

Vector

The critical journal of the British Science Fiction Association



The work of
Stephen Baxter

No. 265

WINTER 2011

£4.00

Vector 265

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Published by the BSFA @2010 ISSN 05050448
All opinions are those of the individual contributors and should not necessarily be taken as the views of the BSFA.

Front cover image courtesy of NASA/JPL-Caltech/2MASS/SSI/
University of Wisconsin, back cover: NASA and The Hubble
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UK	£29 p.a., or £20 p. a. (unwaged), or £31 p.a. (joint/family memberships)
Outside UK	£40

The BSFA was founded in 1958 and is a non-profitmaking organisation entirely staffed by unpaid volunteers. Registered in England. Limited by guarantee. Company No. 921500

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That Cosmological Feeling

An Interview With Stephen Baxter

Born in Liverpool in 1957, Stephen Baxter's first published story was "The Xeelee Flower", which appeared in Interzone in 1987; the titular race, one of whose artefacts demonstrates immense and incomprehensible power during the course of the story, subsequently became the off-stage centre of a long series of novels and stories that occupied the major part of Baxter's early career (novels Raft [1991], Timelike Infinity [1992], Flux [1993] and Ring [1994], plus stories collected in Vacuum Diagrams [1997]) and has been revisited since (in the *Destiny's Children* novels Coalescent [2003], Exultant [2004] and Transcendent [2005], and the stories collected in Resplendent [2006]). Jonathan McCalmont, Adam Roberts and Gary K Wolfe all consider elements of this *Xeelee Sequence* in their essays in this issue, and it remains perhaps Baxter's best-known work.

In the Xeelee stories and many others, Baxter displays a fascination with the vastnesses of time and space. In the *Manifold* books, Time (1999), Space (2000) and Origin (2001), plus related stories collected in Phase Space (2002), the question that arises from this fascination is the Fermi Paradox – it seems likely that alien intelligences exist but, if so, where are they? Other books set their stories closer to home, such as the so-called NASA trilogy of unconnected novels Voyage (1996), Titan (1997) and Moonseed (1998); as Simon Bradshaw describes, the perception of these books as a series comes from their exploration of different aspects of the US space agency. More recent series have moved into historical fiction. Tony Keen considers the evolution of the *Time's Tapestry* quartet (Emperor [2006], Conqueror [2007], Navigator [2007] and Weaver [2008]) which focuses on the British Isles from Roman times to the present, while Andy Sawyer examines the first volume of the current *Northland* trilogy, Stone Spring (2010), which initiates an alternate history starting 8,000 years ago.

Still, as Graham Sleight notes in his essay, the range and variety in Baxter's work is often overlooked. Also notable are several YA novels – including the *Mammoth* trilogy (Silverhair [1999], Icebones [1999] and Longtusk [2001]) and the Arthur C Clarke Award-shortlisted The H-Bomb Girl (2007) – and collaborations with other writers, most notably Arthur C Clarke (in the *Time Odyssey* series [2003-2007] and standalone The Light of Other Days [2000]) and Terry

Pratchett (in the forthcoming *Long Earth* series). Important single-volume novels include the steampunk Anti-Ice (1993), Wellsian sequel The Time Ships (1995), and the subject of my own essay here, Evolution (2002), which spans the evolutionary story of humanity, from early mammals 65 million years ago to our descendants 500 million years in the future. Baxter also has a number of non-fiction titles to his name, including Deep Future (2001) and Revolutions in the Earth: James Hutton and the True Age of the World (2003). Other essays are collected in Omegatropic (2001).

Baxter's work has been nominated for the BSFA Award many times (most recently for both parts of the duology comprising Flood [2008] and Ark [2009]), and his generation starship novella Mayflower II (2004) won the short fiction award in 2005. Baxter's work has also been nominated for or won the Philip K Dick Award, John W Campbell Memorial Award, Hugo Award, Locus Award and Sidewise Award; he has been shortlisted for the Arthur C Clarke Award seven times. He is Vice President of the HG Wells Society, and the current President of the BSFA.

This interview was conducted by email, September–November 2010.

Were you a writing child, or is it something you came to later in life?

I've been thinking about this question because I have to give a 'motivational' talk to the sixth form at my old school next week! I was always driven by imagination, I think, very much drawn to stuff like *Fireball XL5* and *Thunderbirds* when small, and then to the classic sf of my school library had on the shelves, bless it: old SF Book Club editions, from Asimov through Bradbury and Clarke to van Vogt and Wells. I once got banned from the library for getting through the books too fast! – a story I had great pleasure telling later when I went back to open a new library there.

I used to do well at writing assignments at school, and would make up stories for my little sister. Then as a teenager I experimented, as you do, with drawing comics, song lyrics. Reading Asimov's *Nightfall* collection, the edition with autobiographical squibs about how he started out, focused me on sf short stories. And I think

I got more intense pleasure from stories like Bradbury's "The Pedestrian" than anything else; that was what I wanted to create myself. Crucially, a teacher at school who wrote radio plays as a sideline gave me key advice about being 'professional': finish the stories, type them up, submit them. My parents were supportive, giving me an old typewriter, etc. I was submitting stuff from the age of about 16, but it took long years to sell. My writing did make me briefly popular at school when I got on the editorial committee of the school magazine, and smuggled in some spoof items.

So I was always a wannabe writer, but my interest in sf drew me to science subjects, and hence I did a maths degree, research in engineering, taught maths and physics to A-level for a bit, worked in techie jobs in industry. But I kept on with the writing on and off, studying short story writing as best as I could, and even tried out a novel during one long teachers' summer holiday, and of course widening my reading on the way, from Aldiss to Zelazny. As I strove to get published I think I had in mind that teacher at school for whom the writing was a sideline – in terms of realism, not a bad role model for most writers! In terms of my family, my father was the first ever to get any kind of qualification – in building tech, aged 16; his father and grandfather were soldiers. Since his generation, my siblings and cousins (hordes of 'em!) have generally gone on to degrees and successful careers. So we were clearly an able bunch who had had no real chance before. I've always been aware that I was born in a generation that gave me a chance to fulfil my potential, I suppose; a few generations back there must have been many mute inglorious Baxters!

So this would, I guess, be the late seventies to the mid-eighties? The gap between the end of *New Worlds* and the start of *Interzone*. From here, that doesn't look like a particularly inviting environment for a young British sf writer – is that how it seemed at the time?

It was a bit arid. It's a fact that for my first few submissions I accumulated more 'sorry-we've-folded' notes from short-lived outlets than actual rejection slips (naturally I still have them all.) I also tried the US digests with no luck. But I did get some positive feedback along with the apologies, and kept going. I didn't actually notice *Interzone* for its first couple of years – eventually found it through an ad in the back of a paperback. They accepted my first submission, but rejected the second! There was also the issue that what I was writing didn't much seem the flavour of the times; I was into widescreen hard sf – I'd hesitate to call



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it space opera, but with that tinge. That wasn't really the mood music in British sf circa 1980! But it did me no harm to read and read, people like Mike Harrison and Brian Aldiss and Christopher Priest, and keep working. And when I finally got hold of *Interzone* I was very encouraged to read work by Paul McAuley, very much the kind of stuff I was aspiring to myself – in retrospect the first ripples of the 'radical hard sf' that was to be so much around by about 1990. Of my generation Paul was and is a real pioneer, to whom I'll always owe a debt. But there was other great stuff to be found at the time – early work by Eric Brown, Ian McDonald, Peter Hamilton, Nicola Griffith, Kim Newman, all new writers emerging about then. I spoke to David Pringle about all this a year or so ago and his take was that he was lucky to hit on a cadre of writers with the talent and the willingness to work at it. Conversely we were lucky to have a stable outlet in *Interzone* – as well as anthology series edited by the likes of Garnett, Holdstock and Evans. I quickly met all these guys and was soon struck by the basic generosity there is in the field. Rob Holdstock introduced me to my long-term editor Malcolm Edwards. Mike Moorcock gave a very kind endorsement for my third novel, *Anti-Ice*. Moorcock! And so on.

Did you encounter the fan community (and indeed the BSFA) around the same time?

Yes. My way in, oddly, was a fan called Phil Spence who I met at work – at Nat West Bank, at the time. This was around '88-'89 and he knew my name through my early *Interzone* stories. He encouraged me to go to my first con, a Mexicon, where I met the 'Interzone lot' among others such as Rob Holdstock, Chris Evans, David Garnett, Dave Langford... I must have joined the BSFA about then but can't remember quite when! But I came to know people like Catie Cary and David V Barrett, who were involved in the BSFA at the time. So I came to fandom already a 'pro' of sorts – though I'm sure there were many 'fans' around who were more 'pro' than me.

My main motivation was always developing my writing career. But sf was always a passion for me and I've enjoyed indulging my fannish side. When I was honoured to be the Eastercon GOH in 2001 I spent far too long in Greg Pickersgill's fan room, going through heaps of yellowing fanzines. Now I've developed a shared interest with Malcolm Edwards in early fifties British pulp sf – the Curtis Warren books. Marvellous, gaudy old stuff, yet the best of it (such as by Ted Tubb) has the appeal of the genre's basic tropes. I like to be able to look back, to know the context I'm working in.

What is it that draws you to fiction as a way of exploring scientific ideas?

I guess that goes back to how and why I first got fixated on sf. The basic rhetorical purpose of sf, it seems to me, is to show you other possibilities: if you stood on Mars, it may be like this; living in the year 2065 could be like this. I soon started to see that the harder the sf, that is the better rooted it is in science, the more plausible that extrapolation was going to be (although I happily accepted, and still do, more loosely rooted stuff: Bradbury's Barsoomian Mars being an early example for me). And then there was my later education in science, my degree, my own research. That was another mind-expanding experience; studying the math behind relativity is like being given a whole new way to see the universe. I soon saw there that there was a lot of 'real' science that hadn't yet fed back into fiction in any meaningful way. And if you can't tell a story about it you can't feel the truth of it. That was the achievement of, say, HG Wells with *The Time Machine*, one of the first great Darwinian novels, which made us feel in our guts the bleak grandeur of evolution. So I was soon (over-) ambitiously trying to work that stuff I was discovering into fiction.

I suppose I must have some basic storytelling drive – as if I was trying to come up with stories that would have fed these science ideas back to the kid I'd been at age 16. I think that also fed into my impulse to get into teaching (that and the need to earn some money while I did my PhD). In a way rendering science into chunks digestible by the growing brain (horrible mixed metaphor) is another kind of story-telling.

By the way, I profoundly disagree with Jack Cohen, hero and good friend though he is, when he speaks of science education as 'lies told to children'. No: it's stories told to children, to serve as a foundation for a deeper understanding later. And it takes great skill to tell such stories. I try to avoid being didactic; my job is to entertain; I'm with Heinlein on that. But I'm trying to entertain by making up stories about deep, out-there scientific truths.

"Stories told to children": I like that. It makes me slightly surprised you haven't written more YA novels than you have – or perhaps that you haven't had more novels marketed as YA. *The H-Bomb Girl* certainly felt like a book that you had fun writing. Is it something you'd like to do more of?

I think so. My *Mammoth* trilogy, now packaged as the *Behemoth* omnibus, was meant as YA, but it's had more reaction from adults. It all depends on the idea. In fact I'm now contracted to do a *Doctor Who* novel (due in 2012 I think), another labour of love, which is meant for a 'family' audience. But once again, this is not out of any didactic impulse, save to Get Kids Reading sf I suppose

(specifically my sf!). YA has to be fast-paced and very character based, it's a real storytelling challenge. I've always liked taking on different forms of writing – YA versus adult, alternate history versus hard sf – for the variety of challenges the different modes pose. A way to sustain the enthusiasm over a long career. Well, I suppose

I'm lucky to have had the chance to do that.

And you've written several non-fiction books, of course, not to mention articles and columns, often telling the stories of science in a different way. How did they come about? When does a topic become science rather than fiction?

I got into that after a couple of years of doing talks, library events, etc, after my first few novels. I found that people would ask sf writers not just about the books, or fiction in general, but about 'science'. What do you think of global warming? What about going to Mars? I've always researched heavily, but I found myself working harder at that angle, to be prepared to give sensible answers to such questions. I did do a PhD in engineering back in the day – as it happened my supervisor was keen on good quality writing even in academic work, so that helped. After a time I tried bits of popular science journalism, generally writing up chunks of my research for outlets like astronomy or pop-science magazines. That turned into a couple of books, yes – *Deep Future* was a sweep through possible future histories. I suspect there's a big overlap between being able to render big science ideas into fiction and rendering them into easy English.

But I also turned out a few more academic papers where I thought I had come upon ideas original enough for proper scrutiny. I'm a Fellow of the British Interplanetary Society and their journals are an outlet for that. I've branched out further; I've worked on study projects with the BIS, and now I'm involved in an oversight task group relating to SETI, the search for alien signals. In another aspect I'm involved in the HG Wells Society and give papers on the great man's work to meetings of that group. All this is a sideline; the fiction is always my main goal. But I do find that meeting people and working with them, and indeed presenting papers to rooms full of professors, is a great way to shape my own thinking and to pick up material of all kinds.

You've also collaborated with other fiction writers, and have several books upcoming with Terry Pratchett. Is the appeal similar, in terms of getting new ideas and perspectives to bounce off?

Yes, but also another way to keep fresh. Working with Terry, as with Clarke (and indeed when I did my Wells sequel) I have to work out how other writers think, create, how their prose works. We're all different. And



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with Terry we're figuring out how to work together – lots of corners being rubbed off egos as we chuck ideas back and forth, and work out a modus operandi. It's all about fresh challenges, and fun to do, and like a holiday from the inside of my own head!



I was struck by your comment in another interview that "I try to keep out of the forefront of my mind all the levels of metaphor that come with any piece of fiction". Can you talk a bit more about how that choice – or is it a requirement? – is important for your work, and the effects you're trying to achieve?

Cor. Did I say that? I do think satisfying stories work on many levels. I've just been studying Bradbury's "A Sound of Thunder" for a workshop I'm giving at my old school. You have a collision of several ideas: What if you could go on safari in the past? What is the smallest change you could make to deflect history? It's also a character study, of the cowardly 'hunter' who craves safety even as he slaughters the big game. And there's an American-myth strand in it, or subtext; it's clear from such things as the dates quoted that the dead butterfly has destroyed the American dream of liberty, etc. So it's a story about many things. I imagine it growing in Bradbury's head as he jotted down such ideas, or maybe there was one seed that started it and the rest accreted from observations stored in his hind brain. I think I work the same way. My story "Last Contact" was a fusion of ideas about speeded-up cosmology, and about a strange sort of alien signal; on the surface it's a story about the end of the universe – but the human core is about the relationship between a mother and daughter. Oh, and working on a garden. I suspect as readers we don't realise that many of these levels are even there, though it's what makes the read satisfying for us. But it doesn't come about by chance!

Is it the same sort of process for novels? As a reader, it seems that your novels are more likely than your short fiction to proceed from a big, shaping idea rather than the sort of accretion you're describing here – *Flood*, to take a recent and particularly dramatic example. But maybe I'm neglecting the gardening.

Well... it's not a very linear process. Sometimes the Big Idea will emerge from the compost, to pursue the gardening analogy. My original inspiration for *Flood-Ark* was originally *Ark*. That novel is about a forty-year space mission, and was inspired by reading about ground-based experiments like Mars500. As well as watching things like *Big Brother!* Especially that compelling version with just teens. I imagined a bunch of super-competitive cadets fighting to get on this mission – then finding they're stuck in a tank forever, with each other. But they needed a reason to be travelling. A flight from what? *Ark* seemed an obvious title, and so I began to play with the most obvious idea, of global flooding – inspired of course by real-world disasters like Pakistan at present. What if there was no high ground left? Once I went for that, what might have been an inciting incident in *Ark* took off into a book of its own, and of course the big central idea once I had it dominated the book's development and structure. But for me at least such things often emerge kind of late in the process! I have learned to let ideas just accrete, and develop and interact, and see what germinates.

You've said elsewhere that you feel you're a natural novelist, but as you're describing your process here, it's almost as though even a single novel isn't a big enough canvas. Are you a natural series writer?

I think I probably am, yes. My first novel, *Raft*, was a Xeelee novel, and so part of a series even though I didn't have the parameters for the whole thing laid out at the time. With later series, such as **Manifold**, or even **Destiny's Children** – which is a subset of the Xeelee stuff – I've tended to know where I'm going, the shape of the whole thing, before starting. The **Xeelee Sequence** is different in that it grew organically out of my first published story; it will always be a work in progress, I think.

It seems to me there's a sense in which the earlier and later Xeelee stories can be used to benchmark a shifting constellation of interests – **Destiny's Children certainly read to me like an attempt to infuse the quite physics-led earlier books with a more biological, evolutionary perspective. Was that a conscious move?**

More a consequence of other directions taken, I think. With my earlier books I felt I'd done Big Physics for a while. Not just the Xeelee stuff – as well as being a Wells homage, *The Time Ships* was meant to push time travel and history-changing about as far as they could go. By the time I got to **Destiny's Children** I'd worked on *Evolution*. (The seed for that, incidentally, was watching Raquel Welch in *One Million Years BC!* It struck me that a story of our real-life ancestors at the time of the dinosaurs could be a fun idea; I thought of it as a kids' book. Of course it grew and grew.) So all that was in my head when I came back to the Xeelee universe, and yes it is an evolutionary/biological saga. Like many writers I guess I'm continually looking for new sources of inspiration on many levels,

and it was interesting to go back with an entirely different take on the Xeelee timeline.

What was it about working on *Evolution* that changed your perspective on the Xeelee universe? Or perhaps, in what ways did your perspective change? I wonder if it altered your perspective on humanity, or on humanity's sociological traits, like religion.

Evolution was an education in the meaning of time, for me. Deep time anyhow. Three million years (the age of Galapagos) is trivial in evolutionary time, not long enough to change a cormorant into a penguin. Sixty million years and you can change a squirrelly thing into an elephant or a whale. I suspect part of the problem we have in grokking evolution is grasping the nature and scale of changes possible over such timescales. All human institutions – even, say, the 2,000-year-old Catholic Church – are dwarfed. In the earlier Xeelee stuff I'd happily bandied around concepts of million-year wars, as you do, and as in much of the sf I grew up with. In **Destiny's Children** I tried to think hard about what that really means. A mere hundred thousand years is the age of the species, and I had my warriors, or at least their government, trying to manage campaigns on such scales. In fact they try to fight evolution, so to speak.

I was partly inspired by seeing Churchill's war rooms in London. There you had six-foot-tall plains apes managing a war on the scale of a planet. Similarly, in **Destiny's Children** we're scaling up again, in space and in time, to run a galaxy-scale war: the conscious mind fighting speciation. Of course they fail, but I hope it all gave a sense of the sheer scale of the cosmic arena we find ourselves in.

I'm committing the sin of asking a science fiction writer about the ideas in his novels now, but perhaps I can move away from the science per se. Your fiction over the last decade has ventured into the past as often as the future; do you find the one a reflection of the other? Are there any commonalities between near-future writing and "near history" like *Time's Tapestry*? Far future and "far history" like *Stone Spring*, or *Evolution*?

Actually I've always ventured into the past. *Anti-Ice*, a kind of steampunk saga, was my second novel, though the third to be published. And I had some short alt-hist fiction before that. I always had an interest in history, though the future and sf was my first love. There certainly are commonalities; Roman Britain is probably as alien a society to us as what we'll have built on Mars by 3000 AD. So you have similar challenges (though different research resources and constraints) in world-building and imagining the characters. In a way the **Northland** saga has underlying commonalities with *Flood-Ark*: drastic environmental change in the past versus the future. As you perceptively noted above, and probably in common with most writers, at any moment I seem to have a constellation of interests, obsessions, concerns, that slowly shift with time, and find expression in different ways.

Another commonality is the story-telling. In *Ark* the characters spend decades in a tin can; in *Stone Spring* we're in the Middle Stone Age where they didn't build pyramids, or paint mammoths on cave walls. In both

circumstances I have to rely on the characters to carry the story, with a minimum of SFX for long stretches.

Although I thought the various models of tribal organisation that were on display their own kind of SFX. You're not usually associated with this sort of sociological speculation; did a deeper interest in character lead you in that direction, or vice versa?

I think I'd be hesitant to use the word 'sociological'! But I have always tried to depict societies shaped by their environments, all the way back to *Raft*, I guess. I think I've developed a deeper interest in the human reaction, put it that way, which encompasses both individual characters and their societies.

And drastic environmental changes have certain resonances in our present – and yet in *Flood*, at least, you're at pains to emphasise that what is happening is not anthropogenic climate change, and in fact could not be that. Do you consider that duology – and **Northland – environmentalist books in any sense?**

I hope none of my books are '-ist' books! Naturally my background, experience, values etc are going to come through. But I do believe fiction is about reflection, feeling, not didacticism. Explorations about how it feels to live in a universe in which huge climatic transformations, for example, can happen. That's my take on fiction anyhow. Both *Flood-Ark* and **Northland** are reflections on the likely reality of climate change in the decades ahead, in a more or less metaphorical way.

Actually I hoped that the characters in *Flood-Ark* never know if it's anthropogenic or not. Part of the tragedy of the whole thing is that science is washed away, along with everything else, before there's a chance of a definitive answer.

I don't know that being -ist means that something is inherently didactic, to me it just suggests the perspective of the work, the ground from which it grows. I ask because I was moved by the ending of *Stone Spring* – at least after one volume, **Northland seems like it might be, among other things, a story about humanity meeting the challenges it is set, a great contrast to books like *Titan*, or the Xeelee books as we were discussing above. A less bleak grandeur. Without asking about how **Northland** specifically is going to develop: surely it's not possible you're mellowing?**

Mellowing?! Pah! More like ageing, which does change your perspective; qualities like patience and kindness come to seem more valuable. Yes, in *Stone Spring* they're trying to meet the challenge of a morphing environment – but in the process they too are morphed, of course. There's always been hope and consolation in my stuff, I think, even if some of it is kind of transcendental, as in *Titan*, or *Time*. And indeed as in Clarke's *Childhood's End*, a big influence. It's maybe a cold consolation for humans facing extinction to know that their descendants will become godlike, but it's a consolation nonetheless.

Stephen Baxter, thank you very much.
Thank you.

No Coming Home

Jonathan McCalmont on Stephen Baxter's Xeelee Cycle

And so we begin where we are destined to end... When Dante was writing in the 1300s, the world was a beautiful place. Love moved the stars in great concentric circles, the heavenly spheres were nestled into one another, and the whole was sublimely finite and self-contained. Humanity had a place in this divine mechanism and a part to play in its intricate movements. We knew where we were and that we were at home there.

Then came the revolution, a revolution that continues spinning to this day. Science banished the gods and – as Max Weber once put it – disenchanted the world, reducing us in the process to one of billions of species orbiting one of billions of stars in one of billions of galaxies in what may well be one of billions of universes. Universes moved not by the love of a creator but by impersonal physical laws terrifying both in their inflexibility and their absolute indifference to human concerns.

"Where do we find ourselves?" asked the 19th century Transcendentalist philosopher Ralph Waldo Emerson in his essay "Experience" (1844):

We wake and find ourselves on a stair; there are stairs below us, which we seem to have ascended; there are stairs above us, many a one, which go upward and out of sight. But the Genius which, according to the old belief, stands at the door by which we enter, and gives us the lethe to drink, that we may tell no tales, mixed the cup too strongly, and we cannot shake off the lethargy now at noonday. Sleep lingers all our lifetime about our eyes, as night hovers all day in the boughs of the fir-tree. All things swim and glitter. Our life is not so much threatened as our perception. Ghostlike we glide through nature, and should not know our place again. (*Essays*, 341)

Humanity's attempt to find a place for itself in a vast, cold, indifferent and godless universe is the central theme of Stephen Baxter's **Xeelee Sequence**.

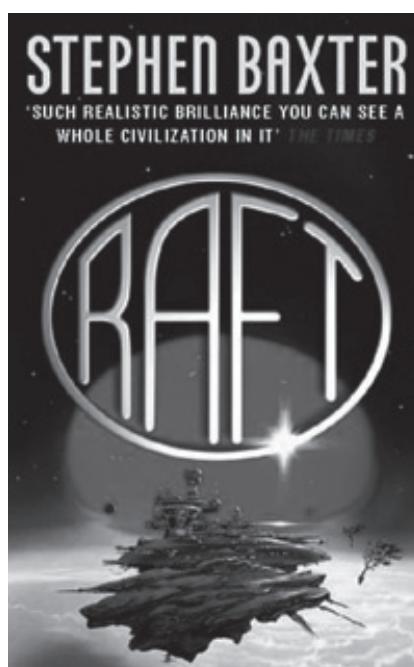
The novels and short stories that comprise the **Sequence** use the epic vistas of hard science fiction to consider the different strategies used by humanity to re-enchant the world and, in so doing, reclaim a place in it. The **Xeelee Sequence** is about humanity's attempt to find a way home.

Canto i – The Magic of the Natural World

Raft (1991) opens with a powerfully unambiguous articulation of humanity's alienation from the universe that surrounds it. Every morning, like his parents before him, Rees wakes in a cramped and smelly room. Peeling himself from his sleeping net, he descends to the surface of a nearby star where he spends his life in soul-destroying and back-breaking labour. If the inhuman conditions and frequent equipment failures do not kill him then the boredom almost certainly will. Forced to endure such horrors on a daily basis, most humans escape to a thoughtless womb of sex and drugs, but Rees is different. He has questions:

My father used to say the mine was killing us all. Humans weren't meant to work down there, crawling around in wheelchairs at five gee. (*Raft*, 15)

Well... what other universe is there? (*Raft*, 15)



Rees' insatiable need for answers compels him to escape from his native mining colony and out into the wider world of the nebula. What Rees finds once he arrives on the Raft is a human society that has become entirely detached from reality. The inhabitants of the Raft live under a rigidly enforced caste system derived from the division of labour once required to crew a starship. Now more concerned with retaining their inherited positions than with doing their jobs, the various castes, tribes and cliques that make up human civilisation have lost track of the fundamental truth that humans did not evolve in the hostile universe they

now inhabit. Mere guests in this universe, humanity only manages to survive thanks to a set of scientific skills that are being gradually erased by generation upon generation of short-sighted human selfishness. With the nebula dying and humanity's precarious existence increasingly endangered, Rees has to unite the disparate human tribes and guide humanity to a new and safer nebula by forcing his fellow humans to look beyond their shallow social realities to the surreal majesty of nature.

Long after all the nebulae had expired, he realised, the gravitic people would walk their roiling worlds. With a sense of dislocation he realised that these creatures were the true denizens of this cosmos; humans, soft, dirty and flabby, were mere transient interlopers. (*Raft*, 234)

By setting *Raft* in a universe with slightly different physical laws, Baxter frees himself from hard science fiction's oppressively Gernsbackian past. Indeed, instead of having to find yet another way of coaxing a few drops of sensawunda from the dried out husk of yesteryear's Big Engineering Story, Baxter's different laws of nature allow him to create a singularly psychedelic ecosystem.

Perhaps, looking into man's future, our big brains will atrophy, useless; perhaps we will become one with the whales and sky wolves, surviving as best we can among the flying trees. (*Raft*, 211)

The first book in the **Xeelee Cycle** is also the most traditional in its methods. *Raft* sees Baxter attempting to enchant the universe by provoking an aesthetic response in the reader. However, as the book draws to a close with Rees' humans neither safe in their own universe nor bedded down in a new nebula, the inadequacy of sensawunda as a coping strategy becomes all too apparent. Yes, Rees' universe is strange and beautiful. Yes, a lost species might use that beauty to set its star and plot a course home; but it is one thing to feel something other than horror and alienation when faced by the cool majesty of the universe, and quite another to feel at home in it.



Canto ii – To Do is to Be and To Be is To Do

Timelike Infinity (1992) marks the beginning of Baxter's ongoing game of peek-a-boo with the reader. Set only a few centuries into our future, the book finds humanity about to enter a new golden age: an age of expansion and discovery fuelled by a scientific renaissance kick-started by the wormhole engineer Michael Poole. However, while Baxter speaks warmly of the potential for greatness contained within the humans of this period, he pointedly does not show us very much of their civilisation. He hints, he alludes, he teases, but for all the sizzling and delicious odours wafting from the Baxterian creative kitchen, we never get fed. Instead, the novel shifts between a series

of isolated ships on the margins of the solar system and a future timeframe in which humanity is enslaved by a mysterious species known only as Qax.

This game is partly the result of a desire to imbue humanity's history with a mythological character of its own (on which more later) and partly an exploration of a principle eloquently expressed by Olaf Stapledon at the end of *Last and First Men* (1930):

Great are the stars, and man is of no account to them. But man is a fair spirit, whom a star conceived and a star kills. He is greater than those bright blind companies. For though in them there is incalculable potentiality, in him there is achievement, small, but actual. Too soon, seemingly, he comes to his end. But when he is done he will not be nothing, not as though he had never been; for he is eternally a beauty in the eternal form of things. (*Last and First Men*, 303-304)

What Stapledon is saying is that while human beings may not matter in the grand scheme of things, the 'grand scheme of things' is not the only level upon which it is possible to make an impact. Immortality can be achieved by those who act. By undertaking grand projects and seeking to change the universe around it, a species might be noticed. It might live on in the memory of other species, even if it is only as an Ozymandian object lesson on the dangers of hubris. By refusing to directly show us humanity's greatest achievements, Baxter is not only protecting us from over-identifying with his future humans, he is also assuring that our perspective on humanity's greatness remains that of an outsider. In the grand scheme of things, humanity is a striver. They do not matter because they cannot matter, but that does not stop them from trying. *Timelike Infinity* shows us humanity's first attempt to make its presence felt through the undertaking of grand projects.

This book's attempt at re-enchantment focuses upon a human cult known as the Friends of Wigner, who use a wormhole to fly Stonehenge into the past. Once there, they try to cause a catastrophe that will reshape the universe by collapsing all quantum possibilities other than their idealised future. Needless to say, their plan is unsuccessful but their beliefs seem to place human consciousness at the very centre of being:

Consciousness was like an immense, self-directed eye, a recursive design developed by the universe to invoke its own being. (*Timelike Infinity*, 202)

Works of cosmological theory that seek to establish human consciousness as a fundamental building block of reality mark the entrance into the much-disputed borderlands between science and religion, an

intellectually desolate but awe-inspiring landscape full of caves and valleys in which lurk many gods-of-the-gaps and ersatz deities of questionable morals and repute. Safely cloistered in these badlands, thinkers such as Fritjof Capra and Pierre Teilhard de Chardin have attempted to refashion scientific understandings of the evolution of the universe into a kind of scientifically informed mythology in which humanity retains the important position it enjoys in the writings of Dante. The problem with this approach to re-enchantment is that it rests not upon the firm realities of empirical evidence but upon great intellectual up-draughts of metaphysical speculation. Gusts of hot air ultimately no more substantial than the aesthetic reactions provoked by the evident beauty and wonder of the world. Baxter acknowledges this at the end of *Timelike Infinity* by having the Friends of Wigner disappear off at relativistic speeds in the hope of giving their plan a second try.

But herein lies one of the *Xeelee Sequence*'s more intriguing leitmotifs. Throughout the cycle, Baxter repeatedly invokes a fundamental conflict between two different sets of human instincts: on the one hand, Baxter portrays both humanity and her descendants as bold, adventurous hermeneuts who are forever striving for greater understanding of the universe in the hope of finding a place there. But on the other hand, Baxter also shows us instances of humans retreating from the world and into the safe and womb-like comfort of purely social realities. In *Raft* we have the descendants of an ancient officer class clinging to their inherited power structures and in *Timelike Infinity* we have the members of a religious cult choosing to retreat back into the safety of their holy projects rather than joining in humanity's first expansion to the stars. This pattern also repeats itself in *Flux* and *Ring*, where the protagonists are invariably scientifically minded outsiders forced to combat the superstitions and vested interests of their home societies. While this social dynamic certainly owes a fair deal to science fiction's time-tested fondness for depicting scientists as heroic rebels, it also highlights a distinction that Baxter seems keen to make.

In order for humanity to re-enchant the world and find a meaning to existence, it must do so on the terms set by science in the wake of the Enlightenment. To react to the absence of the gods by denying their departure or ignoring the world is not so much to solve the problem of disenchantment as to change its terms on the sly. Baxter gives us, in the fate of Michael Poole, an example of what it would be like to experience an enchanted world; to be projected into a world that has a shape and an intelligence and an interest in us. Poole's encounter with the divine is reminiscent of the end of Carl Sagan's *Contact* (1985), in which proof of the universe's artificiality is found hidden in the seemingly random numbers that make up pi:

Michael was – discorporeal; it was as if the jewel

of consciousness which had lain behind his eyes had been plucked from his body and flung into space. He did not even have heartbeats to count. But there was something here with him, he sensed: some – entity. It was like a great ceiling under which he hovered and buzzed, insect-like. He sensed a vast, satisfied weariness in its mood, the contentment of the traveller at the end of a long and difficult road. For a long time he stayed within the glow of its protection. Then it began to dissolve. Michael wanted to cry out, like a child seeking its huge parent. (*Timelike Infinity*, 250)

Michael Poole's Herculean accomplishments lead to his finding, if only for a second, a place in the world: that of a child. Baxter never fully explains what it is that happens to Poole or what it is that he encounters at the end of the universe but his fleeting sense of belonging feeds into yet another of the author's games of peek-a-boo: our universe is cold and disinterested, yet something out there in the unholy emptiness between the stars seems to know that it belongs.

Canto iii – The Telos of Self-Definition

Flux (1993) suffers terribly for the heinous crime of not being *Raft* or *Timelike Infinity*. Where these earlier novels are intense in their intellectual focus and spartan in their story-telling, *Flux* is a wheezing and bloated monstrosity, slowly choking to death beneath endless pages of uninspired world-building and ill-conceived attempts at human drama. However, while *Flux* remains one of the weakest things that Baxter has ever written, it still contains some interesting ideas.

Much like *Raft*, the book opens with a portrait of human suffering and hardship as Dura and her fellow villagers struggle to live through an environmental catastrophe known as a Glitch. Her village destroyed and her livestock scattered to the winds, Dura is forced out into the world where it is revealed that, far from being simple hunter-gatherers, Dura and her people are in fact microscopic entities living inside an alien star. Microscopic entities who, it would appear, have a purpose in life. A goal to achieve. A place in the grand scheme of things:

So that is why we are here, she thought. That's the purpose of the whole project. The Colonists, the manufacture of Star-humans... That is the meaning, the purpose of my race. My life. We are expendable weapons manufacturers, serving a huge war beyond our comprehension. (*Flux*, 340)

This attempt at re-enchantment sees humanity attempting to reinvent itself as a race of god-like creators.



Though the ultimately random basis for humanity's evolution means that human life can never be said to have a purpose, this does not mean that humanity cannot create species whose existences are meaningful. So, while humanity may not be able to re-enchant its own world, it can still enchant the world of its children and so ensure a place in a sub-species' mythology.

However, as with its attempts to convince itself that human consciousness is fundamental to existence, humanity's attempts at reinventing itself as a race of god-like creators ring desperately hollow. Hollow because playing a vital role in a meaningless war is still a meaningless act. Hollow because, for all of the knowledge and the power required to engineer whole species and use stars as weapons, humanity's grand schemes are never more than pale imitations of the schemes of another species. A species that bears its mythological status with an ease and a self-confidence that reveal quite how empty and pointless humanity's mimicry really is.

"By the blood of the Xeelee" (*Flux*, 5)

It is telling that while the post-humans of *Flux* have lost track of the role played in their creation by humanity, one word still contains power as it rings out in their very curses: Xeelee.

Canto iv: Writing Sacred History

While *Flux* suffered for Baxter's initial difficulties in maintaining the conceptual density of his work over greater lengths, *Ring* (1996) sees him make the most of his new-found space. Though the effervescent minimalism of *Timelike Infinity* may challenge its position as the strongest individual entry in the **Xeelee Sequence**, *Ring* remains a work of breathtaking scope, power, complexity and vision. In fact, it is only with the publication of *Ring* that the **Xeelee Sequence** became a megatext.

Prior to the publication of *Ring*, the sequence was not so much a traditional genre series as an assemblage of loosely inter-connected events and thematic concerns; less J R R Tolkien's *Lord of the Rings*, more Ingmar Bergman's **Trilogy of Faith**. *Ring* recasts the **Xeelee Sequence** by sorting all of the background and foreground events appearing in previous novels into a single coherent narrative framework. After *Ring*, all of the component novels had to be read in light of the other books in the series. After *Ring*, the sequence became a fully-fledged future history. This transmogrification of a series of largely independent events into chapters in a larger narrative chronology constitutes an attempt at re-enchantment in its own right.

One of the results of the Enlightenment's disenchantment of the world and man's loss of place was the downgrading of individual lives from components in a master plan to a collection of random happenings. Life is meaningless precisely because the only narrative arcs our lives follow are the ones that we invent for ourselves as acts of faith or therapeutic self-definition (the fatuous 'journeys' so beloved of reality TV producers). This process of fashioning isolated and random events into a coherent and meaningful narrative has a lot in common with what theologians refer to as the writing of sacred history.

Sacred histories, whether the Norse one that ends with Ragnarok or the Christian one that ends with the Last Judgement or the Marxist one that ends with the inevitable triumph of the proletariat, aim to instill faith in believers by providing them with an understanding of the world and an explanation for the travails of their daily lives: Yes, you are a medieval serf/slave/factory worker now but come the revolution your boot will be firmly on the throat of the old bosses! This is why you strive! This is why you fight! These sacred histories instill belief and understanding by interpreting historical events through an array of thematic prisms such as redemption, damnation, historical materialism and fatalism. *Ring* works as a sacred history not only because it ties together all of the strands of the **Xeelee Sequence** into a single aeon-spanning narrative, but because it seeks to fix humanity's position within a wider mythological framework, a re-enchanting megatext.

The sacred history of humanity is a tragic one. Having discovered science and banished the demons of ignorance and superstition, humans took themselves to the stars. In those stars humans found much beauty and much power; but once the glimmer of the golden ages grew dim, it became clear that no matter how much power humanity accumulated, there would always be someone more powerful. That no matter how much knowledge humanity amassed, there would always be someone more wise:

It was a waste of effort, it was universally felt, trying to reinvent something that the Xeelee had probably developed a billion years ago. (*Timelike Infinity*, 100)

As humanity took to the stars they found neither salvation nor self-definition but more of what they had at home: disappointment, loneliness and the grim inevitability of death. The only thing that humanity did know about itself was that they were not the Xeelee.

If Baxter is coy about showing us the true scope of humanity's golden ages, he is downright reluctant to tell us anything about the Xeelee. Though the short stories and novellas collected in the anthology *Vacuum Diagrams* (1998) gives us a few more details about the most powerful species in the universe – a species so epic in their visions, grandiose in their ambitions and terrifying in their potency that they travelled into the past in order to reshape both their own evolution and that of the universe – the Xeelee remain blank slates: powerful, distant and largely unconcerned with human affairs. For a species like humanity that is obsessed with the conspicuous absence of a divine parental figure and dismayed by the universe's complete disinterest in their affairs, the aloof and powerful Xeelee come to take on a decidedly mythological status:

"We have to accept the actions of the Xeelee without question – for we believe that their goals will prove in the long term to be of benefit to us all." (*Flux*, 258)

"I believe that the Xeelee grew into the position in human souls once occupied by images of

gods and demons. But here, at least, was a god that was finite – who occupied the same realm as humans. A god who could be attacked. And attack we did: down through the long ages, while the stars went out around us, all but ignored." (*Ring*, 395)

While humanity's deification of the Xeelee owes something to the rusty Clarkean saw about advanced technology and magic, it also reflects a simple piece of mythological algebra: it takes a mythological being to engage with a mythological being, so if the Xeelee are mythological and humanity can engage with the Xeelee then it follows that humans, too, must be mythological beings. It is no accident that the death of god should have been proclaimed by a classicist like Nietzsche, as there is no more mythical an accomplishment than killing that which is divine. In attempting to kill the gods, Baxter's humanity had finally found a purpose and a place. They had given meaning to their lives and elevated themselves to the grandest of stages. The world was to be re-enchanted using the greyish blood of the Xeelee. To kill a god is to become a god and to become a god is to never die and never be in exile... but things did not work out as planned.

"I guess they tried to stick it out. Well, they'd broken up their ships; they had no choice. Maybe if we had time for a proper archaeological study here we could work out how long they lasted. Who knows? Hundreds of thousands of years? Maybe they were hoping for rescue, for all that time, from some brave new future when humans had thrown out the Xeelee once more.

"But that future never came." (*Ring*, 254-255)

What makes Baxter's sacred history a tragic one is not that humanity ultimately failed to do for the Xeelee but rather that the Xeelee are revealed to be just as lost and undeserving of deification as we are.

Ring is a novel that presses home its themes on a number of levels. Indeed, the book opens with the story of Lieserl, a little girl who grows and ages at a phenomenal rate. Within seconds of birth, she is conscious. Within seconds of becoming conscious she is interrogating her surroundings. Within seconds of interrogating her surroundings, she is learning that life is not only profoundly unfair but also heartbreakingly short:

The next day she found herself looking forward to going to the room with the children again. She set off with her mother through sunlit corridors. They reached the room Lieserl remembered – there was Paul, smiling a little wistfully to her,

and Tommy, and the girl Ginnie – but Ginnie seemed different: childlike, unformed... at least a head shorter than Lieserl. Lieserl tried to recapture that delicious enmity of the day before, but it vanished even as she conjured it. Ginnie was just a kid. She felt as though something had been stolen from her. (*Ring*, 13)

This perfect picture of a life of isolation and loss is played out over only a few days, but it brilliantly captures the very themes of life itself. Place humans in a loving home with doting parents and they will eventually come to realise the harshness and meaninglessness of existence. Place humans in a spaceship at the end of the universe, and they will realise the exact same thing:

Empty. Barren. These were the true conditions of the Universe, [...] thought; life, and variety, and energy, were isolated aberrations. The Northern forest-Deck – the whole of that enclosed world which had seemed so huge to her, as a child – was nothing but a remote scrap of incongruous green, irrelevant in all this emptiness. (*Ring*, 239)

Humanity's sense of loss at the disenchantment of the world is infinitely scalable. There is no undertaking and no achievement so huge that it can help humanity to escape the certain knowledge that they do not matter. In fact, this realisation is so scalable that it even applies to the Xeelee.

The Xeelee are a great species. They are so great that Baxter's humans became obsessed with imitating and displacing them because, to human eyes, such greatness appeared god-like. In truth

it is nothing of the sort. The Xeelee may have devoted billions of years to realigning the galaxies and sculpting the stars, but their actions have been just as futile as those of humanity. The Xeelee failed to find a place in the world because they shared humanity's curse. The curse of being second fiddle to a species with even greater power and even greater ambition: a semi-sentient species known as the photino birds:

The photino birds were not prepared to accept a Universe full of young, hot, dangerous stars, likely to explode at any moment. So they decided to get it over with – to manage the ageing of the stars as rapidly as possible. And when the birds' great task was done, the Universe would be filled with dull, unchanging white dwarfs. The only motion would come from the shadowy streams of photino birds sailing between their neutered star-nests. It was a majestic vision: an engineering project on the grandest possible of scales – a project that could never be equalled. (*Ring*, 282)



Just as Lieserl sought to find meaning in her rivalries with Ginnie, Humanity sought meaning in its battles with the Xeelee and the Xeelee, in turn, sought to define themselves through a battle with the photino birds. But despite all the battles fought and all the grandiose plans executed in pursuit of victory, the only workable strategy turns out to be escape.

Canto v: To Drink the Lethe

The enduring message of the **Xeelee Sequence** is that there is no meaning to be found in the universe: we were born onto a rock beneath the merciless sun of a hermeneutic desert, and it is on this rock that we slowly cook. Our actions are not predestined and our fates are of no import. As a species we may yet accomplish many things, but there is no weird scientific discovery, colossal engineering project, mythological war, or heroic act of self-definition that can make life meaningful and return the world to a sacred and enchanted state. There is no coming home. Not for the likes of us.

But while life may ultimately be meaningless and existence nothing but a vast abyss, our lives do not feel empty. If anything, they are overflowing with meaning. Meaning that flows from our social contacts, from our friendships, from our acquaintances and from our presence in a wider culture. Our species is not a race of searchers but a race of builders and there is nothing that we build more beautifully than meaning.

At the end of Voltaire's *Candide* (1759), Pangloss turns to Candide and points out that had the pair of them not had the adventures they had had then surely they would not be sitting there eating preserved lemons and pistachio nuts. The immortal optimist replies:

"All that is very well," answered Candide, "but let us cultivate our garden." (*Candide*, 112)

This enigmatic final line has been subjected to any number of different interpretations over the years, but here is mine: humans are small creatures ill suited to the complexities of the world. Crushed in the gears of great historical forces, they cling to small islands of meaning and comfort in what would otherwise be an intolerable existence. If we lived in the Garden of Eden then there would be no need for cultivation, as all would be beautiful and hospitable. The fact that we need to cultivate at all proves that we are living in a world that is not ours.

To cultivate a garden is to construct an oasis of meaning in a meaningless desert. We cultivate our gardens not by looking into the abyss like Baxter's heroic engineers and scientists, but by constructing our own social realities and our own sheltered universes. When the Xeelee and the last humans leave the universe to the photino birds they are retreating from the world and starting a new garden:

The first loads of atmospheric gases would be arriving soon. And there were homes to be built. It was time to return to the Northern and get back to work. Life would go on, she thought: as complicated, and messy, and precious as ever. (*Raft*, 432)

The end of *Ring* finds the book's characters carving

out a new life in a new universe. Homes will need to be built and social systems will need to be created in order to keep everyone alive. It is possible to read the end of *Ring* as taking place generations before the events in *Raft* but in the same universe. Having shown us the birth and death of a universe and whole species, Baxter now returns us to the place in which he started. The circle is complete, the literary universe is a closed timelike loop (even if Baxter made the error of reopening it for his later **Destiny's Children** series). It is a literary universe to which we can escape and, in so escaping, find a sense of meaning that eludes us in the real world.

And so we end where we are destined to begin... in search of meaning.

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The Settee and the Stars

Gary K Wolfe on Stephen Baxter and the dilemma of scale

“The two things don’t go together, do they, my smallness, and the bigness of the sky?” – Simon, in Stephen Baxter’s “No More Stories”

Surely one of the most ambitious of all timelines designed by an sf writer to link together a significant portion of his work is that of Stephen Baxter, whose **Xeelee Sequence** timeline – published in the 1997 collection *Vacuum Diagrams*, reprinted in *Resplendent* (the fourth and final volume of his **Destiny’s Children** sequence), and more or less kept up to date on his website – begins some 20 billion years ago and ends some 10 million years in the future. For the most part, like many such timelines, it serves primarily as a convenient reader’s guide to the sequencing of novels and stories published over a period of more than 15 years, but for sf readers its sheer magnitude can serve as a kind of shorthand for the “sense of wonder” that is so often cited as cosmological sf’s characteristic effect – much like the three “Time Scales” that Olaf Stapledon appended to his *Star Maker* (1937), each vaulting orders of magnitude beyond the previous one. Baxter is clearly going after something of the same effect, but to some extent is constrained by the more than half-century of sf history between Stapledon’s era and his own: no longer was it possible, or probably even publishable, to write in the sort of synoptic pseudo-historical, visionary prose that had characterised Stapledon’s most famous works. Instead, sf had, under the influence of writers like Robert Heinlein, Isaac Asimov, and Arthur C Clarke, as well as editors like John W Campbell, Jr, increasingly turned toward more human-scaled stories situated in an over-arching history, whether implied or carefully planned – what the critic Patrick Parrinder called “epic fables” (*Bridges to Science Fiction*, 103). Part of this simply reflected the available venues of publication; the magazines which formed sf’s core identity during the 1930s and 1940s specialised in short fiction for obvious reasons, and even a comparatively ambitious future history such as Asimov’s **Foundation** series was initially a collection of novellas spanning only a few centuries. The problem of how to reconcile the sublime immensity implied by vast timescales with the demands of human- or character-centred fiction with self-contained narrative arcs is one that cosmological hard sf writers have grappled with repeatedly, though, in recent years at least, perhaps none so ambitiously as Baxter.

This dilemma was recognised by Stapledon himself.

In a prefatory note to his famous timelines, he wrote, “Immincy itself is not a good thing. A living man is worth more than a lifeless galaxy” (*Star Maker*, 265). For much of his early career, Baxter was hypnotised by matters of scale at both the macro and micro levels, from the ten-micron-tall inhabitants of the mantle of a neutron star in *Flux* to a character who spends five million years in the interior of the sun or another who is vaulted millions of years into the future to witness the end of the universe in *Ring*. But one of the interesting things about Baxter’s Xeelee timeline is that only one actual character is mentioned in it at all. In the midst of a catalogue of events of truly enormous scale – the first contact between the powerful alien Xeelee and the rival dark-matter “photino birds” nearly 20 billion years ago, the subsequent struggle for the destiny of the universe, the infestation of our own sun by the photino birds a billion years ago, humanity’s conquest by other alien races before finally casting off the yoke and going to war directly with the Xeelee – we come across the note: “A.D. 3621: Birth of Michael Poole.” Since Poole is the only individual to earn a mention in the entire history of Baxter’s universe between the initial formation of life in a “quagma broth” and the “virtual extinction of baryonic life” sometime after 10 million AD, one might expect him to be a monumentally messianic figure – but in fact he’s a rather troubled engineer, “heroic but somewhat deranged” in Baxter’s own terms (“Origin”), whose primary fame comes from having discovered a means of travel through aligned wormholes (called Poole interfaces), but who is set loose to travel through space and time in *Timelike Infinity* and who gets to witness the end of our universe in *Ring*. He is, in other words, as much a witness as an actor, not all that far removed from the unnamed astrally projected narrator of Stapledon’s *Star Maker*. Whatever his character as a “living man,” in Stapledon’s terms, it is clearly secondary to his role as a lens – a necessarily point of view from which to describe events that would otherwise become abstractions, virtually unobservable.

Equally important, in terms of Baxter’s overall body of work, Poole serves as a bit of a placeholder and a sort of collagenous connective fibre. He is the son of Harry Poole and a descendant of the contemporary George and Michael Poole of *Coalescent*, of George’s nephew Michael Poole whom we meet in Florida in 2047 in *Transcendent*, and presumably of the Harry and Michael Poole who explore Titan in “Return to Titan” (2010). Furthermore,

in *Coalescent*, the contemporary narrator George Poole traces his patronymic lineage to a British surveyor (also name George Poole) who came to Rome in 1863; this in turn reveals a family link to the centuries-long tale of the descendants of Regina, a fifth century matriarch in Roman Britain (and thus, at least thematically, connects the Poole saga to Baxter's ambitious four-volume exploration of British history in his *Time's Tapestry* series). As recurrent as the Poole clan is in Baxter's fiction (and one can't help but wonder if the name is a sly tribute to Baxter's mentor Arthur C Clarke, whose own Frank Poole was victimised by HAL the computer in *2001: A Space Odyssey* and later resurrected in *3001: The Final Odyssey*), it's not until *Coalescent* that we begin to get a sense of any one member of this family in the more modest terms of traditional character development and motivation. George Poole, troubled at the recent loss of his father and alienated from a sister who lives in Florida, learns from his uncle that a twin sister he had never met was given by the family to a secretive Catholic order in Rome, an order to which his father had donated substantial amounts of money.

The historical narrative which counterpoints George Poole's story in *Coalescent* details the life and legacy of that distant ancestor, Regina, who is also one of the most complex and fascinating characters Baxter had yet created. Raised in a wealthy family, Regina finds her life falling apart after her father's suicide by self-castration. Her mother disappears, supposedly to Rome, and she is taken by her gruff soldier grandfather Aetius to live in a military encampment at Hadrian's Wall. As the circumstances of her life deteriorate, she is sustained by her obsession with preserving the family, symbolised by three small rudely carved statues which she saved from her villa, and with finding her mother in Rome. As she grows older, she herself becomes a leader, briefly allying herself with a warlord called Artorius and eventually finding her way to Rome, to her mother, and to her role as the founder of what we recognize as the Order in the contemporary narrative. The three figurines, which she calls *matres*, become a kind of talisman throughout the novel, and serve as a kind of bridge between the unity of family, which is one of the novel's main themes, and the immense sweep of history, which is another.

Although he had offered some colourful and even memorable characters in his earlier fiction, *Coalescent* may represent some sort of tipping point in Baxter's development as a novelist, in that the human-scaled dramas of character unfold in concert with the more cosmic and historical narratives, rather than merely as gateways or point-of-view devices: both Poole in the contemporary narrative and Regina in the historical sequences view their identities as deeply involved with matters of family and family tradition. A later novel in the series, *Transcendent*, offers us the most humanly complex version yet of a Michael Poole, here living in a flood-destroyed Florida near his ageing mother, mourning the recent death of his pregnant wife, learning of his son's near-death in Siberia, haltingly trying understand and be understood by his brother and his son, and finally consulting the enigmatic Aunt Rosa from *Coalescent* for answers to his family puzzles. If in these novels the negotiations between the domestic and the cosmic remain somewhat forced and schematic, such negotiations have



come to represent an important feature of Baxter's more recent fiction, as he seeks to find narrative techniques that will more fully integrate the polarities of scale that have long characterised his work, and in fact the work of almost any sf writer seeking to address large-scale cosmological issues in human-scale narratives.

To explore these negotiations, I want to examine three fairly recent stories which demonstrate Baxter's ongoing quest to develop strategies for addressing these cosmological themes in the context of domestic or family relationships, two dealing largely with relationships with parents, one with siblings. The stories are "Last Contact" (2007, originally published in *The Solaris Book of New Science Fiction*, ed. George Mann), "No More Stories" (2007, originally published in *Fast Forward I*, ed. Lou Anders), and "Turing's Apples" (2008, originally published in *Eclipse Two*, ed. Jonathan Strahan). Each is characterised by a dual focus on closely observed family relations and on the broader eschatological issues characteristic of Baxter's earlier fiction – the far distant future, the end of the universe, alien contact, the role of dark matter, etc. Yet each represents a slightly different rhetorical strategy for uniting these contrasting themes, and collectively they suggest a kind of narrative experimentation on Baxter's part to address this classic dilemma for hard sf writers.

Of the three stories, "Turing's Apples" is the most conventionally sf in terms of its opening:

Near the centre of the Moon's far side there is a neat, round, well-defined crater called Daedalus. No human knew of this before the middle of the twentieth century. (*Eclipse Two*, 203)

Calling our attention to a specific feature of the Moon, this opening is nearly a direct echo of the opening of what is probably Arthur C Clarke's most famous story, "The Sentinel" (1951):

The next time you see the full Moon high in the south, look carefully at its right-hand edge and let your eye travel upwards along the curve of the disk. You will notice a small dark oval: anyone with normal eyesight can find it quite easily. It is the great walled plain, one of the finest on the Moon, known as the Mare Crisium – the Sea of Crises. (*The Collected Stories of Arthur C Clarke*, 300)

The similarity is perhaps no accident, since "Turing's Apples" recalls the Clarke story in a number of other ways. In "The Sentinel" – the seed that became *2001: A Space Odyssey* – a lunar expedition to the Mare Crisium discovers an ancient, clearly artificial pyramidal structure, and after twenty years of trying to break through its protective shield eventually destroys it with atomic power. The narrator speculates that the device may have been a sentinel, left millions of years ago by an alien race to indicate – when its signal ceased – that intelligent life had evolved sufficiently on Earth to discover and disable it. The tale ends with the narrator speculating that the aliens who built the pyramid will now "be turning their minds upon Earth," and muses "I do not think we will

have to wait for long." (Clarke, 307)

There are hardly any characters at all in Clarke's short, meditative tale. We learn that the narrator's name is Wilson and that fellow explorers are named Garnett and Louis, but their interactions are purely functional. Baxter's tale involves a massive radio telescope built in Daedalus, shadowed from interference from Earth, which begins to detect brief signals from a civilisation thousands of light years away. The narrator's brother, perhaps significantly named Wilson (and the telescope itself is named Clarke), becomes convinced that the signals contain important information, and persuades the narrator to use his data-mining software – designed essentially to spy on the citizenry in a search for terrorist activity – to decode it, and as a result learns that the signals are downloading an artificial intelligence, which begins to remake the substance of the Moon itself using nanofabricators in the Clarke facility. As in Clarke's story, panicked governments set off a nuclear explosion to destroy the artefact, but this time to no avail, and the story ends with the narrator speculating that the artefact, which will eventually consume the entire Moon, is essentially a recorder, a sort of time capsule designed to provide a record of our universe for the far distant future.

To this extent, the Baxter story seems little more than a re-imagining of Clarke's original tale updated with current science and technology such as nanofabricators and AIs. But after his very Clarkean opening section, Baxter introduces a second narrative focusing on the narrator Jack's troubled relationship with his brother Wilson, describing their childhood in Milton Keynes, their father's memories of stealing apples from Bletchley Park during the war (and his joking speculation that eating apples stolen from the facility where Alan Turing worked gave Wilson his mathematical gifts), Wilson's own history of destructive relationships, and a confrontation at their father's funeral. By now Jack has two sons of his own, and has befriended the deaf daughter of a cousin, but Wilson remains diffident and disconnected from meaningful family or personal relationships, clearly uninterested in the family's efforts to learn sign language for the little girl, leading the narrator at one point to comment, "You know, it's an irony that you're involved in a billion-pound project to talk to aliens six thousand light years away, yet it doesn't trouble you that you can't speak to a little girl in your own family." (*Eclipse Two*, 209) Eventually, Wilson's obsessiveness borders on derangement: when the government decides to interrupt the download of the alien AI for security concerns, he straps explosives to himself and occupies the Clarke project offices, finally blowing himself up and seriously injuring Jack, who has been sent to persuade him to surrender. But by the time he dies, the download is complete.

Why does Baxter involve us in this elaborate backstory concerning Wilson and Jack, their father, Jack's own family, and a little deaf girl? In the most obvious sense, it makes for a better story than what would otherwise be little more than a redaction of Clarke's original, which was largely a speculative essay in a fictional framework. There is, to be sure, something of the mad scientist in the character of Wilson, but the obsessiveness is given human roots, and the theme of communication is broadened beyond the SETI programme, which is

Wilson's initial preoccupation, to encompass the more familiar problems of human communication – such as learning sign language to reach the deaf girl. Much like Ted Chiang's "Story of Your Life", the tale juxtaposes the problem of communication with aliens with the problem of communication with family, lending a human dimension to one and a cosmic dimension to the other. It is, in other words, a significant effort on Baxter's part to initiate a dialogue between the preoccupations of hard sf and those of mimetic fiction. But for the most part, the narratives play out in quite separate arenas: Baxter hasn't quite figured out how to unify them in a single tale.

In "Last Contact," Baxter moves a little closer to discovering a strategy that can encompass both perspectives. This story, which editor Jonathan Strahan suggests echoes Clarke's "The Nine Billion Names of God" (arguably his *other* most famous story), begins with a grown daughter visiting her mother in her suburban garden, discussing such mundane matters as the daughter's husband and children, her forthcoming radio appearance, the problems of weeds such as couch grass, the mother's recent widowhood, and even her ancient quilted gardening coat. But at the same time, their conversation is peppered with references to a sudden flurry of communications from alien civilisations – the first such contacts after more than a half-century of SETI, inexplicably arriving all at once – and to something called "the Big Rip". We come to understand that the mother, Maureen, is part of a cellphone network of home observers hoping to help decode the enigmatic signals, and that the daughter Caitlin is an astrophysicist involved in the research that led to the discovery of the Big Rip, a sudden acceleration in the force of dark energy which is literally pulling the universe apart, beginning with large structures like galactic superclusters and folding down to stars, planets, and eventually even subatomic particles. The universe, in short, is doomed, and calculations have placed the date of Earth's destruction only a few months hence.

With only two characters and a single setting – the mother's garden – "Last Contact" is among the most pointedly constrained of all Baxter's stories, unfolding like a three-scene, one-act play in which nearly all the action is carried forward by dialogue. We meet Caitlin and Maureen first in mid-March, then in midsummer, and finally on October 14, the date the Big Rip is to destroy the Earth. Throughout, their conversation shifts almost desultorily back and forth between mundane concerns (by midsummer most services and supplies have begun to disappear, and the daughter plans an early Christmas party for her children who will see no more Christmases or birthdays), the inexorable progress of the Rip, and the mystery of the alien signals. Throughout, Baxter takes pains to keep these contrasting rhetorics in balance, never quite permitting the reader to shift into the cool speculative mode that characterised the beginning and ending of "Turing's Apples," never quite permitting us to retreat into a Katherine Mansfield-like reading of a quiet tale of a mother and daughter conversing. When the end comes, Caitlin arrives one last time, her husband and children having taken the poison pills the National Health Service had distributed, and she and her mother hold each other as the sky darkens and the Earth rips apart.

Like "Turing's Apples" or "The Sentinel," the story ends with a speculation, as Maureen tries to tell Caitlin that she knows what the alien signals have meant: "They were just saying goodbye." While this ending may seem facile and sentimental, it's not particularly important, either; the main achievement of the story is Baxter's carefully controlled balance between the quiet domesticity of the characters and setting, and the cosmic catastrophe unfolding around them. At no point does the story quite become one thing or the other.

With the aptly titled "No More Stories" (which editors David Hartwell and Kathryn Cramer also compare to "The Nine Billion Names of God"), Baxter carries this experiment with domesticised rhetoric a step further. The opening of the story offers no sf codes at all, other than the protagonist Simon's job as a salesman of genetically engineered goldfish for a biotech company in London. Initially, the focus seems to be on the solipsism of Simon's dying mother, whom he is visiting in a suburb of Sheffield. "Will it all just fold up and go away, when I've gone?" she wonders in the story's opening paragraph (*Year's Best SF* 13, 169), and this attitude is merely an extension of the way she has lived her life: "Any crisis in her children's lives, like Mary's recurrent illness as a child, or the illegitimate kid Peter had fathered as a student, somehow always turned into a drama about *her*." (*YBSF* 13, 172) The family's history and dynamic is revealed rather efficiently through the accretion of such offhand details; within a few pages we learn of the family's Catholicism, Simon's siblings Peter and Mary and their children, the mother's own father, even favourite childhood games like Scrabble. But at one point Simon catches a momentary sidelong glimpse through the window of "pillow-like shapes, gleaming in a watery sun" (*YBSF* 13, 171), and this proves to be a foretaste of the story's actual setting, which gradually becomes apparent only as the mother is dying and Simon, aided by the rather annoying local priest Father Nolan, carries her downstairs in order to have a last view of the garden. When Simon notices that the top of the stairs has suddenly and inexplicably gone dark, Father Nolan explains, "She doesn't need to go upstairs again" (*YBSF* 13, 176), suggesting that there may be something to Mom's solipsism after all – that perhaps the world *does* disappear as she disappears from it. This seems to be reinforced when Simon decides to take a walk to the local park, but finds that the park and the shops beyond have disappeared, replaced by a watery green marsh filled with the pillow-like shapes he had glimpsed earlier. Returning to the house, he boots up his laptop and is able to discover that the pillow-like shapes are stromatolites, ancient communities of algae, but soon the computer connection fails, as does the phone. The sky begins to grow dark.

Those stromatolites are our first clue that the story is about to take an abrupt turn, not into some sort of mystical eschatology related to the mother's solipsism, but into a not-entirely-convincing sfnal rationale for these bizarre visions. The priest, whom we had originally met sipping tea on the sofa – as purely domestic an image as in any of Baxter's tales – reveals himself to be something quite different, and informs Simon that they are not in the year 2010 but in the future, "not as far as you might think" (*YBSF* 13, 181), although this is a future in which there

are no longer any people. Once Simon's gene-splicing technology had been introduced to the consumer market, becoming as ubiquitous as home computing, millions of years of Darwinian evolution were quickly overthrown and replaced by a "multipolar" global consciousness. "I'm the end-product of your company's business plans," the priest explains, "Yours and a thousand others." (YBSF 13,182) Simon's "mother" was simply a node of this consciousness who had chosen to live out her life as a human being, and had chosen Simon – who had always feared his mother didn't love him – to be with her at the end. The rest of the world had been "a stage set for her own life" which is now disappearing as she no longer needs it. The story ends with Simon asking the priest for a final blessing as the single remaining lightbulb fades to black.

As striking as this closing imagery may be, the story itself might be too clever for its own good. By ingeniously constructing an elaborate sf rationale for the mother's solipsism, Baxter effectively subsumes his carefully constructed complex of family relationships into a very familiar science fictional move: the experiential world is illusory, reality is contingent, the present is really the future, and your mom is not who she seems to be. Whereas "Last Contact" maintained a kind of equipoise between the dynamics of the mother-daughter relationship and the cosmic dark energy doom they faced together, and "Turing's Apples" lent a human dimension to its large-scale cosmic mystery by providing a fully realised backstory for the two brothers who were its principal characters, "No More Stories" risks subverting its carefully worked-out character relationships altogether by revealing them to be little more than a charade designed, for motives not entirely made clear, by a particular aspect of a universal consciousness. It may be a nice irony that, in a story apparently focused on his mother's solipsism, Simon himself turns out to be essentially the only human character, but in the end the reader can't help but feel a bit manipulated by a story whose human dimension is, in the end, undercut by the ingenuity of the science fictional conceit.

Viewed as a kind of narrative experiment, however, the story represents yet another strategy on Baxter's part for resolving the seemingly intractable problems involved in trying to combine the traditional discourse of domestic realism with the visionary sfnal discourse of the cosmic saga. Through a kind of transubstantiation, the priest sipping tea on the settee in suburban Sheffield becomes a steward of the post-human world, just as the mother's garden in "Last Contact" becomes the locus of the end of the universe or the family tensions in "Turing's Apples" somehow lead to the transformation of the Moon into a beacon of eternity. In one strategy ("Turing's Apples"), Baxter splits the tale into competing discourses of family stress and the nostalgia of the infinite; in another ("Last Contact") he subsumes the cosmic disaster into a series of conversations between a mother and daughter; in a third ("No More Stories") he transforms a tale of a self-obsessed mother and her troubled family into a fable of post-humanity. In my own view, "Last Contact" is the most aesthetically unified of these tales, never losing focus on either the central relationship or the cosmic dimension, but in all cases Baxter seeks innovative ways

to address the classic dilemma of rendering cosmological themes in terms that are at once humanly engaging and committed to the classic sf "sense of wonder". He is not, by any conventional measure, a postmodern writer, but increasingly he has become a writer who seeks to unite the detailed mundane observations of classic Modernist fiction with the contrapuntal tradition, which evolved largely in parallel with Modernism, of the large-scale cosmological epic. In the furniture of suburban rooms and gardens, he tries to find passages into the vast structures of space and time that are sf's stock in trade, and though he may succeed only fitfully, it's a fascinating and worthwhile experiment to observe.

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An Atomic Theory of Baxter's Fiction

Adam Roberts

To begin with some name-dropping: after the 2009 Arthur C Clarke Award was announced – the year Ian R Macleod won for *Song of Time* of course – Stephen Baxter and I swapped a few emails about the prize itself, and the subsequent online discussion about genre boundaries prompted by the fact that a more-or-less ‘literary’ novel had been honoured by an sf prize. Baxter (“I was pleased for Ian Macleod winning the Clarke, good guy”) expressed a certain exasperation with “the usual post-event blathering about genre boundaries” and made a suggestion:

Maybe we need an atomic theory of literature. If you look at Ballard, he’s just Ballard, whatever label you stick on him, and surely the greatest influence on his later books are his own earlier books – wherever we start, we all follow our own trajectories as writers. In physics, the gas laws are simple rules derived from looking at large numbers of particles, each whizzing around. Large means Avogadro’s number, which is six times ten to power of 23, so you can do meaningful stats. By contrast there can’t have been more than 6 times ten to power 3 sf writers (i.e. 6000 - ?). So sf gas laws, or more likely hot air laws, are always going to be spurious.

Here endeth the lesson.

And here beginneth the attempt to understand Baxter’s own fantastically prolific, varied and inventive sf oeuvre. He has not written an Avogadro’s number of stories and novels, although if you scrunch up your eyes a little when peering at his bibliography it might seem so: for he’s certainly written a lot. All those textual atoms constitute a breathable atmosphere. (‘Jumping Bax Flash, It’s a Gas-Gas-Gas’)

It would be good to say something critically useful about the whole of his output; but it would take considerably more space than is here available to attempt a properly synoptic overview of Baxter’s work (I’d like to give it a go, one day: Baxter is one of the big beasts

of contemporary sf and there are some really fascinating things going on in his fiction). Alternatively, I could try to suggest something about Baxter as a writer by paying close attention to one story or novel. But like Hari Seldon, Baxter knows that the sorts of generalisations to be made from a sample depend very directly upon sample size. So, instead, I’d like to take a third route: to look the relationship between individual atom and the Avogadroan numerosity of the larger scale.

In other words, what interests me is the relation between individual Baxter texts on the one hand, and the larger pattern of the Baxterian oeuvre on the other; and what I’m going to argue is that in core ways it is this very relationship that is distinctively Baxterian. Not in the self-reflexive sense that his writing is all about his own writing (actually I don’t think it is), but in the sense that it is one of Baxter’s core concerns – the disjunction between the partial, individual, human perspective and the total, synoptic cosmic one is precisely enacted by his fiction.

Baxter returns again and again in his writing to the relation of the part to the whole. What is the relation of the individual human being to the larger group, hive, nation or species? What is the relationship between the small, localised action and the overall sweep of history, time and eternity? For example, can one person ‘make a difference’? What role does individual choice play in the very long-term trajectories of history (as in the *Time’s Tapestry* books) or evolution (as in his powerful novella *Mayflower II*, or his splendid standalone *Evolution*)? What is the relation between your particular bit of the cosmos (let’s say: Liverpool, the North of England, Britain, the Earth) and the totality of it? What if this reality, in all its temporal and spatial vastness, is only one sheet in an unimaginably larger sheaf of multiversal alternatives (as in his Wellsian midrash *The Time Ships*, or *Ring*, or the *Manifold* books)? At every turn in Baxter’s oeuvre, the individual, localised story unpacks into larger and larger immensities: like an E E Doc Smith who can actually write and who actually understands science.

There’s another way of rephrasing this dichotomy, which I take to be central to Baxter’s work as a writer. It’s

a practical, writerly challenge. People like to read stories about people, and the horizon of a conventional narrative is homo-sapiens-scale: a few individuals, not a mass of six billion; a couple of years – at most, a few generations within one family – not billions of years. It's a core aesthetic dilemma of science fiction: the tension, especially evident in the sort of vasty hard sf for which Baxter is famous, between the individual scale of human storytelling and the vast scales of cosmic space and time. Evoking the latter can alienate readers, who find their human-sized empathy has nowhere to locate itself. Concentrating on the former, though, will tend to undersell the sense-of-wonder Sublimity of sf as a mode.

The question, then, is: what sort of sf-molecules constitute the nature of Baxter's gaseous output? What is their nature? How do they aggregate, and into what totality? I'm going to suggest that they are part of a Leibnizian gas, and that the fact that they do not ultimately comprehensible as a whole is – as the phrase goes – a feature not a bug.

One reason why this seems to me a useful way of approaching Baxter is that he is an inveterate aggregator of his work into larger patterns. Individual stories are expanded at novel length, or groups of stories are fixed-up into longer works. More than this, individual novels themselves coalesce into bigger sequences. Here's an example. We can take Baxter's total output and break it into smaller chunks. One chunk might be labelled 'Xeelee'. Take this short list of published titles: *Raft* (1991), *Timelike Infinity* (1992), *Flux* (1993), *Ring* (1993), *Vacuum Diagrams* (1997), *Reality Dust* (2000), *Riding the Rock* (2002), *Mayflower II* (2004), *Resplendent* (2006), *Starfall* (2009) – all these various short story, novella and novel coral plants have grown over two decades into a considerable 'Xeelee' megatext reef. It's what the German philosophers call a *Zusammensetzung*: and its organically grown agglomeration manifests one of Baxter's key strategies. *Raft*, his first novel, was grown out of a like-titled short story. *Vacuum Diagrams* is a cluster of short stories; *Resplendent* a more tightly connected fix-up, with an overarching narrative frame (I discuss it in more detail below). At every level a principle of aggregation is at work connecting the individual textual atoms with the larger, fluid or gaseous structures of the Baxterian megatext.

What links these many and various elements? One thing is a narrative quantity they all share: Baxter's future history, in which humankind is conquered by the alien Qax; and after throwing off this yoke they spread through the galaxy, fighting a drawn-out war with another alien race, the 'ghosts'. Finally humanity is the galaxy's dominant species, except in one regard: the godlike and mysterious Xeelee. War is inevitable and lasts many hundreds of thousands of years. We chase them out of

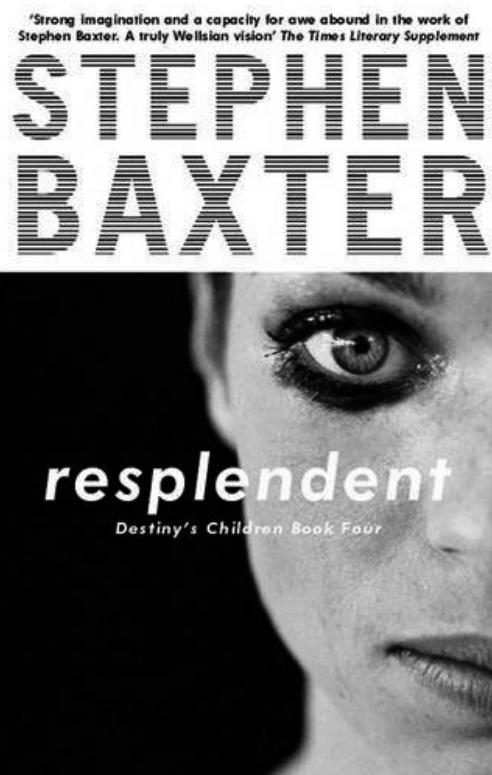
their fortress at the heart of the galaxy, but our victory, over time, turns to inevitable defeat. Many Baxterian novels, novellas and short stories fill in details of this timeline.

But this principle of linkage is also present in the novels in thematic and formal ways. The first *Destiny's Children* novel (2003) takes its name from "coalescence", an evolutionary development of humanity into hive-like forms. The second, *Exultant* (2004), dramatised the means by which individual humans became so efficiently subordinated into the needs of the Army as to become nothing more than cells in a single leviathanic organisation. In *Transcendent* (2005), a group of godlike post-humans are seeking to redeem the suffering of the entire human species. In other words, the content of these novels (the relationship of the individual atom to the much larger structure) is recapitulated by the formal relations of Baxter's larger writing praxis – individual stories that coalesce into novel-like structures, or individual novels coalescing into a larger scale megatextual gestalt.

The final *Destiny's Children* novel is a case in point: 2006's spacious *Resplendent*. This is a collection of stories that revisits and adds detail and density to Baxter's Xeelee supernarrative. The whole thing is immensely readable, mind-expanding and bristling with good ideas; but, being a fix-up rather than a single continuous narrative, it is a rather striated and folded reading experience. We might say that this is an inevitable aspect of the fix-up, that distinctively sfnal contribution to the formal architecture of the novel. Historically speaking, sf fix-ups, from Asimov's *Foundation* to Stross's *Accelerando*, tend to be idea-dense, exhilaratingly rapid but often skittery or even strobe-like reading experiences. At their worst they can be awkwardly unsatisfying: so

much happens! – the focus is too tenuous. So many ideas! – but without a narrative substrate of sufficient thickness to anchor them.

I've written about this particular form of sf narrative before: Baxter, the fix-up and what it says about the larger logics of sf [1]. But I'd like to revisit the topic, and go over some of the same ground again, in order to expand my ideas. To be clear: this is part of a larger question. If 'realist' fiction works from the consensus (a sort of willed suspension of existential disbelief) that all its novels take place in one world – the 'same' world, roughly 'our world' – then sf launches itself from the older, more spacious and more imaginatively thrilling premise: each sf book creates its own new world. The London of Dickens, McEwan and Zadie Smith are in a notional sense all the same London; but not only are the universes of Asimov, Le Guin, Delany and Reynolds each different to one another, but more to the point Wells, Wyndham and Miéville all write a different London. The question, then, is the extent to which all these diverging,



budding-off, separated fictional universes connect into a larger, coherent hole – because if they don't, then sf itself becomes radically and corrosively incoherent, and then the genre would fail to connect with the lives of those who read it and love it, readers who live in one universe not millions.

My argument, then, is that the fix-up is a formal emblematisation of this larger fictive-ontological condition. The sf writer who sets out to fix-up his or her stories into a larger textual unity, or who attempts to constellate all that they have written into a single future history. This is a process of creatively un-fragmenting, putting the intrinsic breakages back together again. As the old Bizarro proverb goes: if it ain't fixed-up, don't broke it.

If we are speaking practically, then there are several things a writer can do. One is to layer over a linking commentary by a key character; another is simply to build the narrative complexity to the point where the supernarrative starts to acquire the solidly convincing independent existence of a roman-fleuve. But it's the third of the ways in which a book like *Resplendent* addresses the problem of the fix-up that interests me the most. Because another way of stating the problem of the fix-up is to talk of the organic requirements of the novel, the aesthetic impulse towards wholeness or unity as opposed to the splintering impetus towards multiplicity, a hybridity of competing singularities. And this dialectic, in a nutshell, is what Baxter's large-scale fiction structures are 'about'.

In other words, these stories precisely dramatise the formal logic of the fix-up: the tension between an atomised and a unified vision of things. This is, at root, a philosophic question; something of which Baxter is perfectly well aware. His characters Reth Cana and Gemo debate it in "Reality Dust" – originally a separately published novella, then a component of the *Resplendent* fix-up:

'There is no time,' he whispered. 'There is no space. This is the resolution of an ancient debate – do we live in a universe of perpetual change, or a universe where neither time nor motion exist? Now we understand. We know we live in a universe of static shapes. Nothing exists but the particles that make up the universe – that make up us. Do you see? And we can measure nothing but the separation between those particles. Imagine a universe of a single elementary particle, an electron for perhaps. Then there could be no space. For space is only the separation between particles. Time is only the measurement of changes in that separation. So there could be no time. Imagine now a universe consisting of two particles ...'
(*Resplendent*, 60)

Baxter's provenance for this notion (that 'space is only the separation between particles') is 'an ancient philosopher. Mach, or Marque' – which is to say, Ernst Mach (1838-1916). But Mach was one of a number of thinkers to elaborate a basically Leibnizian understanding of spacetime as purely relational [2]. And this relational gestalt finds its textual analogue in the interconnectivity

of the fix-up.

"Reality Dust" alternates between the Earth of AD 5408 and a strange delocalised island set in an entropic black sea of strange black dust. One of the story's pay-offs is our realisation that this island is to be found not so much in another dimension as in a superdimension that sums all the others – that its dust is the 'reality dust' of the tale's title. To return to Reth and Gemo's conversation: with two particles it is possible to have separation, and time.

Reth bent and, with one finger, scattered a line of dark dust grains across the floor. 'Let each dust grain represent a distance – a configuration in my miniature two-particle cosmos. Each grain is labelled with a single number: the separation between the two particles' He stabbed his finger into the line, picking out grains. 'Here the particles are a metre apart; here a micron; here a light year ... this diagram of dust shows all that is important about the underlying universe.'

(*Resplendent*, 61)

Of course, this is a simplified two-dimensional model. In our space 'of stupendously many dimensions' the reality dust is prodigiously multiple, filling 'configuration space'.

What 'reality dust' represents, in fact, is the Leibnizian monad. And having stated that, baldly, I need to unpack it a little – because the force of my thesis in this paper is that the Leibnizian monad is a way of conceptualising not only Baxter's story, and not only the relationship between the individual elements of Baxter's larger corpus, but science fiction itself.

Leibniz was particularly exercised by the question of the fundamental nature of what we would nowadays call 'spacetime'. To put it baldly: what is the core stuff out of which everything is made? What, when minded to analyse things, can we break down the universe into? Democritus had suggested that everything is 'really' one thing: material atoms, aggregated into very many various arrangements (many modern physicists, were we to substitute the phrase 'subatomic particles' for 'atoms', would agree with Democritus here). Descartes, on the other hand, argued that everything is 'really' two things: one thing called 'matter' and another called 'spirit' or 'soul' – hence 'Cartesian dualism' (strictly speaking, he argued that reality is three things: matter, soul and God; but then again, strictly, he didn't think the last of these was part of our 'reality' in the way the other two are). This, of course, chimes with a broad spread of religious versions of reality, and has had a long run. But plenty of philosophers have been unhappy with the cogency of Descartes' theory. If matter and soul are radically different things, as Descartes believed them to be, then on what grounds could they possibly interact? The material and immaterial are inevitably incommensurable types. How could a knitting needle, jabbed into my material arm, cause a sensation of pain in an immaterial soul? How could an immaterial motion in that soul cause a material spread of diaphragm muscles to wobble in my solar plexus so as to generate the sound 'ow'? Spinoza's answer to this problem was, to use the technical term, 'monist'. There's

no disparity between the material and the immaterial, he argued, because there's no such dichotomy: the cosmos is 'really' one thing (with rather wonderful fence-sitting panache, Spinoza called this one thing 'God, or Nature'). Everything we can see, all the chairs and tables, people and animals, are actually just inflections or aspects of this underlying reality.

But Leibniz was not persuaded by this explanation. For if everything is actually just modalities of one underlying substance, then how could anything be different to anything else? How could there be motion or change, or (if we are just nodules of God poking through) how could we have free will? Now, Leibniz did believe in God as the ground for the very possibility of existence, but he also wanted to find a way of theorising mutability in the cosmos. His solution was monads: an infinite number of simple, immaterial and indestructible units out of which reality is constructed; in fact it would be more accurate to say that the 'reality' we all inhabit is a function of the interaction of these fundamental spiritual atoms.

Leibniz's system is often dismissed as too baroquely complex to be meaningful: Bertrand Russell said of it, 'I felt – as many others have felt – that the Monadology was a kind of fantastic fairy tale, coherent perhaps, but wholly arbitrary' [3]. But there are times when Leibniz comes across as remarkably modern. So, for instance, he conducted a lengthy debate with his contemporary Newton over whether there was such a thing as 'absolute space and time'. Newton thought there was. Leibniz, like Einstein after him, thought not. According to Leibniz, and also to Mach, there are only relative relationships between things. Everything depends on the position from which you observe it [4].

Leibniz's monads not only constitute but also (each, individually) recapitulate the entire cosmos. 'Every simple substance is a mirror of the same universe, just as durable and ample as it is,' he writes in the 52nd section of his *Monadology* (1714). 'This has the result that one selfsame universe is multiplied in an infinity of ways through the infinity of living mirrors, each representing it in its own way.' And he goes on (this is section 59):

This connection of adaptation of all created things with each, and of each with all the rest, means that each simple substance has relations which express all the others; and that consequently it is a perpetual living mirror of the universe ... it is as if there were as many different universes, which are however but different perspectives of a single universe in accordance with the different points of view of each monad.

It's in these senses, I'd argue, that we can start to think of science fiction as a properly Leibnizian genre, and the fix-up in particular a deeply 'monadic' mode of literature.

So: to step from the analysis of the material substratum of the actual universe to question of the logic of sf. Earlier I distinguished, with an ample sweep of my arm, between 'realist' fiction and sf. The former tells stories about a world; which is to say, 'realist' novels depend upon our connecting their stories to this one cosmos, the one we inhabit. The glory of sf, on the other hand,

is its promiscuous creation of a boundless number of alternate worlds and versions of our world. Now, if these sfnal different-realities had no point of connection to our world they would struggle to interest us; and conversely, if they simply replicated our world then they would be no different to 'realist' works. In a textual sense this is the 'substance' dilemma over which the antique philosophers struggled; and the answer, in textual terms, lies in a Leibnizian monadology. Each sfnal reality has its own discrete existence; but at the same time each acts as a 'perpetual living mirror of the textual universe', reflecting and embodying the megatext we call 'science fiction'.

So for example: Baxter's *Xeelee* cosmos is both its own thing and a thing filled with echoes and intertextual references to the whole backlist of science fiction. *Resplendent* – to stick with that example for a moment – develops this idea in several ways. Each story, for instance, contains enough information about Baxter's overarching story (who the Silver Ghosts are, what a spline ship is, how humanity managed to defeat so imposing an enemy as the Xeelee) such that a first-time reader coming across the tale as a standalone would be able to understand it. To read the tales in sequence is to clatter across these repeated explanations over and over, like driving across a cattle grid; but that's a necessary part of the fact that each story must both stand alone and reflect the whole narrative. And there's another sense in which each story functions as a monadic mirror. Take for example the story "Ghost Wars". In this tale, humanity has suffered a setback in its war against the Silver Ghosts; a 'Black Ghost' has come to power and is organising the millions of silver globes. A team of humans must assassinate the leader. This tale works perfectly well as space opera in its own right, but it generates additional momentum and power by the way it resonates with memories of other sf: the Ghosts are less-malign, more emotionless Daleks, the Black Ghost a sort of Emperor-Dalek, the ripping adventure of the narrative Whovian. There are many similar examples of stories in this collection that are simultaneously distinctively Baxterian, and simultaneously reminiscent of Heinlein or Niven, Doc Smith or *Doctor Who*. In sf all individual texts have this relationship: some are more and some less original, but all relate intertextually to, and recapitulate, the rich backlist of the genre as a whole.

In *Resplendent*, the stories all riff on the tension between alienated individuality and collaborative or symbiotic coalescence. On the one hand are many individual human characters, and the fragmented overarching form of *Resplendent*-as-fix-up; on the other hand are the various collaborative or unified creatures, and the whole-sight vision of Baxter's future history, something that can be apprehended as a single unity (as one character puts it: "in configuration space all the moments that comprise our history exist simultaneously" (62)). The ghosts are collective creatures, "a community of symbiotic creatures, an autarky" (105); humans are fiercely individualistic. But at the same time, to defeat the ghosts, humans must subordinate their individual urges to the collective good; for instance to sacrifice themselves in battle. Baxter's coalescent hive-humans, and his immortal Pharaoh humans, stand as the twin emblems of this principle of aggregation. The hives aggregate spatially, and the pharaohs aggregate across time. In both instances Baxter

is dramatising ways of connecting the particular and the general, the atom and the whole-vision. The very ‘bittyness’ of the fix-up form becomes part of its point, as a formal articulation of the underlying separation out of which the wholeness is construed.

And this is the key, the uniquely science-fictional dimension to all this. Because even as he tells all these localised, individualised stories – and even as he aggregates them into his larger narratives – Baxter is providing his attentive audience with precise glimpses of the actual magnitude, the mind-blowing, thought-collapsing magnitude, of the cosmos itself. The shorthand for this, of course, is ‘Sense of Wonder’; but that is actually just the latest moniker for an older aesthetic concept: the Sublime.

The Sublime goes back a long way, but comes into prominence in the later eighteenth century. Edmund Burke’s *Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (1757) separated out the small-scale, harmonious, pleasurable aesthetic effects he called ‘beautiful’ from the awe-inspiring, thrilling, terrifying artistic possibilities of vastness, obscurity, magnificence, infinity and the like. For Burke, these categories were effectively gendered (a river might be beautiful, but the ocean is sublime; a hill might be beautiful, but the mighty snow-capped mountains of the Alps are sublime; day might be beautiful but night is sublime; woman might be beautiful, but man is sublime), and they were grounded in a religious conception – what Sublime artefacts did was give us a soul-searing glimpse of the infinity of God. Kant developed these ideas in his “Analytic of the Sublime”, part of his *Critique of Judgement* (1790). Part of Kant’s point is that the universe as a whole, being infinite, is not comprehensible as a whole; but – to quote Lyotard’s account of Kant – that ‘the aesthetic comprehension of the whole (at one time) of a very large or infinite series is what reason demands of the imagination and what provokes the sublime emotion’ [5]. The incompleteness of the whole structure is not a failure, but a necessary precondition of the Sublime and Sense-of-Wonder effect.

In the eighteenth and early nineteenth centuries, this parlayed into an aesthetic valorisation of ruins (Gothic follies, fragmentary poems, the immense fragments of ancient statues) and obscurity – darkness, subterranean passages, fog and stormcloud – that manifests in so much Romantic poetry, and more particularly in the Gothic novel, that immediate ancestor of sf. The monsters lurking in the cellars and hidden passageways of the ruined crypt at midnight. The porous spaces of the rocks Baxter’s humans ride into war at the centre of the galaxy. French philosopher Gilles Deleuze, a radical, postmodern Leibnizian, put it this way, using a vocabulary weirdly evocative of many of the spaces of Baxter’s sf:

Matter thus offers an infinitely porous, spongy or cavernous texture without emptiness, caverns endlessly contained in over caverns: no matter how small, each body contains a world pierced with irregular passages, surrounded and penetrated by an increasingly vaporous fluid, the totality of the universe resembling a “pond of matter in which there exist different flows and waves.” [6]

The microscopic people who live inside the texture, flows and waves of the sun itself in *Flux* (1993) inhabit this sort of Leibnizian-Deleuzian space; Baxter’s fondness for the mis-en-scène of the sheaf of alternate-universes renders spacetime itself this sort of space. His own accumulated Zusammensetzung of stories and novels is this sort of space, textually speaking. It’s how Baxter’s atoms fit together.

Here endeth the lesson.

Endnotes

[1] See for instance, my article ‘Leibniz’s Fix-ups’, in *Vector* 251 (March 2007)

[2] A brief digression: this has been an enormously influential idea, in both philosophy and physics, although it is probably wrong. There are aspects of spacetime that cannot be described in terms only of relations: that spacetime is unbounded, for instance; that it is continuous, or three- rather than two-dimensional; or the fact that it possesses ‘handedness’. By ‘handedness’ I mean: imagine a knight’s-move in space to the left. If this shape were on a Moebius strip, you could move it around the strip such that it became possible to superimpose it exactly over a knight’s-move to the right. But cosmologists are adamant that this is not the way our actual cosmos is configured: that there is no manoeuvre in our spacetime that could make a knight-move-to-the-left superimposable upon a knight-move-to-the-right. This ‘handedness’ of our cosmos is one key feature of it that cannot be described merely in terms of relations. But this is by-the-bye.

[3] Russell, Bertrand: *A Critical Exposition of the Philosophy of Leibniz*. First published in 1900 (xiii)

[4] Leibniz wrote: “I hold space to be something merely relative. I hold it to be an order of coexistences, as time is an order of succession.” In the words of Daniel Garber, “the debate between Leibniz and the Newtonians, as it unfolded in a series of letters between Leibniz and the English divine and friend of Newton’s, Samuel Clarke” concerning “the question of absolute versus relative space” was “one of the most celebrated scientific disputes in the period”. (Garber, “Physics and Foundations” in *The Cambridge History of Science III: Early Modern Science*, ed. Porter, Park and Daston. Cambridge University Press, 2006 (56)

[5] Lyotard, Jean-François: *Lessons on the Analytic of the Sublime: Kant’s Critique of Judgment* 23-29 (transl. Elizabeth Rottenberg). Stanford University Press, 1991 (109)

[6] Deleuze, Gilles: *The Fold: Leibniz and the Baroque* (transl. Tom Conley). Routledge, 2006 (5).

Three Colours NASA

Reflections on Stephen Baxter's "NASA" trilogy by Simon Bradshaw

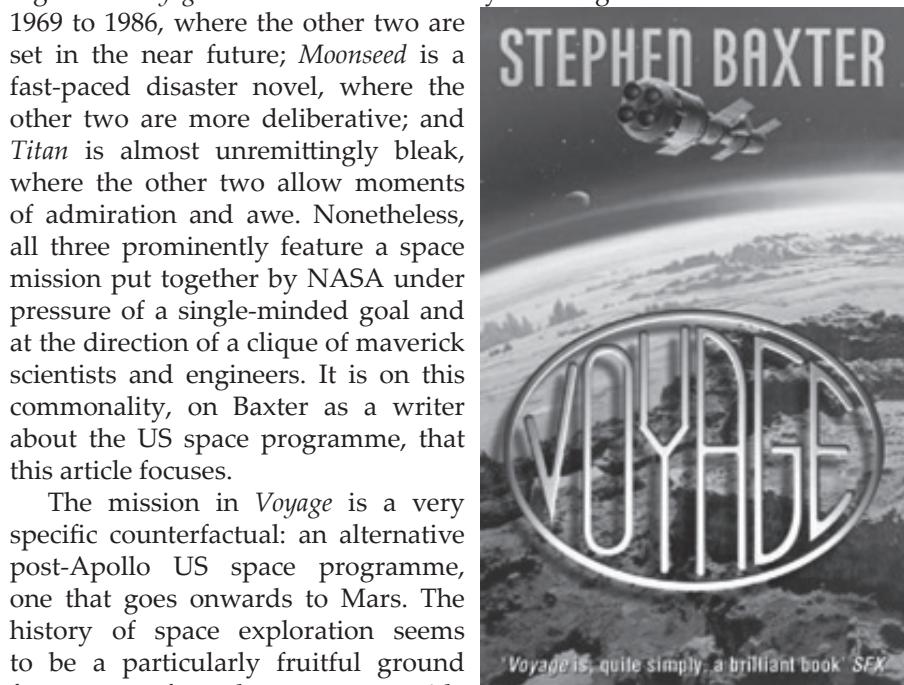
Voyage (1996), *Titan* (1997) and *Moonseed* (1998) are not, in any conventional sense, a trilogy; each stands alone, in a separate continuity. They do not even share the relationship of Baxter's subsequent **Manifold** series, which recycles the same characters through three very different parallel universes. But they nonetheless share a strong thematic link that has led to their collectively being termed Baxter's NASA trilogy. Each novel, to a significant extent, addresses the United States' relationship with space exploration, and in particular its own space programme.

That said, each book takes a distinct approach to this question, such that had they not been published in sequence they might well not have been classed together. *Voyage* is an alternate history running from 1969 to 1986, where the other two are set in the near future; *Moonseed* is a fast-paced disaster novel, where the other two are more deliberative; and *Titan* is almost unremittingly bleak, where the other two allow moments of admiration and awe. Nonetheless, all three prominently feature a space mission put together by NASA under pressure of a single-minded goal and at the direction of a clique of maverick scientists and engineers. It is on this commonality, on Baxter as a writer about the US space programme, that this article focuses.

The mission in *Voyage* is a very specific counterfactual: an alternative post-Apollo US space programme, one that goes onwards to Mars. The history of space exploration seems to be a particularly fruitful ground for counterfactuals, even outside fiction. Space history enthusiasts have a fascination with 'what-ifs', which manifests itself in forms ranging from discussion on Usenet groups and web forums [1] to entire books on unflown space missions. [2]. There are two significant factors behind this. Firstly, behind every flown space mission or rocket design there stand the ghosts of a dozen studies or proposals that never got selected or developed. There is no shortage of contractor studies

or NASA proposals to inspire speculation as to how the space programme might have unfolded differently. Secondly, the time-pressed, disaster-prone nature of the space race made it particularly open to the whims of fate. It is well documented, for instance, how Apollo 8 was rescheduled from a Lunar Module test flight in Earth orbit to a dramatic Christmas voyage around the Moon, in response to intelligence that the Soviet Union was planning its own circumlunar mission. Equally, a series of launch failures doomed the USSR's counterpart to the Saturn V, the N-1, and the Soviet lunar landing project with it.

These factors might explain why the might-have-beens of spaceflight are of such interest to space history enthusiasts. But why are so many science fiction writers moved to go beyond counterfactuals into alternate history? Baxter is by no means the only author to have taken this route. Allen Steele's *The Tranquillity Alternative* (1995) imagines the grandiose schemes of Wernher von Braun's articles in *Collier's Weekly* made real, whilst Warren Ellis's graphic novel *Ministry of Space* (2005) shows a world where the UK, rather than the USA, got German rocket expertise after World War II. Jed Mercurio's *Ascent* (2007), although more a secret history than a true alternate history, offers a convincing scenario of a Soviet cosmonaut beating Neil Armstrong to the Moon.



What distinguishes Baxter, however, is the frequency with which he has returned to this particular theme. In an article for *Vector* [3] he notes that in addition to *Voyage* he has written several short stories exploring variations upon the theme [4]. Reviewing some of the other 'alt.space' fiction mentioned earlier, he discerned in some writers a desire to address the disappointment of a space programme that seemed to have drawn back from its promise of exploring new worlds into a frustratingly humdrum round of commercial and military missions to low orbit. But Baxter noted his own dissatisfaction with such a simplistic

approach; for him, to interpret the 1960s space race as the start of a visionary programme of exploration was to badly misread it, and any credible alternate history in which it went further than it did in reality had to confront this.

I had come to believe that the Apollo project was fundamentally crazy... To reach outwards to Mars I was going to have to find ways to extend that craziness. [5]

On the face of it the historical point of departure in *Voyage* is in the immediate aftermath of Apollo 11, as NASA management considers options to present to Nixon as to how to follow up the Moon landing. But Baxter is not satisfied with asking what might have happened if NASA had decided to go onwards to Mars. He wants to justify that change, and does so by revealing that the world of *Voyage* departed from ours some six years before – to be precise, on 22nd November 1963:

And then familiar tones – that oddly clipped Bostonian accent – sounded in his headset, and Muldoon [Baxter's fictional stand-in for Buzz Aldrin] felt a response rising within him, a thrill deep and atavistic.

"Hello, gentlemen. How are you today? I won't take up your precious time on the Moon. I just want to quote to you what I said to Congress on May 25, 1961 – just eight short years ago..." (*Voyage*, 18)

For here John F Kennedy survived Dallas, although Jackie did not, and whilst crippled, remains a powerful influence on US politics and the space programme in particular. Many space historians consider that respect for Kennedy's legacy did much to ensure the survival of the Apollo programme in the face of the fatal Apollo 1 fire and the budgetary pressures of the Vietnam War. If he had still been alive, suggests Baxter, especially if near-sanctified by surviving an assassination attempt that had left him a widower, how much harder still would it be to resist his vision? And so he has Kennedy publicly urge America onward to Mars, a push that tips the balance away from the development of the Space Shuttle that NASA in reality settled on.

Indeed, to a student of Apollo, Baxter's counterfactual is fascinatingly subtle. Had he simply posited that Kennedy was not assassinated, he would have had to contrive a much wider alternate history, and in particular grapple with the thorny question of how Kennedy would have handled the growing war in Vietnam. But more specifically, and more relevantly to the novel, Baxter would also have had to show how Apollo itself would have continued under Kennedy. As space historian Dwayne Day has explained, there is plenty of evidence that Kennedy's motivations for proclaiming his goal of a Moon landing were more complex than is often assumed, and formed part of a wider geopolitical game with the Soviet leadership [6]. A second-term President Kennedy might, Day notes, have reviewed his own plans in light of both wider political issues and the USSR's own space programme. To take an extreme view, perhaps we live in the unlikely timeline where Kennedy's death meant

that Apollo continued with a blind momentum that his successors lacked the will to divert. But what Baxter does is contrive the same effect whilst still leaving Kennedy available as a figure with influence on later space policy – perhaps even pushing the US still further onwards.

Taking this premise, Baxter goes on to extrapolate as rigorously as possible how NASA might have sought to fulfil a mandate to land a human on Mars. And, as noted, there was no shortage of material from which he could work; NASA carried out extensive studies throughout the late 1960s on manned Mars missions, and *Voyage* is a painstaking attempt to depict how such plans may have unfolded – including the inevitable setbacks and disasters. Baxter adopts an interesting narrative device in presenting his history; *Voyage* starts with the launch of Ares, then flashes back to the Apollo 11 landing and the genesis of the mission. From this point the two narrative strands alternate, with the mission unfolding alongside the story of its development. In some respects this tones down narrative tension; the reader knows, for example, that Natalie York gets a seat on the Ares mission, so her plot arc in the parallel narrative becomes the story of how this happened, not whether it will. But this approach also rewards the attentive reader, who may note that some of the concepts and characters in the earlier narrative are not present in the later one, and will perhaps get an inkling as to why before actually being shown [7].

Baxter adds to the verisimilitude of his imagined history by having it closely reflect episodes and personalities of the real space programme; aficionados of Apollo history will recognise characters such as project manager Bert Seger, ex-Peenemünde rocket engineer Hans Udet and aerospace designer J K Lee as barely-disguised avatars of Joe Shea, Arthur Rudolph and Harrison Storms. Such 'factionalisation' raises the question of how far an author should go in adapting real-life events into fictional incidents. On the one hand, it can add realism and authenticity; it is hard to criticise a scene as being unrealistic or inaccurate if it in fact mirrors something that took place in real life. On the other, it can detract from the narrative flow if a reader recognises the incident on which it was based; ironically, the very space-obsessed readers most likely to enjoy *Voyage* are the ones most likely to be familiar with the real incidents and personalities Baxter has adapted. For my part, I am inclined to agree with the late Patrick O'Brian's justification of his very similar approach to writing his naval fiction:

My point is that the admirable men of those times ... from whom I have in some degree compounded my characters, are best celebrated in their own splendid actions rather than in imaginary contests; that authenticity is a jewel; and that the echo of their words has an abiding value. [8]

The additional verisimilitude that Baxter gains from such quotation does much to reinforce his depiction of NASA and, indeed, its 'extended craziness'.

Returning to *Voyage*, however, it depicts not only a realistic vision of how NASA might have travelled to Mars by 1986 but also shows the consequences of the 'extended craziness' of a narrowly focused vision of space

exploration. Although the Ares mission succeeds and NASA has another crowning triumph, it is explicitly noted that it has been at a considerable cost to wider space exploration. Noting how 1960s lunar probes had their missions progressively bent from scientific exploration to path-finding for Apollo, *Voyage* depicts a 1980s NASA that has thrown its all into putting three people on Mars, but which in doing so curtailed its lunar programme even more brutally than was the case in our timeline [9] and which knows little of the outer planets, missions such as Voyager having been sacrificed to the Mars budget. With no funding for further missions, no Space Shuttle, and no wider goals in sight, *Voyage* ends with a NASA that has realised another stunning achievement – a human standing on the dried-out river beds of Mangala Vallis – but nowhere to go and nothing to do afterwards. A post-Apollo Mars mission, Baxter suggests, would have been glorious, but a glorious dead-end.

Even so, in *Voyage* Baxter presents NASA in a very positive light. The Ares mission becomes a symbol of national unity; the chronic in-fighting between NASA centres nonetheless gives birth to a successful mission plan; even the terrible cost not only in lives lost but lives suborned to decade-long urgent projects is presented as an inevitable cost of the road to the stars. Whatever Baxter might think of the craziness of huge-budget, single-goal space projects, his admiration for the way in which NASA tackled them in the Apollo era shines through *Voyage*.

It is a very different tone which permeates *Titan*.

Many sf writers may wish to be remembered as having been prophetic. As far as *Titan* goes, Baxter may well rue any such reputation it garners him. Indeed, given the hostility *Titan* attracted in some quarters on release – one noted online reviewer accused it of being so bad that “It would not surprise me if reading that book caused birth defects” [10] – the prophetic reputation it may garner Baxter is that of Cassandra. For this is a book written in 1997 that predicted that the first decade of the new century would feature the loss of the space shuttle *Columbia*, the shutdown of the shuttle programme, manned spaceflight by China and an aggressively right-wing US presidency. None of these were particularly startling predictions on their own; even the shuttle disaster was based on Baxter’s own frank appraisal of NASA’s own safety statistics, and the observation that *Columbia* was the oldest vehicle in the fleet [11]. Nonetheless *Titan* remains a novel that, whatever its real or perceived faults, has the dubious distinction of having held a surprisingly accurate mirror to the period it sought to portray, albeit a very dark one. And ‘dark’ is the right word; the negative reaction *Titan* aroused may well have been in large part in reaction to Baxter’s bitter cynicism about the corruption of NASA’s dream by short-term politics, not to mention the relentless ordeal he subjects his characters to as they embark on a mission cobbled together from the last relics of the US space programme to investigate possible signs of life on

the eponymous Saturnian moon.

If *Voyage* is a hymn to the sometimes-flawed aspirations and achievements of the US civilian space programme, *Titan* at times reads as a diatribe against its military counterpart. (Baxter has himself described *Titan* as “an angry book”. [12]) It is worth remembering that the US has had a military space programme since before NASA existed: the abortive X-20 spaceplane project began in 1957, nearly a year before NASA’s formation, and the Space Shuttle flew nearly a dozen missions dedicated to military payloads. In 1982 the US Air Force formed its own Space Command, and by the time Baxter was writing *Titan* this had grown to absorb satellite communications, space launch and even the US land-based nuclear missile force. Indeed, in 1998 the then Republican Senator for New Hampshire, Bob Smith, called for it to be established as a separate US Space

Force and for the US to seize control of what he termed the “permanent frontier”:

... space offers us the prospect of seeing and communicating throughout the world; of defending ourselves, our deployed forces, and our allies; and, if necessary, of inflicting violence...

Control of space is more than a new mission area – it is our moral legacy, our next Manifest Destiny, our chance to create security for centuries to come. [13]

Although Senator Smith spoke after Baxter drafted *Titan*, such sentiments were by no means new or uncommon at the time. Baxter was writing against a background of growing calls in the US for it to extend its seeming global dominance – then, before 9/11, Iraq and Afghanistan, seemingly in its post-Cold War ascendency – into space itself. From such a perspective, a space programme that discarded science and exploration in favour of military domination was not unrealistic. In a seeming paradox, the dystopian world of *Titan* couples this with a progressively more repressive near-theocracy that all but suppresses science; Baxter seems to suggest that American ingenuity and determination can extend to the Orwellian doublethink required to operate military spaceplanes in a culture that officially rejects heliocentric cosmology.

Against such a setting, the vision and determination of a NASA clique that nonetheless manage to set in progress a mission to Saturn’s eponymous moon seem even more remarkable and, in an echo of *Voyage*, even more crazy. Indeed, it seems hard to credit *Titan*’s premise – that the US would embark on a one-way, seven-year mission a billion miles into deep space just to follow up curious results from the Huygens probe – other than by rationalising it as a desperate, dying reflex of a NASA facing dismemberment at the hands of militaristic



philistines. In the end, as the surviving astronauts reach Titan, their efforts to explore and survive become a bitter parody of the success of Apollo and even the fictional Mars mission of *Voyage*; dedication, ingenuity and what John Wyndham once termed ‘the outward urge’ can only go so far, Baxter seems to say, against an at best indifferent and often hostile universe.

Maybe this was mankind’s last moment, she thought, here on this remote beach, the furthest projection of human exploration. Maybe, in fact, the sole purpose of the human story, fifty thousand years of crying and living and loving and dying and building, had been to deliver her here, now, to this alien beach, the furthest extension of mankind, with her little canister of seeds. (*Titan*, 398-9)

Yet having written one of the bleakest and most depressing novels of his career, Baxter then caps it with an almost Stapledonian coda in which the last two survivors of the mission find themselves revived on a far-future Titan transformed by the Sun’s evolution into a red giant star. Reminiscent of Baxter’s ‘deep time’ novels such as *The Time Ships* and his **Xeelee Sequence**, this section stands apart from the rest of the novel both in tone and in the scope of its vision. Jarring and confusing to some (the Wikipedia entry for *Titan* notes, but does not attribute, a theory that it represents the dying hallucination of the viewpoint character) this sequence does not so much trivialise the suffering and destruction of the earlier parts of the book as place them in a wider context. Yes, perhaps the universe is indifferent, but the vistas of time and space are such that in the end life and intelligence survives.

Moonseed has a very different feel from *Voyage* or *Titan*. It is in some ways a very traditional sf disaster novel: an extraterrestrial danger appears, imperils Earth via a series of progressively more severe calamities, and inspires a desperate project to save humanity, or at least some of it [14]. This is a well-worn plot template but one which nonetheless seems to bear regular retelling adorned with the latest sf tropes, and *Moonseed* is no exception, featuring as its cosmic threat an alien nanotechnology that wields quantum physics to turn rock into energy.

Moonseed saw Baxter develop a number of narrative techniques later to become very characteristic of novels such as *Flood*. In particular, whilst both *Voyage* and *Titan* also feature large casts of characters, only in *Moonseed* does Baxter explicitly introduce them all at the outset, a technique he was to repeat in *Flood*. *Moonseed* also prefigures *Flood* in its global tour of disasters, its depiction of ineffectual (especially in the UK) official response to disaster, and the prospect of a solution, or at least escape, via a visionary clique’s engineering project. It is in respect of this last point that *Moonseed* is closest to the other NASA trilogy novels, with its desperate lunar spaceflight. But whilst

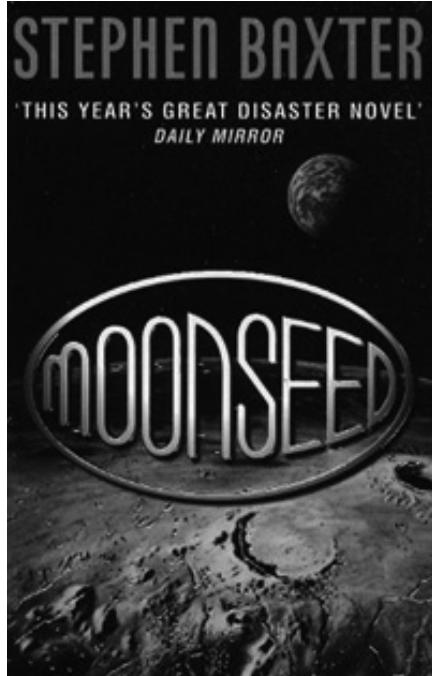
in *Voyage* and *Titan* the mission is the novel, in *Moonseed* it is just part – although an essential and dramatic part – of the main viewpoint character’s personal mission to confront the source of the threat that is tearing the Earth apart.

Indeed, by comparison to Natalie York of *Voyage* and Paula Benacerraf of *Titan*, Henry Meacher, the central character of *Moonseed*, is a most reluctant astronaut; his lunar voyage is a necessary ordeal rather than a goal in itself. And the mission in question is different too, although in an odd way the three novels show a kind of progression of urgency. In *Voyage*, the Ares mission is a decade and a half in the planning, and in effect becomes the whole US space programme; in *Titan*, the mission to Saturn is put together in three years from the relics of the Apollo and Shuttle programmes; in *Moonseed*, the desperate trip to the Moon is a jury-rigged effort cobbled together in months from a mishmash of Russian capsules and surplus US space probes. A common theme through all three novels is Baxter’s admiration of NASA’s culture of problem-solving; it is not always a culture that solves problems efficiently or well, but when pushed hardest can, as seen on the Apollo 13 near-disaster, work wonders. It is as if, in the NASA trilogy novels, Baxter pushes this ethos progressively harder, testing his scientists and engineers under ever greater pressure as they assemble titanium and rocket fuel into the machines that will take his characters to their destiny. As Baxter has Meacher ponder:

NASA tended to think of itself as a heroic agency, capable of taking whatever challenges were thrown at it. But the truth was, all the way back to Mercury, they had never launched a manned mission without every aspect of it being timelined, checklist, simulated and rehearsed [...]

Running a mission like this – making it up as they went along – was alien to a NASA culture that went back half a lifetime. (*Moonseed*, 275)

This, to me, illustrates the significance of the space mission element of *Moonseed* as an element of both the book and the NASA trilogy as a whole. I have already noted Baxter’s manifest admiration for NASA, even though it is at times tempered by unease at the wisdom and motivation of some of its more grandiose projects. My reading of the NASA trilogy is that this admiration is centred on the resourcefulness and initiative of scientists and engineers under pressure, be it in support of goals that are life-saving (as in Apollo 13), scientific or even ultimately (as was clearly the case with Apollo) political. As these examples indicate, NASA has through its very nature been the perfect environment for exploring and depicting this, and in his NASA trilogy Baxter progressively distils the essence of his admiration. In that



regard, the mission in *Moonseed* – hurried, improvised, desperate but ultimately successful – can be seen as, for Baxter, the epitome of what NASA's culture can achieve. In this, he echoes the sentiments of legendary NASA mission controller Gene Kranz, as most widely known in fictionalised form in the film *Apollo 13* [15].

"This could be the worst disaster NASA's ever faced."

"With all due respect, sir, I believe this is gonna be our finest hour."

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Baxter, Stephen: *Flood*. Gollancz, 2008. ISBN 978-0575080584

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Steele, Alan: *The Tranquillity Alternative*. Ace, 1996. ISBN 978-0441004331

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Endnotes

[1] The Encyclopedia Astronautica website (<http://www.astronautix.com/>) is a rich resource for articles on such topics as alternate lunar landing projects and proposals for enhancing the Saturn V rocket, among many others. Beyond Apollo (<http://beyondapollo.blogspot.com/>) presents archived proposals for manned and unmanned missions from the Apollo era.

[2] David Shayler, *Apollo: The Lost and Forgotten Missions* (2002) is a 364-page account of Apollo missions ranging from those that were lost through mishap (Apollo 1 and 13) through ones that were cancelled (Apollo 18, 19 and 20) to those that were never more than concepts. Among the latter are the Mars studies that Baxter drew on for *Voyage*.

[3] Stephen Baxter, 'alt.space', *Vector* Jan/Feb 1998, reprinted in *Omegatropic* (2001) BSFA.

[4] I must declare my own interest here; with Baxter I co-authored 'Prospero One' (*Interzone* 116), which sits in the same continuity as *Voyage* and extrapolates the oft-forgotten British space programme into the realms of

manned spaceflight. We later, slightly less realistically, repeated the exercise in 'First to the Moon' (*Spectrum SF* 6).

[5] 'alt.space', see note [3].

[6] Dwayne Day, 'Murdering Apollo: John F. Kennedy and the retreat from the lunar goal' parts 1 and 2, published online at *The Space Review*, 30 Oct 2006 and 6 Nov 2006, available at <http://www.thespacereview.com/article/735/1> and <http://www.thespacereview.com/article/739/1>

[7] The 1999 BBC radio dramatisation discarded this structure in favour of a linear narrative.

[8] Patrick O'Brian, *Master and Commander* (1970), author's note.

[9] The original mission plan for Apollo involved ten landings, running from Apollo 11 to Apollo 20, of which the final five would be 'J-series' missions with long-duration surface stays, enhanced science and innovations such as the Lunar Rover. Three of those ten were cancelled, leaving six landings (Apollo 13 having aborted) of which only the final three were enhanced 'J'-missions. Those three accounted for some 75% of the total surface exploration time and rock samples, and 95% of the total distance covered (thanks to the Rovers), suggesting that the cancellation of the others resulted in a disproportionate loss to lunar science. (See David Shayler, *Exploring the Moon: The Apollo Expeditions* (1999), Ch. 9).

[10] James Nicholl, rec.arts.sf.written, 19 December 1998.

[11] Personal communication with the author.

[12] Interview with Nick Gevers, *Interzone* 164 (2001), available online at <http://www.infinityplus.co.uk/nonfiction/intsb.htm>

[13] Senator Bob Smith, 'The Challenge of Space Power', (1999) XIII *Airpower Journal* 1, available online at <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj99/spr99smith.html>

[14] e.g. Philip Wylie and Edwin Balmer, *When Worlds Collide* (1933), filmed as *When Worlds Collide* (1951) Paramount/George Pal, to mention one of many.

[15] Although the direct quote may have been scripted for the film, Kranz's sentiments were certainly genuine, as seen from the signed photograph depicted at <http://www.farthestreaches.com/images/kranz3.jpg>

Putting The Past Into The Future

Tony Keen on Baxter's Time's Tapestry sequence

Stephen Baxter's **Time's Tapestry** series consists of four novels, *Emperor*, *Conqueror*, *Navigator* and *Weaver* [1]. The four novels appeared over an eighteen-month period, from autumn 2006 to January 2008. They cover two thousand years of British and European history, from the pre-Roman Iron Age through to the Second World War. The basic premise is that "someone" in the future, someone who comes to be known as the "Weaver", is trying to change the past by sending prophecies back through time. The Weaver's identity is kept unrevealed until the last volume, where it turns out to be more complicated than one might originally have imagined.

It is hardly unusual for Baxter to write novels in a sequence like this – the **Manifold** series (*Time*, 1999; *Space*, 2000; *Origin*, 2001) comes to mind, and the first volume of **Time's Tapestry** appeared just as the previous **Destiny's Children** sequence was drawing to a close. However, the question does arise as to whether **Time's Tapestry** is best treated as four linked novels, or as one single 1,300-page text. There are advantages and disadvantages to both approaches. In favour of treating them as four discrete entities: the novels were published separately, and each deals with a distinct period of history – Roman Britain (*Emperor*), Anglo-Saxon England (*Conqueror*), medieval Spain (*Navigator*) and the Second World War (*Weaver*). However, some of the individual novels do not come out as well as they might from being considered in isolation in this way. And it is certainly the case that *Weaver* ties all the threads of the previous novels together. Whilst it can be read as a standalone, it is also very much the conclusion to the series.

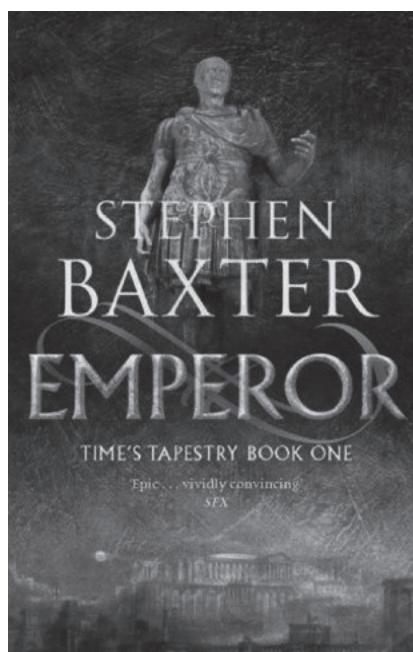
I wish first to approach **Time's Tapestry** as a historical novel (or a series of historical novels). I am not

for a moment suggesting that the only level on which to approach the sequence is as a historical with an sf veneer. The books in **Time's Tapestry** are plainly not just historical novels, but science fiction novels set against historical backgrounds. But they are clearly influenced by the historical novel, and as I am a historian myself, history is my most immediate way into the series.

Before this sequence appeared, Baxter had largely been known for epic future sequences, such as the **Xeelee** novels, or for alternate present works such as *Voyage* (1996). But he has always been a writer aware of the history around him. This can be seen in an article he wrote for *Foundation* in 2006 on the history of his home town of Roby. In it, he connects with the history of Roby, not just as he experienced it in his childhood days, but also going back to the town's settlement by the Vikings. In this article, Baxter paints a vivid word picture, which makes it easy for the reader to imagine what Roby must have looked like through the ages.

Baxter's historical sensibility had also occasionally shown through in his earlier fiction, such as the standalone novels *Anti-Ice* (1993) and *The Time Ships* (1995), or the short story "Brigantia's Angels" [2], which presents an alternate nineteenth century, and which marks the first evidence of Baxter's interest in Roman Britain ("Brigantia" is the Roman-period name for that part of Northumberland in which Baxter now lives – although the story takes place in Wales and London). However, all of these examples are primarily interested in relatively recent history, the nineteenth and twentieth centuries. Other than these, *The Time Ships*, for example, avoids known historical periods for much of its length.

Baxter had first featured the



Roman Empire in a brief episode in *Evolution* (2002), but the immediate precursors to **Time's Tapestry** are twofold. First, an article on alternate versions of the Roman Empire which he wrote for *Matrix* in 2003, in which he discusses a number of other writers' alternate Romes, notably Robert Silverberg's, and puts forward the idea that the fall of the Western Roman Empire was a retrograde step for Europe. The second precursor, as noticed by Jonathan McCalmont, is the first of the **Destiny's Children** sequence, *Coalescent* (2003) [3]. One of the strands of *Coalescent* begins at the end of Roman Britain, in 410 ce, and takes in much of the next hundred years or so of post-Roman Britain and the Western Roman Empire, and then highlights of Italian history up to the present day. *Emperor* connects quite closely with this work, though the periods of Roman and Dark Age Britain shown in *Emperor* and *Conqueror* are largely not those shown in *Coalescent*. More clearly, *Coalescent* and **Time's Tapestry** parallel each other in approach. Both cover a wide period of time through snapshots of particular moments.

However, **Time's Tapestry** develops *Coalescent's* interest in the historical novel. The influence of many past historical novelists is to be seen in Baxter's work. In particular, the sequence shows (and I think Baxter would be the first to admit this) the influence of Rosemary Sutcliff, the historical novelist for children who made Roman and Anglo-Saxon Britain virtually her own preserve. Baxter is also no doubt familiar with the works of other great names of historical fiction, such as Henry Treece or Geoffrey Trease. The series can be read as Baxter learning the methodology of the historical novelist.

It is fair to say that the earlier novels in the sequence show Baxter making some of the errors that novice writers of historical fiction make. One of these is a tendency to include passages that declare to the reader: "I have done my research! See how I have done my research!" Detail is gratuitously included simply to demonstrate to the reader that the author has indeed spent the requisite amount of time in libraries (or these days, on the internet). This is a failing that is often soon dispelled – for instance, it can be observed in Robert Harris' first novel set in the Roman world, *Pompeii* (2003), but not in his subsequent novels about the orator Cicero, *Imperium* (2006) and *Lustrum* (2009). In *Emperor*, this problem can be seen in such passages as an explanation of why London was built where it was – all very accurate, but it slows the novel down.

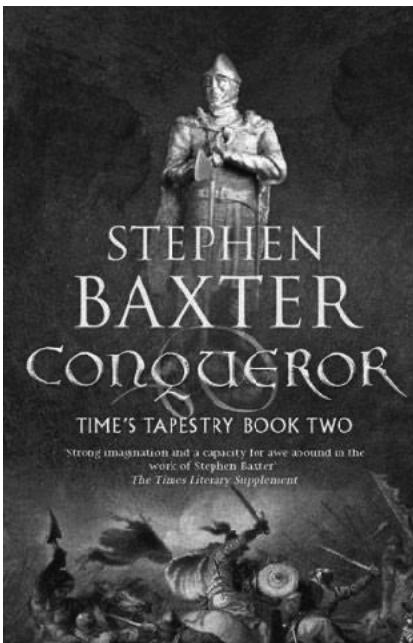
It is slightly surprising that Baxter makes this error – it is, after all, a well-known truism of science fiction or fantasy world-building that the author knows far more about the environment they are describing than is ever revealed in their text. However, the author who sets their tale in an invented science fiction or fantasy milieu has the advantage that the additional

details exist only in their heads, or in notebooks that may be published by members of the author's family once the author is dead. A background taken from history can be researched by the reader, and there can be a perceived pressure on an author to authenticate their narrative by proving that they have been into the archives before the reader. In the same way, a film or television series based in the ancient world will often seek an air of authenticity for what are often travesties of the historical record, by pointing at the seriousness of their historical advisors, or mention the number of replica helmets or pots they have manufactured.

This is not to imply that Stephen Baxter in any way makes a travesty of the historical record, though there are points, especially in the earlier novels of the sequence, where I certainly felt that his version of events was at least implausible. This is an issue that I will come back to, but for now I would like to note that it is quite clear that Baxter kept an eye on Roman-related news whilst writing *Emperor*, and has a tendency to slip in the latest developments. When some of his characters visit Camulodunum, modern Colchester, there is a causal mention of the circus (chariot-racing venue) that had been recently discovered in that city; this comment serves no purpose in the narrative other than to provide local colour, and a detail that Baxter presumably felt his audience would be expecting.

Sometimes, unfortunately, Baxter's research lets him down a little, perhaps through unfamiliarity with the terminology used. For example, in *Emperor*, the Roman general (and future Roman emperor) Vespasian's father is described as an "Asian farmer". In fact, Vespasian's father was Italian, and it was to be another generation after Vespasian before Roman emperors came from outside Italy (albeit from first-or second generation Italian colonists). Vespasian's father was a *tax-farmer* in Asia, that is, someone to whom the Roman state farmed out the lucrative contracts for collecting the taxes from the provinces.

The other common failing of weak historical fiction, related to the desire to demonstrate one's research, is a tendency to modernise history for the reader, by making the lead characters' concerns those of the reader rather than those of the period. Most commonly in those writing about the ancient world, this is reflected in how religion is depicted, where post-Reformation concerns about faith and religious dogma are often imported into the views of Greeks and Romans; this is really to ask the wrong sorts of questions about ancient religion. Baxter, fortunately, avoids this, but there is a number of what, after discussing the matter with Edward James, I would like to describe as "Bayeux Tapestry passages". A Bayeux Tapestry passage is one in which characters discuss something that is contemporary, or near-contemporary, to them, but which is not germane to the story, and would have been of far less significance



to them than it is to the modern reader – indeed, the characters would probably neither know nor care about the object. To take the eponymous example, the Bayeux Tapestry is now of enormous importance as a cultural artefact, and for anyone studying the Norman Conquest of England – but it had not acquired that significance in the late eleventh century, when it was being created (indeed, there is no historical record of the Tapestry until 1476, though it evidently is older).

The most obvious Bayeux Tapestry passages in *Time's Tapestry* come in *Emperor*, and are placed in the minds and words of Romans. At one point, the Emperor Claudius' freedman and representative, Narcissus, is riding through the Kentish countryside, at the time of the Roman invasion of 43 ce, and notes the similarities with northern Gaul. He wonders if there was ever a land connection between the two. Later, Narcissus and Vespasian talk about a river god called Lud, and wonder whether, should a city be established in the vicinity and become the most important in Britain, it would take Lud's name. The modern reader knows that there was, during the last Ice Age, a land bridge between France and Britain. They also know that a city was indeed established and took Lud's name. But it seems unlikely that any Roman of the time would have had such thoughts; they are anachronistic.

Another way of targeting the modern audience's concerns rather than those of the time is via the surprise historical guest star. This is the gratuitous insertion of real historical characters into a narrative that has no particular need for them. This is often accompanied by a late surprise reveal of the individual's identity. Neal Stephenson does this in *Quicksilver* (2003), where a bullied child is revealed at the end of a scene to be Isaac Newton. Stephenson has some justification, in that Newton is a central character in *The Baroque Cycle*, but it is still a frustrating device. It withholds relevant information from the reader, so that they are less informed than they ought to be; but then once the name is revealed the author puts the reader in a position of knowing that this character is more significant than everyone around them realizes, and gives them a knowing wink. It is not an impossible trick to carry off, and Stephenson does it better than most. But it can still be annoying, especially when the famous person appears in a role that an invented character could have fulfilled just as easily.

The most obvious example of this in *Time's Tapestry* comes in *Navigator*. Here one set of Baxter's characters, in the thirteenth century, are seeking to understand one of the prophecies, and so turn to a Franciscan monk and philosopher. The chapter ends with the words "His name is Roger Bacon..." This underlines that the reader is meant to see significance in that name. The same device can also be seen in *Coalescent*,

where the central character meets a local warlord in post-Roman Britain, who just happens to turn out to be King Arthur.

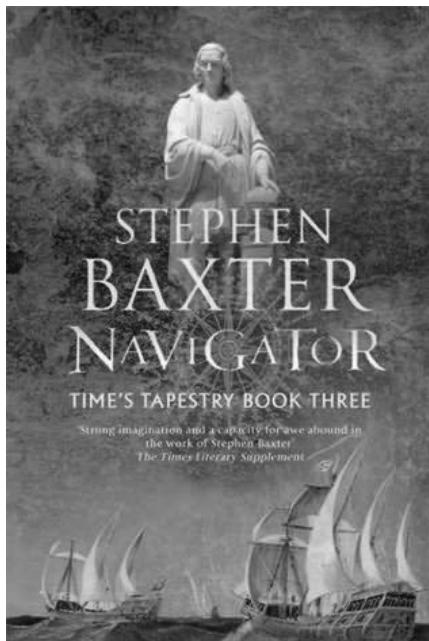
A final negative point to be made about Baxter's historical writing is the way in which he transitions from section to section. As noted, the structure of *Time's Tapestry* raises the question of whether it is best treated as four linked novels, or one 1,300-page text. But, however it is treated, each of the first three volumes covers a period of four to five hundred years, split into sections dealing with individual stories (Jonathan McCalmont calls them "vignettes"). There are generally links between those stories, at least within a novel – some family connections are usually employed. But the gaps between sections can cover a century or more. This not only reduces Baxter's opportunities for character development, but also means that he needs to bring his reader up-to-date with how the world has moved on in the intervening period. This is often done through a page or so of character's internal monologue, as they muse on how events have developed since (conveniently) the last historical moment that the narrative focused on. This can be a rather clumsy method of infodump.

However, whilst I think that the above are valid criticisms, they should not be taken as a major condemnation of *Time's Tapestry* as a whole. Two important points need to be borne in mind. Firstly, these aspects are often more obvious to people who have studied the historical period concerned than they are to other people. So, as a specialist in Greece and Rome, I had issues with *Emperor* (in particular with the depiction of the Emperor Hadrian as largely uninterested in the detailed plans for the Wall which bears his name [4]) which I did not have with the other volumes.

Secondly, Baxter gets better very quickly. *Conqueror* is a much better-written novel than *Emperor*, and many of the flaws that I have identified are

rapidly excised. "Bayeux tapestry moments" are not to be found in *Conqueror*. The slightly clumsy infodumps remain through *Navigator*, but by the end of that novel, almost all the other problems are gone. Christopher Columbus appears in the final section, but his presence is effectively integrated into the plot, so that it is entirely justified. Moreover, Columbus is kept largely offstage, someone for Baxter's fictional characters to speak about rather than interact with (as McCalmont observes). And the characterisation becomes more effective as the novels progress.

Weaver is the most successful of the series, perhaps because it takes place in a period with which Baxter is more familiar, and about which he has written before (he even includes a reference to real-life physicist Kurt Gödel, who also appears in *The Time Ships*). Actual historical characters are kept mostly offstage, and Baxter mainly concentrates on his fictional cast.



There is still the use of detail that the reader knows is significant when the characters don't, but instead of being annoying, this can be particularly effective. A woman reveals that her daughter is to be evacuated from England to Canada on the liner *City of Benares*. The reader knows that the *City of Benares* will be torpedoed on its way across the Atlantic, and many of the children will die. But in Baxter's hands here, this does not come across as a smug nod to the reader, but as heartbreaking foreshadowing.

Weaver is also the point at which Baxter fully engages with the science fiction theme that underlies the series. The first three novels are not true alternate histories, as history is not changed from what we know. *Weaver*, however, is, and belongs to the type of story that John Clute describes in *The Encyclopaedia of Science Fiction* as the "Hitler Wins" genre. Except that it doesn't really, because Hitler doesn't win – the Germans manage to launch a cross-Channel invasion that occupies much of Kent and Sussex, but goes no further, and as the novel closes, they have been ejected.

In any case, though the earlier novels are not alternate histories, the theme of alternate history runs through very strongly through them. In both *Emperor* and *Conqueror*, those pursuing the prophecies that drive the plots are often trying to change history from what the reader knows it to be. Though some tension is derived from the possibility that those trying to effect changes might succeed, as each plot either ensures that the history we know comes about or fails to effect the hoped-for change, the reader can come to the conclusion, by the end of *Conqueror*, that history is essentially immutable. The reader then is reassured that, however sympathetic the characters trying to change history are, they cannot succeed.

But *Navigator* introduces another element – here artefacts are discovered that indicate future Muslim or Mongol dominations of Western Europe. These are artefacts from the future, as far as the characters are concerned, but futures where events in the characters' past did not take place as their historical records indicate. So, history *can* be changed, for these artefacts represent attempts to ensure that Franks win the battle of Poitiers and that the Mongols turn back before Vienna, made by people in timelines where the Franks lost Poitiers and the Mongols took Vienna [5].

This is expanded in *Weaver*, which reveals the Loom, the invention of two students, Rory O'Malley and Ben Kamen, and the method by which the prophecies have been inserted into history. It turns out that there is not just one Weaver, but several. The entirety of *Emperor* is rapidly sidelined as an early experiment, and the rest of the novel revolves around struggles to use the Loom. The prophecies that drive *Conqueror* and *Navigator* are part of a complicated Nazi scheme to undo the creation of America, with a counter-prophecy sent back by

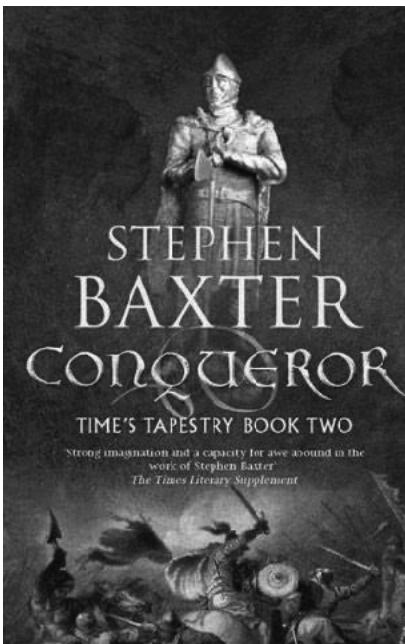
British agents, thus setting up competing prophecies that drive the latter portion of *Navigator*, where one group are trying to send Columbus west and another east. If the German prophecy succeeds, then the alternate timeline will disappear, and be replaced by another in which, so the Nazis hope, there will be no-one to oppose Nazi domination of the world.

There is one very minor quibble: Baxter has established through the novels that changing the past eradicates one's own present – but right at the end of the novel a character sees a different version of a text to the one which she remembers and copied down – time has changed around her, but left her memories of an alternate history intact. But Baxter can be forgiven that, for he ends the novel with a bravura moment worthy of Philip K Dick's *The Man in the High Castle* (1962), in which he eradicates the timeline of the novel, and restores the history that the reader knows.

However, for all that *Time's Tapestry* is both a series of historical novels and a work of alternate history, I would argue that neither is what is at the work's heart. Fundamentally, I believe, *Time's Tapestry* is about *England*. It is about Baxter's relationship to the landscape of England, just as much as is his 2006 *Foundation* article. It is about the rolling hills of southern England, where in *Emperor* Narcissus muses, however anachronistically, on the possibility of a land bridge to Europe, and across which German tanks drive in *Weaver*. It is about Offa's Dyke in *Conqueror*, cutting across what will become the Welsh Marches, "a wound slashed through the flesh of the green British countryside". Even the Spanish excursion of *Navigator* is full of English people, such as the half-English half-Norse warrior Robert, or those of English descent, such as Robert's descendant Joan, who lives in the Christian community in thirteenth-century Jerusalem. It even has a few scenes in England, where Joan and her son wash up after being driven out of Jerusalem.

In particular, *Time's Tapestry* is about Baxter's relationship with Northumberland, where he now lives. Much of *Emperor* takes place in the Roman fort of Banna (Birdoswald) on Hadrian's Wall (which also featured in *Coalescent*). Part of *Conqueror* is located in Lindisfarne. But Kent and Sussex also feature strongly in *Emperor*, *Conqueror* and *Weaver*. At their best, a strong sense of landscape oozes out of the novels. If *Emperor* perhaps does not give as vivid an impression of Roman Britain as it might, this is more than compensated for by *Conqueror*'s picture of a Britain dominated by the relics left behind by Rome.

And that leads to another theme of the series, and indeed of much of Baxter's writing throughout his career – the collapse of systems and ways of life, and the attempts of people to survive such collapses and preserve as much as possible. The best moments of *Coalescent* are those that address Britain after the end



of Roman rule. *Time's Tapestry* sees the end of Celtic Britain in the face of the Roman invasion, the after-effects of the end of Roman Britain, the end of Anglo-Saxon England at the hands of the Normans, the end of Muslim Spain, and what the end of English life could have been under Nazi occupation. Characters, such as the Byzantine Belisarius, a point-of-view character in *Conqueror*, are dispatched unsentimentally. Through his depictions of these pivotal moments, Baxter asks questions of our own assumptions. Is our own society as secure and safe from disaster as we think, or are we being complacent?

Weaver appeared between two other Baxter novels. *The H-Bomb Girl* (2007), a novel equally steeped in the past, this time Liverpool of the early 1960s (i.e. Baxter's childhood [6]), and *Flood* (2008), in which disaster is visited upon the entirety of human society. Both are excellent novels, and recognised as such – *The H-Bomb Girl* was shortlisted for the Arthur C Clarke Award, and *Flood* for the BSFA Award. 2006-2008 was an exceptionally productive period for Baxter, seeing six novels and a short story collection. That some of his writing in that period is not up to his highest standards is perhaps understandable; that so much of it is absolutely first-rate is a remarkable achievement. This is a period which, in the end, re-established Baxter as one of Britain's finest science fiction novelists. And in *Time's Tapestry*, he has broadened his range into the historical novel, something from which *The H-Bomb Girl* clearly benefits. This historical perspective will no doubt also inform his new series, **Northland**.

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32).

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McCalmont, Jonathan: Review of *Navigator*, *Strange Horizons*, 9 November 2007 (http://www.strangehorizons.com/reviews/2007/11/navigator_by_st.shtml).

McCalmont, Jonathan: Review of *Weaver*, *Strange Horizons*, 7 March 2008 (http://www.strangehorizons.com/reviews/2008/03/weaver_by_steph.shtml).

Endnotes

[1] I reviewed the novels in *Vector* 250 (2007, *Emperor*), 254 (2007, *Conqueror*), 255 (2008, *Navigator*) and 257 (2008, *Weaver*), though I would now revise many of my opinions. For alternative viewpoints, see Jonathan McCalmont's reviews in *Strange Horizons*.

[2] *Interzone* 91 (January 1995), reprinted in Stephen Baxter, *Traces*. Voyager, 1998. ISBN 0002254271

[3] I have written about the *Matrix* article and *Coalescent* in *Foundation* 102 (Spring 2008), though again, my views on Baxter need revising.

[4] Hadrian was a builder, certainly responsible for the Temple of Venus and Roma in Rome, and probably for the Pantheon in that city as well. Evidence from the ancient sources suggests he took a keen interest in the operations of his army. So I could not believe that he would be as indifferent to his northern frontier as to decide to build a wall simply because Baxter's fictional characters are deeply persuasive. No historical record illuminates the processes of Hadrian's planners, so there is some freedom to speculate, but Baxter's version struck me as hard to believe, though he may be closer to the reasons for the change of design mid-construction.

[5] For a discussion of immutable and mutable versions of history, see Richard Burley, "Philosophies of Time Travel in the New Doctor Who" in *The Unsilent Library: Essays on the Russell T Davies era of the New Doctor Who*, ed. Simon Bradshaw, Tony Keen and Graham Sleight. Science Fiction Foundation, 2011. ISBN 978-0-903007-08-5

[6] Though about teenagers in 1962, when Baxter himself was five, *The H-Bomb Girl* is plainly influenced both by Baxter's own memories of 1962, and by his own teenage experiences later in the 1960s.

Foundation Favourites: Stone Spring

Andy Sawyer

I came to *Stone Spring* (2010) with three fascinations in mind.

Some time ago, I read reports (possibly the same ones that Baxter refers to in his afterword) of remains of human settlements being found in material dredged up from the North Sea: material from land that was above sea level after the glaciers of the last ice age retreated. For some reason, this fascinated me. There was a sense of the mysterious about these lost settlements which seemed romantic. Who were these people? What was their relationship to the peoples we know about from the historical record? The fascination increased when I recently took a course in early British archaeology and the person talking about the megalithic settlements in the Orkneys pointed out that, first, the islands at the time these settlements were created were not part of an archipelago but one land mass, and second, that (partly because of this geography) the inhabitants had more contact with Scandinavia than with what we now think of as mainland Britain and Northern Europe. What he meant, I think, was that in thinking about these people we need to have in mind not a model of the world as it looks now, but a very different world; one which (this is my own extrapolation) is closer to the alien worlds of science fiction.

A third fascination was starting to read Nicholas Ruddick's *The Fire in the Stone* (2009), a study of "prehistoric fiction", which, as Ruddick points out, is unlike science fiction in that we have none of those complex threads of argument about what it is and what sort of other kinds of writing can be counted as helping to form it. You can't have "prehistoric fiction", says Ruddick, until you have some idea of "prehistory", and this very much puts us in the second half of the nineteenth century. The ideas of the likes of Lyell and Darwin about geological and evolutionary time, linked to the archaeological discoveries which were being made (the bones found in the Neander Valley in 1856, for example), created a space in which people could write about the times in which those "prehistoric men" lived and somehow became the human race we know and love. Naturally, many of these speculations were limited to the small amount that was known and the preconceptions of whoever was speculating. Prehistoric humanity was for some, primitive and brutish; for others, noble golden civilisations which probably had

immense technological resources (how could they build those stone circles?), and many of the stories produced were all about how these savages achieved the highest pinnacle of civilisation (that's you and me), or about how the highest pinnacle of civilisation degenerated into, well, you and me. Nicholas Ruddick calls this process "hominization": scenarios of "the evolutionary process that made us the kind of species that we are" (Ruddick, 3).

The "deep time" of the past is as fascinating as the eternal sweeps of the future, and it's not surprising that Stephen Baxter has attended to both ends of the temporal spectrum. Ruddick ends *The Fire in the Stone* with a look at how Baxter has treated past and future hominization in novels like *Evolution* (2002), which begins in the Jurassic period with a "false start", the evolution and fall of intelligent dinosaurs. Ruddick reminds us that this is "a special providence" that "has played no part in hominization" (Ruddick, 201) and that essentially, as a species, we have been lucky. Nevertheless, (partly because Baxter is a fiction writer, fiction writers have to have characters, and characters have to make decisions and at least try to control their lives) a novel like *Stone Spring* seems to suggest that luck is not everything. While in *Evolution* (as Ruddick notes) the development and survival of *homo sapiens sapiens* as a species is dependent upon the "lucky" accident of a single individual having a kind of genetic mutation (or perhaps schizophrenia) which enhances her ability to perceive and conceive of patterns, this very ability is one which enables the human race to consider how the pattern of its own possible destiny might be altered. As a writer, and a science fiction writer, Baxter is concerned with our ability to take control of our own destiny and map our own futures, an ability which is constrained by the fact that the universe is just too vast and complex for us to assume that a not-very-well-adapted scrawny hominid species from North Africa is necessarily going to succeed where the dinosaurs didn't.

Stone Spring, then, is about this fascinating but largely unknown period in human history, with a number of typically Baxterian themes. Like much of his recent work, it delves into history but becomes alternate history, raising a question that's firmly at the heart of much sf and is probably the great ambiguity of

science fiction. Can we, as a species, take control of our evolution? Are we part of the world, or can we step out of what seems to be inevitable, even catastrophic destiny and change it?

The novel begins some 9,000-10,000 years ago in the now-submerged "Northland" connecting Albia (what is now the island of Great Britain) to the European continent. To the north of this vast land bridge is the settlement of Extelur, bordering a bay whose borders with the sea are Flint Island and the causeway connecting it with the mainland. Ana is just becoming a woman, needing to go through the ceremony which marks this transition period, in which she will encounter her totemic "other". With her father missing, the only family support she has is her older sister Zesi. As is the custom every seven years, two Pretani hunters from forested Albia have come to attend the summer solstice ceremonies, and the rivalry between Gall and his younger brother Shade is going to play an important role in the story. Across the sea to the west, Ice Dreamer is perhaps the last survivor of a band of Clovis Culture people who have been driven out of their home by incomers. Raped and pregnant, she is found by Kirike (Ana's father) and his companion Heni, who have followed the ice floes west and returned with her to Extelur. Meanwhile, Chona, a wandering trader, is in the city (a relatively new concept to this world) of Jericho. As part of a bargain he takes the boy Novu, skilled in the technology of brick-making, as a slave, and together they wander through what is now continental Europe. After Chona's death Novu continues, and eventually finds himself in Extelur.

The various wanderings described in the novel, and the different viewpoint-characters, show a world which, while different and sparsely populated from our point of view, is already complex and sophisticated from its own. There are hundreds of tribes, each with its own language and technology and social customs, linked together by well-trodden trade routes. Some are hunter-gatherers, but many have developed permanent settlements, even cities, as in the case of Jericho (perhaps the oldest walled settlement surviving in the archaeological record, and certainly dating back to this period). And the world is changing. The ice melting from the glaciers is causing the sea level to rise. Driven from their own territory, the chalk cliffs to the south bordering the Thames-Rhine confluence, a band of "Snailheads" (who bind the skulls of their children so that they grow to protrude at the back) come to the lands of Ana's people, a visit which indirectly produces

tragic and long-lasting consequences. At one point, the settlement of Extelur is devastated by a tsunami. The temporary retreat of the waters before the final deluge reveals traces of a past which suggests a reason for the concentric-rings symbol familiar to both Ana and Ice Dreamer.

While, as we can infer from Ruddick's *The Fire in the Stone*, it would be difficult to take any description of prehistoric fiction as historically accurate, Baxter's Mesolithic period seems to be both plausible and interesting. In recent fiction, Baxter's descriptions of both character and landscape seem to have become more focused. In a story of devastating floods, humanity in a natural state, even sibling rivalry, there are obvious echoes of the Book of Genesis, but he does not fall

into the trap of describing this world as innocently Edenic: the death of Ice Dreamer's young companion Reacher is harrowing and tragic (Baxter emphasises that these early humans are old at thirty), and his description of places like the boggy coastlines around Extelur or the deep forests of Albia are vivid. This is a *physical* world, sometimes intensely so: Baxter emphasises frequently its smells, particularly those of excrement and blood. But he also returns to its varied landscapes. And as might be expected, the novel is full of ideas.

Many of these ideas are presented through the conversations of priests/shamans as philosophers, and the way characters like Ana and Novu *wonder* about the world, but only rarely does this fall into the dubious ahistoricism of essentially modern debates being presented as if Mesolithic

humans would be able to understand the concepts. Baxter's characters describe the world in the context of the story in which they tell it – the "Sky Wolf", the "Mothers" who created the world as they know it – but respond to the wonder of the world by speculating about it intelligently. There are different stories of the world's creation, says Jurgi the Extelur priest, but they have "the same elements . . . the birth of the world in ice and fire, the coming of death" (*Stone Spring*, 157).

We see, for example, the way new social concepts like slavery – a custom of the Pretani which surprises Zesi but which she comes to exploit – and the way the Pretani or Novu's people accumulate possessions rather than give them away in the potlatch-like ceremonies favoured by Ana or Ice Dreamer's folk seem to be forerunners of the history we know. The rivalry between Ana and Zesi also has echoes of something new happening; in some ways, although Baxter skates over this in presenting the relationship



in rather monochrome nice/nasty contrast, Ana is as exploitative as her sister. One of Baxter's most interesting inventions is the "Leafy Boys" who infest the forest canopy of Albia. Feral children, perhaps descendants of lost or abandoned children from earlier inhabitants who have learned to survive in the wild, who reproduce by means of kidnap, and who prove impossible to domesticate (but who can be made into convenient warrior-slaves), the Leafy Boys are perhaps ancestors of all the humanoid terrors found in the north European imagination. We can see in them, for example, the Green Men who haunt the medieval woods, and the changelings of fairytale. One later thread is told through the consciousness of one of these damaged beings.

The central story, however, is one of survival and technology. As more and more land shifts in the far north, the sea around Extelur rises and the settlement is threatened while Zesi is away in the land of the Pretani. Following the tsunami and the understanding of the threat to Extelur, the story develops the urgency of the science fiction problem-solving tale. What can these folk *do* to preserve themselves against the rising of the water? Using examples from his own culture, Novu repairs the wrecked causeway and goes further: builds a dyke between the promontories that almost enclose Extelur Bay, reclaiming the former seabed. Ana's leadership during the disaster and the chaos that follows it, however, destroys her relationship with her sister. Zesi's attempt at sabotage results in tragedy.

One of Baxter's most interesting and thoughtful suggestions is that this "deep time" has "deep time" of its own. The seabed around Extelur is shown to be a place where people lived: a region as lost and mysterious to Extelur's inhabitants as theirs is to us. The discovery that the semi-circle of shell-midden on Flint Island is part of a much older change to the geography of Northland, and that like us, the inhabitants of Extelur are descendants of a much older world, only fragments of which remain, is part of a conceptual breakthrough which is undermined, however, by Baxter's overt reference to the Atlantis myth: a once-too-often use of names half-familiar to us, like "Albia" and "Pretani", to suggest shadowy connections between then and now. Unlike his use of the Leafy Boys, this seems rather too obvious. While the explanation that the source for Plato's Atlantis was in land swallowed by the sea in Doggerland is as plausible (and unprovable) as any other, the legend itself is so worked-over by competing explanations as to be, in this case, a cliché rather than a symbol.

Only rarely, however, is there such shakiness. The birth by improvised Caesarean operation of Ice Dreamer's baby is possibly plausible and certainly meant to show that "primitive" implies neither lack of ingenuity nor technological ability in humans, but on first reading seems overstated. The presence of "sleeping moss" soaked in sap from the seed-pods of poppies smacks of convenience. Interestingly enough, though, this is *dramatic* convenience (fortunate that they managed to keep their medicine kit safe and dry!) rather than Baxter's own invention: he cites in an afterword his evidence that there is authority for

at least the speculation that Mesolithic humanity would have had knowledge of such techniques. Some of the conversation slips too closely into the present day: "Ana's a good kid. Reserved, mixed up, but goodhearted" (*Stone Spring*, 166). (Teenagers! They're all the same!) Mostly, however, we are firmly in the heads of the characters, seeing the world (mostly) as they see it and empathising with them as fellow humans.

As for the (apparent: this is the first volume of a trilogy) conclusion, it probably falls into the area of interesting idea rather than serious speculation. There are in fact two "inventions" here. The first is Novu's technological innovation, which we see at the end being taken up by the Snailheads, who are returning to their ancestral home to see if they can stop the flooding of Northland from the south. The second is the incorporation of that technology in the social structure devised by Ana, who finally eschews slavery but finds a way of organising her people to engage in large-scale projects without using it. We have to swallow considerably more *there* than with the concept of Mesolithic humans engaged with large-scale projects that will change the geography of the globe. Baxter wisely says nothing in this novel about the fact that we are, ourselves, faced with pretty much the same problems, but we can infer that for ourselves. We can read the series so far as an alternate history with a more optimistic view of the path humanity could take.

Or we could, considering anomalies around some coastal regions and the known ingenuity of Neolithic/Mesolithic humanity, wonder whether that this is something that human groups have already tried, and so far failed with, and think more bleakly about Baxter's fascination with deep time. *Stone Spring* is something of a feel-good novel, but Baxter is too good a writer in the Stapledonian tradition to suggest that "solutions" are anything more than provisional in the long march of deep time.

Works Discussed

Baxter, Stephen: *Stone Spring*. Gollancz, 2010. ISBN 978-0-575-08919-8

Ruddick, Nicholas: *The Fire in the Stone: Prehistoric Fiction from Charles Darwin to Jean M Auel*. Wesleyan University Press, 2009. ISBN 978-0819569004

Baxter's People

Niall Harrison

I.

And so the question arises, as it does for any writer who has published a lot of books: where should I start?

Several answers are always possible, and may be more or less appropriate depending on the writer in question. One answer, for instance, is “at the beginning”; for Stephen Baxter this isn’t a terrible answer, since although he has written numerous different series, the **Xeelee Sequence** is the biggest and Baxter’s first novel, *Raft* (1991) is its first instalment. Another option, more viable for Baxter than for many writers, is “with the first book you happen to come across”; his core obsessions wax and wane in different novels, but are enduring enough that there’s a good chance you’ll be able to accurately gauge whether you’ll get much out of his work from a random sample. A third route might be to seek out the award winners or nominees: the John W Campbell and BSFA Award-winning *The Time Ships* (1995), the Philip K Dick Award-winning collection *Vacuum Diagrams* (1997), or Arthur C Clarke Award shortlistees such as *Titan* (1997), *Time* (2000), or *Coalescent* (2003). And yet another approach could be to tailor the entry point to the reader: the fan of engineering sf might be directed to *Voyage* (1996), the reader of alternate history to **Time’s Tapestry** (2006-8), the connoisseur of space opera to *Exultant* (2004), the serious Clarkian to *Ring* (1993), and so forth.

Each choice has something to commend it. None of them, however, is likely to wind up with a reader diving into my pick, *Evolution*, which comes from the middle of Baxter’s career (2002), is scarce in bookshops despite its reprint as a Gollancz “Future Classic” a couple of years ago, was relatively overlooked by awards (having the misfortune, from a Clarke Award point of view, to be published in the same year as *The Scar*, *Light* and *The Separation*), and is a sufficiently unusual novel that it’s unlikely to come to mind as a personalised recommendation. Yet for me, this ambitious, messy epic is one of Baxter’s most distinctive novels, with a beautifully managed voice binding together its virtues and vices.

II.

The pitch is straightforward. *Evolution* sets out to chart, as the blurb has it, “the ebb and flow of one stream of the great river of DNA” on our planet. Its six hundred or so

pages encompass more than six hundred million years of the history of life on Earth, and the progression of that stream of DNA from small, rodent-like mammals scurrying to avoid dinosaur feet (and teeth), through the rise of the primates and, eventually, through us, on into the inhabitants of what the novel knowingly labels “A Far Distant Futurity”. So it is, necessarily, an episodic narrative – nineteen episodes, in all, not including the framing story and interlude, set around a scientific conference in 2031 – and not the smooth reading experience that might be expected from a more conventional novel. But its structure is appropriate to its content, since evolution itself does not lend itself to the arc of a story, lacking – as *Evolution*’s careless glide past our present highlights – a sense of climax. Even an occasional repetitiveness, as familiar dynamics play out in familiar ways in different situations, millions of years apart, can be understood as a strength, conveying a sense of how enduring the influence of biology can be, even over timescales that see continents and climate shift and flow.

I mentioned that voice is the glue that gives the story what shape it has, the constant that we can lean on as everything else is changing. It’s a voice with two linked defining characteristics, each of which is supportive of the novel’s goals.

First, it is distinctively a *modern* voice, one that never tries to pretend it is of the time it observes; one, indeed, that deliberately comments on the time it observes, introducing its characters as might the narrator of a documentary reconstruction:

Purga looked more rodent-like than primate, with whiskers, a pointed snout, and small folded-back ears. She was about the size of a small bushbaby. On the ground she walked on all fours, and she carried her long bushy tail behind her, like a squirrel’s. To human eyes she would have seemed strange – almost reptilian in her stillness and watchfulness, perhaps incomplete. (*Evolution*, 12)

Most episodes in *Evolution* raise their gaze to describe not just their focus, but the wider ecosystem in which they live, using similarly contemporary comparisons; in Purga’s time, dinosaurs stand around “like parked tanks” (11), for instance. Predator and prey

relationships, and later, social dominance relationships, are carefully exposed for our consideration.

This leads to the second characteristic of *Evolution's* voice: its enthusiasm for the big picture. Every episode, at some point, draws back to remind us of the grander context. Immediately after the above paragraph, for instance, we get:

But, as Joan Useb [the paleontologist viewpoint character in Baxter's framing story] would one day learn, she was indeed a primate, a progenitor of that great class of mammals. Through her brief life flowed a molecular river with its source in the deepest past, its destination the sea of the furthest future. And from that river of genes, widening and modifying as thousands of millennia passed, would one day emerge all of humanity: every human ever born would be descended from the children of Purga. (*Evolution*, 12-13)

As we travel down the generations, from nimble Purga (65 million years before present) to tree-dwelling Plesi (63 million years) to lemur-ish Noth (51 million years) to monkeylike Roamer (32 million years) to true ape Capo (5 million years) to the first walking hominids like Far (1.5 million years), and onward – as we travel, we are constantly reminded that every creature is another link in the chain, that we are in an important sense bound to the animals, and later people, that Baxter shows us. It's a sober consideration but also, often in *Evolution*, a vital and beautiful one.

It's worth asking how – or whether – this sense of continuousness manifests in *Evolution's* generic identity, as well. It certainly draws on multiple wells. In his 2009 study *The Fire in the Stone*, Nicholas Ruddick sets out to describe the history and characteristics of the genre of prehistoric fiction. He abbreviates this to pf, in part because he argues that the form is closely allied with science fiction in its concerns and techniques, even if superficially they are – literally – millions of years apart. He provides some mapping of the terrain on which the two genres meet and, in a crucial coda, turns to *Evolution* as a mixture of pf and sf.

To use a chemical analogy, while most prehistoric science fiction is a compound represented by the formula psf, *Evolution* is a mixture with the formula pf + sf. Instead of using literal or virtual time travel to place the theme of human origin in an sf frame, Baxter begins the narrative with chronologically arranged episodes of pure pf. Then, once time's arrow traverses the line of the present day, he concludes with episodes of pure sf. (Ruddick, 198)

This is a tempting view of the novel, but perhaps also a limiting one, because it encourages us to decompose what we read into separate entities – the pf and the sf (and in fact *Evolution* also includes a couple of episodes of straight hf). The issue is inherent in Ruddick's definition of his terms –

Prehistoric fiction will here be taken to consist of novels and stories about prehistoric human beings. [...] Human prehistory began, then, when a still imprecisely identified ancestral hominid first assumed a fully upright posture, probably more than five million years ago. Prehistory ended – and history began – when humans attained the ability to record events for posterity in a written language. (Ruddick, 1)

–which is to say, inherent in the concepts of prehistory and history. And this is an arguable distinction, resting on that assertion that the development of a written language represents a fundamental break, that everything after that point is qualitatively different to everything before.

This assertion came to prominence in the nineteenth century, around the same time that the depths of biological and geological time were first becoming clear, formulated by historians such as Francois Guizot, or Robert H Labberton, who wrote that "a society can be subject to the gaze of history only when the society itself has a historical consciousness" [1]. It is, as Daniel Lord Smail has argued, a *reactionary* assertion. In *On Deep History and the Brain* (2008), Smail describes historians' reluctance to give up the idea of a discontinuity that would allow modern history to have as clear and comforting a beginning as most religious, or sacred, histories have always provided (in the form of an Eden, or a Flood):

What this genealogy indicates is that it was not the inertia of sacred history and the problems of plotting alone that have delayed the reception of humanity's deep history. There was a certain degree of resistance, a lingering unwillingness to contemplate the dark abyss of time. Historians no longer think this way. But when resistance was active – when, in the late nineteenth and early twentieth centuries, some historians were alive to the implications of that abyss – the exclusion of the deep past was motivated by genuine intellectual doubts and uncertainties. Their resistance absolved historians of the need to read deeply in the paleoanthropological evidence. This resistance is now dormant, but its legacy – a few dutiful pages on the Paleolithic, a sense that this is not the province of history – continues to shape our texts and our curricula. (Smail, 42)

Smail goes on to argue that with modern techniques, it is becoming less and less tenable to maintain that written documents are a special class of what he calls historical traces – defined as "anything that encodes some sort of information about the past" (Smail, 48-9), from the indifferent archives of geology and DNA, to consciously created materials such as stone tools – and equally untenable to insist that society requires historical consciousness. His case for a deep

history, one that starts when and where the human race starts, millions of years ago in Africa, is thorough and compelling, and precisely a *continuous* vision. As he notes in the quote above, the case is now widely accepted in principle, if not always in practice; a more recent (and brilliant) example of the same argument can be found in this year's Radio 4 series, *A History of the World in 100 Objects*, curated by the Director of the British Museum, Neil MacGregor. In his introduction to the book that accompanies the series, MacGregor speaks of signals rather than traces, but points out that a long, continuous view of history is implicit in the project of museums, and is in many ways a more thorough and equitable history than its document-based counterpart: "Writing is one of humanity's later achievements, and until fairly recently even many literate societies recorded their concerns and aspirations not only in writing but in things" (MacGregor, xvi).

And, I'd suggest, continuousness is a more productive way of thinking about *Evolution* than decomposition. Such a perspective is enabled by the novel's consistency of voice, and sees the novel as pushing the notion of deep history a step further, challenging not just the division of history and prehistory, but the division of the human and the pre-human: similarly, the first section in MacGregor's history is titled "Making us Human, 2,000,000–9,000 BC." It's a way of reminding us that humans are, after all, only animals, only one more channel in the estuary of life on Earth.

III.

A continuous reading of *Evolution* helps to make clear how each of the nineteen episodes stands in relation to the overall narrative. Each is a working-out of tensions between the past and the future; the closing down of a niche in one time period can mean the opening of a niche later on. No tension, however, is more central to the novel than that defining the line between the animal and the human.

Less than half of the novel deals with modern hominids, the biological superfamily of humans and other great apes – or, in fictive terms, animals with the neural architecture that allows them to be characters in the conventional, interior-life sense, capable of reflecting on both their own actions and those of others. Of course, to allocate such animals even half of *Evolution* is a distortion, massively over-representing the amount of time they – we – have been around on Earth. One justification is that the space is used to trace out that challenging dividing line; another might be simple concession to readerly fatigue, our own desire for characters like us.

If it is a concession, however, we're made to wait for it. The nineteen episodes are corralled into three sections, of which the first, "Ancestors", deals primarily with successive generations of primates, as mentioned earlier: Purga, Plesi, Noth, Roamer, Dig and Capo. One additional point to make here is that these names gesture towards the nature of these chapters, being drawn either from their protagonists' genus (*Purgatorious*, *Plesiadapid*, *Notharctus*) or their

character (Roamer, Dig): all names imposed by our nameless narrator, not by the culture being described. It's a marker of progress that the later names start to indicate rudimentary identity, underlined in the text by the difference in each protagonists' naming scheme [2]. We are given names on Purga's behalf, for instance:

Purga's mate gave himself no name, and nor did Purga name him, any more than she named herself. But if she had – in recognition that he could never be the first in her life – she might have called him Second. (*Evolution*, 30)

Whereas Plesi looks at "her two pups, both daughters, who she thought of as Strong and Weak" (100). That's what two million years gets you. But Plesi and Purga are, in the context of the novel as a whole, certainly more similar than they are different; and they have their human moments.

This is to say that they are anthropomorphised, which is to say they are granted character status. For the most part *Evolution* displays a light touch in this regard, and painstakingly points out the ways in which its characters are not conscious in the way we are. But more importantly, the moments of scientifically unjustifiable humanity scattered through the novel can be understood as moments that emphasise the continuity of evolution: moments that bring out the human in the animal, as in a tribute to Frond, a younger member of Capo's tribe, and one of the first primates to come down from the trees:

He was bipedal, meat-eating, xenophobic, hierarchical, combative, competitive – all of which he had brought from the forest – and yet he was imbued with the best qualities of his ancestors, with Purga's doggedness, Noth's exuberance, Roamer's courage, even with Capo's vision. Full of the possibilities of the future, laden with the relics of the past, the young male, standing upright, gazed at the open plain. (*Evolution*, 239)

These lines conclude "Ancestors": it is easy to see our own species in the description. In the second section, "Humans", the balance has flipped the other way: we are told that Far, living 1.5 million years ago, "looked human", but "was not thinking as a human would" (251). And in the third part, "Descendants", the pendulum swings back once more, as successive generations shed intelligence as an unsustainable indulgence, and return to more instinctive behaviours.

There is an argument to be made that if *Evolution's* presentation of the human in the animal is narratively defensible, its emphasis on the animal in the human can be emotionally draining. Nicholas Whyte is technically not quite correct to note that although "a lot of the 'viewpoint' characters are female ... only the males have orgasms" [3], but his observation is true to how the novel can feel. Almost every episode of *Evolution* notes at least a moment of joy in its protagonists' life, sexual or otherwise, but such moments are almost always overshadowed by the relentless toughness

of the rest of their lives, and in particular by the frustrations of primate social dynamics. The female characters routinely get a worse deal: there are several challenging moments in the sections immediately prior to the emergence of true humans which quite consciously play on our empathy for creatures that look like us but do not think like us.

Evolution's take on the relationship between our biology and our culture is perhaps set out most clearly in "The Swarming People", an episode dealing with the development of rudimentary agriculture and the first cities, almost 10,000 years ago. Such arrangements, we are told, require centralised, hierarchical societies to endure. These can accelerate culture, by allowing for the possibility of numerous specialists, a whole class of individuals able to devote their lives to technology or art, because they can live on food prepared by others. But:

Almost everywhere, right from the beginning, the new communities were dominated by men: men competing with each other for power, in societies where women were treated more or less as a resource. During the days of the hunter-gatherers, humans had briefly thrown off the ancient prison of the primate male hierarchies. Equality and mutual respect had not been luxuries: hunter-gatherer communities were innately egalitarian because to share food and knowledge was self-evidently in the interests of everybody. But those days were vanishing now. Seeking a new way to organise their swelling numbers, humans were slipping comfortably into the ways of a mindless past. (*Evolution*, 478)

In isolation this perspective would seem curiously Edenic, a return to Smail's sacred history, and a vision of a fallen humanity. And in fact such resonances can be detected in *Stone Spring* (2010), which focuses on human society at more or less the same time as "The Swarming People", and in particular the struggle of one more or less egalitarian hunter-gatherer tribe to retain its identity in the face of a changing climate, and changing cultures around them. Such a reading, however, neglects the fact that a few tens of pages earlier, *Evolution* was showing us such hunter-gatherer societies, and they did not seem Edenic at the time. Nor is this passage ruthlessly deterministic: each episode reminds us that an overall pattern does not reflect individual reality. In a post-apocalyptic segment following a group of soldiers thawed from cryogenic suspension, the female soldier neatly short-circuits theorising about repopulating the planet by simply leaving. What I take away is an assertion of the central point of science fiction – things can be different – heavily tempered by the knowledge that on the longest timescales, we are not independent from changes in the world around us.

There are other ways in which a tension between past and future is visible in *Evolution*. The role of speculation is one: it is, of course, a necessary part

of those episodes set in our past as well as those in our future, but Baxter goes further than a strictly scientific account would do, taking advantage of the patchy nature of the fossil record. *Evolution* describes a species of air whales in Purga's time, and a doomed culture of tool-using hominid dinosaurs in a brief flash 80 million years further in the past than even Purga; such inventions stand in counterpoint to the more extreme speculations of the novel's concluding chapters, the wolfish descendants of rats and gazelle-like descendants of rabbits and, in the concluding episode, set five hundred million years from now, the remnants of humanity living in symbiosis with ancient trees beneath a red and dying sun. Speculation runs through the novel, blurring any lines we might wish to try to draw.

IV.

In some ways, *Evolution* toys with its readers' desire for a simple definition of humanity. There are, for example, explicitly non-human episodes in "Humans", and one episode in "Descendants" features modern humans. But the novel does have a fulcrum, in the form of "Mother's People", which marks the advent of true interiority.

Mother lives in North Africa, 60,000 years ago. When we meet her, she is thirty years old, and, outside her fierce devotion to her son, a loner within her hunter-gatherer tribe: nobody is "strong enough, or kind enough, to withstand the intensity of her gaze, her obsessiveness, her quickness to anger" (339). Thanks to subtle innovations in her neutral architecture, Mother has the ability to see "patterns and connections, networks of causes and effects" (335) – a talent that allows her, among other things, to develop more efficient methods of hunting, and to articulate some of the first sentences – and is cursed with migraines and schizophrenia-like symptoms. "Mother's People" delicately traces how, in the changing Pleistocene climate, Mother's psychology becomes adaptive, bringing to an end seventy thousand years of "stupefying passivity, stunning stasis" (345), and opening the door for the flood of innovation that initiates modernity. It is not the start of history; but it is a key moment in it.

When her son dies of a wasting illness, Mother's grief is profound. She feels betrayed: where is the cause here? Where is the chain that links this effect back to the world? The answer is inevitable, and chilling:

Her peculiar vision of the world, the spider's web of causes stretching across the world and from past to future, deepened further. If an ostrich fell, a hunter had willed it. And if a person died, another was to blame. As simple as that. She saw all this immediately, understood it on a deep intuitive level below words, as new connections opened in her complex, fast-developing consciousness.

The logic was clear, compelling. Appalling. Comforting. (*Evolution*, 351)

Mother's revelation prompts her to identify the

guilty party, and take revenge upon them; when the rest of the tribe confronts her, she successfully communicates the idea that she has saved them from a murderer in their midst. It's not long before she takes the next step, to imagining a fully intentional universe. "It was as if the world was populated by *new kinds of people* – as if tools and rivers and animals, even the sun and the moon were people, to be dealt with and understood as any other" (370).

Throughout its length, *Evolution* makes a point of emphasising that primate neural development is driven by social development, by the need (or lack thereof) to be able to understand and imaginatively model the actions of others in increasingly complex situations. And to this point, the novel has already highlighted that – as with most evolutionary developments – the benefit of empathy comes with (from a modern human viewpoint) a cost, that is, xenophobia. What marks out "Mother's People" is that it radically ups the ante. When Mother communicates her new understanding to her fellows – whose brains, we are told, are ready for the leap – the changes that result are indeed both appalling and comforting. War becomes that much worse, as people become able to fight with "liberating madness" (375), for if you can believe things are people, you can believe people are things; and if you can believe in unseen causes, you can believe in life beyond death, and be less afraid of dying.

In the context of the long narrative to *Evolution*, it's hard to overstate the force of this transformation. But perhaps "Mother's People" is as striking as it is – and perhaps Ibelieve *Evolution* is as fitting an introduction to Baxter's work as it is – in part because its understanding of humanity as in some sense fundamentally insane echoes through so many of Baxter's other books. Baxter's people's struggle to define themselves in relation to greater forces working out the destiny of the universe is at the heart of the early **Xeelee** novels; indeed from its own point of view, humanity in those books can be said to live in an intentional universe, one shaped by the cosmic-scale actions of the photino birds. Similarly, in *Ark* (2009), facing the isolation of a deep-space voyage, a Mother-like figure retreats into a solipsistic delusion, convinced that his existence must be a computer simulation. As *Evolution* makes clear, some of the best tools we have available for resisting this failure mode are the sciences of deep time; but as prisoners of our biology, our choice between the two different perspectives may ultimately be as much as anything else an aesthetic choice, a choice about what form of story we prefer. It is precisely this case that Joan Useb makes to her daughter in the novel's epilogue, which I take to be *Evolution*'s last word on its own interpretation:

Lucy clutched her hand. "Mother, I have to say this. Your view of life is so godless."

Joan drew back a little. "Ah. I knew this day would come. You've discovered the great Ju-Ju in the sky."

Lucy felt unreasonably defensive. "You're the one who has always encouraged me to read. I just find it hard to believe God is

nothing but an anthropomorphic construct. Or that the world is just a – a vast machine, churning through our tiny lives, morphing our children like a handful of algae in a dish."

"Well, maybe there is still room for a God. But what kind of God would *intervene* the whole time? And isn't the story wonderful enough on its own?" (*Evolution*, 656)

It is, I think; and for articulating that principle with such clarity, *Evolution* seems to me one of the most significant sf novels published so far this century.

Endnotes

[1] Labberton, Robert H: *Labberton's Universal History, from the Earliest Times to the Present* (1902), p. xxi. Cited in Smail, p. 50.

[2] Later in the novel, Baxter has some fun with his naming: humanity's first king is named "Potus", in what is surely a deliberate use of the abbreviation for the President of the United States.

[3] Whyte, Nicholas. Review of *Evolution: a novel*. Infinity Plus, 19 October 2003. <<http://www.infinityplus.co.uk/nonfiction/evolution.htm>>

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Giant Killer Rodents in Space Armour, with Guns

Graham Sleight looks at the otherside of Stephen Baxter

Writers often get reduced in public discourse to the one thing everyone knows about them. Cory Doctorow is the Boing Boing guy, John Clute uses long words, James Tiptree Jr was the woman who wrote as a man, William Gibson invented cyberspace. These cartoons may be useful for marketers, or for a reader wanting a first hook on which to hang their understanding of a writer. (And so, for instance, it was entirely understandable that early in his career the horror writer Joe Hill didn't want his family history revealed: he would not be human if he wasn't worried about his One Thing being "He's the son of Stephen King".) With Stephen Baxter, the one thing a lot of people will think about him is "Heir to Arthur C Clarke" or similar – that he is carrying on the scientific romance tradition of authors like Wells, Stapledon and Clarke.

This may be the truth, but it's far from the whole truth. Baxter does indeed depict events of planet-wide or even universe-wide scale with a certain implacable remove reminiscent of those predecessors. And he has, indeed, collaborated with Clarke on a couple of books. But that judgement carries all sorts of implicit messages about, for instance, how good Baxter is at characterisation. Here's where the cartoon is

limiting: unlike Clarke, he's very visibly improved at this as his career's gone on. It also carries a certain implication of... humourlessness? Po-faced solemnity? If you're going to depict, as Baxter does, the deaths of worlds or universes, you're not going to want to be indulging in irony, or winks to the camera. But, to get to my point, I want to suggest that Baxter *does* have quite a distinctive sense of humour, running through quite a lot of his work.

As an example, consider his first published short story "The Xeelee Flower" (originally published in *Interzone*, and later collected in *Vacuum Diagrams*). The narrator steals an artefact created by the impossibly powerful Xeelee and sets it loose in the vicinity of a nova. It turns out to be a device that converts energy to matter with stunning efficiency: specifically, matter that is the uncuttable Xeelee construction material. The last page or two of the story are taken up with the narrator doing some back-of-the-envelope sums about its extent. A square mile of it would double in size in fifteen years, and – this is the crucial point – would keep on doubling. "Give it a thousand years, and you could wrap up the galaxy like a Christmas present." Of course, as the narrator admits, at a certain point, the leading edge of the

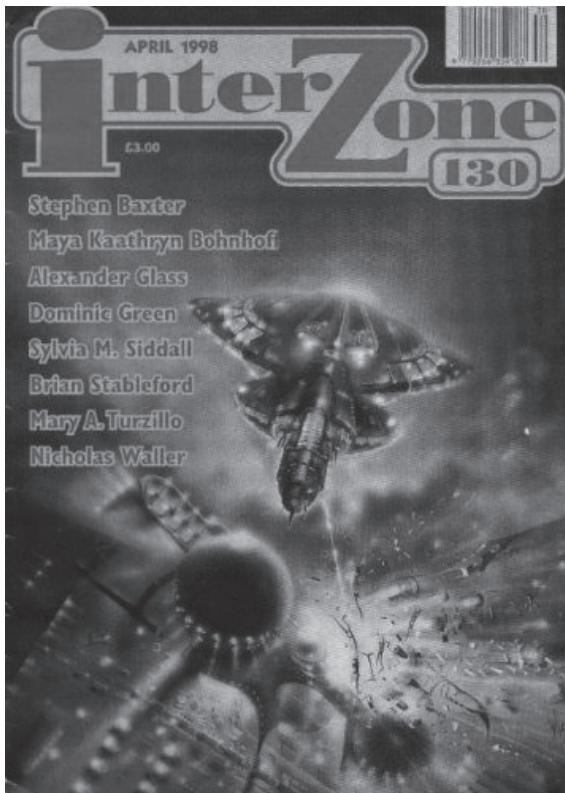


flower would be growing at the speed of light. In these last few pages, one sees Baxter exhibiting a very un-Clarke-like trait: plain exuberance at the kind of creation hard sf enables him to undertake.

This sort of creation is also visible in his first novel, *Raft*, wherein the microgravity environment of its tiny world gives a new meaning to the idea of two people being “attracted” to each other. It’s also present in “The Twelfth Album”, a 1998 *Interzone* story in which The Beatles don’t break up after making *Abbey Road* but instead produce one last record. In a sense, the story is a work of Beatles fanfiction – and one remembers that Baxter was originally from Liverpool. He clearly has enormous fun in speculating which songs from the group’s early solo albums might fit together on a record. The story’s final turn, though, is emotional: the last song on the album is, arguably, McCartney’s greatest since 1970, “Maybe I’m Amazed”. But, in Baxter’s world, McCartney has broken with Beatles tradition and given it away to Lennon to sing: a gesture of generosity that wishes away the rancour of the real Beatles’ last years.

Or take Baxter’s story from Mike Ashley’s *Mammoth Book of Mindblowing SF*, “The Pevatron Rats”. This starts calmly enough, with strange goings-on at the Harwell research lab, with a pair of rats appearing in a particle accelerator where they couldn’t possibly have been. The story gradually explores the causes and consequences of this, climaxing when the narrator sees this:

I’ve tried to describe it, even to draw it, for the doctors and policemen who have questioned me since. It was a rat, but a big rat, maybe a metre tall, upright, with some



kind of metal mesh vest over its upper body, and holding a silvery tube, unmistakeably a weapon, that it pointed at Amanda. Even as it appeared it opened its mouth wide – I saw typical rat incisors, just like Rutherford’s – and it screamed. (*Mammoth Book of Mindblowing SF*, 28)

Now, this is all justified in the story in terms of time-travel, wormholes, alternate universes and the like – and with the sense that Baxter is doing more hand-waving than he usually does. But that doesn’t get around the fact that, in twenty pages he’s gone from a standing start to a justification for giant killer rodents in space armour, with guns. This is not a writer unaware of the potential for the surreal or funny in his work.

There are plenty of other examples of Baxter having fun, I think most obviously when he’s revising the works of other sf writers in books like *The Time Ships* or *Anti-Ice*. But I’d suggest that, even when he’s addressing his big cosmological themes, he has a capacity for the kind of self-perspective that leads to humour. After all, when he was asked to provide a six-word short-short story summing up his world-view, he nailed it exactly: “Big bang. No god. Fadeout. End.”

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FIRST IMPRESSIONS

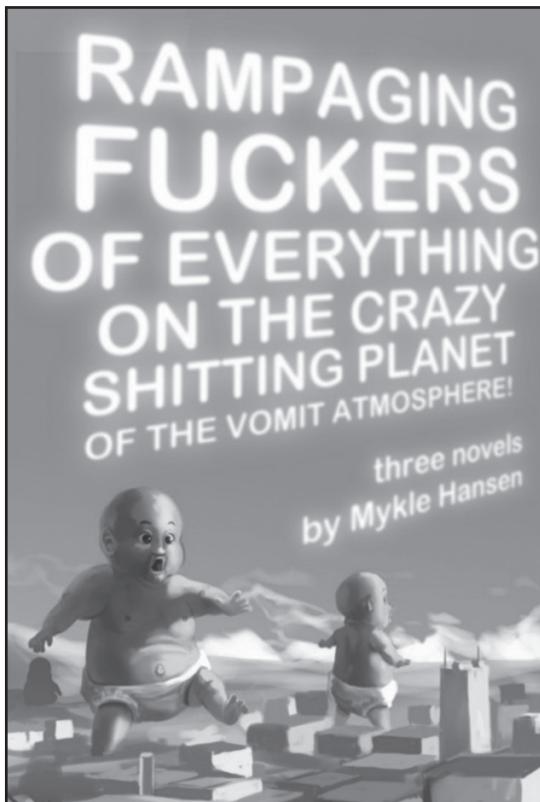
THE BOOK REVIEW COLUMN

Satan Burger, Razor Wire Pubic Hair, The Menstruating Mall, Ape Shit, The Haunted Vagina, Sausagey Santa (“featuring Santa as a piratey mutant with a body made of sausages”), *Adolf in Wonderland, Ultra Fuckers* and *The Faggiest Vampire: A Children’s Story* are just some of the novels of Carlton Mellick III, one of the most prolific writers of bizarro fiction. Absurd, surreal, offensive and deliberately confrontational, those titles give you a pretty good idea of what this form of outsider literature is like. Whether you view them as being indicative of a gleeful gonzo anarchy or merely a juvenile sense of transgression is another question.

I started my induction into the world of bizarro with *Rampaging Fuckers of Everything on the Crazy Shitting Planet of the Vomit Atmosphere!* by Mykle Hansen. It is subtitled “three novels” but, at only 215 pages, these are novellas at best. The first of these is “Monster Cocks”, a sort-of-satire about the end of the world featuring Jack Stalker, your average American Everyman with a micropenis. Jack has a foolproof plan, though: ask strangers on the internet for penis enlargement advice. After all, as Hansen puts it in typically deadpan style, “I’ve seen pictures of their dicks so I know I can trust them.” Initially, it seems he is right to trust them because soon he has the monster cock he’s always dreamed of. He names his new penis Lassie. Unfortunately, Lassie gets out of control:

That really excellent and pressing question – what to do, exactly, with my seven-foot-long bloodthirsty pet anaconda cock-monster, who had ripped free of my crotch and ate the policeman who thinks I murdered the abusive boyfriend of Angela Fine.

Indeed. “Monster Cocks” is actually surprisingly gentle – a “poignant tragedy” it says on the back – but it is hard to escape the thought that, these days, nothing’s shocking. After all, it was only two decades ago in 1991 that *Lord Horror* by David Britton – proto-bizarro if ever I saw it – was actually banned. Banned! That was the last time a book was banned under the Obscene Publications Act 1857 and the idea it could be successfully enacted again is pretty much inconceivable. Last year Darryn Walker was prosecuted for



publishing online a story in which the members of the pop group Girls Aloud were raped, tortured and murdered in graphic detail. This is extreme stuff but by no means unprecedented for internet fanfic; as his defence counsel said, “in terms of its alleged obscenity, it is frankly no better or worse than other articles.” Walker was not convicted.

The genie is out of the bottle. When Michael Moorcock’s *New Worlds* was banned by WH Smith and John Menzies it meant something; now everything is just a click away. Walker can self-publish his darkest fantasies and anyone in the world can read them, Bizarro Books can happily sell their wares through Amazon. This revolution in production and distribution gives us, the reader, unfettered access to filth but it also allows publishers to print ultra-niche products and still find an audience.

For example, last week I received an email asking me if I would like to review a “multicultural lesbian steampunk anthology”. Yes, I said, yes, I would. The anthology – the rather weakly-named *Steam-Powered*, edited by JoSelle Vanderhooft and published by Torquere Press – was in my inbox the next morning. As is usual for a small press anthology, many names on the table of contents are unfamiliar but it does open with a story from NK Jemisin.

The outline of “The Effluent Engine” is entirely familiar – a spy arrives by airship in a foreign city, intent on securing a scientific secret – but the details are not: the spy is from post-revolution Haiti and seeks to acquire the ability to distil methane from the island’s plentiful rum effluent in order to keep its people free from colonial tyranny. Of course, this is Jemisin so romance quickly raises its ugly head in the form of a scientist’s comely (and fiercely intelligent, naturally) sister. Things develop as you would expect.

Are either of these books any good? Well, I read them very much in the spirit of enquiry and, after my first exposure, had no pressing urge to explore further. A little goes a long way with such specialised tastes. But, at a time when the horizons of corporate publishing shrink ever tighter, I’m glad they exist.

MARTIN LEWIS
REVIEWS EDITOR

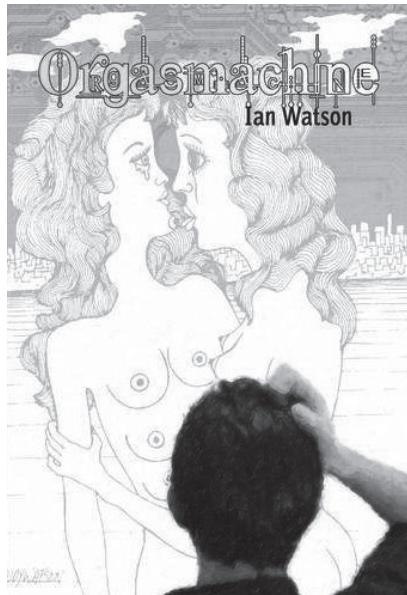
Orgasmachine by Ian Watson (Newcon Press, 2010)

Reviewed by Justina Robson

Apologists and critics of porn have stated that pornography itself has served a critical and subversive function at times and in places over history, thus asking for its artistic elevation to the status of a non-trash artform. I think that while some of it is delightfully delicious and beautifully composed (literary erotica I'm thinking of here), most of the global output can't be put in that category and I consider the subversive defence of pornography vastly overstated. That being so, I enjoyed this novel and admired it a great deal. I found its satire biting, both obvious and subtle, and I was amazed at exactly how many ideas, attitudes and beliefs Watson was able to shoot down in the space available. I was also enormously impressed by Watson's use of symbolism; it is masterly and provides all the layers of richness that art demands and deserves. There is enough material here for hundreds of essays on cultural matters from aesthetics to religion and psychology. With regards to the titillation aspect, however, I didn't find it remotely arousing – unless you count incitement to rage, but that is the point.

Orgasmachine tells the story of three women who are created in a factory (one of many). They are custom built to the specifications of their future owners. These are all men and only men are free citizens in this world. Men are also created in factories, but the details of their development aren't noted here – do they grow 'naturally' or are they also created physically and psychologically to order? Considering the men of the story, one must assume they are the imperfect dregs of nature, I think, although why you would employ technology to make perfect women and neglect to improve your own wretched states is a matter demanded by the story's satirical edge.

The story itself is concerned only with the lives of the women and their experiences. If grabbed and shaken hard by ruthless sf worldbuilders this scenario would fall apart but that would be gratuitously foolish since it is a satire operating under full symbolic and shorthand credentials. The science fictional elements of the tale are limited to the production of humans as full-grown adults from vats and the governance of the state. In the case of the women, they are also fitted with 'brain-nets' which connect them to the single AI that controls the world, a tripartite machine known as MALE-SWARM-DATA. This AI performs every conceivable administrative and governmental function and also acts as the imprinter of the women's minds, creating their personalities to strict patterns dictated by the overriding beliefs of the absolute patriarchy. These beliefs, as exposed in the storyline, comprise every misogynistic and debasing statement ever expressed about women and every lofty piece of toss ever fabricated about men. Here they are unquestioned facts, supported by science and research, believed by all.



Into this world step Jade, Hana and Mari (another trinity). Jade is the central character; manufactured to the standards of Barbie-beauty, with regeneration and resilience built in so that she can endure any level of abuse and survive; it is her double-sized blue eyes that make her distinct. With her eyes she can see, literally and metaphorically, everything. Yes, everything that they are made into employs science fiction's greatest trick of exploding the world of meanings into the actual world. Jade has big blue eyes. Hana has six lactating breasts and an extra nipple on her chin to dispense aphrodisiac milk; her eyes are set to cry nonstop and she is made mute. (She ends up in a fuckeasy bar with a Country and Western theme, serving drinks and wearing a coin-operated chastity belt – is your head exploding with referential overload yet?) Mari is half-woman, half-cat, with a temperament to match. All of them love each other with a pure, innocent, childlike love in their nursery, and are encouraged to believe every romantic notion ever peddled concerning their future owner. They even sleep with plastic dummies of these 'husbands', with realistically shaped phalluses, as comfort toys. And then, they are sent out in boxes, gift-wrapped...

What happens next is a long litany of exacting debasement and humiliation. All of it is written clearly in beautiful prose and it is extremely witty, as well as nauseating emotionally. How Watson managed to write all this without exploiting their positions is quite a feat and one managed with a great deal of intelligence. There is no angle, argument or situation that he doesn't stab through here, from this kind of porn as an absolutely degrading and corrupting influence on all concerned – up to and including justification to murder – to this kind of porn masquerading as high culture and art. Every notion of heterosexualised gender, oppression and civilisation is here, from burkas to circumcision, religion to politics. Aristophanes, eat your heart out.

And yet, I found the story's conclusion a disappointingly damp squib in comparison to the build-up. Jade and Mari do rebel and manage to escape their deadly fates with a satisfying degree of agency. There is a small revolution, betrayed and compromised in hugely realistic terms that any politician might well recognise. Finally, after an age of suffering, the plot cat comes out of the bag and, after their trial and conviction for the murder of some bloke who richly deserved it, the AI reveals itself (godlike) as instrumental in the creation and development of the three. But it is Jade who is chosen to spearhead the revolution. At this point the Christian underpinnings of the story and the book's central thesis clash in a horrible fight. The fight is over the ultimate meaning that the story wishes to state when it comes to the nature of women.

As pornographic objects they are presented as complete victims but their victimhood has been engineered by the AI and by genetic engineering (men's

choices) and there are no ‘wild’ women to make any comparisons. Their victimhood is therefore not an issue because there was no choice. Is this biological determinism? Only an undoing of the AI control can make it sure, and this is done. However, not before Jade points out correctly that therefore it is not the men but the AI who is the orchestrator of all her suffering. The AI says it was made by men to be this way but this is contemptibly foolish and represents a key trouble with the story as a whole. All along the AI claims it has shaped the revolution to be glorious in Jade. It could easily have simply had every woman stand up, pick up a weapon and butcher every man into oblivion – something I was rooting for.

I thought the genocide solution would be a lot more subversive in this situation than what actually happens. This genocide scenario is talked down by Jade herself in a typical desperate-to-avoid-confrontation piece of weasel word placation which is what you might expect from the Bleeding Heart Diplomat of the trio. But is this Jade the Enlightened, as the text claims, or Jade the Perfect Woman embodying the greatest and most evil notion ever perpetrated about women, namely that they are saintly and pure peacemakers sent to save mankind from its worst instincts? It’s a tangled web of projections and counter-projections that even Watson, it seems, can’t unknot. I couldn’t say what his intent was but the whole narrative rests here, uneasily inconclusive.

Once the AI gives Jade total control of the world she goes and sacrifices herself in a rather Jesus-like manner. Through the global brain net distribution of her experiences she enlightens all the women, causing an instant revolution and neutralising their brain nets forever. There is some future in which she appears as St Jade and men and women seem more equal. Well, yuck to that, even if it is trying to come down in favour of wise tolerance, right conduct and civilised values. The story exemplifies exactly the reasons people feel justified in committing mass murder. The only way I could like it is if this was the final, ultimate satire pointing up the absolute futility and stupidity of suffering and the belief that it could ever be anything other than pointless and wretched in every degree. Even Jade thinks this, despite her failure to live up to the implications of her own conclusion. So I decided to take the ending as ironic because I think that as a whole this book is a great piece of work and has provided me with so much food for thought on subjects long overdue for some debunking: our mythologies about ourselves.

Stories are not factual representations but complex symbolic representations of the truth. This book falls over for me because it goes for a factual, literal ending when a symbolic one would be much clearer and truer to its purpose. All of our vile ideas must be ruthlessly rooted out and killed if the best of us is to survive. This does not mean killing individuals or groups in a like for like comparison, any more than the holy trinity of Jade, Mari and Hana could ever straightforwardly represent what it is to be a woman. But read it and decide for yourself: it’s closer to reality than anyone likes to think.

Shine: An Anthology of Near-Future Optimistic Science Fiction, edited by Jetse de Vries (Solaris, 2010)
Reviewed by Anthony Nanson

There are reasons why so much sf written today presents such a grim picture of the future. Partly it’s the demand that sf should conform to the requirements of the thriller: a dystopian world offers more scope for violent action than does a utopia. Partly it’s a disaffection with the idea of utopia as inherently totalitarian. Our pessimism also stems from the trend of current events towards ecocatastrophe, economic meltdown and conflict over diminishing resources; from the internalisation of neoliberal dogma that there’s no credible alternative to a laissez-faire system that lets things run their natural course. And it takes less brainwork to imagine how the world might get worse than to imagine how it might get better. Second law of thermodynamics: it’s easier to smash a vase into pieces than to make one.

The greater challenge is not simply to envision a better world but to work out how to get there – or at least to head in the right direction. Jetse de Vries understands this. In the introduction to this admirable effort to field some optimistic sf, he emphasises that progress has to be “hard fought”. Such a struggle for progress provides an opportunity for dramatic development which is tricky to contrive in a utopian setting. De Vries’s insistence that contributions to *Shine* be set in the near future is crucial, too, because it means that any positive change depicted in the stories has to arise from pretty much the world we live in today.

That he found it a challenge to elicit submissions fitting these criteria is perhaps a measure of contemporary science fiction’s alienation from optimism. The paucity of submissions may also have had some consequence for quality. *Shine* is a sizeable anthology (sixteen stories, 450 pages) with a healthy gender balance (eight out of seventeen authors are women) and it contains a good diversity of ideas, themes and settings, but I was disappointed by the flat – sometimes clunky – prose of a number of the stories.

Not all of them, though. Holly Phillips’s “Summer Ice” is a beautiful example of Ursula K Le Guin’s ‘Carrier Bag Theory of Fiction’. It’s not so much a story of struggle as a depiction of the lifestyle and daily work that sustain an ecotopian existence. The sense of plot is so understated that I was caught by surprise when the story ended – yet, amidst the depiction of everyday life, there is a subtle but significant shift in the main character’s sense of being. The impact of the piece hinges on the lovely sensual prose and the positive energy with which it’s inflected: “The sky is a deep arch of blue busy with evening birds, and there is something good about working with water, which has voice and character but no form. The web pebbles glow with colour and the water swirls, the pond growing layer by layer, dark mirror and clear window all at the same time.” The very tone of the prose made me desire to inhabit this world, to be more like the protagonist, tanned and lithe from working in her roof garden, and maybe even to get out more into my own garden.

Besides the variable prose in this book, I also had mixed feelings about the obsession with IT. I know that

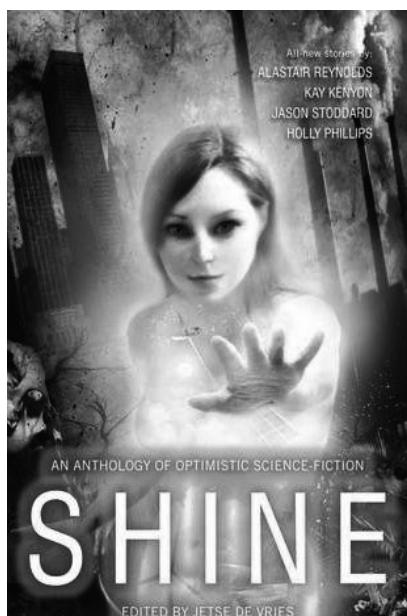
IT is a powerful agent of change in today's world but my heart kept sinking at the inevitability with which, in the first few paragraphs of a story, the author would tee up some gizmo extrapolated from currently trendy IT applications. However, in some stories the technology truly is pivotal to the plot. Gareth L Powell and Aliette de Bodard's "The Church of Accelerated Redemption" concerns a bid to liberate AIs from a lunatic sect that's enslaved them into reciting prayers "to absolve investors – mostly politicians and business leaders – of their financial and environmental sins": a nice bit of satire, marred by an insufficiently motivated thread of love interest. Gord Sellar's hilarious "Sarging Rasmussen: A Report (by Organic)" applies to environmentalist campaigning a jargon-ridden method of seducing women that combines neurolinguistic programming, computer gaming, a contact-lens IT interface and a sociobiological understanding of group dynamics. Bad prose and bad taste brilliantly evoke the narrator's outlook – "Sigrid Rasmussen, a slightly chunky middle-aged blonde – HB 6, if I were pressed to rank her sexually, because I don't like big girls and because of her age" – and the whole cringeworthy dynamic of geeky guys in extended adolescence wanting to get off with unattainably attractive women. Sellar does such a fine job of depicting his narrator as a jerk that I just couldn't believe the guy's alleged commitment to saving the planet, but it's great fun.

On the other hand, Lavie Tidhar, in "The Solnet Ascendancy", and Ken Edgett, in "Paul Kishosha's Children", put faith in the proliferation of existing communications technologies in, respectively, Vanuatu and Tanzania, to purvey information and ideas that enable these countries to transcend their benighted position in the global economy and haul themselves by their own bootstraps into high-tech success. In "The Solnet Ascendancy", the coming of a wireless network is a magic bullet; the story evinces a blind faith in the benign effects of technology and doesn't contemplate the possibility that the impact of such a potent innovation might cause the breakdown of traditional culture and community. Edgett's rather anodyne story, in hinging on the influence of an educational TV programme, seemed to me to beg the question of how many kids in contemporary Tanzania are likely to have access to TV. A more persuasive example of the benefits of IT is Jason Andrew's brief feminist tale "Scheherazade Cast in Starlight", in which the international video-casting of incidents of violent repression in Iran generates a pressure of global opinion that leads to reform.

In "Overhead", Jason Stoddard acknowledges some of the hard realities of an over-exploited Earth and the limitations of IT as panacea – "Yahoo and Geocities and those grocery delivery boys and Outpost were gonna remake everything, they were gonna tear everything down, it would be a whole new world" – but the source of hope he offers is quaintly old-school sf: a

lunar community isolated from the fucked-up Earth and planning to prospect the interior of Europa.

The form of most of the stories is old-school too: conventional realistic narrative laced with jargon and slang. "The Solnet Ascendancy", though, montages a variety of kinds of text, each prefixed with a binary-code section number. "Paul Kishosha's Children" alternates between extracts from Kishosha's childhood stories on which the TV programme was based and chunks of conventional narrative that jump-cut through the years. Most experimental by far is Mari Ness's "Twittering the Stars", composed entirely of tweets arranged, as on Twitter, in reverse chronology. The appearance of the tweets on the page, plus the constraint that each tweet is limited to 140 characters, led me to expect haiku-like precision and profundity; I also expected some startling revelation in the terminal start of the story's events. In fact, the tweets are written in flat everyday language and the reverse chronology delivers a sensation of drawn-out anticlimax.



A more accomplished literary feat is Kay Kenyon's rigorous narration of "Castoff World" from the perspective of a child who's been reared in extreme isolation on an oceanic island and has limited understanding of the detritus of technological civilisation her family has garnered from the sea. This makes for an estranging reading experience, requiring considerable imaginative effort. The story's inclusion is important, as the one strongly future-primitive contribution, reminding us of the possibility that dramatic simplification of the way we live might in fact be a positive change.

Much easier to read, and both very clever and very funny, is Alastair Reynolds's "At Budokan". Two rock music promoters have put together a band composed of animated corpses, a tribute band of robot replicas, then one of giant robot replicas... "OK, so it hadn't ended well. But the idea'd been sound. And stadiums can always be rebuilt." Then they come up with something even cooler. The particular positive change in this future is slipped in as a fait accompli – "two meal serving options: chicken that tasted like mammoth, or mammoth that tasted like chicken" – and then becomes central to the comedy. (I best not say more.) Reynolds also has something hopeful to say about the unquenchable power of art to transcend the marketing goons' wish to control it.

Though some of my comments here are quite critical, I believe passionately in what de Vries is trying to do. I hope he'll do more in the same spirit and perhaps elicit more consistently strong writing. Quality matters if the visions of optimistic sf are to be taken seriously, both intellectually and, as Phillips's story demonstrates, in their emotional and even transformative impact. The breadth of ideas in this anthology opened my eyes to the enormous diversity of exciting and largely untapped possibilities there are for science fiction that imagines positive pathways into the future.

The Quantum Thief by Hannu Rajaniemi (Gollancz, 2010)
 Reviewed by Paul Kincaid

Those of us who have been burgled may not feel the same way but the thief is a romantic hero. Ever since, at least, Raffles, the ‘Amateur Cracksman’ in the stories by E W Hornung, the thief has managed to cut a bold, dashing figure in popular culture. He is Cary Grant in *To Catch A Thief* or David Niven in *The Pink Panther* or Peter O’Toole in *How To Steal A Million*. He (it is, of course, nearly always a man) is unconventional, anti-establishment, debonair, laughs at danger and cleverly avoids every trap laid for him while still getting away with the booty against all the odds (which, of course, never really hurts anyone but the bad guys). He is, in short, Jean Le Flambeur, the (anti?)hero of Hannu Rajaniemi’s first novel, *The Quantum Thief*. Actually, Jean Le Flambeur isn’t his name, nor is it the name he mostly uses throughout the novel, but it is the name under which he is famous. And reputation is a lot of what this novel is about.

We first meet Jean in prison, though we never discover how he was captured or what theft proved too much for him. In the prison, endless digital duplicates of Jean are required to take part in endless challenges with endless digital duplicates of other prisoners, which usually end in the temporary death of one or other of them. Then a new person appears, who swiftly makes contact with Jean and then whisks him away to a waiting spaceship. The prison break is so ridiculously easy (a warship gives chase but is neatly eluded) that one wonders how the prison ever manages to hold on to so many desperate criminals. But then, myriad copies of Jean are left behind to continue their hellish existence without any apparent hope of release, though in the way of fictions of post-humanity such versions of our central character are conveniently forgotten by the novel.

We’ll encounter numerous prison references throughout the novel; indeed one of the main settings is actually a prison, though we don’t realise that until near the end. And even when people are not in prison they appear to be caught in webs of obligation that seem equally entrapping. Jean’s rescuer, Mieli, for instance, is not the free agent she appears but is actually working out a debt to a near-godlike entity in pursuit of a private goal that is hinted at but never precisely specified (Rajaniemi leaves many threads waving at the end of this volume; I suspect there are any number of sequels in the works). In furtherance of this unspecified service, Mieli and her ship Perhonen, probably the most attractive personality in the book, become Jean’s very reluctant guardians and accomplices.

Naturally, in fiction nobody ever springs a thief from pokey unless they want to make use of his particular talents. And since there is no point in going to these lengths unless the object of desire is suitably big, the thief is usually required to steal the thing that landed

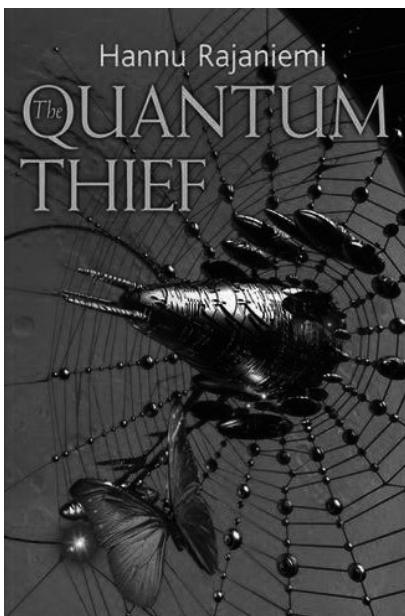
him in gaol in the first place. That seems to be the case in this instance, though by the end of the novel we still don’t know what he has been recruited for. But first our doughty pair have to head to Jean’s old stamping ground, Mars, in order to recover memories he hid away there and that he needs for his job.

This is where we run into a puzzle: in such a digitally enhanced post-human future, what is there left to steal? Not only are characters able to remake themselves at will and make multiple copies of memories and presumably anything else that might make them an individual but they can surround themselves with everything they might desire. This is a time not so much of plenty as of profusion. In fact the only thing Jean actually steals while on Mars is time. Here people live for a set period of time (which can be traded), then spend a period in the Quiet, their personalities translated into robotic workers for the state (another iteration of imprisonment), before being released back into normal life. Jean’s theft of a minute of one man’s life isn’t even in the cause of his overarching quest but is rather a side deal designed to expose duplicity in the governance of Mars. Because this isn’t a novel about a thief as thief but about a thief

as anti-establishment hero; and the main plot tells us how Jean and Mieli become involved in and then bring to a head a complex series of revolutionary struggles over who rules Mars.

Meanwhile, on Mars, there is a boy detective, Isidore, who works with one of the secretive, masked tzadikkim (the word is taken from the Hebrew tradition of the 36 righteous ones) who maintain order in the city. His investigations lead him to suspect that the network of privacies and shared memories and communal agreement that shapes the whole of digital life on Mars is not as free from manipulation as it should be. But he is also set on a collision course with Jean, a clash that will precipitate the dramatic climax to the novel.

Rajaniemi is in love with neologisms and with reusing obscure words plundered from a host of different cultures. Particularly in the early pages, the book is dense with incomprehensibility; you have to work hard to rescue meaning from the language and much must be taken on trust, so it is not a novel to give to anyone who has not read science fiction before. But to the fan, there is much to enjoy here, even if the plotting (celebrity thief meets a team of masked superheroes) feels like it has been lifted from a comic book. And though one small thread of action is resolved, so much is left hanging that the story feels incomplete and sequels are inevitable. Whether you come back for those sequels will, I suppose, depend on how much you enjoy the breathless pacing and knowing science fictional references. It is a fun novel over-stuffed with action and I enjoyed it, though I still remain to be convinced that Rajaniemi is the next big thing in hard sf, as Charles Stross claims on the cover.



The Dervish House by Ian McDonald (Gollancz, 2010)
Reviewed by Tony Keen

The Dervish House is the third of Ian McDonald's loose trilogy of 'post-colonial' novels, after *River of Gods* and *Brasyl*, both of which won the BSFA Award. These three novels (and the short story collection *Cyberabad Days*) take science fiction outside the normal First World settings of North America, Europe and Japan, and instead explore India, Brazil and, now, Turkey. In a lesser writer's hands, the danger would be that such accounts could become patronising. But McDonald knows how to avoid the traps of white colonialism. His interest in settings that would, for most writers, be non-traditional, goes back at least to *Sacrifice of Fools*, set in the Belfast in which he has lived for most of his life, a background most writers would pass over or get horribly wrong. In the three recent novels, McDonald has plainly done his research; as a result he paints pictures of the countries that are vibrant and convincing, taking them on their own terms. Apart from the changes that have taken place recently, and further changes that McDonald predicts, *The Dervish House* showcases a fully realised Turkey which is fundamentally the nation I remember from my own visits. But McDonald never paints his pictures through infodump. A McDonald novel contains an enormous amount of information, but none of it is gratuitous.

As with the other two novels, a big science-fictional idea is central to *The Dervish House*. After exploring artificial intelligence in *River of Gods* and alternate worlds in *Brasyl*, McDonald now investigates nanotechnology. In approach, *The Dervish House* is perhaps most like *River of Gods*, where nine individuals were followed in order to tell the overall story of the novel's tenth character, mid-twenty-first century India. Here, six characters' lives interleave through a week in Istanbul, to tell the story of that city in the twenty-first century. The Queen of Cities, not any of the humans, is the novel's central character, and it is to Istanbul that McDonald gives the book's opening and close.

Part of the story takes in semi-mystical objects and secret codes written into the city's architecture. For many a writer this would be enough for a whole novel; for McDonald it is almost a sub-plot, in a book that also covers terrorist schemes, financial swindles, European football and the legacy of the military dictatorship of the Eighties, as well as the previously mentioned nanotechnology.

Yet, for all this richness, arguably *The Dervish House* is in some ways the least ambitious of the three novels. *River of Gods*, which is significantly longer, uses multiple narratives, ones that only briefly touch each other, to tell the story of a country, with a potentially world-changing conclusion. *Brasyl*, which is shorter, follows three narratives – one contemporary, one twenty-five years in the future and one three hundred years in

the past – that converge finally in an unexpected but extremely dramatic fashion. The stakes in *The Dervish House* are far lower; though serious consequences could ensue, they are not on the same level as the potential threats in *River of Gods* or *Brasyl*, in each of which there is a serious possibility that the world could end.

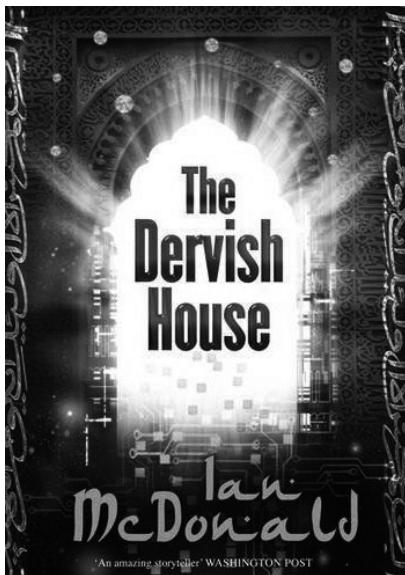
The Dervish House recounts a single week in the lives of what are, essentially, a group of neighbours, whose lives are much more closely interconnected than those of the principal characters in *River of Gods*. The setting for the most part is the single city of Istanbul. There are flashbacks to people's pasts in the Mediterranean area of Lycia and a brief trip to the north-east of the country, but these are not where the novel's heart is. Overall, everything seems rather more circumscribed. But I would argue that the novel is not in any way weakened by this narrowing of scale.

It is also the most overtly political of the three novels and perhaps McDonald's most political work since 1996's *Sacrifice of Fools*. This is partly because it is the least far into the future: 2026, as opposed to 2032 (*Brasyl*) or 2047 (*River of Gods*). But it is also because McDonald directly addresses current political issues.

Some characters in the novel were born around 1960 and so can remember the 1980 military coup and the ruthless suppression of political dissent that followed. McDonald also engages with the idea of Turkish entry into the EU; in *The Dervish House* Turkey is both in the EU and in the eurozone (here recent events, specifically the 2010 crisis in the weaker members of the eurozone such as Greece, Spain and Ireland, have rather overtaken the novel). It is a book from which McDonald's own political views – liberal, understanding but with a clear moral sense of right and wrong, unmuddled by relativism – emerge more clearly than perhaps in the previous two.

Moreover, it is the most carefully constructed of the novels. The interweaving lives, the consequences of one character's actions upon the others, the unravelling of carefully devised plans due to unexpected factors, all of these are diligently and coherently assembled. One might say that the dénouement is perhaps a little too neat, that everything is wrapped up a little too tidily, and that McDonald is a little too kind to his point-of-view characters in a way that he is not in *River of Gods*. But I would argue that these are minor quibbles and that *The Dervish House* is the best-written of the three.

As I approached the end of *The Dervish House*, I found my speed of reading slowed down. This was not because I was bored or couldn't face reading the novel – it is because I was enjoying it too much. I didn't want the book to end and was trying to put off as long as possible the moment where I would have to leave McDonald's rich world. This is one of the finest novels I've read since, oh, the last Ian McDonald novel. Another BSFA Award seems highly probable, and a Clarke nomination in order.



The Restoration Game by Ken MacLeod (Orbit, 2010)
 Reviewed by Michael Abbott

Lucy Stone has a complicated family history and it's catching up with her. Her mother and great-grandmother have mysterious connections to the small Black Sea country of Krassnia, where Lucy herself spent her childhood. Lucy is going to have to go back there to answer her own questions and help her mother's powerful friends. There are rumours of a dangerous secret hidden up a mountain and, in 2008, a former Soviet state is not the safest place to go. Krassnia has not only a revolution brewing but a mythological cycle that could have a basis in reality – and that was of great interest to the powers of Soviet Russia.

In many ways, this book reminded me of a Tim Powers novel and, in particular, of *Declare*. Like that book, it pays a great deal of attention to spycraft and undercover work and it's very unclear whom the hero can trust. Like that book, it tells its story out of chronological order, dropping hints to add tension. And, like almost every Tim Powers novel, it is about a secret history of the world: the story is set in a world that we think is ours but we find out there are secrets in it known only to a few. But in this case, there are hints even in the first few pages that there is more going on than even those with insider knowledge realise. The more familiar Ken MacLeod elements come from the setting of the book in Scotland and Eastern Europe and the excellent combination of real-world politics, competent, intelligent people getting things done and strange but well-grounded ideas. MacLeod's history comes right up to the present day and is thoroughly topical.

In general, the book is full of cleverness (in a good way, to be clear). The title has multiple meanings and the different levels of the secret history play off each other in various ways. This is definitely a book where MacLeod is playing with the fantasy genre (for all that it is ultimately science fiction): Lucy is working on a fantasy-based computer game, her mother collected the myths of the Krassnian people into a Tolkiennesque volume and the real Krassnia is, in some ways, a product of its own stories.

The two halves of the book don't seem quite balanced, though. The spycraft-and-legend portions take over 80% of the book and it is only at the end that the science fictional ideas come to the fore. Also, when they are revealed, these explanations don't completely hang together as a rational plan for the relevant people to have come up with. But take these elements as a game played with secret history stories (which I think is the author's intention) and they become more entertaining. And the political insights are as fascinating as ever.

As a final note, this book passes the Bechdel Test doing 95 miles an hour in the outside lane, sirens doppling. This is a good thing.

The Fuller Memorandum by Charles Stross (Orbit, 2010)
 Reviewed by Martin Potts

The Fuller Memorandum is Charles Stross's third book in the **Laundry** series. A far cry from his hard sf, this series sees him apply his talents to horror, following in the footsteps of cult author H P Lovecraft (its title also pays homage to the classic 1966 spy thriller, *The Quiller Memorandum*). Promised a "Lovecraftian Spy Thriller", I was intrigued as to whether he could deliver and am very pleased to report that he has.

Bob Howard works for a part of the British Intelligence Service called The Laundry, which deals specifically with occult threats and the planning of countermeasures and information-gathering for an end-of-world scenario precipitated by the malevolent Ancient Gods which feature in Lovecraft's writings. This instalment begins with Howard undertaking a field trip at the behest of his boss and mentor, Angelton, to RAF Cosford to investigate an apparent possession. The expectation is that this will be a quick, low-level enquiry but upon arrival a mundane situation quickly escalates, resulting in an explosion and a death. Howard is suspended pending investigation and upon his return to London he discovers Angelton has disappeared along with a file called the Fuller Memorandum. This document becomes the focus of a hunt by all parties, intent on harnessing the power it is reputed to hold.

At 352 pages there is no fat in the tale; the narrative crisply bounces along, with Howard's first person perspective providing an opportunity for wry, personal humour to pepper the interpretation of events. Whilst the promotional comments suggest these stories are humorous I certainly felt the humour was counterpoint and used by Howard as occasional light relief to the horror in which his daily life was now immersed. Do not mistake this for chuckle-a-minute fare. The darkness of this book is effectively communicated in a sequence where Howard's wife, Mo, who is also a field agent (and, in many respects, more accomplished than Howard himself) returns from harrowing experience in Amsterdam which Stross slowly, sympathetically and graphically (but never gratuitously) describes. The full horror of her experience is duly felt by the reader, building empathy with the characters and appreciation for the necessity and magnitude of Howard's task.

There has been a resurgence of interest in Lovecraftian mythology in recent years and although familiarity with the mythos is certainly useful, it is not essential. With my knowledge I appreciated many of the references and they gave me a frame of reference for the narrative. However, this could certainly be read from the perspective of a fantasy thriller and those readers who like a mystery to participate in and solve will enjoy this too. Perhaps this could also act as an introduction to the works of H P Lovecraft for them.

The Fuller Memorandum has superb pace, intriguing characters and a never overused sharp and wry humour. I came to this novel without reading the previous two novels but felt no loss of background as Stross succinctly provides the characters' context. The earlier novels – *The Atrocity Archives* and *The Jennifer Morgue* – are now definitely on my Christmas list.

Escape From Hell by Larry Niven and Jerry Pournelle (Tor, 2009)

Reviewed by Dave M Roberts

Escape From Hell is the sequel to Niven and Pournelle's 1975 novel *Inferno*, a modern-day retelling of Dante's *Inferno*, with Allen Carpenter, a contemporary sf writer, taking the role of Dante. Anyone picking up this book with no knowledge of *Inferno* (either version) really need not worry about missing out on the salient references, as these continually get pointed out. So much so, at least with the Dante, that it feels like the authors have made the assumption that the reader will not have the requisite knowledge to understand their subtleties without being told about them.

The story picks up with Allen Carpenter back at the top level of Hell having progressed all the way through in *Inferno* (and evidently ended up assisting Mussolini to escape). This time, he progresses through the circles of Hell with the express desire of helping everybody he can to escape. In this pursuit he is accompanied by Sylvia Plath, initially in the form of a tree. There is no particular reason for it being Plath, apart from her being a famous literary suicide. On the way they encounter numerous real characters from history and we get an assessment of why they are in Hell to begin with. One or two of these do point towards Niven and Pournelle's political slant. Robert Oppenheimer is a particular example of this; he is in Hell, surprisingly, not for creating the atomic bomb but for having Communist sympathies. This can be fun for a while but it does become extraordinarily repetitive.

Carpenter spends much of the latter part of the journey trying to understand the purpose of Hell. This, of course, does rather presuppose that it can actually have a purpose beyond a sort of cosmic retribution. Unfortunately, the conclusions that he comes to are somewhat inconsequential and certainly do little to illuminate the reader. All the attempts at discussing the nature of punishment and redemption aside, the detailed exploration of all the levels with their rivers of boiling blood, fiery deserts and strange punishments suggest the journey is more about establishing how the construct of Hell operates in a practical rather than philosophical way. Strangely, I never got any real sense of danger. Perhaps it is because the characters are already dead, but the degree of suffering they endure en route suggests there should be a certain level of apprehension. This results in the journey becoming not one of wonders, but something altogether more perfunctory.

The process Carpenter went through between *Inferno* and *Escape From Hell*, whereby he almost escapes but finds himself back at the beginning, is one that could easily be repeated ad infinitum until he's solved the puzzle of Hell's functioning. Perhaps this is the point, and is actually Carpenter's punishment. This would make some sort of sense. Unfortunately, *Escape From Hell* succeeds neither as a fantasy adventure (the treatment is too much by the numbers) nor as a philosophical exploration of the nature of Hell (the ideas discussed are much too simplistic). I'd recommend listening to the BBC radio serial *Old Harry's Game* instead. You'll do a lot better on both counts.

The Turing Test by Chris Beckett and *The Last Reef* by Gareth L Powell (Elastic Press, 2008)

Reviewed by Dave M Roberts

These are both debut collections from Elastic Press with stories gathered from various magazines over the course of the authors' careers (in Powell's case this is about four years whereas Beckett has had stories published since 1991). Powell's stories in *The Last Reef* generally have a downbeat feel to them; separation and loss sit at the heart of this collection. Even in the darkly comic "Ack-Ack Macaque", a nice take on the AI-running-rampant theme, the central character is badly damaged by a failed relationship. Reading the stories in a single sitting, I started to long for something nice to happen to someone. This is not a criticism of the individual stories, nor is it necessarily a particular weakness of the collection. It's because the stories are as strong as they are that the overall effect can become quite so downbeat.

The real strength of this collection is the way that the characters are affected by events. "Falling Apart" paints a vivid picture of a collapsing society simply through the actions of a woman attempting to care for her ex-husband who is, likewise, falling apart. "Pod Dreams of Tuckertown", "Six Lights off Green Scar", and "Distant Galaxies Colliding", amongst others, all concern themselves with coming to terms with what has been lost as a result of events outside the control of the protagonists. These are powerful stories of real people having to deal with real emotions.

The stories in Chris Beckett's *The Turing Test*, on the whole, display a slightly more optimistic worldview. This difference is marginal, as the stories are often similarly dark, but the characters frequently undergo a process of self-discovery that ends the stories on a more hopeful note. In the title story, Jessica comes to see the reality of the world more clearly as a result of her encounter with an almost perfect virtually generated PA that forces her to look at her life in a different way. "The Marriage of Sea and Sky" has an observer-protagonist who comes to learn that there is a very definite limit to how closely you can observe a society before you become a player in it.

Beckett cites Philip K Dick as a key influence, so it is probably not too surprising that the collection is loaded with different ways of perceiving the world and the two strongest stories are both set in the same mixed virtual and physical world. "The Perimeter" and "Piccadilly Circus" take place in a world where most people live a virtual existence à la *The Matrix* but this is mapped over the physical London, so those still living in the physical world can interact with the virtual. As the physical world decays and the remnants of humanity age and die off, some of these people find it harder to cope with the fact that the real world has less reality than the virtual one. This is a very rich setting; I wouldn't be surprised if Beckett has more to say about it and I for one certainly hope that he does.

These are two very strong collections, with consistently high standards throughout and stories that linger in the mind long after reading. Elastic Press have succeeded in switching me on to two interesting writers I had not previously encountered.

The Holy Machine (Corvus, 2010) and **Marcher** (Cosmos Books, 2008) by Chris Beckett
Reviewed by Jim Steel

The Holy Machine is only now receiving its first publication in the UK, a scarcely believable fact when one considers the acclaim (and favourable coverage) that Beckett received when his collection, *The Turing Machine*, won the 2009 Edge Hill Short Fiction Award. *The Holy Machine* wasn't short of great reviews when it was first published in the USA back in 2004 either.

The initial if-this-goes-on push that starts the story moving is the Reaction: a religious backlash that has taken over the whole world apart for a technocratic enclave somewhere around the Albanian coast. Illyria City is a determinedly secular city-state in an area that we currently know for its sectarian hatreds; the name deliberately echoes the classical ideals of its founders while leaving the exact location just fuzzy enough to allow the characters room to roam. George is an Illyrian translator, a vocation that correctly suggests our young narrator will be going walkabout at some stage. To begin with, though, he still lives at home with his mother, a traumatised child-woman who has abdicated her responsibilities as a parent and now spends most of her time in virtual reality. She insists that he call her Ruth.

To be fair, life for George is pretty easy in this utopia. They have robots and guest workers from neighbouring states to do all of the unpleasant work. The guest workers would like more rights, such as the freedom to celebrate their religions, but that's always the way. Technology is very highly advanced, especially in cybernetics and genetics. It is quite possible, for example, to have robots encased in flesh that will superficially fool humans. Their neural networks will evolve to ensure that they become ever more efficient at deception. Can they become self-aware? Some seem able to pass the Turing test (obviously a theme that's important to Beckett) but that, ultimately, proves nothing. The only time Beckett breaks from George's narration is when he shows us the programmed flowchart reactions of one of the robots. It doesn't seem aware but what does that mean? The existence of free will is one of the problems that religion is supposed to answer conclusively but hasn't. Beckett has no faith in organised religion and quite happily uses George's naive questions to punch holes in other character's beliefs.

He is also no fan of the spiritual void that the technocrats have created. George mistakes lust for love and, falling for a sexbot, Lucy, goes on the run to prevent her nascent personality being wiped by Illyria City's new hardline regime. This offers the chance to go exploring in the Balkans and, for anyone who knows the area, it provides a much more familiar environment than Illyria City. Technologically, the place is pretty much as it is today.

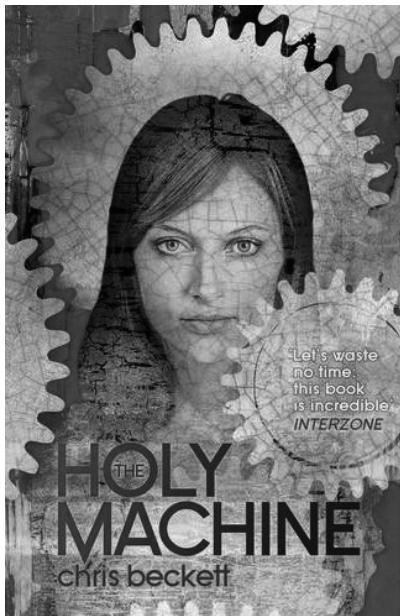
Marcher still hasn't been published in the UK despite

being easily the more British of the two. It's bleaker in tone (it lacks Lucy's non sequiturs for a start) and all of the action takes place in present-day Britain. Not necessarily our Britain, as what seems like a near-future setting very quickly reveals itself to be an alternate reality. We suspect this is on the cards from the beginning as the narrator reveals that shifters are able to slide between realities through use of a drug called 'slip'. Through a fictional sleight-of-hand, slip breeds if left out of sight which means that, if managed carefully, it need never run out. Initially it seems as if Beckett is shooting for airport fiction as he presents us with multiple third-person viewpoints, something which almost jars with the main thread of the narrator. Charles works for immigration – who else would deal with undocumented individuals who suddenly appear on our island? – but is heavily involved with social services as most of the shifters appear amongst the socially deprived. The underclass in this society has been ghettoised in Zones and most of the characters in *Marcher* comprise 'deskies' or 'dreggies'. Beckett's social work background shows in depth as he refuses to stereotype any of the groups. Everyone's an individual. Some are bastards, some are useless and others are good people trying to get by as best they can. One of the deskies, Cyril Burkitt, rises above his spear-carrier name and blossoms into a wonderful creation. He holds a retirement party and gives a wonderful speech that dignifies his charges and also puts forward a very plausible argument that mass unemployment is a deliberate government policy to scare the working class into line. The last time we had anything like full employment, after all, was the Sixties and look what happened then. The novel is packed with gems like this.

The plot is essentially that of a thriller. There is a berserker cult based on the Old Norse religion that is spreading amongst the shifters and the underclass. When you can jump amongst countless worlds and it's

statistically impossible to return to the same world, why be responsible for your actions? Killing sprees are proliferating and the authorities are reacting in increasingly harsher ways. However, it becomes apparent that there is an individual in Charles's world who is orchestrating the shifters. Eric is a deeply manipulative, deeply evil creature who may, in one of the universes, even be responsible for the original creation of slip. While this is developing, Charles and several other characters become psychically sensitive to other shifters and other realities. The different viewpoints and recurring scenes start to pull together into something that is a remarkably cohesive and successful whole.

Neither novel shies away from violence and brutality but there is an emotional maturity here that is rare in the field and, ultimately, both books manage to leave the reader with a note of hope. It is a privilege to witness the start of a career that will eventually be held up as one of the genre's highpoints.



Inside/Outside

Chris Beckett interviewed by Paul Graham Raven

Science fiction has been famously (if contentiously) described as “what we point to when we say ‘science fiction’”. Damon Knight’s assertion seems all the more pertinent in this era of fecund and promiscuous subgenres and as the tropes of the genre seep into the “mainstream” literature in opposition to which it has traditionally defined itself. Readers familiar with the work of Chris Beckett have little trouble in pointing at it and saying ‘science fiction’, but he remains something of a man on the margins, like many of his most memorable characters.

“I was – and in some ways still am – an outsider myself. Hence my identification with outsiders in my writing, and hence too (among other reasons) my career in social work which is, broadly speaking, a profession that deals with people on the margins. I am interested in the perspective of an outsider, and to some extent stuck with it.”

Despite feeling himself to be something of an sf anomaly, Beckett makes no attempt to frame himself as anything other than a writer of sf.

“Genre is an absolute curse for someone like me; I’m not ashamed of being an sf writer, not at all, but I am frustrated by the fact that a large number of people wouldn’t even look at my stuff, simply on the basis that it is sf. Some sf reviewers, on the other hand, question the sfness of my work. I think this concern must arise from the fact that my work doesn’t fit easily into any of the currently popular subgenres, and that I don’t write as one deeply steeped in everything that is currently going on in sf.”

“I feel fairly queasy about the very notion of ‘military sf’, and I’m not keen on sf writing as a branch of thriller writing. I also regret the dominance of the space opera subgenre. Some is fine, but do we need so much of it?”

At the same time, he does not consider himself deeply steeped in everything that is going on in contemporary literary fiction. Ironic, then, that he should be the writer to take the 2009 Edge Hill Prize for short fiction, a prestigious and traditionally ‘literary’ award, for his collection *The Turing Test*.

“The chair of the judging panel, James Walton, said in his summing-up that none of them knew they were sf fans. That felt good. To win – and to win over books by well-known and prize-winning authors of ‘literary fiction’ – was an amazingly validating experience. I’d be lying if I pretended that I didn’t think my own stuff was any good. But I’d also be lying if I claimed never to have any doubt about that. Now I can rule out the possibility of being completely deluded... or at least of having delusions that no-one else shares.”

While Beckett may kick against some of the genre’s established traditions, the short story is not one of them. Indeed, until recently Beckett’s career has been defined by a diverse succession of short stories that take classic sf tropes – emergent robot sentience, for example, or the ability to slip between realities – away from the genre’s competent men and doughty adventurers, placing them instead in the hands of everyday misfits.

“Short fiction allows you to play with an idea without having to work it all out. That can be fun, and it can be an

advantage. Lots of ideas are quite adequately done with in a short story. On the other hand, sometimes an idea turns out to want more expansion and exposition than will fit into one story: that’s how all of my three novels have started. I really don’t have a preference... the pleasures of writing them are different but equal, like the pleasures of reading them. A collection of short stories is a lovely thing, though: the same length as a novel, but with all these quite different things inside it.”

I’ve always felt Beckett’s fiction to embody a sort of questing for verity, an interrogation of the world, but that may simply be post-structuralism biting the critic’s backside as he sees himself in fiction’s fun-house mirror.

“I think writing gives me a chance to distil thoughts and intuitions, to give them form, which could not have been given form in any other way. It allows me to express contradictions without resolving them: or at least resolving them aesthetically rather than logically. They aren’t statements of opinion, or creeds, nothing as linear or black-and-white; they aren’t answers to questions, or questions. They are ‘this is how the world sometimes looks to me’, or even ‘this is what it feels like to be me’, ‘this is who I actually am.’ Because a person isn’t a set of opinions or beliefs, but a set of contradictions.”

One contradiction that appears with notable regularity in Beckett’s fiction is that of the border, be it geographical, cultural or personal. From George, the hapless and conflicted loner who falls in love with a barely-sentient robot prostitute in *The Holy Machine*, through Charles, Marcher’s interdimensional immigration officer, and on to the taboo-defying promethean John Redlantern of the forthcoming *Dark Eden*, Beckett’s characters cross the borders that stitch their world together, often in the full knowledge that to do so may change that world – as well as themselves – in unexpected ways.

“I guess there is something laid down inside me by my life experience that predisposes me to notice that tension between obedience and transgression. But I’d say it’s a universal. Any kind of living thing or system needs a boundary to hold things together, to prevent it from simply dissolving into formlessness; but to grow, to change, to feel alive requires that the boundary should constantly be challenged.”

Even the non-fictional future looks set to see more migration, more challenges to societal borders. Will we ever transcend this fundamental dichotomy of human nature?

“Borders can and do disappear, and it seems to me that nation states as units are pretty inadequate things in a world where business is international and the biosphere as a whole is under stress from human activity. In gloomier moments, though, I wonder if there is something hard-wired into human beings which means that, for people to cohere and co-operate as a group, they need an Other to define themselves in relation to.”

An explanation, perhaps, for the fragmentation of the world... and of science fiction too.

Major Karnage by Gord Zajac (ChiZine Publications, 2010)
Reviewed by Shaun Green

“DON’T TALK TO HIM ABOUT THE WAR!!!”

As the discerning reader might observe from the opening line of this book’s blurb, quoted verbatim above, this is not a novel trading in subtle and elegant prose. No, *Major Karnage* is a shameless throwback to the days of pulp sf adventure.

Gord Zajac is a fiction editor for the *Chiaroscuro* webzine and writes for TV, including numerous cartoons for Cartoon Network. These two roles feed into *Major Karnage* in a very obvious way: the novel benefits from its author’s obvious versed familiarity with genre fiction and it is informed by a cartoonish sensibility. To whit: after a war to end all wars, the multinational Dabney Corporation seizes global control of Earth and locks away all its war heroes. Fast forward a few years and the planet is a very different place, with odd flora and fauna spreading and a secret alien invasion underway.

The eponymous Major Karnage is incarcerated in a mental institution alongside a squad of soldiers with whom he shares an intense loyalty. Karnage is a soldier driven by rage and instinct and part of his rehabilitation involves a ‘sanity patch’ at the base of his neck. This device is rigged to explode if Karnage’s temperament escalates too far. This is something that happens a great deal after Karnage’s soldiers are alien-napped and he sets out to defeat the ‘squiggly’ menace from beyond the stars.

Zajac obviously revels in his thoroughly pulpy, tongue-in-cheek narrative and there’s a playful attitude throughout. Unfortunately, whilst humour is a major aspect of the novel, *Major Karnage* suffers from the problem of not being that funny. Mileage will always vary when it comes to jokes but the novel rarely drew out more than the wry smile of a shared joke. There are also weak long-running jokes, such as the colour-coded ‘sanity levels’ of Karnage’s patch: the penultimate level before his head is blown off being “Strawberry Shortcake”.

Structurally the novel is predictable, clinging to Karnage’s viewpoint with a few brief asides to see minor characters being written off. Whilst Karnage’s motives drive him forward convincingly, he spends a lot of time being knocked out or captured in order to get to where he needs to be. Although the book is pacy I found the first half significantly less interesting than the second, with too much time devoted to getting the plot moving and dropping a few guns on Chekov’s mantlepiece. And one last criticism should surely be pointed at the global dominance of the Dabney Corporation: Disney doesn’t reflect the modern zeitgeist of controlling corporate greed any more, surely? We’re past the idea of an entertainment multinational controlling every aspect of our lives; nowadays it’s the internet giants lead by the mighty Google.

I found *Major Karnage* a moderately enjoyable read and as a first novel it’s a competent enough outing. Unfortunately it’s not a novel I would have persisted with were I not reviewing it. Had it proven funnier, more satirical or more gonzo then my conclusions might be different.

Nexus: Ascension by Robert Boyczuk (ChiZine Publications, 2010)
Reviewed by Graham Andrews

I’ll begin before the beginning (that line made perfect sense to me down the pub last night but now I’m not so sure). Robert Boyczuk is a leading free software activist: a click on his The Collected Works of Bob website will give you much more bio-bibliographical information. After several rejected submissions, *Nexus* first became freely available in 2004 as an eBook from manybooks.net (“If you paid anybody for access you should ask them for a refund.”) Now Toronto-based ChiZine Publications have issued it as *Nexus: Ascension*.

The opening chapters form what could be called – after Poul Anderson’s near-classic 1962 novel – an After Doomsday scenario. Returning from a thirty-year interstellar trade mission, the four-person crew of the *Ea* awake from cryonic suspended animation to find that their home world, Bh’Haret, is still in one piece but rendered lifeless by a great swinging plague. The Bh’Haretis would appear to have been punished by the omnipotent ‘Nexus Polyarchy’ for refusing to take part in something called the Ascension Program (doling out advanced technology to vassal planets). What to do, what to do?

Quite a lot, as it turns out. The crew – Liis, Sav, Hebuiza and Josua – have all been infected by the plague: the countdown to death starts now. After some Heinleinian hugger-mugger about who’s in charge of what and why, the group splits into two taskforces. One heads for Nexus HQ at the Hub, in search of an antidote to the plague, while the other hies itself off to a Speaker’s Repeater Station situated near General Survey Object SJH-1231-K, Nexus Universal Catalogue. (I should have mentioned that the whole Nexus shebang is held together by widespread telepathic Speakers who can communicate instantaneously across vast cosmic distances.) Boyczuk’s trudging (sometimes literally so) narrative takes too much time reaching its worth-waiting-for climax, while everything that crops up along the way is explained calmly, rationally, and in a tad too much technical detail.

If *Nexus: Ascension* isn’t set in a galaxy far, far away then it must take place in a stellar system or two removed at the very least. Just one niggly point, however: “The shadow continued to grow, strangely bereft of features; it lay across the landscape, an expansive black mantle covering Earth in a circular shape.” But the word in question was probably meant to be common-dirt ‘earth’.

I generally prefer to read well-structured stand-alone novels to burst-mattress trilogies or domino-effect series. As Charles De Lint advised authors in his book review column for the September/October 2010 issue of *F&SF*: “No story you write is so big and so important that it needs multiple volumes in which to be told.” Except, in my opinion, if they’re written by Jack Vance (for example, *Demon Princes*, *Planet of Adventure* and *Lyonesse*). I’d be inclined to make another exception for Robert Boyczuk and a potential Nexus series, if that’s what he’s got in mind. Well, *Nexus: Ascension* does make me think back to *Trullion: Alastor 2262*, *Marune: Alastor 933* and all the rest.

The Nemesis List by R J Frith (Tor, 2010)
Reviewed by Ben Jeapes

SciFiNow magazine and Tor UK ran a competition for debut sf novels which this won: so, hopes were high. Unfortunately what we get is fairly routine downbeat space opera owing more than a little to *Firefly*: ex-military space trader with heart of gold, surgically enhanced psychic genius, oppressive government... To be fair these are common tropes and Frith does his own thing with them. Just not that much.

From the age of five, Jones was tortured in a secret scientific facility to enhance his intelligence and memory. Now in his twenties, he has been tracking down and killing off the faculty of the facility, one by one; he has been apprehended again; and Frank Pak, our heart-of-gold freelance hero, has the job of transporting him from A to B while nefarious persons from all around want to get hold of him for themselves. It sounds good, so where does it go wrong?

Jones is frankly useless: how he got as far as he did down his list is a mystery. He is a physical and emotional wreck, liable to collapse at any moment, and any situation that he takes control of inevitably goes horribly wrong. There is no sense of place anywhere in this future universe. It is a random collection of destinations with no sense of the links or distances between them, stocked exclusively with people of European or North American descent: Frank Pak's name is about as wildly exotic as it gets. The technology of the future already looks clunky to a reader living in a time when cloud computing can be accessed from a handheld device. No one would entertain thoughts, as Pak does, about smoke coming out of the comp unit that has to keep track of traffic at a busy space station. Computers can count quite high, you know. And job share.

The oppressive government... isn't, as far as this reader could tell. There is no discernible censorship of thought or expression; private owners of spaceships can ply their trade as they please, subject only to quite reasonable traffic regulations, much like present day commerce; and if the government does intervene excessively it's to stamp out such things as freelance experiments on surgically enhancing the brain power of young children, which measures would not raise an eyebrow in many Western democracies. Meanwhile, for readers trying to make sense of it all, everyone has those deep, elliptical conversations where the speakers can already see ahead by two or three levels of implication, making the dialogue and hence the motivation of characters just impenetrable. And too many sentences with no verb.

The biggest flaw is that everything is as it is because the author says so. The government is rotten because we're told so; Jones is a genius because he just is, OK? The actual plot is involved and makes sense. There will doubtless be more novels; Frith could do worse than develop a universe that lives up to the promise of his ideas.

The Noise Within by Ian Whates (Solaris, 2010)
Reviewed by Stuart Carter

All our grandmothers have, at some point during their tenure as family matriarch, told us "If you can't say anything nice then don't say anything at all" but, as a reviewer, not saying anything at all isn't really an option. With Grandmother in mind, I briefly considered writing simply "I did not enjoy this book" here; however, when your editor asks you for 500 words it's considered bad form to offer him just six. So let's begin with "I did not enjoy this book," and then work our way sadly towards the "why nots" and the "hows".

I did not enjoy *The Noise Within*, despite the back cover blurb initially convincing me that I very much would (a psychological effect enhanced by the use of a font and cover layout *very* similar to those of Iain M Banks's novels).

The novel employs two main viewpoint characters – Kaufman and Boulton – as well as a number of temps, including Kyle, a bored engineer. He is working onboard a rich passenger ship when it is captured and boarded by a remarkable pirate spaceship calling itself *The Noise Within*. The sudden appearance and enigmatic behaviour of *The Noise Within* has created quite a splash in the galaxy; apparently unstoppable, it pops up seemingly at random to raid the aforementioned rich passenger ships and inexplicably offer a berth to one of their crew. Kyle accepts *The Noise Within*'s offer but it isn't what he expected...

Philip Kaufman is the billionaire head of Kaufman Industries and son of Malcolm Kaufman, inventor of the Kaufman Drive which revolutionised interstellar travel some years back. Not only has Philip learned something important about *The Noise Within* but his company is also heartbreakingly close to a tremendous breakthrough in the field of human-AI interfaces, one which will change the world at least as much as his father's invention.

Boulton, on the other hand, is a mercenary with a unique selling point: he has a gun loaded with various types of mayhem and, more importantly, with an artificial intelligence which makes him very good indeed at what he does. The AI tells him where to shoot, when to shoot and what type of bullets to use when shooting. That's pretty much all we learn about it, an omission that for me, a good 25 years after the cyberpunk revolution, simply isn't enough – especially since human-AI interfaces are quite a feature in this story.

The Noise Within suffers from two main weaknesses. The first is that the story is hackneyed, unambitious and could just as easily have been written in the 1970s – hell, remove the sex and it could have been written in the 1950s. The second weakness is the standard of the writing. Whilst some of the action sequences are engaging and well paced, much of the book's exposition is, I'm afraid, desperately below par, consisting of crushingly wooden infodump exchanges that read like late-night teletext pages. I took *The Noise Within* to read on holiday, expecting some lightweight space-operatic high jinks – perfect holiday reading! Sadly even in such a carefree, undemanding setting *I did not enjoy this book*.

Brave Story and *The Book of Heroes* by Miyuke Miyabe
(Haikasoru, 2007 and 2009)
Reviewed by Cherith Baldry

When I first saw *Brave Story*, before I even opened it, I was asking myself what its target audience might be. The cover announces it as a children's book but at 816 pages it is a real doorstop and this alone will be offputting for all but the most avid of child readers. The situation in Japan might be different but speaking from experience of children and their reading in the UK – and to some extent in the US – I know that I would have difficulty in encouraging most children to give *Brave Story* the reading it deserves.

The central character is Wataru Mitani, a young boy whose world falls apart when his father leaves his mother for another woman and his mother tries to commit suicide. Wataru is able to enter the fantasy world of Vision, where he begins a quest to find the goddess of fate, who will change his destiny and restore his happy, secure family.

I enjoyed the early chapters of the book in which Wataru discovers the rift within his family, interspersed with the first stirrings of fantasy in the “haunted building” near his home. But my heart sank when he embarked on his quest in Vision. Wataru is a fan of computer gaming and on his entry into the fantasy world he appears to be in the middle of such a game: four encounters give him four separate qualities and then he is awarded his equipment. He also has the task of retrieving five gems (or ‘plot tokens’) to set in his sword, after which he will be able to reach the goddess. I understand that there’s a manga version of the novel and also a computer game based on it and this came as no surprise, given the type of material.

However, once Wataru gets going, although the gaming influences are still apparent, they recede into the background and the story becomes much more interesting with the addition of new characters and challenges that Wataru must face. Instead of a straight road to finding his gemstones and reaching the goddess, he becomes embroiled in the politics and struggles of the world of Vision and his character develops to the extent that, by the time he faces the goddess, he is able to make the right request.

The book is big and sprawly and I got the impression that the author was adding new ideas as they occurred to her. But the character of Wataru is so engaging – particularly in his interactions with Mitsuru, another boy on the same quest, who is, on the face of it, more likely to succeed – that I wanted to know what would happen to him next and hoped that he would achieve his aims.

Brave Story was given the Batchelder Award by the American Library Association. I wouldn’t have thought it was award material myself but it is certainly an attractive book; I enjoyed it, though, for the reasons I

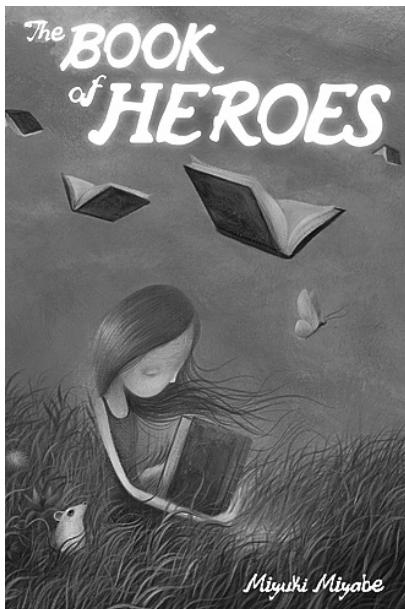
stated above, I wonder how much appeal it will have for children. *The Book of Heroes* is a more accessible length and the structure is far more organised. Its premise is similar to that of *Brave Story*: a child who moves into a fantasy world in the hope of setting right a terrible situation in her life. This time the child is a young girl, Yuriko, whose brother has disappeared, after apparently going mad and murdering one of his classmates and injuring another. The extremity of this situation is essential if the plot is to work but at the same time it casts a shadow over the book because there is no possible way in which Yuriko can put this right. The dead boy is going to stay dead.

Yuriko begins her journey into the fantasy world when she discovers a ‘magic’ book which is able to guide her into understanding why her brother committed these crimes. At this point the book pretty well grinds to a halt. There are two very long sequences, first in the “reading room” of Yuriko’s great-uncle’s cottage, and then in the “nameless land” where she travels to get more information. Here she is taught about the realities of the world and of stories, of which ordinary people are never aware, and of the way in which her brother has been drawn in. Here, I suspect, is where most children will give up on the book because it is incredibly long-winded and complex. I’m not sure that I even understand all the ramifications.

The basic idea is that storytelling will release the Hero into the real world and that the Hero is by definition a dichotomy of good and evil. Yuriko’s brother has fallen under the spell of the evil half, providing the final impetus that will release him. She comes to learn that his attack on his classmates had a good impulse behind it (because they were bullies) but the outcome is

evil (because he was possessed). I’m not sure that I appreciate the logic behind this: I can think of many heroes, both real and fictional, who might have had human flaws but certainly couldn’t be classified as evil. Another aspect of the writer’s thinking is that storytelling is of itself sinful since it is the route through which the evil aspect of the Hero is released. There’s something seriously weird about a writer of fiction considering the activity of storytelling to be a sin. And why should only the evil aspect be released, never the good?

Once the long section of information is over, the pacing improves and the later part of the book has some exciting sequences. However, there’s another hold-up to tell (at length) the history of the fantasy world to which Yuriko travels. The climax, in which she succeeds in bringing about a kind of reconciliation, is again very complex and there is also a hint at the end that there might be a sequel. So although *The Book of Heroes* is a much more structured and thoughtful book than *Brave Story*, it isn’t anything like as engaging. The amount of detail and complexity that a reader has to assimilate before they can understand what is going on swamps the actual plot; after *Brave Story* it was a disappointment.



Miyuke Miyabe

WE by John Dickinson (David Fickling Books, 2010)
Reviewed by Donna Scott

Paul Munro, a gifted telecommunications engineer, is sent on an eight-year journey to join three researchers on an icy moon, far out in the solar system. The team are there to look for life forms, though none of them really expects to find anything. In order to live in the conditions in the base, Munro must first be stripped of his World Ear, an implant through which the majority of people on Earth now communicate. Like a synaesthetic Twitter-feed, the World Ear seems to filter people's experiences of the world and even their relationships with each other. Privacy is outmoded, as people's personal information is immediately visible when they are looked at and subjective will is eroded; Munro has a lover and child and does not wish to go to this moon but the WE, the collective will of everyone connected by the World Ear, has decided that he is the best person for the job so he accepts without protest. This sense of belonging overrides the normal emotional bonds that Munro would feel for his family. It is not until the WE is removed that Munro even feels the power of his own emotions and is alarmed when he finds himself crying for his loss.

When he arrives at the base, Munro discovers that the team had comprised two sets of lovers and the man he is replacing had committed suicide. Life on the base is precarious: the scientists need to cope with the isolation and the physical effects that the planet has on them, distorting their bodies and weakening their bones. Van Damme, the dead man's lover, has turned to God for strength, while Lewis and May are keeping a big secret from Earth. All three think that Earth is 'evil' and proclaim themselves the last of humanity. Munro had thought the only puzzle he had to solve was one concerning interruptions to their telecommunications but finds himself asking bigger questions: why exactly was he sent there and are they really all alone?

WE is a powerful Young Adult psychological thriller that deals with what it is to be human and has echoes of Stanislaw Lem's *Solaris* and Ursula K Le Guin's *The Left Hand of Darkness* in some of the plot points and imagery: the extreme cold of the setting; the examination of individual willpower versus submission to a collective conscience; the unseen entity haunting the crew. Though Dickinson occasionally resorts to revealing plot through dialogue, the writing style is likeably clear and the notion of a future web-linked society evolving into a collective conscience is very plausibly written (with space left for further imagining, perhaps). But claustrophobia permeates the book more than technophobia and at times the tension is almost palpable.

Perhaps more meat could have been made of the ideas to give us a longer book – it's 299 pages but the text is widely spaced – but it still works well and I'm particularly impressed by the deft and subtle use of metaphor, especially concerning birth and death. A haunting read.

I Am Number Four by Pittacus Lore (Penguin 2010)
Reviewed by CB Harvey

Small town America. A teenage boy hides his extraterrestrial identity and burgeoning powers. But teenage boys being teenage boys, he falls in love, picks fights with bullies and in doing so inadvertently alerts the creatures hunting him to his location. So far, so formulaic. The titular hero is part-Superman, part-Spiderman and, in his continual running and hiding, part-Incredible Hulk. The supporting cast are similarly recognisable: there's Sarah, the beautiful but slightly quirky girl he falls for; the nasty jock Mark (Sarah's ex-boyfriend, natch); Sam, the nerdy best friend; and Henri, Number Four's guardian and fellow alien.

What differentiates *I Am Number Four* from the superhero mythologies that preceded it is the verve with which it's told and the ways in which it reinvents some of the foundational tenets. Number Four constantly asks questions, interrogating situations in a vain attempt to guess their outcome. It's a clever ploy because it gets us as readers asking the same questions and because it simulates the querulous nature of teenagehood: a child-like urge to second-guess an adult world that is largely unguessable.

Number Four is one of nine infants sent to Earth from the planet Lorien after it was ravaged by the evil Mogadorians. Each child has been assigned a carer and mentor who will look after them and advise them as they each develop a range of powers known as 'Legions'. But the Mogadorians are in hot pursuit, intent on murdering each child in turn, not to mention orchestrating the same fate for Earth as they dished out to luckless Lorien. The Mogadorians are perhaps the most effective elements of the novel's well-thought through mythos. With their fedoras and pulled-up collars they reminded me massively of the Blue Meanies from *Yellow Submarine*: truly terrifying creations that spend much of the novel hidden in shadows and are all the more terrifying because of it. Their motivation, too, is intriguing. Having exhausted their own planet's resources they go looking for someone else's (climate change sceptics please take note, this is not a viable option if you turn out to be wrong). The climax, when it comes, is gruelling and surprisingly gruesome for something ostensibly aimed at young adults.

The book provokes a range of questions which ought to provide fertile territory for future instalments in what is planned as a six-book series. The implication is that the Loriens have basically brought the Mogadorians to our planet, a fact many of us might feel a tad miffed about. More prosaically, quite why the Mogadorians have to eliminate each child in order isn't discussed in this first novel.

I Am Number Four, then, is formulaic – but it's a tried and trusted formula, here given a substantial enough shake to produce something that tastes a little different. At the moment it's reasonably sugar-free too. Whether the forthcoming movie – produced by Michael Bay and Steven Spielberg – adds a hefty dose of saccharine remains to be seen.

***Monsters of Men* by Patrick Ness (Walker Books, 2010)**
Reviewed by Anne F Wilson

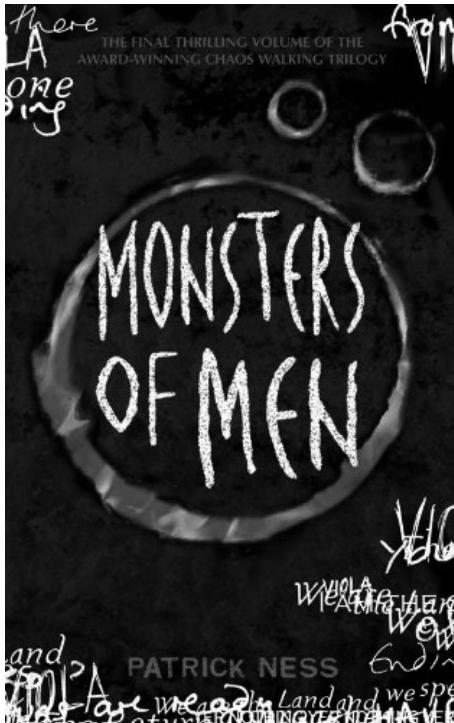
Monsters of Men is the third book in Patrick Ness's **Chaos Walking** trilogy and, like the previous two, it is utterly gripping. It is impossible to discuss the book without talking briefly about the trilogy as a whole and difficult to discuss it at all without spoilers. Part of the point of the books is the gradual revelation of secrets that one would have thought impossible to bury.

In the first book, *The Knife of Never Letting Go*, we are introduced to Todd Hewitt, a twelve-year-old boy (fourteen in our years) who is on the verge of becoming a man. He lives in the frontier settlement of Prentisstown on New World, a colony planet. The story is told in Todd's own words, a completely honest stream of consciousness. He has been brought up by men, believing that an alien virus has killed all the women on the planet. This virus causes all the men (and all the rest of the animal life, both native and imported) to broadcast their thoughts incessantly. This continual battering of information is known as Noise. Poorly educated and illiterate, Todd spends his time roaming the margins of the town with his dog, Manchee. One day shortly before his thirteenth birthday, he notices a patch of silence amidst the Noise. The silence turns out to be Viola, the sole survivor of a crashed scout ship. Todd discovers that despite the Noise, everybody he knows has been lying to him, for both good and bad reasons, and he and Viola have to run for their lives. They are pursued by men from the town and followed by the army of the eponymous Mayor Prentiss, whose aim is to take over all the other settlements on the planet and make himself president. Todd and Viola head towards the township of Haven where they hope to find safety.



The second book, *The Ask and the Answer*, opens with the Mayor's army having marched unopposed into Haven and taken it. Todd and Viola end up on opposite sides, Todd running a concentration camp of Spackle (the local intelligent aliens) and Viola fighting on the side of the Answer, the somewhat belated resistance to the Mayor. This book is very grim indeed: the Mayor employs torture against the Answer and they in turn increasingly resort to terrorist tactics.

In *Monsters of Men* another scout ship arrives, heralding the arrival of the main body of settlers. The Mayor and the Answer are forced to work together to confront the Spackle, who have risen in overwhelming force against their human oppressors. The Mayor is determined to present himself to the new settlers as the president of a united world by decisively defeating the native aliens whilst Todd and Viola are trying to work towards a peaceful settlement with the Spackle. However, the Mayor has learned to silence his Noise



through mental discipline and has found new powers of mental control. The book builds dramatic tension until the final resolution, which astonishingly still manages to surprise and shock.

The trilogy is a tremendous achievement and Patrick Ness is not afraid to confront the big issues. Do the ends justify the means? Can appeasement work? What is the difference between resistance and terrorism? These are all served up with side orders of debate about racism, sexism, repression and colonialism.

Dealing with all these issues means that he is forced to simplify them, not, I hope and believe, because teenagers can't cope with complexity but partly to maintain the pace of the action, and partly to keep the books down to a manageable length. *Monsters of Men* is the longest of the books at over 600 pages, but the others aren't short. This means, however, that Ness is generally sketchy about adult motivations and I would personally have preferred greater complexity and ambiguity. For example, the Mayor is portrayed as a Hitler character, a charismatic and persuasive megalomaniac, rather than a man honestly trying to deal with the problems of his world.

The author is also brilliant at drawing animals as credible characters, from Manchee, the comedy dog of the first book, to the steadfast horses of the last. They too have Noise and their voices are entirely believable. In particular Todd's dog develops from a figure of fun, obsessed with bodily functions and chasing squirrels, into a heroic character but he isn't anthropomorphised. He's still a dog with a dog's needs and I think this is remarkable.

Because of the way Ness tells the story, through the voices of the different characters, we are immediately immersed in the action. As readers we would prefer to put distance between us and the often frightful events of the books but as soon as we are in Todd's world we are forced to experience it with him. The books have tremendous narrative drive and the readers are dragged with Todd through some truly harrowing events but when all hope is lost somehow it flutters out from Pandora's Box. The books can make very grim reading, but ultimately the experience is hugely rewarding.

The Iron Hunt, Darkness Calls and A Wild Light by Marjorie M Liu (Orbit, 2008-10)
Reviewed by Amanda Rutter

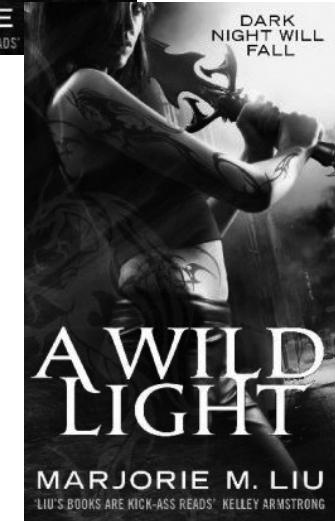
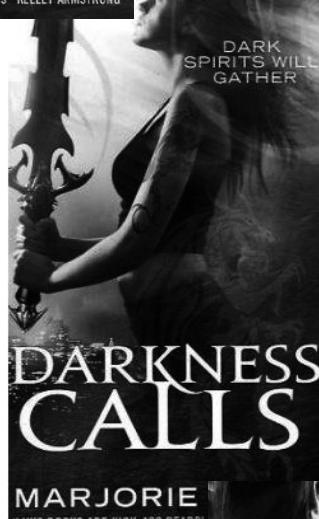
Maxine Kiss is the last of her kind, a tattooed Warden protecting the world from demons who pass through the Veil from their prison and take over human hosts to become zombies. Her tattoos are her protection – during the day they form her armour against all threats, while at night they slip away from her and become ‘the boys’, small demons who are inextricably linked with the female line of Wardens.

In *The Iron Hunt*, Maxine discovers that the Veil is falling as she investigates the death of a person trying to trace her – someone who knew her real name and not one of the many pseudonyms that she gives. In *Darkness Calls*, it is discovered that Maxine and her partner have the power to kill Avatars, the immortal beings that imprisoned all demons, and they are hounded by the Erl King, a truly monstrous individual who slips through the Veil and seeks the death of the world. Finally, in *A Wild Light* the Veil snaps open and Maxine must deal with the consequences as she learns that her ‘boys’ are much, much more than they seem.

Marjorie M Liu has created a disturbing, compelling and unique vision of a world spiralling into darkness. The tattooed Wardens are mysterious and the manner in which their demonic protection hides in the form of tattoos during the day was genuinely fascinating to me. I adored the five demons that protect Maxine. Dek, Mal, Aaz, Raw and Zee are fabulous characters, all spikes and attitude, vicious and cute in the very same moment: they hum Bon Jovi hits in Maxine’s ears and eat cuddly teddy bears for food but are also terrifyingly effective at consuming the souls of demons. Maxine’s curious relationship with her ‘boys’ is the true highlight of the trilogy and I was pleased to see this develop over the course of the books.

Liu’s prose is hypnotic and lyrical with poetically beautiful passages. I particularly enjoyed the emotional scenes in the second book of the trilogy where she uses her prose to excellent effect to convey the turmoil and conflicting desire felt by Maxine who has found home and love with a man but knows she should be on the road chasing down demons. Liu also comes into her own when describing the supernatural entities that inhabit the trilogy:

The demon tilted his head, just so, and his



body twisted, flowing like the skin of a shark through water. He danced when he moved; on the city street, wrapped in shadows: a kiss on the eyes, a devil’s ballet, and only his feet moved, only his cloak had arms; and his hair, rising and flowing as though lost in a storm.

Unfortunately, for me, the excellent premise of the novels and the delicious prose were ill-matched by a plot that stumbled and lurched from one incident to another. Half the characters were introduced with absolutely no discernible reason – those that did have a reason for joining the party were sketched so briefly that I didn’t care about them.

The plot was also confusing. I know some writers who effectively carry their readers through moments of confusion but Liu was not able to achieve this. I found myself more frustrated than thrilled, which is a great shame since I did feel that there was the bones of an excellent urban fantasy tale here. As an example of my confusion, take the relationship between Maxine and her boyfriend, Grant. When we first met them in *The Iron Hunt*, they had already been together for a number of months, but we never actually saw the start of their relationship (I believe it is detailed by Liu in a separate novella). On one hand, I enjoyed this because it is fairly unique in paranormal fantasy. However, on the other hand, I seriously disliked it because I have no investment in their love – I didn’t see *why* Maxine chose Grant. I didn’t see why she decided to reveal her big secret to him. For me, this makes the relationship feel empty and therefore I don’t understand why Maxine is willing to risk life and soul for this man.

In *A Wild Light*, however, Liu does manage to explain much more of the ongoing plotline involving Avatars, Wardens, demons and zombies. Whereas in *The Iron Hunt* and *Darkness Calls*, I found myself struggling to follow the events of the books – I understood that the Veil was failing but much of the detail was lost on me – in the third novel, Liu recaps in a manner that illuminates many of the characters and situations so that my enjoyment was greatly enhanced.

My general impression of the trilogy as a whole is that it is written in stunning fashion but lacks a driving plot or any real tension. The concepts are wonderful – demons that live on the skin, zombie parasites feeding on pain – but they nestle in a trio of books that don’t truly go anywhere. It is all style and no substance. Marjorie M Liu’s trilogy is beautiful but ultimately forgettable.

The Poison Throne by Celine Kiernan (Orbit, 2009)
 Reviewed by Alan Fraser

The Poison Throne by Irish writer Celine Kiernan is the first of the **Moorehawk Trilogy**, followed by *The Crowded Shadows* (July 2010) and *The Rebel Prince* (October 2010). To come straight to the point, I was so taken by this book that I can't wait until the next volume is published. It's marketed by its Irish publishers, O'Brien, as Young Adult fiction for ages thirteen upwards but I'd certainly rate it to be on the dark side for younger readers.

The story is set in the early 1400s in a very different Europe from the one we know. Apart from ghosts that are real and cats that can talk, this is a world where the Crusades and the Moorish invasion of Spain never happened, so the relationship between Christianity and Islam is much more relaxed. Five years previously, when the once benevolent King Jonathon started to become paranoid about being overthrown, Wynter Moorehawk and her father, the Lord Protector, were sent to the Northlands in what was called a diplomatic mission but was really a period of exile. Now fifteen, she has returned to the Southlands (situated somewhere in the south of our France) with her dying father. However, her once happy home has become a place of dread and danger. Jonathon has become a violent tyrant and has exiled his son, Alberon, for allegedly plotting a coup. Alberon is indeed now doing so. Wynter and her father are skilled woodcarvers and they have returned to the kingdom to oversee the removal of all images of Prince Alberon from a frieze in the castle.

Jonathon appoints his illegitimate son and Wynter's close friend Razi as heir, causing more unrest in the kingdom. As her situation and that of the kingdom deteriorates, Wynter's future also becomes tied up with Razi's friend Christopher Garron, a musician whose hands have been maimed as a cruel punishment. Underlying everything is the existence of a secret war machine built by Lord Moorehawk years ago that Jonathon is prepared to use against his son, despite the dire consequences of doing so. This terrible machine is inspired by those invented by a real person, the Arab scholar Abu Al-Jazari, whose *Book of Knowledge of Ingenious Mechanical Devices* was published in 1206.

What sets this apart from the usual run of classic fantasy is the dramatic writing and the detail with which Kiernan has constructed Wynter's world. She has used her film industry experience to create vivid images of the events that capture the imagination and force you to engage with the characters. I cared about Wynter, Razi, Christopher and the ailing Lord Moorehawk, and pitied King Jonathon even though appalled by his actions and those of his guards and inquisitors. This is a nasty place of hard choices where the reader is constantly kept on edge, only discovering what's going on as Wynter does, and because of this I have absolutely no idea how the story will pan out.

Shadow Prowler by Alexey Pehov (Simon & Schuster, 2010)
 Reviewed by Sandra Unerman

Shadow Prowler begins with an atmospheric description of Avendoom, a great city in an imagined world, under threat from ogres, orcs, demons, the Nameless One, and other countries. To save their civilisation, the city's king and his government must retrieve a magical object hidden in a dangerous location, which has already destroyed two previous expeditions. They are forced to turn for help to a member of the city's underclass, Harold, a master thief. They blackmail him into embarking on a quest with a band of companions chosen by them. But before he sets out, Harold must deal with some old enemies and learn more about the dangers ahead.

This is the first volume of a trilogy; however, the quest proper does not begin until about two-thirds of the way through and the story is not complete in itself. It is told in the first person by Harold, who is both cynical and cheerful about all the dangers and horrors he confronts. He also has a poetic streak, for instance describing the sky as set with "the different-coloured glass beads of the stars". Harold is shown early on as the possessor of unmatchable skills and cunning, as well as courage and loyalty. So it is difficult to feel much doubt about his ability to cope with any situation. The plot also contains many stock ingredients: the prophecy Harold refuses to take seriously, the flashbacks to past battles and tragedies, the mysterious attacks along the road.

Pehov is a highly successful fantasy writer in Russia and this is the first of his books to be translated into English (by Andrew Bromfield). He uses his knowledge of Tolkien and other fantasy classics to reverse some of our expectations. In this world, the orcs are the Firstborn, the elves are not beautiful and the Nameless One is not absolute evil, "merely a little unbalanced by his hatred". The world of the novel has a Renaissance feel to it, with professional soldiers, a powerful king and a court jester who plays tedious practical jokes. I did not discern any distinctively Russian flavour, except maybe in the forests and grasslands through which the company travel, once the quest is finally under way. But there are features which resonate with our contemporary world. For instance, the different species fight one another over many centuries and the more closely related they are, the stronger their endless feuds, such as those between the orcs and the elves. The magicians are given to making dangerous experiments and then acting oppressively to hide their failures. And nobody knows why the weather is unnaturally hot.

All these themes are set up in this volume but not much is made of them: hopefully they are due for more thought-provoking development later. The narrative is fast-paced and gripping but left me feeling there was too much action and not enough character development or psychological tension. I found this fun to read but with little to stick in my mind or make me look out for the rest of the trilogy.

The Office of Shadow by Matthew Sturges (Pyr, 2010)
 Reviewed by A P Canavan

The Office of Shadow is a Cold War spy thriller set in Faerie. Following the events in Sturges' debut novel *Midwinter* (2009), *Office* focuses on the adventures of Lord Silverdun as he is recruited and trained as a 'Shadow', part of Queen Titania's intelligence agency. Silverdun – accompanied by fellow trainee spies Ironfoot, an academic and soldier, and Sila, a damaged ingénue – must unravel the mystery of Mab's Faerie atom bomb, the 'Einswrath', and avert the war between the Seelie and Unseelie courts.

The quick pace and the familiar plot ensure that this is an enjoyable, comfortable read but in its execution *The Office of Shadow* transcends the pedestrian. In this version of Faerie, Sturges has created a world that marries the playful whimsy of Neil Gaiman's *Stardust* with the believability of a fantasy secondary world. The usually 'dreamlike' illogic of Faerie has been made real, complete with dirt under its fingernails, and without losing the sense of wonder fundamental to Faerie. The characters are an extension of this, well wrought and genuinely flawed. The consistent magic system illustrates how magic is as integral to fantasy as science is to sf and, in Sturges's Faerie, it becomes a character in its own right adding to the texture of the realm.

By combining Cold War espionage and fantasy adventure, Sturges appears to have breathed new life into both genres. Yet the delightful blend of spies and spells is not quite as inventive as it might appear. The faerie gloss on espionage clichés and the spy veneer on fantasy conventions do not always hide the joins. The subtext of the novel, concerning religious tensions, espionage and an allegory of atomic energy, promises much but ultimately Sturges errs on the side of diverting entertainment rather than the darker, meatier grit of modern fantasists such as Steve Erikson, George R R Martin and Scott Bakker. The most apt comparison is possibly China Miéville's *The Scar* which is by far the more 'grown-up' read, if maybe not quite so much fun.

Like the Fae themselves, Sturges has created a wonderful glamour, all the appearance of something grand and beautiful but as insubstantial as faerie promises. As interesting as the characters are, Sturges never develops them further than intricate sketches. The main villains are under-developed and under-utilised and there are tantalising hints of the greater, deeper world that are frustratingly never fully realised. The conclusion has epic aspirations but ultimately feels rushed and anti-climatic; the concepts of magic and Faerie whet the appetite for more but the reader is left wanting.

Sturges writes with the cinematic command of his comic book background and is steadily improving as novelist but it is the lack of shadows and depth that reduce this story to merely entertaining, rather than truly great. If *Midwinter* was The Dirty Dozen Faerie, then *Office* is Tinker, Tailor, Soldier, Faerie. Sturges is an author to watch and shows tremendous promise.

Lord of the Changing Winds by Rachel Neumeier (Orbit, 2010)
 Reviewed by Lynne Bispham

When griffins are spotted riding the wind in the skies above the village of Minas Ford, Kes, a timid and solitary fifteen-year-old, is drawn to their fierce beauty. The other folk of her village are afraid. Half-lion, half-eagle, the griffins were reputed never to leave their desert home. Now that they have come south, they bring the desert with them, turning good farmland to rock and sand and hunting the local livestock. Then a stranger arrives in the village asking for Kes's help to heal one of his own people who has been injured. It seems incredible to Kes that no-one else in her village can see that this stranger has the appearance of a man but the shadow of a griffin. Nevertheless, she goes with him. Once they are in the desert, he reveals his true form as the griffin Kairairthin, Lord of the Changing Winds. Although he is a powerful fire mage, Kairairthin has no ability to heal and the wounded griffin king needs Kes's just awakening mage powers.

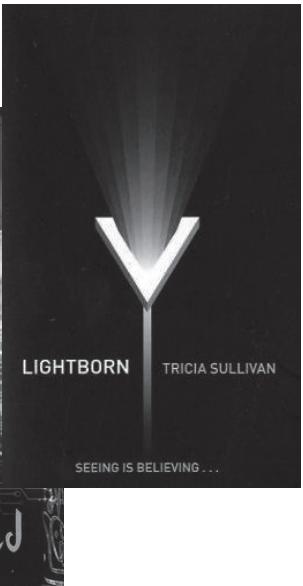
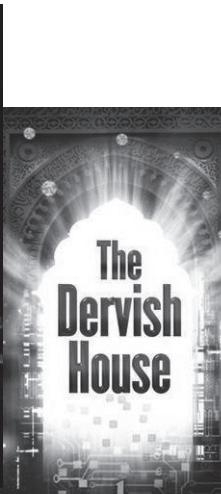
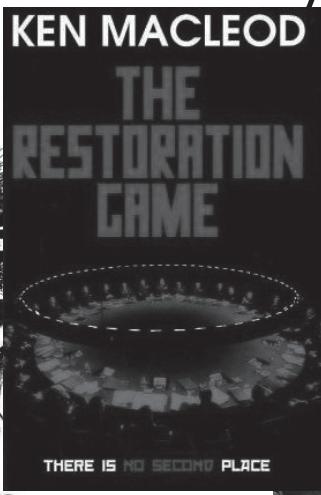
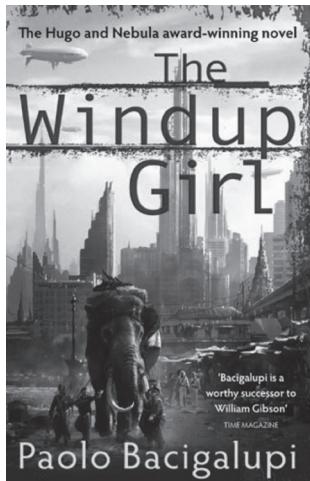
King Iaor of Feierabiand, alerted to the danger that threatens his people, sends his trusted friend, Bertaud, to drive the griffins from the land. Arriving at Minas Ford at the head of an army, Bertaud finds the villagers in a state of alarm. Not only are there supposedly hundreds of griffins in the newly-formed desert but Kes has disappeared. The assumption is that she has been killed by the griffins. Accompanied by an earth mage, Bertaud goes into the desert to negotiate a peaceful settlement with the griffins but the earth mage's natural antipathy for fire prevents this. Between man and griffins it seems there can only be war...

So far, so traditional fantasy. But what lifts this particular fantasy novel out of the mire of 'been there, read that' is its original take on magic and the evocative descriptions of the griffins themselves. Creatures of fire whose blood turns to garnets and rubies as it falls on the desert sand, there is nothing human about them, even when they are in human form. For Kes to heal their king, her earth magic powers must be transmuted to fire magic. The longer she remains with the griffins, the more fire becomes a part of her nature and the less she remembers of her humanity. Although she knows her absence must cause pain to her sister in Minas Ford, she becomes increasingly unable to return to her old life. Other characters are also torn between their duty and what they know to be right. The discovery that the arrival of the griffins is part of a larger threat to the people of Feierabiand makes it all the more vital that characters faced with difficult decisions make the right choice.

Although most of the plot strands are brought to a satisfactory conclusion in this novel, it is the first of a trilogy. I look forward to discovering what Rachel Neumeier has in store for her characters in future volumes.

BSFA Awards 2010

Donna Scott reveals this year's shortlist.



Paolo Bacigalupi

LAUREN BEUKES

"Lauren Beukes is very, "very" good... It feels effortless, utterly accomplished"

WILLIAM GIBSON

It takes the benefit of hindsight to look back at a year and call it a good year for science fiction. The Golden Age could be Elizabethan, for all its comparative recentness, and fans talk of a lost 'sense of wonder' as if reliving the realisation that there is no Santa Claus (*as if* there is no Santa Claus)!

Nevertheless, I am going to state it right now: this *is* a good year for science fiction.

Like all profound statements (this is a small step, never in the field of human conflict, I have a dream, because you're worth it, etc, etc) I'm aware it's vague, grasping and highly subjective, but I do believe it. We asked BSFA members to be more objective with their choices this year in response to an appeal made by some members at the AGM – and I think both the longlists and shortlists reflect this.

And this is the thing... I know there are discussions out there. Should nominations procedures be more open/more restricted? What is particularly BSF-flavoured about the BSFA Awards? You've got ideas and opinions, but I'm not going to go looking for them. These are *your* awards, and you can let me know what you think by contacting me at awards@bsfa.co.uk, or via the forum, and then come along to the AGM on Saturday, the fourth of June if you can for the sake of democracy, progress and a jolly fun day out.

Back to this year, the nominees are:

Best Novel

Paolo Bacigalupi – *The Windup Girl* (Orbit)

Lauren Beukes – *Zoo City* (Angry Robot)

Ken Macleod – *The Restoration Game* (Orbit)

Ian McDonald – *The Dervish House* (Gollancz)

Tricia Sullivan – *Lightborn* (Orbit)

Best Short Fiction

Nina Allan – 'Flying in the Face of God' – *Interzone* 227, TTA Press. (read it online at: <http://ttapress.com/downloads/flying-in-the-face-of-god.pdf>)

Aliette de Bodard – 'The Shipmaker' – *Interzone* 231, TTA Press. (read it online at: <http://ttapress.com/downloads/the-shipmaker.pdf>)

Peter Watts – 'The Things' – *Clarkesworld* 40 (read it online at: http://clarkesworldmagazine.com/watts_01_10/)

Neil Williamson – 'Arrhythmia' – *Music for Another World*, Mutation Press (read it online at: <http://www.mutationpress.com/Arrhythmia%20BFSA%20shortlist.pdf>)

Best Non-Fiction

Paul Kincaid - Blogging the Hugos: Decline, *Big Other* (<http://bigother.com/2010/07/14/blogging-the-hugos-decline-part-1>) Part one of four.

Abigail Nussbaum - Review, *With Both Feet in the Clouds, Asking the Wrong Questions* Blogspot (<http://wrongquestions.blogspot.com/2010/06/with-both-feet-in-clouds-fantasy-in.html>)

Adam Roberts - Review, *Wheel of Time, Punkadiddle* (<http://punkadiddle.blogspot.com/2010/06/robert-jordan-wheel-of-time-1990-2005.html>)

Francis Spufford – *Red Plenty* (Faber and Faber)

Jonathan Strahan and Gary K. Wolfe the *The Notes from Coode Street Podcast* (<http://www.jonathanstrahan.com.au/wp/the-coode-street-podcast/>)

Best Art

Andy Bigwood – cover for *Conflicts* (Newcon Press)

Charlie Harbour – cover for *Fun With Rainbows* by Gareth Owens (Immersion Press)

Dominic Harman – cover for *The Cat's Cradle* by Kurt Vonnegut (Gollancz)

Joey Hi-Fi – cover for *Zoo City*, by Lauren Beukes (Angry Robot)

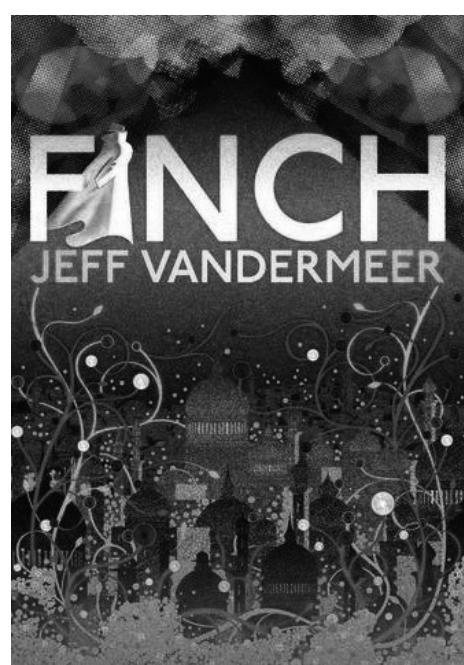
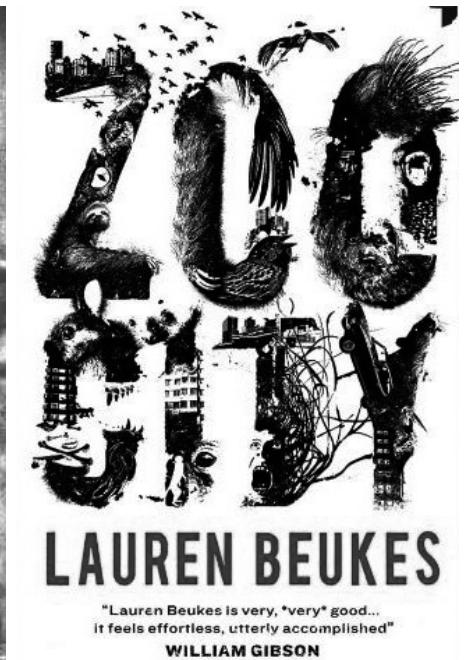
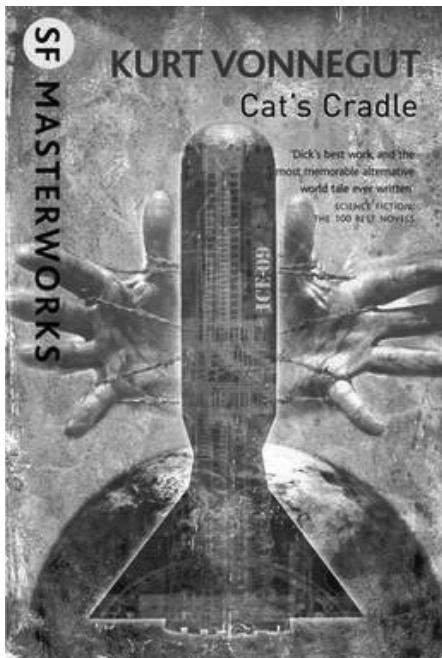
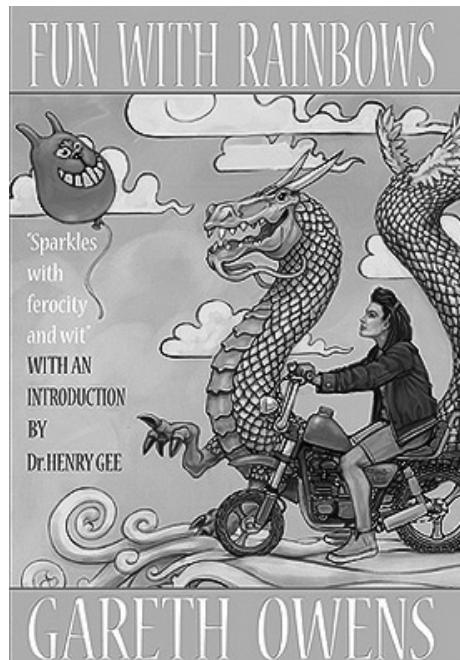
Ben Greene – 'A Deafened Plea for Peace', cover for *Crossed Genres* 21

Adam Tredowski – cover for *Finch*, by Jeff Vandermeer (Corvus)

Voting

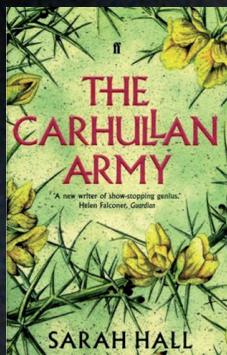
Members of the BSFA and Eastercon, will be able to send advance votes based on the above shortlists, which must be received by me by Monday 18th April. If voting by email, include your BSFA or Eastercon membership number.

After this date, ballot boxes will be available at Illustrious – the Eastercon Convention taking place at the Hilton Metropole in Birmingham. The ballots will close at Midday on Saturday April 23rd and the winners announced at a ceremony hosted that evening at the convention.

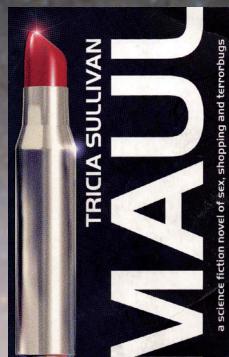


FUTURE CLASSICS

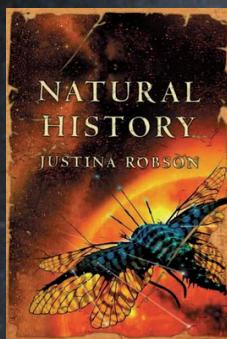
In an interview published at Geek Syndicate on 4 October 2010, Tricia Sullivan pointed out that only one woman has won the Arthur C Clarke Award in the past ten years, compared to five in the previous decade. A spin-off discussion at Torque Control on women writers, the Clarke Award and British sf garnered over 200 comments, including the observation that promotions like Gollancz's 2007 "Future Classics", which featured only books by men, have made the situation worse. To partially redress the balance, Torque Control ran a poll, asking readers to send in their nominations for the ten best science fiction novels by women published between 2001 and 2010. In total, 101 sets of nominations were received. The results of the poll were published in the week of 5 December 2010, and the top eleven books – the new Future Classics – are featured here. We urge you to read them if you haven't already! For full details of the poll and related discussions, see <<http://vectoreditors.wordpress.com/sf-by-women-2001-2010/>>.



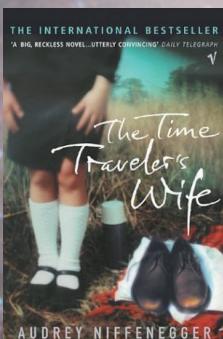
1.
The Carhullan Army
by Sarah Hall



2.
Maul
by Tricia Sullivan



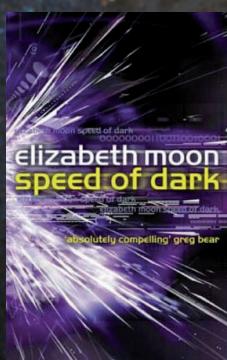
3.
Natural History
by Justina
Robson



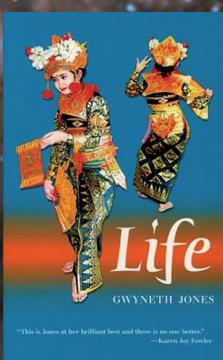
4.
*The Time-
Traveler's Wife*
by Audrey
Niffenegger



- 5=
Spirit by
Gwyneth Jones



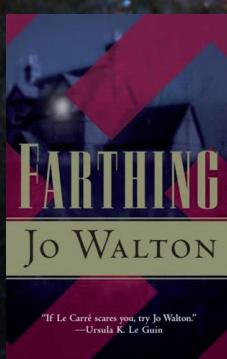
- 5=
Speed of Dark
by Elizabeth
Moon



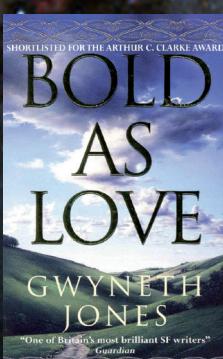
7.
Life
by Gwyneth
Jones



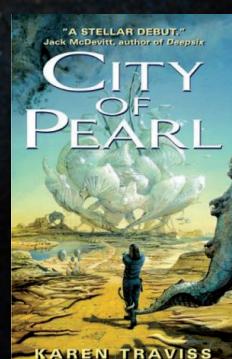
8.
Lavinia
by Ursula K Le
Guin



9.
Farthing
by Jo Walton



- 10=
- Bold as Love*
by Gwyneth
Jones



- 10=
- City of Pearl*
by Karen
Traviss

Each month during 2011, Shana Worthen – the new editor of *Vector* – will be reading and discussing one of the books on this list, starting with *Bold as Love*. To join the debate visit <http://vectoreditors.wordpress.com>