era where the bars and public houses were required by law to shut at 10.30pm, and the ringing crying of “last orders, please!” was familiar to drinkers everywhere. In any case, few students could afford to drink to excess every night, and the ritual of a “last pint” was well established with impoverished undergraduates.

At the time, I was an undergraduate student in the Department of Physics. After dinner in Hall in the evening, I would return to my room to work, writing up notes from that day’s lectures, revising earlier notes, writing experimental reports, working on maths exercises for the next tutorial – even reading the textbooks, if all else failed.

Occasionally Tom, also a student in the same Department, and I would work together; with hindsight, I now understand that Tom was not a particularly gifted student, and I often ended up helping him out with revisions or reports.

More often than not, there would be a knock at the door around 9.45pm. It would be Steve, or perhaps Tom, suggesting a quick pint before Last Orders – an invitation which all understood to be a mere formality. Someone would say “Shall we round up the girls?”, or something semantically equivalent, to which the answer was invariably yes, and always resulted in a detour via the females block to collect Jan and Steph and Suzanne, or some subset of the ladies’ contingent.

Typically, we would fetch up in the Mawson Arms, which had a genuine spit-and-sawdust pub ambience, something which seemed so irredeemably exotic to one brought up away from inner cities. The Public Bar had walls tiled floor-to-ceiling, giving it only a very slight resemblance to a late Victorian urinal, and worn and blackened wooden floorboards. A huge old-fashioned bar-top dominated one end of the room, to which had been bolted the hand-powered beer engines necessary to pump the precious brown fluid from the barrels in the cellar.

This particular pub was renowned for entertaining an eclectic mixture of locals and students – Town and Gown, as the expression is. An additional attraction, for the aficionados of Real Ale, was that the publican would occasionally during the winter months serve a dark and heavy ale from a cask stood directly on the end of the bar.

We rarely had money for a second pint – the girls always drank halves, of course, and the boys always paid – and so one of the boys

would suggest a coffee back at the dorm, meaning of course cheap instant with white sugar and sterilized milk. Again, this invitation was a formality, and we walked quickly back to the boys block for the corridor party, inevitably congregating first outside – and shortly after, inside – Tom’s room.

All this was standard practice for weekday evenings only. Most of the group would go home at the weekend, perhaps to see that mysterious boyfriend or perhaps just to get their socks washed by Mum. But, four nights out of seven, the same six people would stay up late and natter about nothing in particular well into the wee hours.

*

On this particular evening, Tom produced a bottle of Scotch Whiskey, explaining that it had been a present from an uncle and suggested that we splash a little in our coffee. Needless to say, no-one was going to refuse this offer.

As the conversation flowed, running up to the midnight watershed, Tom picked up the bottle again and made a second pass around the room, pouring a rather more generous measure into each coffee mug. At the time, I remember vaguely speculating that this was an attempt by Tom, who at the time I had suspected was sweet on Steph, to engineer a closer relationship.

We had already settled down in our accustomed places. The three girls sat in a row on the hard and narrow bed the dorm provided, presumably in an attempt to discourage the students from sharing, or perhaps as just another cost-saving exercise. Steve was sitting astride the reversed desk chair, resting his elbows on the hard wooden back. I was slouched in the room’s only easy chair, and Tom was in his habitual place: sitting on the floor with his back against the wardrobe door, using his own pillow as a cushion.

The midnight hour came and went, and the conversation turned sharper, more pointed, as the cuts and thrusts of our sparring got earnest. On that evening, we seemed to be divided into two camps. Steve and Jan maintained that there was no possible physical mechanism for re-incarnation or even the existence of a soul separable from a physical body. Suzanne countered with empirical – or at least anecdotal – evidence, that this was something that had been observed, or at least suspected, for thousands of years of human history. I added to this view by observing that current developments of computer technology and so-called Artificial Intelligence was beginning to

suggest a way in which one's spirit might have an existence beyond the brain. Uncharacteristically, Steph and Tom remained on the outskirts of the verbal skirmishes. Usually, both would engage to the full, relishing the nightly deliberations and arguments.

While the debate raged back and forth, Steve, who had a carefully constructed reputation as a Bad Boy to maintain, started to roll a joint. This was not entirely without precedent, although I suspect that most people in the room took only a token toke at the reefer as it was passed around.

What happened next is hard to describe. To this day, I am not sure what combination of circumstances caused the incident. Perhaps it was the cocktail of psycho-active chemicals she had imbibed, or the topic of the conversation. In any case, Steph suddenly keeled over on the bed, twitching and writhing like one possessed – which turned out, as it happened, to be nearly literally true.

All three of the men in the room jumped to their feet. I for one was wondering what to do to help and feeling rather helpless, not wanting to cause offence by actually touching a member of the opposite sex. Sensible Jan took charge at this point, cradling Steph's head in her lap and calling for a glass of water.

I sprang to carry out her instruction, rushing out of the room to the kitchen opposite and rummaging frantically in the cupboards until I found a glass which was tolerably clean. I hurriedly filled it from the tap. By the time I returned clutching the water glass, I could see to my relief that Steph was already showing distinct signs of recovery, sitting up on the bed supported by both Jan and Suzanne.

Suddenly, she stood up, very erect, somehow looking taller than I ever remembered. This also had the effect of accentuating her full breasts, the folds of the shirt clinging to her form in a way I had never noticed before. It was immediately obvious that her whole body language had changed and was wholly unlike the Stephanie we knew.

It was Tom who first realised what had just happened.

“Who are you?” he asked, sounding shocked and dismayed.

She turned to face him, smiling. It was the smile of one used to getting their own way, but amused that someone had been smart enough to get there ahead of her – like a pet performing a particularly clever trick. She spoke a rapid stream of syllables which seemed simultaneously hauntingly familiar and impossibly archaic. Then she

stopped, smiled at us all with a certain acid sweetness and added, “But you may know me as Helen of Troy.”

“But what have you done with Steph?” Tom asked anxiously.

She laughed, a melodic ripple with undertones of an ancient and mysterious awareness which cut through the hubbub in the room.

“I haven’t done anything with her. In fact, I am her.”

Looking back, I suppose I might have thought it was all a joke, a wind-up. At the time, there and then, I was absolutely certain, for some reason I cannot explain even now. There was no doubt in my mind whatsoever that this was entirely genuine. In any case, experience of our late-night debates suggested that Steph never spoke anything less than the absolute truth, as she saw it, on any topic.

“What do you mean?” Tom demanded.

The same laugh rang out again.

“I mean that the young woman you know as Stephanie is the re-incarnated form of Helen.”

There was a moment of stunned silence.

“So you have been alive, as someone else, since the time of the Ancient Greeks?” I asked, the first to recover from the shock.

“Yes, but I was always me,” she replied archly, “How could I be someone else?”

She turned around to look at us imperiously.

“My father was a god, you know and, while it is true that I died a mortal death, I did not dissipate at that time in the way that you will, soon enough.”

Again there was a silence. There had been enough earnest philosophical and metaphysical debates in this room for the import of this statement to strike deeply.

“So Steph is you, really?” Suzanne asked.

“Yes, but in, I suppose, a kind of disguise,” she replied, “In most of my incarnations, I never really knew who I was.”

“But what about Steph? She doesn’t know this?” Steve said, “I mean, you don’t normally look or sound like that.”

“She doesn’t know,” she replied, “And she must never know.”

It was Jan's turn to ask a question.

"Why us, where show yourself here and now, in this obscure place?"

Helen laughed again.

"Well, partially, just because of the conversation you were all having. Just my famed capriciousness, I suppose," she added archly, then went on, "But a Goddess must have believers, and I know you all believe in me now."

Then she looked suddenly serious.

"I have taken this step, appearing as the real me, for all of our benefits, but I must soon hide myself away as Stephanie once more."

"But *why* must you hide?" Tom asked with a degree of earnestness I had never heard in his voice before.

She turned to face him, her face darkened.

"I am not the only god or even demi-goddess in the world. Most of the rest still exist. Very nearly every being who has been worshiped or feared – the same thing really – by humans is still around in one form or another. And as a group, we have made some powerful and ancient enemies amongst our own kind, although most have long since decided to forget – or at least forgo – their enmities over the millennia."

"Don't hide," Tom said suddenly, "Don't go away now."

Steph, or perhaps I should say, Helen turned to look at him. Their eyes locked for a long moment. I could see that Tom was completely entranced. I was convinced that at this moment he would have undertaken anything, absolutely anything, she asked.

"I will look after you," he said, in a tone of voice as if he was declaring a formal and binding oath, "Forever."

Helen said nothing, just looked at him with her hands on her hips. I was a intensely penetrating gaze, as if she was trying to look deep into his soul – perhaps, in actual fact, she was doing exactly that. Finally, she nodded slowly, and said, "I accept your fealty," in a manner which seemed a formal acceptance of Tom's oath.

Deliberately, Tom moved to stand in front of Helen, adopting a stance which could only be described as extremely protective.

"Time to go," he said softly, "Bedtime. Everyone out."

*

Tom changed, in so many ways, almost immediately afterwards. Before that night, I had never caught him doing any kind of exercise, particularly, other than walking the mile or so to the University campus, rather than taking the bus in order to save the fare. I would occasionally encounter him in the Physics Department – we rarely attended the same lectures any more – and he seemed to have become much more muscular. In a rare reprise of our earlier intimacy, he revealed that he and Steph had become inseparable, and that he was frequenting a local gymnasium and body-builders.

The rest of the little group of friends drifted their separate ways. I retreated into my books and academic studies, graduating with a first-class degree and moving effortlessly to postgraduate research. I now live a cloistered life of the tenured academic in a British provincial University, my world revolving around this book-lined office in a quiet corner of the Faculty of Science.

Jan never finished her degree. She fell pregnant – I suspect deliberately – and almost immediately hid herself away in some quiet Yorkshire town with her schoolteacher husband. Even now, I get a Christmas card from her every year, usually augmented by a rambling newsletter documenting the minutiae of her children's illnesses and schooling and, latterly, marriages.

Rebellious Steve went from bad to worse, abandoning himself in a vortex of drink and drugs and sex and motorcycles. He killed himself in an accident just a few years later, riding his bike much too fast in the dark on wet roads and careering under a Heavy Goods Vehicle. Mercifully, I am told he was killed instantly.

Suzanne allowed herself to be seduced by Steve – although I am not sure exactly who was doing the seducing – a week or two after Helen had revealed herself to us. He abandoned her shortly afterwards, her increasingly desperate attempts to cling to him repelling Steve as effectively – perhaps even more so – than if she had attempted to push him away.

After that, desperate to attract and retain a man – any man – Suzanne took to sleeping around. The last time I saw her, in one of the dingier bars that suckle up to the University, she looked fat and haggard, very much the worse for wear from drink and poor diet. This bar was not one I often frequented – just a quick snifter on the way home, I told myself – and I was unsure that the woman really was

Suzanne. By the time I had convinced myself that it was her, and steeled myself against my inherent shyness to approach her, she been joined by a man, rough-looking and unshaven, and clearly already drunk. Despite his appearance and his crude pawing of her backside, she appeared to welcome him. I turned away in shock and disgust; she was, I could see, a cheap prostitute.

I could tell you where Helen is now – she does not call herself that, of course, nor does she use the name Stephanie – but I really don't need to. You will have seen her often enough – photographs of the most beautiful woman in the world appear with astonishing regularity in the red-top newspapers and those glossy magazines whose titles end with an exclamation mark. She is never pictured alone, but always on the arm of this celebrity boyfriend or that rich husband, glorying in the wealth and power showered on her by the men under her thrall.

And behind her, in just a few of the pictures, you might just see a dark and blocky figure, never more than a few steps away: her bodyguard and companion, her friend, perhaps, or slave – but never, I suspect, her lover. You might catch a glimpse of my old friend Tom.

So who is Helen of Troy? I am not going to tell you; you will just have to work out for yourself who she is now. Although, I suspect you can probably guess easily enough – after all, she is the one who those journalists always instinctively refer to as a goddess.

3355 words

9 pages

08/12/2008 15:18

Afterword - Shades of Troy

This story came from the confluence of two very different experiences.

The group of friends I describe is heavily based on my own experiences as an undergraduate student at Manchester University back in the 1970s. The “last pint” and late-night debating was much as I describe and my friend really did have a card on his pin-board.

Much more recently, I remember getting an email out of the blue, by someone who wanted to co-author a book about Helen of Troy, believing that she herself was the spirit of Helen re-incarnated. The collaboration never happened, but I took to wondering what would be the impact and future life of someone revealed as a demi-goddess.

After all, one has to wonder about the - literally - fabulous lifestyles of the rich and famous, and wonder if there is a significant difference between their modern existence and the Gods and Goddesses of old.

Stone and Shadows

A short story by [Trevor Hopkins](#)

The old stone bridge which even to this day gives the picturesque town of Hebden Bridge its name had been built to allow pack horses to cross the river in all weathers without having to hazard the ford. Crossing the stream in this way would have been unpleasantly damp at best and downright dangerous when the winter melt-water was in full flow.

In those days, the Hebden Bridge sat on an important trade route conveying the wool from the surrounding farmers markets, from the sheep on the hillsides and dales hereabouts, to the mills in Salford and Rochdale. The local history tells us that the stone bridge replaced an even earlier wooden structure, but this pile of masonry has ever after stood firm on this site, conveying across the river wayfarer and pack animal alike.

Wider and more modern crossings have been constructed in subsequent centuries, carrying contemporary road traffic and the railway line. Nowadays, the old bridge is just a historical relic, carefully preserved and rarely used except by the occasional pedestrian. Of course there have been numerous repairs to the masonry over the centuries; even so, the stonework is in remarkably good condition given its age.

The crossing and its surroundings were the site of a battle during the English Civil war in 1643, and both ford and bridge had seen, no doubt, its share of deaths under emotional and gory circumstances. Perhaps it was no surprise, then, that the structure of the bridge was repeatedly reported to be haunted.

The present-day town centre nearby boasts many pubs and eating-houses, and even the odd nightclub, all housed in stone-built buildings often more than a hundred years old. The cobbled streets around the old bridge were always deserted after dark, even the most drunken of revellers somehow avoiding the vicinity of the crossing automatically. In an effort to boost the popularity of the inns and restaurants amongst locals and tourists alike, the town council had recently installed modern high-pressure sodium street lighting in this area, but even the

light from the new streetlamps seemed to be somehow swallowed up by the dark stonework and shadows of the buildings and alleyways.

A few years ago, I was a member of a local group of student paranormal investigators known as the Sceptics. We were an official University Society, in receipt of an extremely modest grant of funds from the Student Union. Most of the members were regular readers of alternative magazines such as the *Skeptical Enquirer* and we prided ourselves on debunking, on paper at least, reports of hauntings, crop circles and unidentified flying objects. We had been asked by the local newspaper (inevitably called the Hebden Bridge Times) to investigate the stories of the haunted bridge and, it was strongly implied, debunk this particular myth.

A few volunteers from the Sceptics formed a little team to take this enquiry forward. The core of this team included Martin, a short and round-shouldered man with a strong and frequently unintelligible Mancunian accent who was studying Economics and always put me in mind of an angry gerbil. Nigel was a Geology student who wore his blond hair short and spiky and who walked with a permanent limp – a relic, I was given to understand, of a spelunking accident the previous year. Then there was myself – an undergraduate in the Physics Department, and a product of both the English Grammar school system and atheist parents.

Our *de facto* leader was Tony, who was not actually a student any more but had recently joined the academic staff in the Computing Department. Despite his youth, he was a university academic of the Old School. He habitually wore baggy trousers which gave him a slight resemblance to a younger Charlie Chaplin, with a worn but well-ironed shirt with a collar and tie under a V-neck pullover of a plain and indeterminate rustic shade.

I met Tony when I first joined the Sceptics and I went along to introduce myself. I found him sitting in his office with the lights off, in a chair by the window carefully positioned to catch the dim natural light from the overcast sky. He had a notebook and fountain pen in hand, and appeared to be staring pensively out of the window at the pedestrians in the streets below.

“How can you work in this light?” I burst out as I entered.

Tony looked up, slightly defiantly.

“I’ll have you know,” he replied, “That William Shakespeare produced his greatest works in conditions like this.”

“Ah,” I retorted, “No wonder he couldn’t spell.”

After an introduction like that, we could not but help becoming good friends.

This little band of geeks and anoraks set about a little research on the side, rapidly assembling a review of such history on the old bridge that was available online, or that could be dug up from the archives of the newspaper. Our researches turned up no information of a definite sighting of any ghost or spectre but just a persistent expression, in vague terms and in many reports, that there was something out of the ordinary about the location.

Undeterred, the team planned an investigative approach: an overnight vigil equipped with modern electronic cameras selected or adapted for low-light operations, digital sound recorders and torches. We also intended to keep detailed notes and records throughout the night.

So it was not long afterwards, on a cold November evening already dark and misty, Tony parked his old car in the near-deserted market-place car park not far from the bridge. We piled out of the vehicle and collected our baggage from the boot. We must have looked almost indistinguishable in the near-darkness, muffled up in dark-coloured anoraks and woolly hats against the chill, with gloves and heavy boots to keep our extremities warm. We gathered our cameras and Thermos flasks, and strode off towards the bridge.

As we approached, I got the strangest feeling, almost of dread, as we got closer – a distinct sinking sensation in the stomach making me feel listless and utterly miserable, somehow wallowing in contemplation of my own mortality. Afterwards, back at the University, when we dissected the evening, I discovered that we all felt something similar, entirely inexplicable in the cold light of day, but enough to have steered us away, in any direction at all, rather than towards the bridge itself.

It seemed to get colder and darker as we approached. I think we were all shivering by the time we had gathered in the centre of the bridge, despite our heavyweight clothing, and we found ourselves all standing rather closer to each other than would normally be socially comfortable for a group of rather shy blokes.

It was a strange night, full of half-heard whispers in the mist and curious shadows in the lamplight. Sometimes there was a sense of movement, something caught in the corner of the eye, but before

anyone could turn around or focus a camera, whatever the cause of the movement was gone.

We shot hundreds of still pictures, but later close examination showed the only things visible were mist and stonework, and the occasional darkened form of one of the team silhouetted against the masonry by the street lighting.

Undeterred, we decided to return a few days later, during daylight hours, to install motion-sensitive cameras. This was a spectacular failure, with no movement triggering the cameras, nothing at all from the automation. We tried it out on several nights, testing it by moving nearby ourselves, but without success.

Our attempts at using automation having failed, we made a second visit as a group, again holding a night-long vigil. Much as before, the cameras showed dark shadows against the stonework, and the team members all reported the same churning feeling of dread and some half-sensed movements in the gloom. There was nothing conclusive, no evidence which would have swayed the sceptical observers we had all convinced ourselves that we were, but the feeling that there was something just beyond our observation was indubitable to those present.

We made further attempts, deploying different equipment and using a variety of technology as well as the vigilance of the team members, but to no avail. One by one, the team members began to lose interest: there was nothing to observe, nothing concrete, and even the local paper ceased to be interested. By mid-December, we had disbanded, each of us beginning to follow other interests and projects, including the demands of the University lectures and courses we were supposed to be attending.

In any case, the students amongst us would soon be leaving for home and family during the Christmas break. I had delayed my return to the parental home for a few days, not particularly wanting to leave behind the freedoms of the student lifestyle just yet and returning to the rather more constrained conditions I endured when living with my father and mother. I still had some curiosity about the old bridge, some sense, perhaps of unfinished business, or maybe I wondered if there was still something more enlightening that I could discover.

So, on that weekend just after the end of term, I packed a rucksack and caught a late train to Hebden Bridge. I made my way from the station to the old bridge, skirting the hostelrys which seemed so much

more inviting than the prospect of a long and lonely evening in the open air. I felt the by now almost familiar sinking feeling in my stomach as I drew near, and it took all my willpower not to turn away. It was so much harder on my own without the moral support, or perhaps just the macho competitiveness, of my comrades to push me forward.

I stepped onto the bridge itself, making my way slowly towards the other side. I could hear nothing other than the rush of the water which seemed to drown out all other sounds – the chatter of drinkers and the clink of glasses in the pubs and bars on the riverside, the rumble of the distant traffic, even the bass-line thud of the jukeboxes and nightclubs. I felt as if I was the only person for miles around, all alone in a world of stone and water.

I edged towards the centre of the bridge, fumbling in my anorak pocket for my digital camera. I thought I caught a movement behind me in the corner of my eye, and I spun around, pressing the camera release almost instinctively. There might have been a movement in the shadows, I could not tell for sure – perhaps some presence, only felt rather than seen. I was convinced that there had, for a split second, been someone there.

At that moment, I abandoned my plans for a long stay and set off at a fast walk – not quite a run – back to the railway station, pocketing the camera as I did so. It was only when I was safely on the train that I thought to inspect the snap I had taken. Using the little screen built into the back of the camera, I pulled up the image I had captured. There, in the picture, stood a dark shadow against the stonework of the parapet, a dark bulky form that could have been any of the old investigation team.

At first I wondered if I had inadvertently looked at an older image, one taken during the numerous previous visits, one showing a picture of a member of the team, and I had not actually taken a new photograph at all. With growing horror, I realised that I was wrong. It was definitely the viewpoint I remembered, and the shadowy figure in the image looked as if it had oozed from the very stones themselves. In a flash of insight, I realised that all of the other images showing team members we have taken before were of the same shadowy form.

As I sat staring at the image on the back of the camera, something came back to me that I had read about when researching tales and legends surrounding the old bridge. The stories told of the making of a living offering to strengthen the stones, the blood to fortify the mortar.

I had assumed that the sacrifice would have been a sheep or a goat, but now I was not so sure.

I was of course aware of the old ritual of appeasing the spirits of the river before crossing by throwing a coin, an offering into the surging waters. This is observed even these days, when people instinctively taking a copper from their pocket to throw into any running water they encounter, to appease the ancient spirits.

The making of a human sacrifice was a pagan ritual which would have been severely frowned upon by the Church, were it to have been discovered, but whose existence could not be entirely discounted. I was convinced that the rough workmen who were engaged to cut the stones and assemble the arches also engaged in a dark and heathen ritual.

I sat on the train, shivering in the meagre warmth and stark lighting. To my horror, I could not stop myself imagining the feelings of the sacrificial victim. I could see it all so clearly in my mind's eye. I felt sure that he was chosen to be a big strong lad to make sure, I suppose, the bridge was equally strong – old-school sympathetic magic, I now realise.

Even now, I can picture the poor young man, all alone, restrained, chained, in the dark and the rain, knowing that he was going to be cut open and his blood poured over the stones and mixed into the mortar, and only able to contemplate his own shadow in the mist and firelight.

2311 words

6 pages

28/10/2008 20:01

Afterword - Stone and Shadows

Yes, the ancient market town of Hebden Bridge really does exist, as does the old stone bridge I describe. I heartily recommend you visit both, should you find yourself at a loss in West Yorkshire, although the town does get very busy with tourists at the weekend. But, if you arrive sufficiently early, you should have no problems parking, or of course you could travel by bus or train.

The idea for this story came from driving right past the bridge on a regular basis, on my way to work. I mean right past: the backstreets short-cut I used every day takes me directly along the riverside and past the ancient stonework.

I have also visited on foot with friends and assorted children. It was amusing to speculate on just what the area would have been like when the bridge was built several hundred years ago, without the refinements and embellishments of more modern construction.

This is quite a short, short story for me. There is always a temptation to put in more words, to pad, but I would like to think that it is better this way.

Dust of Angels

A short story by [Trevor Hopkins](#)

I had arranged an interview with the new Professor, planning to write an article for the campus newsletter. I arrived at his office a few minutes early, and was immediately ushered inside. He stood up in a quaintly old-fashioned way when I entered the room and walked around the desk to shake my hand, smiling broadly. He gestured in the direction of a comfortable chair before returning to his own seat and toying with a pencil.

The Professor was a broad-shouldered man of middle years and looked as if he had kept himself very much in shape. His hair was full and wavy, with the merest flecks of grey at the temples. He was dressed very casually in neatly pressed blue jeans and a polo shirt. Taking a notepad out of my handbag, I asked whether he was ready to proceed with the interview. He nodded calmly in response, fixing me with an alarmingly direct stare.

His first few answers to my prepared questions were bland enough, and I began to wonder if I could make any kind of journalistic story from the few notes I was able to take. But then, I asked how he had become interested in forensics. The Professor stared into the middle distance for a few moments, looking thoughtful while tapping his pencil absent-mindedly against a glass jar containing some grey powder that stood on his desk.

“Well,” he said eventually, “*That is* a tale. Are you interested?”

I nodded, already half captivated by those charming blue eyes.

“Let me take you back to the 1970s, then,” he continued candidly, looking openly at me, “To when I was a student, a postgraduate in this very University.”

*

I had just moved into a shared house with a number of other postgraduates, none of which I knew at all. As was commonplace at that time, the landlord rented individual bed-sitting rooms to impoverished students and provided the shared use of kitchen, bathroom and toilet.

I had managed to obtain the use of a room at the top of the house – almost a garret, really – but it suited me well enough. It was quite large, draft-free and surprisingly warm; maybe the roof was quite well insulated – at least by the standards of the time – or perhaps because the heat from elsewhere in the house tended to gather in the upper floors.

On the down side, the space was rather dark, being lit only by a couple of small angled windows, almost like a turret set into the corner of the room, and a single 60-watt light bulb in a faintly grubby glass lamp shade set in the middle of the ceiling.

Upon my arrival, I had installed my meagre possessions: a few clothes packed in a tatty old suitcase, quite a few books, a box of assorted tools, a bicycle and a substantial collection of radio and electronic items my Mother had long since classified as “junk”. In point of fact, a fair bit of it actually worked, although even more was in the process of being repaired, modified or rebuilt. Yet other items were being dismantled for spare parts, or hoarded ready to be swapped or traded with my acquaintances at the University Amateur Radio Club.

One of my first tasks was to set up some of my equipment on the rickety table my landlord had described as a desk. The two-way VHF radio equipment was the first item on the agenda. As a rather shy, perhaps introverted young man, this gave me an unthreatening way of keeping in touch with my few – nerdy, we would say nowadays – friends. The transceiver itself I had bought a year or so before with money from my student grant I could not really afford, the power supply I had assembled myself, and the antenna I had made from a length of 300-ohm flat cable.

The homebrew aerial I had initially hung from the picture rail on the bed-sit wall. This worked reasonably well, being high up in the building after all, but I convinced myself that it would be even better if it was sited even higher up. So I decided to install it in the attic.

Admission to the roof-space was via a ceiling hatchway I had spotted in the hall immediately on my arrival, just outside my bedroom door. It was quite difficult to access the loft: there were no stairs or pull-down ladder. In order for me to get up there, it was necessary to drag the upright chair from my room and balance precariously on the back, then pull myself up, holding a torch in my teeth. As it turned out, the torch was unnecessary, since there was a light switch screwed to a beam just inside the opening.

My plan was to install a slim cable for the aerial, using a hole I had drilled in the plasterboard in an inconspicuous corner of the ceiling, where I hoped it would not be noticed by the landlord on his – hopefully very infrequent – inspection visits. The cable run was to be concealed by a large free-standing wardrobe and the old battered suitcase I had placed on top of it.

The loft space itself was floor-boarded over, so there was no risk of slipping between the joists and putting my foot through the ceiling. There was no natural light except that which seeped through the gaps between the roof tiles, but I could see well enough by the illumination provided by a weak and unshaded bulb.

As I looked around, it rapidly became clear that someone had been living in this attic. A narrow mattress had been placed on the boards, with a plain but serviceable sleeping bag folded neatly upon it. Beside this makeshift bed stood a suitcase so scuffed and decrepit, it made my own luggage look positively resplendent by comparison.

Overcome with curiosity, I opened the case, which turned out to be half-filled with sweatshirts and jeans which could have been worn, in that era, by anybody – girl or boy – under the age of twenty-two.

It seemed to me as if someone had slept there only last night: as far as I could see, no dust had settled on the mattress and sleeping bag, and the clothes in the suitcase, although clearly not new, were clean and well-laundered.

Of course, student accommodation was always a problem for the impecunious students themselves. For example, in the University Department where I was studying, I had already come to suspect that some people really were living full-time, unofficially, in the laboratories and offices.

I remember a clique of students from the People's Republic of China. Although their tuition fees to the University were paid by the British Council, the pittance that they had to live on – either from their families or their government, I was not sure which – meant that they really did have nowhere else to stay. They certainly always seemed to be around in the buildings at every time of the day or night. There were a number of other tell-tale signs, too: the persistent smell of cooking rice in one or two corridors, and sleeping bags stowed inconspicuously under the laboratory benches.

So it was not inconceivable that someone in the household had installed a friend in the building, without wanting the landlord to know about it and come around for extra rent money.

But, why live in the attic? Why not just share a room with someone officially resident? All of the rooms were quite large – the building had at one time been a spacious Edwardian semi-detached residence – and it seemed to me to be quite feasible to share the accommodation at the “kipping on the sofa” level, or just a sleeping bag on the floor.

Indeed, over the years I had been a student, I had hosted occasional visits from old friends from my single-sex Grammar school. These young men were now either studying at different universities or starting a career as bankers or chemical engineers. These chums would visit for the weekend, usually arriving carrying a rucksack and sleeping for a night or two on the floor of whatever room I happened to be occupying at the time.

So, was there someone living up there? In principle, the attic was potentially accessible to anyone in the house. Thinking back over the last few weeks when I had been resident, sometimes I thought I could hear noises outside my door, but there was never anyone there when I went to investigate.

The other question was: which of the official residents was hosting this interloper? I knew that I was the last person to move in and, I was told by the landlord – apparently, we were “just one big happy family” – that everyone else had been resident for a year or more. I assumed that it must be someone in the house, since there was no direct access into the attic from the outside. It was a semi-detached building, but the dividing wall between the two properties was built right the way up to the roof, and indeed supported the roof trusses themselves.

Perhaps the most obvious candidate was the young man I knew only as Victor. He always seemed as poor as a church mouse, even by the demanding standards of postgraduate students. I understood from the occasional corridor conversation that his parents had fled from Iran after the fall of the Shah, having been forced to leave most of their wealth and possessions behind. Maybe he might have been supplementing his income by charging an acquaintance for some cheap accommodation.

The other possibility that occurred to me was the two aloof girls whose names I did not know. They shared a large room on the first floor, in what would once have been the Withdrawing Room.

I knew this would once have been a grand house, now fallen into – well, not disrepair, but more a state of minimal maintenance done on the cheap by a landlord more interested in securing a regular rental income than maintaining the integrity of the building.

The girls had irritated the other residents on a regular basis by repeatedly using the last of the toilet paper in the shared facilities, and then refusing to buy any more. In self-defence, we had fallen into the habit of keeping our own bog-rolls in our own rooms. The girls' cheapness led me to suspect that they were on the lookout for ways to save money.

The shared kitchens were another bone of contention in the household. There were two, on the ground and the top floors. These were shared facilities, with separate cupboards, each now fitted with a padlock, for each of the residents. No food or utensils was shared with any of the other occupants, and as little as possible was kept in the shared fridge – the little that was stored therein was always marked up with the owner's name in large letters.

So, there were always people moving about in the house, at almost any time of the day or night. Nevertheless, I did not recollect hearing any movement from the attic – no scrapes or taps, no sound at all, even though the makeshift bedroom was immediately above my room.

So it was with some surprise that, after my exploration of the loft, I began to hear noises above me, not the creak of the floorboards moving but soft susurrations which could perhaps be that particular deep breathing some people exhibit when sleeping – not really snoring – or could conceivably be someone softly crying.

I was at a loss for a while, wondering what to do. I tried looking up through the loft entrance a time or two, again standing precariously on the back of the chair. Invariably, there was nothing new to be seen, just the same neatly-arranged belongings. I was always slightly surprised that the light still worked, each time I switched it on, although I conscientiously switched off it again after each inspection.

After some further thought, I traded some of my junk for a video camera and a closed-circuit television monitor. I was by now familiar with several backstreet shops and market stalls where second-hand electronic equipment could be purchased for a few pounds, or even

traded. I also had a variety of contacts at the University Amateur Radio Society.

It did not take long for me to acquire and test the necessary CCTV components. I also acquired an ancient and rather rickety wooden stepladder from one of those second-hand shops that seem to sprout like mushrooms in areas where impoverished students habitually reside.

Having assembled the kit, I waited with barely restrained patience for an afternoon when I believed I was alone in the house.

Firstly, I ran a couple of extra cables up into the attic, carefully enlarging the hole in the ceiling I had made previously. Then I carefully installed the camera in a spot which I hoped would give a clear view while still being reasonably unobtrusive.

I was up and down the stepladder several times: first to connect the cables to the monitor and the mains electricity supply and then, after I had got it all switched on, up again to fine-tune the position of the camera. Finally I was satisfied. I made my way back down the ladder, closing the trap door and carefully leaving the light on to provide enough illumination for the camera to work properly.

That evening, I was working intermittently on a long-overdue report, periodically looking up from my hand-written notes to stare at the monitor now sitting on the corner of my desk.

Perhaps the sixteenth or seventeenth time, I caught some kind of movement on the screen. It appeared to be smoke or perhaps dust, being blown about, and I would not have bothered with it if I had not noted that the weather outside was particularly still. As I watched with growing fascination, a figure formed from the dust in the air, lit by the light bulb I had omitted to turn off.

At first I thought that it must be some kind of interference – perhaps the monitor was picking up a television transmission, however unlikely that must have been – but I was soon convinced that the rather jerky black-and-white images on the tiny monitor screen really were showing what was happening a few feet above my head.

The figure was that of a young woman, crying with her face in her hands. She had the straight, rather lank-looking hair of someone with neither the time nor the money to spend on hairdressing, and she was wearing blue jeans and a shapeless sweatshirt that was the twin of one I had seen in the attic suitcase.

At first, the camera angle showed her from behind, sitting cross-legged on the floor, right next to the folded sleeping bag. As I watched mesmerised, she turned to face the camera, her face lightening to a wan smile as if she knew I was looking at her. Then there was a faint click and the screen went black.

My first reaction was to twiddle the knobs on the monitor, but it rapidly became apparent that the screen itself was still working just fine, and I strongly suspected the camera was OK too. The reason the picture was dark was that the electric light in the attic had been turned off.

It took me but a few moments to wrestle the heavy wooden stepladder from behind the wardrobe where I had hidden it, lug it across the room and set it up on the landing just outside my door. I gingerly pushed open the wooden trap door with my head, peering cautiously into the darkness.

There was nothing to see, just the dark space faintly outlined by the light from below. I could not hear any sound or detect any kind of movement. I cautiously reached for the light switch and flicked it, dim light once again flooding the attic space.

I could see nothing out of the ordinary. Everything was just as I had left it, the sleeping bag neatly folded, the battered suitcase of clothes closed. As before, everywhere was astonishingly dust-free, except for one spot, just where I had seen the apparition, where there was a neat conical pile of dust.

To this day, I am not sure why I did what I did next. I climbed back down the ladder and returned to my room, where I tore a page from my lined notepad. I detoured to the kitchen and, after a short search, found an empty jar in one of the cupboards.

So equipped, I returned to the attic and used my hands to sweep the dust onto the sheet of paper, then using it as a makeshift funnel to tip the powder into the jar. Having tidied the attic space, I returned to my room, again taking care to leave the attic light switch on. I held up the jar of dust I had just collected to what light there was; I could see nothing unusual and, eventually bored, I simply plonked the container down on the nearest available flat surface, which happened to be the top of the CCTV monitor.

I kept watching the camera for several days, while I was at home working, but there was nothing further to observe. The attic light

burned without interruption, and there was no sign of movement on the monitor screen.

Intrigued nevertheless, I made some more enquiries, taking the time to loiter in the corridors and chat with the other residents as they went about their lives. Eventually, it was Victor who told me that there had been a young female resident, whose name he recalled as Angela, in the room I had moved into just a few weeks ago. He also said that she had not been the most recent prior inhabitant.

The immediately previous occupant had been a morose and taciturn young man named Graeme, studiously quiet and one who very much kept himself to himself. Victor thought him to be a student at the University, but neither he nor anyone else I spoke to could quite remember which Department or School he attended.

Victor suggested that Graeme had been the boyfriend of the girl Angela. She had disappeared from the household quite suddenly, and all her stuff went too.

He had simply assumed she had just moved out and Graeme had moved in, with some kind of agreement between the two of them.

It was late in the evening after Victor had related his intelligence when I heard noises in the night again. I was awoken suddenly from a deep sleep by what sounded, as I lay there in the dark, like a soft voice lamenting, but I could not make out the words.

Deeply intrigued, I turned on the bedside light, then went over to the desk, switched on the CCTV monitor and waited for it to warm up. After a minute or so, the image had stabilised and I inspected the screen closely, but I could see no movement in the dimly-illuminated attic.

As I leaned forward over the table, I noticed with increasing apprehension that the noises were not coming from the ceiling as before – they were emanating from the jar of dust I had stood on top of the monitor. I stared at the jar, with – I suspect – my mouth agog. I must have been incorrigibly curious; without a moment's further thought, I opened the glass jar and poured out the contents onto another sheet of lined paper I had torn from my notepad and placed on the floor.

I suppose I was not entirely surprised nor, to be honest, really frightened, when the dust began to move, in spite of the stillness of the

air in the room. The particles swirled for a few moments before forming into the same feminine shape I had seen in the camera.

“Thank you for rescuing me,” she said.

She spoke in soft susurrations, the same sound I had heard above my room over the last few nights, only just audible even in the midnight stillness.

“You’re Angela, aren’t you?” I asked, also speaking very softly, perhaps afraid of disrupting the delicate movements of the dust.

She nodded, watching me with wide eyes. She gave an astonishing impression of a real and very physical presence, even though I could clearly see the light from my desk lamp shining through the motes which delineated her form.

“And you’re dead, right?”

Again, she nodded, looking calmer.

“Why are you here?” I demanded, just a little shakily, adding as an afterthought, “And what do you mean, rescuing you?”

The cross-legged figure in the dust told me a sad and perhaps rather predictable tale. She had had endless arguments with her long-term boyfriend Graeme, mainly because she refused to share a bed or even a room with him. Apparently, he was always abjectly apologetic in the mornings, and she really did love him, she said. In any case, she had taken to sleeping in the attic, in the sleeping-bag – mainly to stay away from his nightly wandering hands.

The tensions in the relationship could not help but blow up sooner or later, and one evening there was a huge argument. Graeme struck her, again and again, and she fell knocking her head on the brass bed-head, killing her instantly.

It turned out that Graeme was a postgraduate student in the Chemistry Department, and had managed to dispose of her body by dissolving it in a bath of strong acid in the basement of the Chemistry Department. I vaguely remembered hearing of tales of a giant theft of chemicals from the University stores.

To my growing morbid horror, I understood that Graeme had then filtered and dried the residue from the acid bath, brought it back to this house – to this very room! – and had then taken it to the attic and poured it over her sleeping bag.

“I should go to the police,” I exclaimed, louder than I had intended and sitting back suddenly.

Angela winced, the dust motes swirling more vigorously either with her agitation or because of the air currents my sudden movements had caused.

“The police won’t believe you,” she said sadly, “What evidence do you have? I’m just a kid, a teenager who’s gone missing, like a thousand others. My parents disowned me years ago, and no-one else really going to look that closely.”

“So what can I do?” I asked, suddenly deflated.

“You can help me,” she said, smiling radiantly.

“Bring him to justice, you mean?”

“It must be true and final justice,” she answered enigmatically, “Otherwise he might escape punishment.”

“But how?” I wanted to know.

Angela explained that she had hitherto been a student of biology. She knew that recent developments in the understanding of the structure of the human genome meant that it might still, in principle, be possible to reconstruct her genetic identity from this dust, to at least prove that she had been killed.

I didn’t know, then or now, whether she was predicting the development of computerised DNA matching, capable of matching the fragments available in the dust against samples from a suspect.

“I just needed to communicate,” she concluded, “To tell my story to someone who cares, someone who will, I am quite sure, take action on my behalf.”

And with that, she quietly disappeared, never to be seen again, leaving just a thin layer of grey powder gently settling on the thread-worn carpet of my room.

*

The Professor was silent for a long moment, watching me carefully for, I supposed, my reaction to the incredible story he had just related.

“I suppose all this goes a long way to explain why I followed the career path that I did, why I became a Professor of Computer Forensics and Criminology,” he said slowly, “And, looking back, I now recognise that a defining success in my early career was the

jailing of a violent husband who beat his wife to death. I was never able to prove it – it turned out that there was just not enough genetic evidence remaining – but I suspect that man was also Angela’s killer.”

The Professor leaned forward and again tapped his pencil on the glass container.

“And it also explains why I have a jar of dust on my desk.”

4081 words

11 pages

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Afterword - Dust of Angels

I have already stated elsewhere that I was once a very active Radio Ham, as well as an enthusiastic constructor of “home-brew” electronic equipment. I have found in the past how difficult it is difficult to convey to non-enthusiasts the interest or excitement of being able to put together something yourself which actually works – which really does perform a useful function.

Justifiably, perhaps, this hobby has something of a reputation as a haven for introverts with limited social skills. It was something I did for many years as a teenager and young adult possibly, as was suggested at the time, to the detriment of my studies or professional career. It was a distraction, something to focus my mental energies on, got me through a rather strained time where hormones and personal confidence were in opposition and, if nothing else, allowed me to avoid the rattle and blather of the television.

The room I describe in the story is based on a bed-sit I occupied for a while, as a postgraduate student in what seems a thousand years ago. It was a large space at the top of the house, and cluttered with a fair selection of electronic junk. I spent a lot of time there, far too much of it fiddling with the radio equipment, and even equipped my bicycle with a tall aerial to talk to other Hams while cycling the four miles to and from the University.

I still hold a valid Amateur Radio licence – callsign G8TYY – although I have not appeared on the airwaves in several decades. Most of the junk has been disposed of, over the years, although there are a few things on a top shelf I might just dig out one of these years.

Sustainability Matrix

A short story by [Trevor Hopkins](#)

The truly unchanging thing about university research, at least in engineering and the applied sciences, is the endless quest for research funding, grant money and miscellaneous financial support. Research apparatus of all kinds – especially, these days, leading-edge computer equipment – is hugely expensive and undertaking any kind of original – or at least publishable – work in these areas inevitably requires a substantial investment in state-of-the-art machinery.

Even more importantly, acquiring a big research grant is an exceptionally good way of gaining kudos in a university. It is a considerable source of clout, even real power, over one's colleagues in the Schools and Faculty, and an essential pre-requisite to becoming a full Professor. The ability to offer scraps and titbits – such as occasional access to your machines and facilities – indubitably strengthens one's position of influence over those poor unfortunates who are reliant on crumbs and handouts from the well-funded research group next door.

So it is no real surprise that academic researchers are always on the lookout for The Next Big Thing to fund their insatiable appetite for resources. Right now, of course, that Big Thing is on the intercept of green politics, economic and cultural globalisation, and the biophysics and geophysics of climate change.

When one looks back at the last century's history, the doomsayers of yesteryear were, it seems, always wrong. Remember all that hoo-ha about the threat of Nuclear War and World Peace? While the world is still manifestly not an entirely peaceful place, no-one seriously expects World War III to break out any time soon.

Or take world hunger: it is not particularly well-known that the planet already has enough food for all of the population, a benchmark we quietly passed some time in the 1970s. Admittedly the foodstuffs are not always well-distributed, with rather too much being consumed by overweight westerners. Worse still, much more than one might have liked is still wasted, either because of unnecessary purchases

from supermarkets or spoilage from vermin and lack of refrigeration in African villages.

Nevertheless, the principal observation remains: the dire predictions of history did not come to pass. Of course, the wilder forms of these prophecies did indeed result in changes to both public policy and personal perceptions. On population growth, for example, the rate of which has slowed in recent times: in some cases, because of fairly draconian government (like in China) but elsewhere more so due to changing social expectations.

Similarly, it has been deliberate policy of many Western governments, especially in the period since the Second World War, to become self-sufficient in food for political reasons. This is still an underlying principle of the European Union's infamous Common Agricultural Policy, with its unbalancing effects on the economics of crops and harvests the world over.

It is not easy to get an overall picture of the effect of policy changes in the interrelated areas simply because of the large number of complex interactions. So, to give you an idea of just what can be discovered with sufficient application, I need to introduce you to Doctor – well, here I better refer to him only as Dick, for reasons which will become apparent – who was a Senior Lecturer in the School of Computing at my University.

Doctor Dick was a man in his early fifties but, thanks to some quirk of genetics, could easily have been mistaken for someone ten years younger. He was of only medium height, but with unusually broad shoulders which he emphasised by habitually wearing well-tailored suits in an environment where the typical academic staff member rarely wore anything more elaborate than sweatshirt and jeans.

Dick had managed to avoid running to fat in his later years, although exactly what exercise he took was always something of a mystery. He had a thick head of hair, even now barely greying at the temples, and a bushy moustache that gave him a passing resemblance to Mario the Plumber. He displayed what he probably liked to think of as an affable, sociable disposition, one happy to stop and chat to anybody. To anyone who knew him well, in fact he came across as a bore, one who was likely to buttonhole you with gossip and triviality in the corridor.

Dick enjoyed a certain reputation with the ladies – not usually students, if only because there are even now very few female students in Computing – but several of the secretaries and administrative assistants from the Faculty seemed unable to resist his blandishments. These affairs never lasted long, presumably as the lady in question tired of his manner and mannerisms, but long enough to ensure a certain amount of – well, jealous, I rather think – speculation that his attentions to the female of the species was the missing exercise that kept him fit in middle age.

This same characteristic allowed Dick to be a successful salesman, at least outside the School, of the kind frequently referred to in the corridors as a bullshit merchant. He had not yet made it as a full Professor and was not personally popular in the School or Faculty, having been the butt of impudent remarks like “Dick by name and Dick by nature”. Neither had he, until now, managed to acquire the kind of seven-figure research grant which these days more-or-less guarantees the creation of a Chair in the University of your choice.

Nevertheless, he had kept up a steady stream of not-particularly distinguished contributions to the state of the art, and had managed to keep himself – and a tight coterie of research assistants and postgraduate students – in paid employment. This work had been funded by a series of minor research grants and University awards, the latter being issued grudgingly and frequently against the opinions of the more senior members of the School.

The topic Doctor Dick had been working on for many years was self-assembling computer models, although he personally promulgated the rather grander title of Synthetic Computational Modelling with Semantic Matching and Heuristic Optimisation.

Following the trend, Dick came up with the idea of applying his pet research interests to the confluence of interests around climate change: not because he particularly believed in Global Warming, or disbelieved it, for that matter, but simply as a trendy vehicle of his particular flavour of computer modelling. Such modelling was notoriously demanding of processing power, and Dick had claimed for many years that his research was seriously hampered by a lack of machine time and resources. For decades, he had energetically applied for research funding from every plausible source and, if the local gossip is true, from quite a few unlikely ones, too.

It was to the considerable surprise of most people in the School and – I suspect – to Dick himself that he managed to get a major Combined

Boards grant from the UK Engineering and Physical Sciences Research Council together with a consortium of European Union bodies. Dick, I feel sure, must have applied to the Combined Boards as a matter of course, undoubtedly recycling portions of previous, unsuccessful proposals to rapidly assemble a case for support. The bulk of the grant was represented by the provision of a medium-sized supercomputer and a handful of networked workstations, with just enough left over to engage a clutch of new research associates and post-doctoral Fellows, and even fund a few bursaries for research students.

Admittedly, this was at a time when everyone knew that both UK and EU governments wanted to be seen to be doing something - anything - about global warming, no doubt leading directly to the announcement of an initiative on Climate Change and, coincidentally, a separate one on the Management of Natural Resources.

To the consternation of the senior staff, Dick suddenly became the effective possessor of the most powerful computer in the School. The formal organisation of the Science Faculty rapidly swung into action to perform its core function: that of prioritising the spending of government largess above the petty rivalries of academic staff. So it was not long before both the supercomputer and Dick's coterie of research students were installed in a separate suite of rooms within the School's buildings, just down the corridor from Dick's own office, with access jealously guarded with doors fitted with the latest in key-pad locks.

Now of course there are vastly more potent machines for shared academic use - teraflop processors hundreds or thousands of times more powerful than the machinery Doctor Dick had acquired. Nevertheless, just getting a two-hour slot on one of these behemoths meant writing a case for support in itself, completed a massive amount of paperwork and enduring a two month waiting list. By contrast, the new computer - inevitably known as Dick's Tool, with the kind of puerile and bitchy humour so prevalent amongst the really intelligent - could be dedicated to any one task twenty-four hours a day. The new machine was widely understood to be running at or near full capacity from almost the moment it was installed.

My friend Paul was one of Dick's new research students. We had been undergraduates in the same intake year, although we knew each other only slightly then. He was a tall and exceptionally skinny young man, permanently stooped to avoid doorway lintels. He had a large

bony and angular face mostly concealed by curly black hair and a full beard, giving him the appearance of the Tallest Dwarf in Show Business.

Paul, like me, had elected to stay on at the University to start on a PhD, although he had taken up one of the bursaries that Dick's newly-minted academic stature had created. After Finals, most of our peer group had left the University, and he and I had drifted closer. Fairly frequently, when the desire for a little company was upon me, I would call at Dick's laboratory to invite Paul for an after-work drink in one of the back-streets pubs nearby.

On these evenings, I would knock on the heavy steel firedoors, invariably firmly secured by that keypad combination lock whose code was rumoured to be changed daily. I would be required to wait a few moments, and then the door was opened by one or another of Dick's Research Associates. I was never allowed inside the suite of rooms, but I could glimpse diligent work being carried out within.

An array of workstations and graphics displays was laid out on desks in the outer office while the black cabinets of the supercomputer itself could just be glimpsed through the glass doors and partition beyond. As I watched, Paul logged himself off from one of the workstations and gathered his few belongings ready for the short walk to the public house.

It is not my field of speciality, but from my limited understanding – an understanding mostly gained over a couple of pints of beer, it has to be said – Dick's modelling process required three steps. First, a standard model for one particular intellectual area was loaded into the supercomputer. Typically, this would be a model developed by other researchers, and generally accepted as a reasonably accurate representation by others in that research domain – at least judged by the number and quality of papers published.

Academic endeavours around the world have produced a large number of computer models developed for specific fields. To get copies of the programs, a certain amount of negotiation must have been required. I assumed that Dick's charm must have come to the fore and he seemed to be well able to persuade groups in other Universities, especially those in other parts of Europe, to provide copies of their software.

Once the model files were acquired, there was an extensive and very manually-intensive process of matching of each of the variables

in the model against the terms in a hierarchically-structured ontological database: that is, a standardised representation of concepts or “things”. This kind of intellectual drudgery is of course exactly the reason why professional academic researchers engage so many research students.

The second step involved a heuristic process whose details I do not really comprehend, but seem to be some kind of genetic algorithm, to allow the machine to evolve a simplified model – in the sense of using far fewer machine resources – which nevertheless behaved in the same way as the original one. This compressed model would have identical inputs and outputs for all cases tested, and could therefore be said to represent the same system. Of course this optimisation took a vast amount of time on the computer, but after a few tens of thousands of iterations, a stable simplified model would usually have been created.

These first two steps were repeated for models for each of these different areas. From Paul’s account, Dick had managed to acquire integrated models for global climate and weather, for the availability and consumption of natural and physical resources as diverse as oil and arable land, for international economic and monetary systems, and for the dynamics of human population growth. All in all, it was enough to represent nearly all of the myriad global interactions that human beings make on our planet, and vice versa.

The final step was to load all of the Heuristically Optimised models into the supercomputer simultaneously, and allow the Semantic Matcher to combine them in a single matrix, based on the mappings to the standard ontology from the database. This integrated matrix embodied a holistic representation of the combined space, a hugely complex model which might well have been impossible to assemble without the compression that Dick’s approach employed, even on the world’s largest supercomputers.

Now, the well-known computer dictum of “Garbage In, Garbage Out” may well be applied here. The approach required so many bizarre transformations far away from any kind of human scrutiny that it is compelling to conclude the outputs from such a composite model would be rubbish regardless of input. On the other hand, it was certainly the only practical way of getting such a complex composite to produce any kind of comprehensible output, at least with the kind of computational resources continually available to a minor British University research group.

Dick and his merry men – he did not seem to attract female research students – worked away for many months, largely separate from the rest of the School. This met with numerous snide and disparaging remarks, and a high level of general distrust. Even so, there were academic papers written and accepted for publication, which were grudgingly accepted as a useful contribution to the Research Score: the total weight of paper produced by the School and therefore the academic quality rating of the University as a whole.

The published papers following the usual sequence: first, a positioning paper, setting out the objectives and approach, and outlining the techniques in broad theoretical terms in order to establish the earliest possible claim of intellectual precedence and prior art. This seminal work was followed by an irregular sequence of research monographs, conference submissions and the occasional refereed journal paper, detailing specific parts of the whole process in mathematical and often excruciating detail.

Each paper had, as is typical in the outputs of research institutions, a long list of authors, always including Doctor Dick's name – near the head of the list, of course – together with a variable subset of his team. There was nothing truly outstanding in each publication, Paul acknowledged wryly, but each was enough to “advance the sum of human knowledge” as is required by the submission guidelines for academic publications.

Often, a grandiose academic undertaking like this either collapses, unable to deliver on the aspirational results, or else morphs into something almost unrecognisable as some newly-uncovered and exciting aspect expands to consume the entire budget. So it was unusual to hear from my friend Paul that the original objectives were indeed being pursued with very little deviation, and that they were on-track to deliver a successful combined model, although he confessed that one would probably not have realised this from the materials published so far.

I caught up with Paul again just a few days ago. He was looking worried and, unusually, it was he who suggested a quiet late-night pint. I had been working late, struggling with a research problem of my own, and rapidly agreed to meet him in the pub later on. I arrived first, bought the usual drinks for the both of us and I sat for a few moments sipping my pint. Paul arrived shortly afterwards, ducking under the door and looking around the bar in what struck me as a furtive fashion until he spotted me sitting in a quiet corner of the Snug.

He hurried over and slumped into the seat next to me, still looking around the otherwise unoccupied room as if expecting to see someone following him. He grasped his glass as if his life depended upon it, and drank of about half of his pint in one go – most unusual for a serious young man who rarely consumed more than two pints in the entire evening.

Speaking so quietly I found it hard to hear clearly, Paul told me about the state of development of the composite model – he referred to it as a Sustainability Matrix – and that Doctor Dick expected to publish a preliminary results paper very soon. He then leaned forward over his pint and lowered his voice even further.

All variants, Paul announced, of the matrix now executing on Dick's Tool demonstrated an inevitable decline in both global economy and human population – so rapid, he said, that the term “collapse of civilisation” was not too dramatic a phrase. I stared at him for a second, at first not sure whether I had heard him properly, and then for a longer moment while the import of his pronouncement sunk in.

“You mean it's inevitable?” I asked, aghast.

Paul nodded his head, then took another long pull from his drink.

I asked him whether the matrix, the simulation was telling the truth. He looked so serious for a moment.

“I think it is,” he replied morosely, “I simply can't see any alternative.”

He explained that Dick's researchers were trying more variations – the machine was running at full capacity all the time now – and there was a continued investigation to demonstrate coherence with the original models by substituting in turn each of the original full-scale models for the heuristically-refined version. Doctor Dick was desperately worried about finding a hitherto undiscovered flaw in the approach and that they expected academic challenges from many quarters.

“Look, I've got to go,” he said, draining the last of his pint, “There's lots more work to do, and Dick wants to get a paper out tomorrow.”

After my drink with Paul, I wandered back to the grotty terraced house I shared with several other postgrads, alternately musing on what I had heard in the pub and on my own technical problems. I slept

badly, with obscure and formless dreams roiling through my head all night. Finally, I gave up and got out of bed, and was back in the School very early – at least for me.

The route to my own office took me past the double doors which opened into the machine room occupied by Dick's Tool and his team. Something made me look again, some subliminal change in the appearance of the doors made me turn back. The doors were not quite shut and the combination lock was not set.

Gingerly, I pushed open the door. The whole area was entirely empty, and the glass partitions stood open. There were just a few black scuff marks on the floor tiles to show where the supercomputer had stood. The desks were devoid of the workstations Paul and his colleagues had been using so busily only last night, and the filing cabinets stood open and empty. There was no-one around – the whole group must have left, completely, in the middle of the night.

The official announcement later that day, in the form of an "All Research Staff and Students" email from the Head of School, was short and singularly un-illuminating. "By mutual agreement," it read, "the Synthetic Computational Modelling group led by Dr. Dick" – his full name was included here – "has moved to another research institution with immediate effect."

There was no mention of which Institution – I noted that the word "University" had not been used – Dick and his team had moved to. Nor was there any reason given for the rapidity of the transfer or for the lack of any prior announcement.

I was curious to learn more. I tried to get in contact with Paul by email using the School's own mail address, assuming that the Computer Services Systems Management Office would have set up email forwarding as a matter of course. The note bounced back immediately, marked "undeliverable". I accessed the University's online staff and student directory. There was no entry for Doctor Dick, or Paul, or indeed for any of the other members of the group. All references had been completely expunged.

I asked around the other research students and some of the younger and more approachable member of the staff. No-one seemed to know, and indeed few seemed particularly concerned. Rather, they appeared more interested in squabbling over who was going to take over the prime office and machine room space previously occupied by Dick's group.

Finally, I tried the only other method readily available to me to track down Paul – the use of those Internet search engines which seem so adept at pulling up information on the most unlikely of subjects. I just found a few rather stale and generic references to the research work that, thanks to Paul, I was already aware of. In all honesty, I had expected to find an announcement that a “prestige research group” had joined some – presumably foreign – University. But there was nothing: it was exactly as if the entire research group had disappeared of the face of the Earth – or, at least, off the face of the Internet.

I have been forced to conclude that Dick and his Merry men had been co-opted into some secret – and probably Government – organisation, some top-secret Think Tank or advisory body, some establishment associated with climate change or some policy planning group, or perhaps the research arm of some multi-national company with deep pockets and vested interests.

I remained curious, browsing the Web frequently. I was expecting to see, perhaps, a policy change announcement from Brussels or the United Nations, or even Dick’s long-awaited seminal paper on his results, vindicating his modelling approach after all the years of disbelief. Nothing at all, not a peep anywhere on the destination of Paul and Doctor Dick, or on the earth-shattering implications of the Sustainability Matrix.

Over the last few days, googling the same search terms, I have noticed the search produced progressively fewer results referencing Dick’s research output. Right now, there are just a few vague and third-hand references to his modelling approach, more-or-less buried in the noise that keyword searches tend to elicit from the search engines. It is almost as if records were being carefully and progressively deleted.

The realisation has finally been forced upon me: what kind of secretive cabal or international company or government organisation has the kind of clout to extirpate the academic output from a university research group from the collective knowledge of the world academic community? More importantly, I have to ask the question: who or what is preventing us all from knowing the likely impact of the current human occupation of this planet? And, why on Earth are they doing it?

3930 words

11 pages

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Afterword - Sustainability Matrix

This is one of several stories whose background is based on my time in the Department (now School) of Computer Science at the University of Manchester – a period of time I have previously referred to as an incarceration for twenty years, man and boy.

It would be grossly unfair – and untrue – for me to suggest that the character of Doctor Dick is based on any one individual. He is of course an amalgam of many people I have met in the academic world over the years.

Nevertheless, the politicking and infighting I have depicted seems quite typical to me, although I suspect it might come as something of a surprise to outsiders who might think that Ivory Tower research is beyond any such petty wrangling. It is all so very similar in the IT industry, where I escaped to, although admittedly with fewer teenagers involved.

I strongly suspect that every human endeavour falls foul of these competitive aspects, as individuals and small groups vie with each other to further their particular ends. Sometimes it seems so very wasteful, although I wonder that, without that competitive drive, we would never get anything done.

Windmills of New Amsterdam

A short story by [Trevor Hopkins](#)

When I first got the Summons from the Mayor's office, I was alternately terrified and elated. I could barely contain my emotions, with joy and pride and fear of failure all mixed up. When I had simmered down a little, however, the accompanying enigmatic instructions, written in the same cursive script on the parchment I had just been handed, provoked a more thoughtful reaction within me.

"Think about your life, your childhood," the letter instructed, "Your schooling and, especially, your history lessons. Be prepared to answer questions about what you have learned."

On the day appointed, I make myself ready for a journey. I drew on my best leather boots and the heavy woollen cloak I reserved for cooler weather, then drew up my hair braids – I still grew it long, almost to my waist – inside the woollen hat I habitually wore. Finally I picked up the leather satchel containing the hand-copied books I was currently studying and my precious notebook. With a last look around the little house I had shared with my family since I got married, I set off.

I had a journey of perhaps three hours in front of me, on foot. Most of my route would follow the towpath of the New Cut and, later on, the Grand Circular canal. The waterways were busy, even at this late time of year, with winter really only a few weeks away. Long narrowboats laden with goods and materials were being towed by placid horses, the animals so familiar with the route that they plodded along with almost no human guidance.

Alongside the cut stood the squat towers of the windmills, the wooden frames of their sails creaking as they pumped water to keep the canal system running. The heavy stone-built towers of the mills were a familiar part of the landscape hereabouts. Elsewhere, windmills pumped water for irrigation or drainage in different seasons, or ground wheat to make flour for bread.

In this part of our country, the local gradients are too small to provide adequate power for water-mills. In the hills, the ridges of foothills that effectively formed the boundary of our little settlement,

water mills are commonplace, driving sawmills for timber and cutting stone blocks, or powering the forges which wrought iron for wheels and hinges. The timbers and cut stone from the quarries are of course transported first by wagon and then by narrow boat to the more populous centres.

Nodding politely to the men and women working the boats and horses, I strode onwards, head down against the brisk wind and scudding clouds. As I walked, I reflected on what I had learned about our world during my forty or so years, as instructed by the Mayor herself.

The area centred on the city of the same name was called New Amsterdam. The city Mayor was the *de facto* leader of the entire community. He or, more usually, she was elected for life but rarely, it seemed, against any serious opposition. The Mayor chaired a Grand Council in the long building near Landing Central, made up by the hundred or so representatives from all the communes and townships in our country.

My portentous news was that I had been asked to become the Mayor's Assistant, her private aide – a post which, over the generations, has been seen as a stepping-stone to greater things. Some people say this is almost a position of "Mayor-in-waiting", although I personally believe this is an exaggeration.

I have been the leader of our commune council for near four years, doing my best to guide and direct the township of Garden Welwyn. In practice, this has meant I have been a personal advisor and confidante to what seems like most of the five thousand adults who live in the town, or in the villages, hamlets and farms nearby.

I applied for the Assistant role several years ago, writing a long letter detailing my qualifications – such as they are – and explaining why I felt myself fit for the responsibility. I suspect that many apply for the position, and it was quite a surprise when I was asked to meet and be assessed by increasingly senior representatives from the Council.

As I had been doing increasingly frequently, I was leaving behind my husband and two children – hardly children any more, more well-grown teenagers. The elder boy, Johann, is already employed almost daily on the waterways improvement programme, labouring at building the extension to the western docks at Welwyn Port. We are

hoping to confirm his apprenticeship with the Waterways Guild next year.

Our younger girl, Gwendolyn, is already showing a remarkable affinity with growing things – she has almost single-handedly run our vegetable patch for many years. She has expressed an ambition to join the Forest Watch, the highly respected body responsible for managing and replanting the upland woodlands we rely upon so much for both winter fuel and building materials.

But this will not be a short trip away – at least, if the Mayor accepts me as her Assistant. Gwendolyn has already expressed her unease at the prospect of an unsettling move, away from the friends and neighbours that she had grown up with – indeed, in most cases, that *I* had grown up with. Despite the risk of family upset, we have agreed that both husband and children will move to the city, to be with me in my new role.

I was now walking steadily downhill on the towpath of the Grand Circular, following a series of locks and short reaches as the canal dropped down towards the city. I crested a low rise and caught sight of New Amsterdam.

Inevitably, Faraway Tower was the first thing I could make out in the distance. This tall white tower is made of some amazingly resilient material – not metal, not stonework – and grows steadily narrower towards the summit, with a large ball, a sphere, at the very top. No-one now alive can conceive of how it was constructed. It appears to be some kind of ceramic, much tougher and smoother than the pottery plates and mugs we use at home.

The Tower was constructed by the Settlers themselves, shortly after First Arrival. Everyone knows that, set all around the base of the tower, there are darker areas – almost like windows – which, we are told, sometimes light up with messages from other worlds, but this has not happened recently.

Settlers Square, the open area around the Tower, was the original landing site for the new arrivals. The city of New Amsterdam which grew up around it and the surroundings areas form one of a handful of settlements scattered across this world of New Earth.

Like the original, this Earth orbits its Sun – a star once known in the catalogues as Bygones – at a distance of ninety-three million miles, turns on its axis once every twenty-four hours and with a year of 365-and-a-bit days. This year is 977, based on our year zero – the date of

the first official landing. Our history tells us that Humankind was aware of our planet for thousands of years before anyone actually landed here. There was a long and slow process of terraforming – literally, earth shaping – turning this world into a near-duplicate of our original home.

I knew that the not-very-well hidden secret purpose of this world is simply to survive, forever. The residents are expected to live long and happy – but not artificially extended – lives, to raise children to replace their parents, to live with minimal impact on the environment, and to propagate the basic human form into the far future unchanged. The people in this settlement represent the widest possible cross-section of the human phenotype and genotype, with every possible skin colour and body plan that our ancestors would have recognised.

So this world is a carefully-constructed utopia, an insurance policy against unforeseen and indeed unimaginable disasters – part-zoo, part low-tech living DNA repository. This purpose is known and understood, respected by adults, and this history and policy are carefully communicated to the children. Our mantra is “stability and survival”. Perhaps our forebears would have found this world a little humdrum, even boring, but we understand our purpose and, generally speaking, accept our position in the universe.

Elsewhere in the galaxy, we know human beings have been much more adventurous. Our books are full of daring tales of humans elsewhere in the Stars. There are stories of spaceships making explorations in space, visiting strange new worlds, seeking out new life and new civilisations, and going boldly where no human has gone before. There are other legends of wars and empires amongst the stars, with exciting accounts of battles in planetary orbits and an order of protectors with an almost mystical ability to manipulate the universe. These tales, and others, I first heard as bedtime stories at my Father’s knee, and learned the details in the more interesting parts of school history lessons.

Our planet is one of those that are rarely visited and with extremely infrequent communications with the rest of humankind. Our predecessors had liked it that way, presumably as a security precaution to discourage the accidental arrival of unwanted alien visitors, whether viral or bipedal.

The original settlers had carefully selected the site for New Amsterdam. The city nestled against the wide estuary of a major river, protected by mountain ranges and a narrow isthmus against the worst

ravages of the seasonal storms. It was rarely very cold in winter, with little snow. True, a thin film of ice will occasionally form on the canals in the coldest of winters, but this is never enough to prevent the movement of the boats. Conversely, it gets pleasantly warm in the summer, but never dangerously hot, so that we do not often require protection from the sun's harmful rays.

The area of our settlement is green and very fertile, watered and refreshed by the rivers and streams which also feed the canal system, and in turn drain into the sea. The fields are laid to crops and grazing in strict rotation, with sheep and pigs and goats and cows being kept for meat and milk, and materials for clothing and footwear.

The edge of our settlement furthest to the south-west is dotted with villages and harbours on the coast of a warm and shallow sea. The people in this area keep small boats for fishing, make pots to catch lobsters and crabs, or maintain tidal beds for shellfish.

This part of my route was deserted, with no boats or people visible in any direction. The wind had died down a little but a light drizzle had started, and I took shelter in the porch of one of the many stone-built warehouses that lined the canals. This one appeared to be disused. There was no sign that anyone had been here in recent months, although the stout wooden doors were firmly shut and bolted. Even so, I could see that both masonry and woodwork was in good order, obviously recently repaired and carefully re-painted.

Taking advantage of the slight shelter, I rested for a few minutes, shaking out my cloak to dislodge the fine drops of water. As I left to continue my journey, I looked back at the stonework, all ornately carved and lavishly decorated, with the date 790 N.E. – New Earth – carved into the keystone of the arch over the doorway. I knew that so many of these warehouses and workshops were rarely used, although it was uncommon to find one which was sloppily made or poorly maintained. Our people take such pains to make sure all these jobs are done well – such pride in their work.

Suddenly I caught a movement out of the corner of my eye, followed by a faint splash as if some large creature had rapidly but stealthily entered the water of the canal.

Unbidden, thoughts of the Webbed Ones sprang to my mind. These strange beings, whose existence is officially denied although frequently debated in quiet corners, are thought to be some strange alien, or perhaps an original native of this world from before it was

terraformed. The Webbed Ones are said to be basically humanoid in shape, adapted with webbed hands and feet for a mostly aquatic existence, and wear little or no clothes – such clothing as they adopt is for decoration, rather than modesty.

I stood unmoving, hardly breathing, but I saw or heard nothing more. At first I thought I must have imagined the entire thing, but then I noticed a rope hanging over the low wall that edged the canal here – a rope that had previously been neatly coiled and laid at the edge of the pathway. I shook my head, gathered up my belongings and set off for the city.

On my arrival at the Council Chambers, I was ushered without delay to my meeting with the Mayor. Gillian Atashi-Klima was a tall and painfully thin woman with silver-grey hair cut very short, with a sallow complexion and the slight suggestion of epicanthic folds around her astonishingly bright blue eyes. She had a rather slow and precise way of speaking although, as I had heard, frequently showing great insight in her choice of words.

I had met the Mayor briefly once before, on one of her peripatetic journeys, and I sincerely doubted that she would remember me at all. I had expected that my pre-selection would have been undertaken almost entirely by some unseen committee, with only the briefest of assessments from the Mayor herself.

As I entered her office, Madame Atashi-Klima was sitting behind a modest desk, reading a sheaf of papers in the fading grey light from the window behind her. Through the leaded glass, I could just make out the carefully trimmed shrubbery of the Major's garden that led right down to the edge of the Grand Circular canal itself.

The servant directed me to a comfortable seat right next to the Mayor. He proceeded to light some of the candles set on stands around the room and on the desk in front of us, then quietly left the room closing the door carefully behind him.

I sat demurely, with my hands in my lap, feeling nervous – just a little like the very first time I had applied for a post in local governance.

“Pleased to meet you again,” the Mayor addressed me, setting down the documents she had been studying. So she did remember me!

“I read your letter of application with great interest,” she continued, waving the papers at me, “And I have studied reports from the Assessors very carefully.”

Then, in a deliberate and rather formal tone, she asked me if I would accept the position of Assistant to the Mayor. I must have visibly jumped, having considered this moment with so much anticipation over recent months, and I accepted with alacrity.

“Madame Mayor, I would be honoured to take up this post.”

She nodded slowly, taking both of my hands in her own.

“There is much we must discuss, this very evening,” she continued, “It will take quite some time. And, please, call me Gillian.”

“As you wish, Gillian,” I stammered.

“Very good,” she said, looking at me appraisingly, “But first, there is a solemn and important ritual I must perform.”

“A ritual?” I echoed.

“Yes, an initiation, if you like. Now, have you been thinking about your history lessons, as I instructed in my letter?”

I nodded eagerly, anxious to embrace my new role.

“For the first step of the ritual, I have to tell you that everything that you have learned about our world – all you have heard from the teachers and read in the history books – is a lie.”

I did not know how to react. My head swam with confusion and disbelief; indeed, I was gob-smacked, to use that modern term the youngsters prefer. I could see that the Mayor appeared entirely serious. Perhaps this was some kind of a test?

“What do you mean, a lie?” I finally blurted, “To what purpose? And why do you have to tell me this now?”

The old woman looked at me astutely with those piercing blue eyes, perhaps even with a modicum of approval.

“The last question,” Gillian said carefully, “Is a very good one indeed. So, I will answer your questions, and it is probably best done in the order you asked them.”

She settled back into her chair with the air of one about to embark on a long tale to while away a dark and stormy evening.

“Firstly, then, our planet – New Earth – is not a settled world at all. In reality, it is the original world for *Homo sapiens* and, once upon a time, it was named simply Earth.”

“The legends of the First Arrival of the Settlers and of the terraforming of the planet are just that,” the Mayor continued, “Legends with no basis in fact. And there has never been any interstellar space travel – at least, not by humans. It has never been possible to engineer for sustained space flight. Even inter-planetary travel proved to be far too expensive, the economic benefits too intangible.”

She shifted in her chair to look even more directly at me.

“Truly, we rest on the home of humanity, the only planet in the Universe that people have ever lived upon.”

“But what about Faraway Tower?” I exclaimed.

“The Tower, yes. The last remnant of the technology of the Ancients. It still works – at least, we think so. Although there has been no report of activity of in my lifetime, or that of my predecessor, or hers.”

Gillian sighed sadly.

“The messages from people on other worlds are a fraud; indeed, the technology for this to happen does not even exist. Oh, there were a few long-term deep-space probes, robot spacecraft who would take hundreds of years to reach their destination. The Tower was built to receive their reports, their intelligence. It was the pinnacle of the technologies, multiple redundant systems, intended to last for generations.”

“The probes, the explorers, were all failures. Nothing remotely resembling a habitable planet has ever been found anywhere within reasonable reach of their technologies.”

“Perhaps there will never be any more reports, nothing more to discover. Perhaps all of the probes and robot spacecraft our ancestors send into the void have made their analyses, transmitted the results. Or perhaps the technologies of the Ancients have failed, finally, the machines fading, deteriorating to the point of uselessness. We just can’t tell.”

“But surely there are thousands, even millions or world out there?” I insisted.

The Mayor sighed.

“True, But even the Ancients’ technologies to live on other worlds without a natural biosphere, even on the Moon, proved to be too expensive and, more importantly, too fragile to be relied upon for a long-term existence. And this knowledge, together with undeniable evidence of climate change fuelled by the consumption of irreplaceable natural resources of all kinds, and the consequential catastrophic failure of our industries and societies, led to an Agreement for Stability, and a Grand Plan to achieve it.”

“But why the lie, the histories?” I asked breathlessly, “And what is this Agreement?”

“We live in a carefully-constructed society,” Gillian replied steadily, “With a small and stable population. We are the ultimate endpoint of an ‘ecological sustainability’ agenda” – I was only just aware of the significance of the words – “Perhaps the only part of our history which is actually true – is that we are here to survive, to ensure that humanity survives, forever. That’s what the Agreement was intended to achieve.”

“The wind- and watermills, and the canals, are the upper bound of the technology that we still permit ourselves. The mills remove some of the heaviest labour, essentials for our everyday food and water, the cutting of wood and stone for shelter for our families. They are an indefinitely renewable resource – as long as the sun shines, the rains fall and the wind blows, we can live we way we do now.”

She paused, again piercing me with those blue eyes.

“The canals have an altogether more subtle purpose,” the old woman said, “I wonder if you can guess what it is?”

“Transport? Communication to help hold our society together?” I volunteered.

Gillian shook her head slowly.

“The basis of the canal system was dug by machinery of the Ancients, generations ago, but it was designed to be capable of being maintained forever by human – and domesticated animal – labour. Of course it is true that transportation of goods relies heavily on the narrowboats, the canals are not quite as important as you might think. We could survive with just horse-drawn wagons, or oxen for the heaviest items, or perhaps pack mules and donkeys for the more inaccessible places.”

“Most importantly, the maintenance and extension of the canal network is vital to absorb any available effort – surplus wealth, in other words – generated by the population.”

“What do you mean?” I asked, confused.

The Mayor sat quietly for a moment, evidently deep in thought.

“The history of Earth has included many examples of deliberate attempts to invoke social stability, stasis,” she said finally, “The stories of space travel, and a galaxy-wide human empire are just stories, myths and fables intended to make the humble, even boring lifestyle that we impose upon ourselves feel somehow noble.”

She hesitated, almost seeming nervous for a second before continuing.

“And all this without resort to religion, which was felt to be too risky to the society.”

“Religion?” I asked. I had heard the term before, I think, mentioned briefly in one of my more tedious history lessons.

“A belief in God, or Gods, and an eternal afterlife that only the virtuous or well-behaved shall enjoy,” she explained, “With all others doomed to pain and torture in perpetuity.”

I was bewildered and horrified.

“What’s the point of all that?” I gasped.

Gillian raised an eyebrow.

“Maintaining the status quo,” she said calmly, “Most of the attempts at an engineered social stasis that were made before, most notably by the various religious organisations in that period of history known as the Middle Ages, relied on religion to stifle change. And it was certainly successful in suppressing the advance of technology and engineering, and even radical thought for years, but it was always ultimately undermined by the social gap between the rich and powerful, and the serfs and peons, the haves and have-nots.”

The Mayor sighed again.

“Religious excess and bigotry engendered to wars and battles between powerful men – and they were almost always men – leading to the unpleasant experience of generations of warfare just because of religious disagreement. So, religion is a luxury we cannot afford.”

“But what has all this to do with the canals?” I asked, my head still spinning, “And the Agreement?”

Gillian paused again, evidently formulating her words.

“Inevitably, social tensions grew in those ancient religious societies, leading to revolution and civil instability. Breakaway individuals strived for improvements in the lot of the common people – better conditions, more food – and of course increases in personal wealth. This led to the runaway development of resource-hungry engineering, allowing more leisure time and the time to develop more sophisticated technologies, and so on – a vicious circle which threatened to consume the entire world again, and again.”

She sighed.

“We took a different approach. The dedication we apply to maintenance of the canals, and their extensions, and all the associated buildings, is analogous to the role that the building of churches and cathedrals had taken in those previous worlds. The purpose of the canals is to provide a sink for labour, a way of preventing idleness and sloth. And it is to give a visible result – a focus for pride and satisfaction in a job well done. But there is always, *always* more work to be done. It is a task for *forever*, a vital part of the success of the Agreement.”

I thought about this. Of course, work on a canal could be slowed down or stopped for a season or a year, or even a generation, if other work was more pressing – a famine or flood, some emergency or contingency which consumed all available resources.

We sat quietly, both deep in private contemplation lit only by the flickering of the candlelight. The chill of the autumn evening crept into the room. The Mayor made no attempt to light the fire, which I could see already laid with logs and kindling in the fireplace on the far side of the office.

“The retrofitting of the world took generations,” The Mayor eventually resumed, “Generations where people were encouraged to have very few children – ideally, none. This was the Age of the Lost Cohorts, generations where almost everybody was old. Some people even demonstrated their commitment to the Agreement by volunteering for euthanasia, rather than burdening the world with a need for medicines and help in their old age.”

“Indeed some fanatics volunteered for tasks that were very dangerous – even fatal – reworking areas of the world poisoned by machines and industry. These volunteers knew they would die from the poisons, and undertook the tasks provided they could be assured of a quick and painless death afterwards; their reward being the knowledge that they have contributed to the long-term survival of the human species.”

“Each generation used less and less technology, slowly establishing the way of living with which we are familiar, and carefully destroying – very thoroughly, we are told – both the technology itself and all records of how the machines were made.”

“And so each generation had fewer people. As centres of population became untenable, people moved together, huddling, really, against an increasingly large and lonely planet, until the world, and the adult population, was ready for the Final Agreement.”

Again she paused, looking directly at me with eyes that seemed somehow to pierce my very thoughts.

“Remember, at some point in our history, every adult in the world – and I mean everyone – would have had to lie to their offspring, to set up the system of beliefs that they knew to be artificial, false. In short, to put in place the society that we now know. Even one person failing to honour the Agreement could have wreaked havoc with the Grand Plan, could have sown the seeds of insurrection and have instigated exactly the kind of instability that we had striven over the generations to achieve. Even our system of dates is a lie,” she concluded, “We actually achieved this stasis less than two hundred years ago.”

“So what happened to this Final Agreement,” I asked, my mind still racing at the revelations being put before me.

“Oh, it still exists,” the Mayor said, smiling sadly at my confusion, “Part of the Agreement was that, in each centre of population there would be one or two people who knew the truth. Typically, they would be an older person and a younger person, each in a position of responsibility and, quite frankly, power. In our settlement, for some reason – it’s not deliberate policy – more often than not the persons selected are women. And, right now, those two people are me, and you.”

Again, I gasped, beginning to realise my part in all this.

“A key part of the Agreement is that, in each generation, the truth was explained, understood and, most importantly agreed to, for the next generation, It was there to allow those in the know the ability to make informed decisions, to understand just what the Agreement is, and why it is so important.”

Just at that moment, there was a tapping on the window. I started, turning towards the source of the noise. Gillian stood, raising a hand in reassurance.

“Ah,” she said, “My other visitor this evening.”

The Mayor undid the latch, allowing the window to slide open, then stepped back from the aperture. A sinuous figure slipped inside, moved swiftly to the centre of the room as if it wished to keep plenty of space between itself and the other occupants. The newcomer brought with it a damp smell, faintly unpleasant but somehow familiar, which after a few moments I recognised as that of water from the canals.

The creature stood upright, standing perhaps five feet tall, dripping water onto the stone flags of the floor. It was one of the Webbed Ones. In the candlelight, I could see the overlarge webbed hands and feet, the mottled brown and green skin with the slight suggestion of scales. It regarded me with its mobile and faintly luminous eyes.

“Good evening,” it said politely, lisping very slightly through its lipless mouth, “Call me Snake.”

I must have been sitting immobile, shocked by the appearance of this mythical figure in the quiet room.

“So you are to be the new Mayor?” Snake continued, pacing to one side and then the other, looking me over appraisingly.

Finally, the Webbed One stopped, still keeping its distance from myself and the Mayor.

“I think you will do well enough,” it continued, “I know you. I have been watching you for some time. I saw you on the bank of the canal earlier today” – I gasped – “I apologise for any alarm I may have caused.”

I could contain myself no longer.

“Snake, what are you?” I burst out.

The creature emitted a series of hissing puffs which I took to be its laughter.

“Our people are an even more extreme human survival strategy – one of several, I should say,” Snake said, “We were once as you. But we were modified, engineered, by the vanished science of the Ancients, to a kind that can live in and out of water, a kind that did not need even the limited technologies you permit yourselves. A different approach to human survival, in case the world changed in ways unforeseen even by the Old Ones.”

I stared at it – him? her? – incredulously. He twisted his lips curiously, showing numerous sharp yellow teeth.

“There are other groups, all over this world, some not so far from here,” he continued, “Some are peoples like yourselves, basic humans. Others are adaptations such as ourselves, one of a myriad of kinds in shapes you cannot even imagine.”

Snake laughed again.

“We call you ‘the mice’,” he said, “Living quietly, timidly in your houses and windmills, busying yourselves with your canals.”

“Why are you here?” I demanded, “I mean, in this room, at this time?”

Again, the Webbed One displayed that twisting of the lips, and I was forced to conclude that the creature was smiling.

“I am a witness,” he said slowly, with a serious tone at odds with the facial expression, “To the continuing Agreement. The leaders of our kind – I am their representative – wish the Agreement to continue. And I am here, tonight, to hear from you in person your commitment to its continuation.”

I now understood the temptation, and the danger, embodied in the Agreement. Of course, I could not change things overnight. Even if I ran outside right now, shouting the truth to the four winds, I would not be believed. I would be considered mad, or possessed; I would be feared or pitied, or incarcerated for my own protection.

But I could be more subtle, particularly with the influence of the Mayor behind me – or even as Mayor. I could put in place changes which would change our society. I could order a slowdown – or a complete stop – of the works on the canals and the associated buildings. Instead, I could encourage the building of ships, to travel the outer world, and send out explorers – and traders, too, now that I understood that there were more groups of humans on this planet than I had known. I could arrange that the brightest of people could have

leisure time to think, and more schooling and education to give the intellectual tools with which to do it.

And, most importantly, I could suppress all knowledge of the Agreement, and the lies that our histories are. With that impetus of belief, I could engineer the re-birth of a technological society that could, in a few generations – perhaps only ten or twenty – build the machines that could take us to the stars.

Or, I could decide to leave things as they were, unchanged until the next millennium.

I stood slowly, understanding the formality of the moment.

“The Agreement stands,” I said slowly and clearly, “Unto the next generation.”

Snake and the Mayor nodded their approval in strange synchronisation. Then, without another word, the creature turned on its tail and slipped out of the open window as quickly and quietly as he had come. Gillian shut the window behind the vanished Snake, and bent to light the fire.

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Afterword - Windmills of New Amsterdam

For some reason I cannot easily explain, I seem to gravitate naturally towards writing 3000-word short stories. Almost all of the stories in the *Four Square Less One* collection are around this length. This story, however, is twice that length, and it seemed to take forever to produce. Perhaps this is because of the complexity of the interrelated ideas I am trying to explore or maybe I just like writing about this particular world.

The central thesis behind this story – that humankind will have to revert to a much more primitive form of existence, and with a hugely reduced population level, if it is to survive on this planet – seems such an obvious one that I am surprised there has not been more fictional writings on the subject. But perhaps it is not inevitable, or maybe most people just do not want to face up to such a prospect. Or is it just that it is more fun to write on other topics?

Making the Crossing

A short story by [Trevor Hopkins](#)

It had been a time of plenty. The winter snows had melted early this year, and the herds of deer had flourished and grown fat. The partridges and rabbits seemed to bound into the traps wherever they were placed, the soft leaves and nourishing roots had been found in abundance ripe for the taking, and all could see that the nuts and seeds and summer fruits were ripening for a plentiful harvest.

A Midsummer Candidature had been commanded by the Shaman of the Seven Tribes, as sometimes happened in bountiful years. From each Tribe, a carefully selected few were to attend at the ancient meeting place marked by a vast standing stone. This stark monolith was said to be visible for miles over the windswept plains on the coast of the Inner Sea, its dull grey surface etched with runes so old that none could now comprehend their import.

The Wise Ones of each Tribe selected a single Candidate from the bravest and most skilful of the young men. The Candidate must have completed the coming-of-age ceremony, with its night-long vigil and solemn vows, but must not yet be married – although I would wager a fine fat coney that, for one selected for this particular honour, the tribal matchmakers and Elder women would already be recommending betrothals to parents and blood relations.

I had been selected as our Tribe's Candidate after an exhausting series of tests and evaluations by the Elders, lasting for fully three phases of the moon. The morning of my departure was marked by a short ceremony, in which the Tribal chief exhorted me to uphold the honour of our Tribe and the memories of our ancestors. By the time I set off, my head was spinning and ears were full of the sage advice and ancient wisdom so carefully imparted.

The Candidate must have an escort, it seemed. In any case, our party consisted of Atilen, one of the more spry Elders of the tribe, escorted by Krakaren, one of the most experienced hunters now acting as our Guide and who, it was said, might join the ranks of the Elders one day, and myself, the Candidate from the Mountain Lakes Tribe. After an easy journey, our small party arrived at the camp on the plain by the sea before evening on the eighth day. We were the last to

arrive, and tents were already being set up in a large circle around the standing stone. The gap where we should pitch up was plain to see.

Aliten had instructed us that the protocol was that we should keep ourselves very much to ourselves on this first evening. We soon set up our own bender lodge, cutting flexible branches from the birch trees nearby and covering it with the deerskins brought with us for this purpose, and refreshed ourselves with a modest meal of game and roots around a little cooking fire. Aliten further advised that we should all take to our beds early for tomorrow, he said, would be long and full.

As all know, at this time of the year the sun only really sinks below the horizon for an hour in the middle of the night. With the habit of long practice, I employed a simple mantra to draw a calming veil over my mind. I slept well enough and emerged from my sleeping furs feeling refreshed and alert.

As I and my tribal companions were consuming a breakfast of porridge and dried meat, a runner appeared with a message. I was immediately summoned to attend the Shaman of the Seven Tribes. I bolted down the rest of my food and set off apace for the Gathering grounds, set at the very foot of the ancient monolith itself.

As I hurried up, slightly out of breath, I could see that the other Candidates had already arrived and were standing in front of a tier of seating carved from the rocks that formed the foundations of the standing stone itself. At the apex of the seating sat a wiry old man, grey-bearded and bald, wrapped in voluminous furs of great rarity and beauty. His eyes were bright and his movements firm and precise, despite his reputedly great age. It was the Shaman himself, I had been assured, and he was surrounded left and right on progressively lower seats by his advisors, the Elders, and flanked by a coterie of servants at ground level.

I did not know any of the other Candidates, of course, having never before ventured from my Tribe's homeland in all of my fifteen years. Politely, I stood upright and held up my open palm in the traditional greeting of strangers. My greeting was returned by the others, in some cases slightly diffidently or perhaps with a degree of nonchalant pride.

In short order, the Candidates were drawn together into a line and scrutinized one at a time, the Shaman himself and his coterie of advisors having descended from their eyrie for this purpose. In turn, we were each examined closely as the party of Elders passed along the

line, each of us inspected and assessed and even prodded with much the air of one examining a particularly fine deer.

After the inspection, the Shaman slowly returned to his seat, clambering steadily up the worn stones, then stood, turning to left and right until there was silence from the groups gathered below. He clapped his hands three times and spoke in a loud voice, declaring for all to hear that the Selection of the Questors had begun.

Throughout that long day, I found myself in tests and trials, constantly measured against the other Candidates in sports and competitions of all kinds. First, we were taken one at a time to stand before the ranked stone seats. When I was my turn, I was questioned closely on my knowledge of the world, beset with riddles and made to undertake tests of my learning and reason.

Later, there was a running race on a route that passed from the monolith itself to a boulder at the edge of the beach and back again. There was the throwing of heavy stones and the lifting of even heavier ones. There was even a series of wrestling bouts; for the most part, I managed to retain my footing and fling a few of the other Candidates out of the circle, although I was of course thrown myself a time or two. At other times, our hunting skills were assessed: the throwing of spears and the setting of traps, as well as gauging our proficiency with bow and arrow shooting at distant targets.

All of these competitions and assessment were performed under the watchful eyes of the Shaman and his coterie of advisors. It was also observed, in silence and at a respectful distance, by my companions and those of the other Candidates.

The sun was sinking low by the time I was released from the events and was able to return mentally and physically exhausted to my companions. I was allowed to rest in our little camp for a time but, when it was nearly fully dark, I was required to join the Shaman's acolytes and the parties of the other Candidates for the evening meal around a blazing campfire almost in the shadow of the brooding monolith itself.

A feast had been prepared with great care and skill by some of the Shaman's servants. The Candidates were offered the choicest cuts of venison and the most tender of the roots and leaves, second only to the Shaman and the Elders, of course.

Later on, one of the servants produced a water-skin, which was presented to one of the Candidates on the other side. It was passed

around the circle of firelight, each person in the party taking a sip or two before passing it on. I thought little of it, until the skin was passed to me. The pungent smell when I un-stoppered the little sack made my eyes water immediately. I drank as little as I felt I could get away with, even so having to resist the sudden urge to cough and splutter.

The skin did not contain water at all, but the fiery liquor known as Aile, made from fruits and seeds by a secret and arcane process known only to a very few. I had heard about this drink, and its intoxicating effects, but this was the first time I had been privileged to consume it myself. Following the advice of my tribe's Elders, and that of my Father, I again sipped cautiously at the potent liquid, before carefully re-sealing the skin and handing it on to the next Candidate's party. My actions were observed, I was sure of it, with a certain amount of approval by the Shaman himself.

Once the meal had been prepared and consumed, each of the Candidates was called upon in turn to recount a tale from the Old Stories, the ancient shared histories of the Seven Tribes. This too, it seemed, was one of the assessments. Each candidate stood and spoke aloud, recounting the story required of him.

When my turn came, I was instructed to tell the fable of the Darkening of Days. This was one of the direst of the ancient legends, and one which had given me many nightmares as a small child. This story told how the Great Tribes of All the World had long ago made war against each other, sundering the sky and poisoning the land until the power and influence of each had been obliterated by the other. But they had not ceased their battles or their destruction until nearly all of their peoples had been killed and the few that remained fled into the wildernesses and wastelands.

My performance was met with approving nods and glances in my direction by many of the tribes-people gathered around the fire, and it seemed that even the Shaman himself was not totally dissatisfied by my rendition.

After the story-telling, there was little for me to do. I sat by the fire in companionable near-silence with Krakaren, while Aliten went to meet with the leaders and Wise Ones of the other tribes. Long into the night did these elders converse and debate, observing and occasionally pointing out the young men sat around in the firelight. Outside of the Elders' circle, too, there was much speculation upon which of the candidates would be selected. From what I could overhear, it was

difficult to tell the opinions informed by carefully considered wisdom from the idle gossip of the ignorant and jealous.

It had been very late before I had returned with my companions to our camp and the welcoming embrace of my sleeping furs. I slept late, and was still groggy when the summons again came from the Elders' circle. The Candidates were now required to sit together, separated from their companions, and await the Shaman's pleasure. I was again watched from a distance by my silent companions and those of the other young men.

Custom and law dictated that just three of the Candidates would be selected to accompany the Shaman himself, on a mysterious quest whose nature was the stuff of legends and fireside stories. After a period that seemed interminable, but was probably less than a thousand heartbeats, the Shaman, flanked by three of the Elders, approached the place at the fire where the Candidates waited with barely-concealed impatience.

All scrambled to their feet as the older men approached, making the ritual signs of obeisance. With a few gestures and fewer words, the Shaman gathered us all together in a loose group in front of him. There had been no opportunity, or more likely a deliberate attempt to prevent the Candidates from learning each other's names. So it was a surprise when, without preamble, the old man spoke a name in a loud clear voice.

"Bengart!"

A large and muscular young man to my left, one of the few I had been unable to throw in the wrestling matches, let out a huge roar and punched at the air. His distant companions echoed his cry, rending the air with their cheers and applause.

The Shaman waited patiently for silence, then spoke again.

"You, Hantorg."

The old man pointed at a slender wiry adolescent, one who was particularly skilled with bow and arrow, and whose withdrawn and taciturn nature seemed at odds with his youthful appearance. Hantorg stood quietly, acknowledging the restrained cries of approval from his companions with a single nod of his head.

"And you, Garat."

I started at the sound of my own name, surprised to find everyone looking in my direction. I blinked and looked around, unsure of how

to react to this singular honour. In all honesty I did not truly expect to be selected for this great compliment. I had already recognised that I was neither the biggest nor the strongest of the Candidates. I was not the fastest at the hunt or the most accurate with bow or spear or harpoon. Exactly what characteristic the Wise Ones saw in me, what facet of my meagre abilities had attracted their attention, I was unable to fathom.

Nevertheless, it seemed to be true. Krakaren was making enough noise for ten men, and even old Aliten was cheering unrestrainedly. We were released by the Shaman with a single wave of his hand, and I stood and made my way towards my companions. I was slapped on the back, and loudly and heartily congratulated by my own companions, and less effusively by those of the unsuccessful Candidates.

I walked in a daze, unsure what was expected of me now. Fortunately, and seeing my confusion, Aliten took me on one side, and explained in low and hurried tones what was expected of me now. It seemed that the three Questors, as we were now to be known, had a short period to gather together their travelling packs and then meet, ready for a long trek, at the foot of the ancient monolith.

As I approached the standing stone, I could see around me that camps were already being struck; those whose Candidates had not been amongst those selected were packing up and making ready to leave. My own companions would wait for me, although I had heard that if I had not returned after three phases of the moon had turned then they should depart for home, taking with them the news of my death.

I could see my soon-to-be companions converging on a spot by the hulking monument. Just before we met, the Shaman emerged, suddenly standing before us, although exactly where he had emerged from was not at all obvious. He was alone, without the coterie of advisors and hangers-on I had come to expect, and carried a small travelling back-pack.

Bengart approached the old man respectfully.

“Let me carry your pack for you, Father,” he beseeched, using the honorific sometimes used for the most venerated of the Elders.

“Hah,” the Shaman responded in a direct and surprisingly down-to-earth way, “I’m still perfectly capable of carrying my share, thank you very much.”

So saying, he shouldered his pack, turned on his heel and set off in the direction of the Outer Ocean. He stopped after ten paces or so and looked back at us, all still standing dumbfounded at the meeting-place.

“Come along then,” he urged, “We’ve a long walk in front of us.”

I and the other Questors hurried to catch up with the old man who, despite his years, set a fast pace along the trail that skirted the high-water mark on the strand.

The next few days in the company of the old man proved to be an unexpected and ultimately enlightening experience. I would soon observe that Shaman of the Seven Tribes was not as formal and certainly not as circumspect in his speech and manners as I had been taught to expect, at least in comparison with the leaders of my own Tribe and, I inferred from the reaction of my young comrades, from their Elders either. It was all quite a contrast to the remote and taciturn individual who had addressed us from his high seat at the monolith.

To my surprise, I found the old man was ready enough to answer questions put directly to him, although I would soon learn that foolish enquiries would be treated with the harsh contempt that they no doubt deserved. But he remained silent on one topic: what was our destination.

From the sun and the stars, I could tell we were heading approximately south-west, in the direction of the great ocean at the edge of the world, beyond which there is nothing. We were following the coastline as far as possible, traversing an area not populated by any of the Tribes, a region of stunted trees separated by open areas of sparse grasses and sandy dunes. The wind blew incessantly from the sea, making it feel cool even at this season.

We saw few signs of game and there was little to forage, even in this time of plenty. With good fortune, I was able to trap a coney or two, and Hantorg managed to bring down a partridge with bow and arrow, so we did not go hungry at our evening meals and we did not have to break into the dried rations in our packs. I would later discover that we would need those supplies for the Crossing itself.

Over the next few days and nights, I learned something about my companions. To my surprise, I discovered that their lives and tribal upbringing was nearly indistinguishable from my own. The tales that they had learned and the daily routines that they followed were, for the most part, entirely familiar to me.

Even so, I became aware of differences between their way of life and that of my own tribe, as my companions spoke of the different animals that they tracked and the lands that they lived upon. Bengart, from the Tribe of the Frozen Sea, told of the herds of reindeer and elk they hunted, and the feasts and celebrations which accompanied a successful hunt. Hantorg, of the Tribe of the Rushing Waters, spoke of the salmon and trout that they fished from the streams and rivers, and the waterfowl they stalked from the water's edge.

I could also observe the two other Questors and I came to my own conclusions of their strengths and weaknesses. For all his height and strength, Bengart tired easily, often showing signs of exhaustion at the end of the day's march while the rest of us were still fresh enough. Hantorg could keep up the pace but, for all his skills with bow and trap, he was weak, struggling to move branches or lift rocks which I could manage with one hand.

Hantorg was sharply alert, though, pointing out trail sign and animal spoor that even I would have had difficulty reading. He was so lacking in any kind of imagination, seeming to be so intensely aware of the real and physical world around him that he was unable to imagine anything that was not present in front of him. Bengart, by contrast, was stolid and phlegmatic by nature, always ready to believe whatever proposition or story was put to him, no matter how improbable or inconsistent that might be.

On the evening of our second night, after we had eaten our fill, the Shaman told the story of the Great Bridge, a story I had heard around campfires since before I could run. This tale told of the industry of the Ancients, and their machines and engines, and their desire to demonstrate their superiority over everything and everyone.

One faction commanded the construction of a crossing over the ocean, at the very mouth of the Inner Sea where it joined with the Outer Ocean. With immense labour, and the use of their most puissant machines, this faction built a bridge, so long that it was said to extend beyond the horizon and so high above the waves so that a man could cross dry-shod even in the winter storms.

Many people passed over the bridge, some marvelling at the might and complexity of its construction, but others - a majority, in later times - took it to be a symbol of pride and were jealous of its makers. During the wars at the Darkening of Days, other factions attempted to destroy the Great Bridge. They failed, although their destructive devices fell all around and obliterated many a village and settlement.

The Great Bridge remained, and some say that it stands even to this day.

After the conclusion of this tale, I suddenly realised where we were going, why we were travelling across this inhospitable and nearly barren wasteland where little grows and scant game is to be found.

“Father, are we heading for the Great Bridge?” I asked politely.

The old man grunted with what I took to be approval.

“That is the first step to our destination,” he replied, “And we will be making the crossing together.”

“And what will we find there?” I pressed.

The Shaman shook his head, declining to answer my question.

Our first view of the ancient Bridge was from a high headland delineated by crumbling cliffs on our left. A series of tall pillars strode across the sea, shining brightly in the morning sunlight, and were linked by horizontal sections which seemed impossibly flimsy, although I realised they must be very strong to have survived all this time. I could not see the far end of the crossing, even from our vantage-point; the end of the bridge disappeared into the haze at the horizon.

We lost sight of the bridge for a time as we marched on, but by the afternoon, we could see enough of the Great Bridge to study it more closely. I could now see that the great pillars were stained and cracked by the actions of wind and waves, and the vast spans between them stained with red markings and, in a few places, twisted and bent like the windswept branches of trees on hillsides exposed to the winds. Even so, it did appear to be possible to traverse the ancient structure, although I began to realise that the crossing would not be entirely straightforward.

That evening, we set up camp in a sheltered spot - the winds from the ocean had been getting steadily stronger as we made our way to the west - in a tiny valley marked by a stream, no more than an hour's walk from the point, I judged, where the final spans of the bridge met the coastline. Once again, we were successful in our hunting and foraging. I trapped another rabbit - one of the few creatures which seemed to prosper in these windswept dunes - and Hantorg found some early berries in a hidden glade not far from our camp. We made a small fire, prepared our meal and ate in silence.

Finally, the Shaman tossed aside the bone he had been gnawing and cleared his throat.

“Tomorrow we cross,” he said sombrely, “And I wish to speak some words of advice.”

I sat quietly and listened intently, as I had been taught.

“There will be little or no water on the crossing, especially in this season,” the old man warned, “So it is necessary to carry it with you. And I hope you all have much food in your packs?”

He looked around quizzically. I nodded, as did my young companions.

“We will not eat anything that lives or grows on the Bridge,” the old man resumed, “Men have gone mad, or sickened and died, after consuming forage or game caught on the crossing itself.”

He paused again, looking at each of us in turn

“You must follow my instructions with great care. There are other dangers in our path, some less than apparent to those who have not seen them before. You must heed my words!”

He said no more, but rolled himself into his sleeping furs and fell asleep.

The following morning we set off, following the Shaman’s directions and making our way inland. We filled our water-skins from the stream nearby, being sure to trace the flow far enough from the sea to avoid brackish water.

It was not long before we were approaching the point where the spans of the bridge reached the coast itself. For a period, we walked alongside a vertical rock face, ribbed at intervals about twice the width of my palm. I ran my hand over it; it seemed to be made of the same stone as the monolith at the meeting-place.

“How was this made?” I asked, ever curious.

The Shaman had an answer for me, of course.

“The Old Ones had a way of making rocks liquid - like wet mud - then forming it into shapes and making it hard again.”

I nodded, realising that this stone face and the monolith were both constructions of the Ancients, using whatever arcane arts they had for cutting and forming the solid rock.

We reached the end of the vertical face, and made our way up a steep bank, forcing a passage between the birch saplings which cluttered the route. As we scrambled to the top, we were presented with a smooth flat surface dotted with mosses and plants in places, although dry and brown in this season for the most part. Elsewhere, the dark grey surface lay unbroken, or pocked with holes, or bubbled up as if it had somehow been liquefied.

“This way,” the Shaman said, indicating the path that led out over the sea.

The bridge was thirty paces wide, the edges marked in places by poles made not of wood but by a strange material I had not seen before, cold and hard and frequently scabbed with red patches.

“This is iron,” the Shaman said, “Trust it not. It may seem solid and strong but it etches away in the winter weather, and may give way without warning.”

I looked over the side, taking care not to touch the poles. The sky above and below was alive with seabirds, wheeling and screaming as they searched for scraps to eat, or returned to their roosts on the sides of the great structure itself. Far below, the waves were breaking on the rocks, their tops whipped into whitecaps by the winds from the outer ocean.

It was an easy walk, for the most part. The sun was shining, although the wind kept us cool enough as we marched. The Shaman occasionally pointed out areas where it was not safe to tread. In truth, they were fairly obvious: vast cracks in the ancient surface which we skirted carefully or areas buckled and sloping, slippery with moss and bird droppings where it was necessary to grip carefully with hands and feet.

After more than two hours, we reached a point where the surface fell away in front of us. There was a huge chunk missing from one of the spans, as if bitten away by a giant. Our party came to a halt right on the edge. I expected to see nothing below other than the distant waves, but in fact a tumble of broken rocks and twisted beams of iron lay on another surface less than ten paces below. It seemed that the ancient bridge had a second level, a lower shelf under the surface we had been walking upon.

“This fell down many years ago,” the Shaman said, “In the time of my grandfather’s grandfather.”

“But how do we cross?” Bengart asked, rather plaintively.

“This way,” the old man said.

We made our way back from the chasm, thirty or more paces to a place right on the edge of the bridge. There was, I could see, a way down to the darkened lower level: a lattice framework twisted its way downwards, made of the untrustworthy iron heavily mottled with red blotches.

“We need to be careful here,” the Shaman pronounced, “We must tread lightly, and go one at a time. I will go first.”

So saying, he worked his way down, testing each step carefully and holding onto the rails on either side. He achieved the lower level without mishap.

“Very good,” came the voice of the Shaman, “Who’s next?”

Hantorg was, his feet moving quickly and lightly on the slippery iron latticework. He was followed by Bengart, moving stolidly as always but, perhaps a little too quickly. Before I could shout to warn him, he slipped on the iron framework. As he put out his hand to catch himself, the railing gave way, one end snapping away from its fixing like a rotten twig and the other bending with a sickening creak. He looked up at me as he toppled over the edge, a look of horror on his face as he fell the thirty paces to the waves below.

There was nothing for it. I made my way down, slowly, skirting past the opening where Bengart had fallen. I was shaking by the time I made it to the lower level. Hantorg also looked green, and even the gnarled face of the Shaman himself was twisted with grief.

“Bengart was a good man,” the old man intoned, “He will be remembered.”

Provided, I thought to myself, that we return to our tribes to remember him.

We picked our way over the fallen debris on the lower level, then walked more easily further along the irregular surface. It was gloomy under the roof, which was evidently the roost of numerous bats and birds, the ground made slippery and the air foetid by their guano.

The bridge had been built with two levels, although why this was so escaped me. Perhaps those of an inferior class were required to walk the lower level, I considered as I marched along following the others - now one fewer - in my party. I asked the Shaman this

question. To my immense surprise, he looked confused, even mortified, at the question.

“I do not know,” he replied softly.

We found a second stairwell and way back to the upper level without further incident. It was late afternoon by the time we descended from the bridge onto solid ground. I soon realised that the island that was the endpoint of the Great Bridge was really not very large: perhaps a hundred paces wide and ten times that in length. around us I could hear the lapping of the waves against the sand and rocks of the beach - gentle, even soporific in this season, but I imagined that the winds and waves would lash this tiny island unmercifully during the winter months.

“Why did the ancients build this structure - just to reach this tiny island?” I asked, my curiosity once again getting the better of me.

The Shaman chuckled, possibly to himself

“So many questions,” he said, “It is not the end of the original crossing, but it is as far as we can travel nowadays.”

The old man explained that part of the original crossing had been a great passageway under the sea. He pointed out a curious rectangular lake at one end of the island, filled with sea water, which was once the entrance to the undersea tunnel. The ancients built this entire island just to join the bridge and the tunnel together.

I was astounded once more at the powers the ancients were able to wield.

“But why?” I asked, “Why not just continue the bridge all the way across?”

The Shaman knew the answer to this one, too. Then, as now, the great whales migrate from the Inner Sea to the Outer Ocean through these straights. The ancients believed that a bridge over the entire length would disturb these great animals, and instead built a tunnel under the channel used for the migration.

We set up our evening camp in a sheltered spot protected from the winds by the bulwarks of the Great Bridge itself. I beach-combed for a while, finding enough driftwood to make a small fire, but I was really exploring the bounds of this little island. Around the campfire and over that evening's meal - no hunting this day - the Shaman explained the purpose of our pilgrimage.

“This is a ritual, a coming of age for those who might just become the future leaders of the Seven Tribes,” he said, “It is a test of your training, what you have learned from the Wise Ones of our own tribes.”

I suspected that there would be further revelations and I readied myself for a long vigil that night.

The sun was clipping the horizon and it was nearly as dark as it would get in this season. A hissing, chittering sound from somewhere close by, a sound I had never heard before. No creature I knew, none that I had hunted, or hidden from, made a sound like that. I started visibly, as did Hantorg, but the Shaman seemed unsurprised, as if he was expecting this particular interruption.

“Come!” he said loudly.

A sinuous figure slipped into the little circle of light from the fire. The newcomer brought with it a damp smell, which I recognised as that of seawater. The creature stood upright, stretching up to a height which might have reached my shoulders. In the firelight, I could see the overlarge webbed hands and feet, the mottled brown and green skin with the slight suggestion of scales.

“Greetings to you all,” it said, lisping very slightly through his lipless mouth as it nodded to each of us in turn, “Call me Snake.”

“Is that your name?” I asked quickly, before my normal reticence re-asserted itself.

The creature snorted softly and repeatedly in a way which I took to be a derisive laugh, as it regarded me with its mobile and faintly luminous eyes.

“I have a proper name, in my own language,” it replied, “But it is considered too complex for your tongues to manage.”

The Shaman uttered a series of sounds which sounded to my ears very like the sibilant chittering we had just heard. Snake made the same disdainful snorting noise.

“Not bad, old man, not bad,” he said, “Your pronunciation has almost reached the point of intelligibility. I might nearly have recognised my own name.”

The creature who called himself Snake drew himself up to his full height.

“Now who have we here?”

The Shaman introduced us both in turn. As my name was spoken, I stood slowly, holding up my right hand in the greeting of strangers. Snake nodded politely in response.

“I know you have lost a companion,” he began, then stopped in response to my gasp of alarm.

“I have been watching your progress this day,” the creature continued, “Let us remember his name now.”

“He was Bengart,” I said quickly, before the Shaman could answer, “He was our companion.”

Snake nodded, looking solemn for a few moments then coughed to gain our full attention.

“You are here for an ancient ritual, one of Initiation in the history of the Crossing,” he lisped, “Although there is much truth in your lore, your tribal stories, it is not the whole truth, of course. Perhaps, now, the entire truth is not known to anyone.”

He paused, to make sure that we were all paying attention. I was rapt, as was Hantorg. Even the Shaman himself was breathing shallowly, not wishing to miss a single word.

“Now look across the waters,” Snake directed, “Well, perhaps you cannot see in this light, but you must have noticed the Temple of Power on the far bank.”

We had all seen this shambling pile of rocks during the walk earlier. It was the wreckage of a vast construction from another age, explained Snake, destroyed by a single massive explosion. I knew of this from the story of the Darkening of Days I had been asked to recount during the Candidature.

“The war you call the Days of Darkness is a fiction,” Snake continued, accompanied by nods from the Shaman, “There never was any kind of holocaust.”

Again he paused.

“It was all a deliberate and carefully orchestrated programme to return to a simple way of life. Oh, the path of your people diverged from mine many years ago, but we are all children of the Ancient Ones. And our peoples are all here to live, exist in this world, forever.”

“But what did destroy the Temple of Power?” I asked.

“It was broken down and left in ruins deliberately, by the Ancient ones, again to convey a message.”

“And what message was that?” I insisted.

“The message,” Snake said carefully, “Imparted by the Great Bridge, and indeed the Temple, was that even the greatest of man-made structures, the most impressive engineering achievements, are transient. Nothing made lasts for ever, and the way to a secure continued future is a simpler way of life, with few people and unchanging societies living in harmony with the world and its creatures.

He looked around at each of us in the firelight.

“And we must not change it!” He said earnestly. “That is the message. Your tribal lore delineates the regimented existence for the wanderers that make up the Seven Tribes. And the semi-aquatic peoples that I represent have similar cultures, which we too must not alter too much.”

I now realised that my solemn duties were clear. I nodded formally accepting the charge that had been placed on me. Hantorg did the same.

“Now, I must go,” Snake said, stretching himself, “It is not safe for me to linger here too long. And you should leave as soon as you can too.”

He slipped away. There was a soft splash, barely audible over the lapping of the waves, and he was gone from us.

After Snake had disappeared back into the waters, there were slow and quiet conversations around our fireside. I silently remembered Bengart for a time. Then the Shaman spoke.

“I, too, once made this crossing for the first time. Since then, I have returned twice more,” he said, pausing thoughtfully before continuing, “But I doubt I will come back again. But you will, bringing a new group of Companions to be initiated. Make the most of it.”

He was right. In a generation or two, ten at the most, it would no longer be able to make this pilgrimage - the Bridge will be impassable. Then our descendents will have to create a new version of the tribal lore, a new way to communicate to the youth of a new generation exactly why we are the way we are, and why it is so important to maintain that state.

None of us seemed ready to take to their sleeping furs, and the Shaman told us long rambling tales - ones I had never heard before, but which I committed to memory to the best of my ability - of the steps the Ancients had taken to remove almost all of the technological wonders they had created, leaving just a very few to remind the hidden remnants of humanity, the ones who would propagate the human race, of the great and glorious past, and just why that past must never be again.

In the morning, we packed up our camp and started the five day journey back to the standing stone and our waiting tribesmen. Both I and - I firmly believed - Hantorg were ready to take our places in our tribes as men and hunters and Companions to the Shaman, those who had undertaken the crossing and survived. We could count ourselves amongst those who knew the true history of the world, those who would guide the peoples of the Seven Tribes to a safe and continued existence, crossing time out of mind, generation after generation, into the distant future.

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Afterword - Making the Crossing

As you will probably have spotted, this story is set in the same future world as *Windmills of New Amsterdam* – or at least one very similar to it. It also shares some of the same characters.

I rather liked Snake when he first appeared in *Windmills*, although I am not yet sure whether he is the very same individual in this story. I thought he could do with another outing here, sparring with the character of the Shaman of the Seven Tribes, whose personality is at odds with the weight and formality of his title.

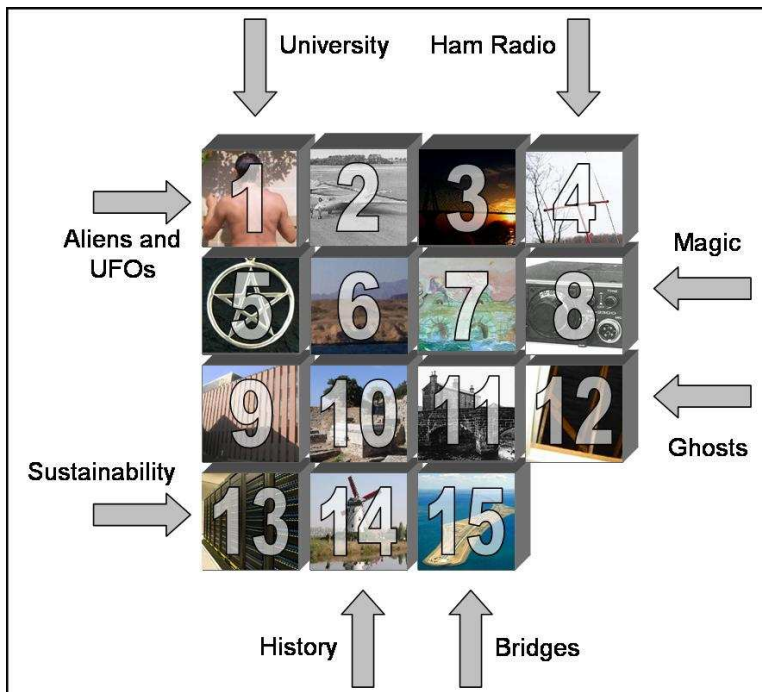
In this story, as with *Windmills*, there is an echo of the biblical story of Adam and Eve, where Snake offers the Apple of Knowledge, expecting it to be rejected and the stability of the Garden of Eden maintained.

This is another longer story, at least for me – once again twice as long as my usual form, and similar in length to *Windmills*. Perhaps there is something about this world which makes me want to write more about it. Watch this space...

Four Square Less One - An Explanation

So, did you work out the connections between the stories?

Firstly, the arrangement of the fifteen stories reflects that well-known puzzle. I was amused to discover that this is sometimes known as a *Mystic Square*. In this puzzle, fifteen tiles can be slid around in a frame, and the objective is to re-arrange them into the correct pattern: 1 to 15 in order, with the blank square in the bottom right-hand corner. When I was first thinking about these stories, I certainly spent quite a lot of time re-arranging the order to make this pattern.



The four columns in the square represent four different settings. From left to right, they are:

- British University and Academia
- Historical settings, including future histories
- Bridges and their construction
- Amateur (Ham) Radio

Similarly, the four rows represent different topics or subject areas.
From top to bottom:

- Alien creatures and UFOs
- Magic and the Occult
- Ghosts and the Supernatural
- Sustainability and the Green Agenda

So, for example, story 6 - The Desert and the Sea - is at the intersection of *History* and *Magic*, which summarises the background to the story nicely.