Earth calling Biscuit Barrel

And so I started with my new toy. Hardware dominating the living room, CIX conferences coming out of every port, I thought - "How can I force all my friends to talk to me, generate a captive audience for the wild and wacky ideas I'm too drunk to follow up in the pub". How about a fanzine - been done, can't face the fonts. How about a paper APA - too slow, not enough gadgets. So electronic it is, a throbbing nexus in Surbiton.

Anyone who's used the CIX or usenet conferences is well aware of signal-to-noise and dickheads. Great for technical information, but for opinion, one well-thought out leader followed by pages of instant comment. Any of that here will be labelled appropriately, somehow "BOLLOX" springs to mind.

I'd hope this'll be more like a fanzine with an active letters page, please don't just read and vegitate, or merely comment, but put in something original each time. (paper APA's have minimum contribution levels, often 2 sides of A4 every couple of months. I'm not doing that here, but don't feel you've done your bit by rattling off some "BOLLOX" each month.

This issue is full of stuff I could grab at the last minute (thanks Pauls), as I've been promising for ages now, and must deliver. Paul Marrow has dug out some reviews, Paul Cray a skeptical credo, and I've added a Planiverse review (the buggers at the OUSFG newsletter printed it first, but it's my ball, and I'll throw it into play anyway). The Past Shock bit was done in a hurry for Worldcon and never used, I always intended to tidy the dreadful navel-gazing middle, but its too late now). I've bunged in the Maths Purity test from Tom, ask him not me for details of the real 100 and 400 question tests.

Future issues will contain my thoughts on SETI and alien languages, Contact (designing a world, aliens and culture and roleplaying some First Contact), what's wrong with Sketicism, con-running (there'll be a lot of that will all the Illumination people around), AND SOMETHING I THOUGHT OF AT MIDNIGHT BUT NOW CAN'T REMEMBER!.

Any and all input appreciated, though my opinions on roleplaying are well-known. I can turn things round in a day or so, but will only send out good size chunks. Please send in 80 column straight ascii, I can't convert many other formats.

And so on with the show (who's whatsits at the end)

********* John Bray *********

Past Shock - Future Shock 20 years on

In 1970, Alvin Toffler wrote Future Shock, a study of the effects of the ever increasing pace of change on ordinary people. 20 years on, can the book be described as scaremongering or prophecy, are his proposals psychohistory or bunk?

The majority of the book deals with the pressures of change, with a snappy style and chapter titles starting soberly as 'Durational Expectancy' and 'The Economics of Impermenance', moving through 'Modular Man' to the delightful 'Psychic Cake-Mix'. Toffler lists the forces of change, he shows how people's relationships with things, places, people, jobs and culture are turning over at a faster pace, due to technological, economic and social advances.

The revealing point of the section is how many prophecies remain at the

same level of expectancy now. While surgery has advanced, there are no 'Cyborgs amoung Us' as one chapter proclaims, and the debate over genetic research and surrogate pregnancy has not advanced. Computers have not moved education out of the classroom, dolphins are used as dog-food rather than underwater sheepdogs. Man left the moon when I was 4, and if all goes well may return to feature in a school project for my children.

The social changes are distorted by those wacky Americans, where fads move faster, and people (well Californians ...) move to the extremes. The book is dated by its emphasis on student disturbamces, drop-outs and communes, rather than yuppies, greens and football fans. While divorce is common now, people do not plan 'Marital Trajectories' as suggested - leaving home in mid-teens for a trial marriage, a second through the twenties, a third from late thirties to retirement, a fourth to the grave, acting as professional child-rearers for the career-minded young. Crazes still come and go, but are far more internalised now, without the revolutional aspects of student dissent.

Over those 20 years, has feminism advanced, are minorities less oppressed now, are more or fewer wars fought, do people FEEL different now?

The last point reveals a flaw in Toffler's argument in that the scale of technological and social change must be compared with personal change. While cars merely change in sytle and appearance, people move from passenger, through learner, to, in my case, maniac. Chronological changes as your children are born, go to school and marry are far more important than changes in advice over breast-feeding, education or fashion. The problems of starting a new job, or moving house are not eased if both the property and the career are Victorian.

While I feel Alvin's concern over relationships with things and jobs is overstated, his discussion of places and people and places seems more pertinent. Whether you can split the two depends on whether you can for the actors or the stage. To bring in a personal note, so many people want to stay in Oxford after graduation, some can justify their reasons, others follow Proust. I'm aware whenever I return (which is often, apologies to those I pester), of a longing for the atmosphere and the people. But much of that is based on an expectation of people and circumstances that have moved on. The Oxford I knew is based on the academic and the short term (only 8 weeks!), to expect to plan a career based on those terms would be a delusion. But the thought of moving elsewhere and breaking all ties abhors me. Some people seem prepared to take their friends from workmates, neighbours and the local squash club, and all goes when the job takes you elsewhere. A society that compelled such change would be the Future Shocker to me.

Toffler deals rather cursorarily with the effects of change, quoting research correlating physical illness with Life-Change Units, and psychological problems with the related culture shock. The Orientation Response (ear pricking), and Adaptive Reaction (stress) are linked with adrenalin levels, but surelt neither of these is directly linked to novelty. Photocopying for a dealine and loud bangs are stressful, but hardly correlate to the 'faster pace of life'.

He outlines various indivdual responses to change, the Denier, the Specialist, the Reversionist and the Super-Simplifier are in turn damned, and suggestions mooted that people should ration change in their lives. If you mush seduce a different man every night, do it in the same battered jalopy every time.

On a larger scale, he suggets the formation of 'Enclaves of the Past' where people can live in a certain period buffered from change (much the same idea as proposed by Haldeman in 'The Forever War' for returning time

travellers).

Rather than contain progress, he wishes to channel it, with the educational bias moving from the past to the future, multiple trial societies to try out every future in microcosm, and huge navel gazing programmes with panels of experts and laymen alike discussing and defining what they want the future to be.

These schemes would surely fail, as we never live in the future of our past. Much merriment is generated considering the dated ideas of many pundits, scientists and SF writers not yet dead. The strike rate of SF authors is hardly high, frequently wrong as they work on extrapolations, whereas technological change is revolutionary.

Social change can be blindingly fast, as anyone with a piece of Berlin wall can testify, and the global interactions produce far too large a search space for any predictive method to consider. Any mention of psycho-history can surely be shot down, as it pertains to predict events based on statistical masses, while in fact change is caused by individuals.

Can we justify developing educational routes that release scads of zoologists into a world without animals, libertarians into cities with hot-bunking. Change cannot be controlled by hiving groups into artificial groupings, only in the diaspora of Sterling's Schizmatrix can such diversity succeed. In a close-knit world you could not sustain all social experiments, and every one diverging from the apparent future track would need to be dissolved, leaving its participants with greater adjustments to make.

This all suggests that we should muddle on as before, my only prediction is that I won't enjoy 'Prelude to Foundation', and my only hope is that Drexler's 'Engines of Creation' isn't printed on acid paper. I await your childrens views.

The Planiverse, A.K. Dewdney, Picador

Dewdney wrote this is '83, so its hardly a new book, but it was certainly new to me and hopefully a delight in store for you.

Dewdney, author of the Computer/Mathematical Recreations column in Scientific American, is an Associate Professor of Computer Science at the University of Western Ontario. This book gives an interesting insight into such characters' secret lives, and why their wives divorce them.

Dewdney, a narrative professor, sets up a '2DWORLD' as a programming exercise for his students. But one day the harsh artificial constructs dissolve as the gain contact with Yendred, young man of Arde, a world in just such a vertical plane. This choice works far better than the traditional 'Flatland', more is analogous, and gravity works!

Dewdney leads us off Eastwards on a travelogue from Punzilla, Ancient Rome without slaves, over the wastelands to Vanzila, Ancient Greece with one God. On the way we explore Ardean technology and culture: 2D steam engines, rockets, ecology, astronomy, warfare, housing, music, chemistry, plate techtonics and fishing. Why Ardeans must regurgitate their food or else fall apart, why rivers are such a menace, and abstract art so hard. Little sketches abound, and yes there is a technical appendix!

Dewdney writes much like Hal Clement, all characters are cutout, and the dean of faculty is more suspicious of the project than the professor's wife is of her husband's all night sessions in the lab. But this book is chock

full of 'sensawunda', the ideas delightful, and the fun the author had solving all the problems shines from every page. This is hard SF as it should be, if you read New Scientist, read this.

********** Paul Marrow **********

Second Variety - Volume 2 of the Collected Stories of Philip K. Dick
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This volume collects twenty-eight stories written and published in 1953-54. Dick's preoccupations of later novels are clearly visible, although sometimes exposed less subtly. The question of personal identity, for instance, is treated masterfully in the title story. Which is the Second Variety of robot soldiers, on a planet alomst empty of humans? "Imposter" presents the plight of a man thought to be a robot bomb: even if he is one he may not realise. In "Human" an unpleasant and cold scientist is replaced by an alien; his wife finds that humanity can be defined by personality irrespective of the underlying being.

The personal universes found in such books as "Eye in the Sky" resurface in "The World She Wanted" - only the world wasn't made for her- it was made for somebody else. "Small Town" is another example of this type; a man obsessively remodels the model town around which his model railway is built, and in doing so alters the real world outside in his own favour. The notion of a personal universe is another aspect of the perennial problem of what is reality. In "The Commuter" and "Adjustment Team" different aspects of reality overlap to the confusion of all concerned.

In all these stories the characters are recognizably the ordinary little people of Dick's later novels; just doing ordinary jobs until something extraordinary happens to them: like the commuter in "Prominent Author" who finds a new means of getting to work which enables him to achieve considerable literary fame in another dimension. Often the setting is recognisably Fifties America-- so characteristic of stories around this period-- but Dick avoids the excesses of that time, and indeed in the context of McCarthyism some of his stances can be seen as downright subversive. But the FBI didn't read SF (at least not until the late sixties- when Dick's files were blown up in an incident thought to be connected with FBI surveillance).

Features of future novels peep out tantilisingly from some stories: the bugs, rollers, runners and toads, mutated humans later found in "Deus Irae" arrive in "Planet for Transients". The philosophical robot taxis, to my mind one of the most endearing features of Dick's often oppressive future police state (so dreadfully abused in "Total Recall") appear in "A Present for Pat";

The robot drew his cab up before Eric's modest six-room bungalow.

"But consider, Robots are frequently melted down and new robots made from the remains. Recall Ibsen's Peer Gynt, the section concerning the Button Molder. The lines clearly anticipate in symbolic form the trauma of robots to come."

"Yeah". The door opened and Eric got out. "I guess we all have our problems."

"Robots have worse problems than anybody." The door shut and the cab zipped off, back down the hill.

Simple and perhaps simplistic some of these stories may be- but they show clear signs of the themes developed to such effect in later novels. A welcome insight into one of the more complex writers of our time.

George Turner - The Sea and Summer
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When this book begins (chronologically), I am/will be sixty-seven. Most of the action takes place when I shall be in my eighties, providing I get that far. If the future does turn out like George Turner suggests it will, then I'm not sure that I will want to. This is a novel about a world devastated by the Greenhouse effect. Rising sea level has drowned much of the Old City of Melbourne, where the main characters live, so the city's collosal population is jammed into a very small area. But the overpopulation problem is exacerbated by the ceding of Australia's empty heartlands to the masses striving to escape from the ruined ecosystems of Asia. Overcrowding has reached such an extent that the vast majority of the populace are housed in gigantic tower blocks, the eponymous Towers.

Life in the Towers is nasty, brutish, and short, for the most part. The strain placed on essential services by the mass of people crammed into one place means that many reasonable neccessities of life are only irregularly available, and only the efforts of the organizing gangsters known as 'Tower Bosses', together with strategically placed army units prevent everything collapsing into anarchy. This is the everyday experience of The Swill, the down-trodden majority of Melbournes population. The ruling elite, who perform the few essential skilled jobs that cannot be automated, and thus obtain a fairly decent lifestyle, are petrified with terror at the thought of being sacked and reduced to existence on meagre state benefits, to the level of the Swill.

The book is partly the story of one such Sweet (for that is what the elite are called, by contrast) family, suddenly reduced to near poverty (but not quite the Towers) by the sacking and suicide of the father. The two sons, alike as chalk and cheese, stuggle to regain status in their own seperate ways, but both find themselves increasingly enmeshed in the intrigues and problems of the local Tower Boss, Billy Kovacs.

The book is also, in a way, Billy's story, told from the viewpoint of a historical novel read in the far future. Kovacs is Swill born and bred, but he struggles to maintain a semblance of decency among his burgeoning family, and his crudity and brutality obscures a talented leader and organiser. As the book progresses we are given increasingly deeper insights into Kovacs' character, and come to see that beneath the surface semblance of overcrowded chaos, is in fact a sophisticated system gathering the dregs from a collapsing world, and affording little, but all that is to be had, dignity to the Swill themselves.

Indeed, much of the horrific fascination of this book lies not in its description of a terrible near-future dystopia, but in the way this dystopia is seen to arise naturally from the consequences of political inaction and complacency, and having arisen, is locked in place by implacable checks and balances. Whether or not you think such a future is likely, this feature of the novel makes it a welcome change from many disaster or post-holocaust stories, where the environment seems to be made of whole cloth. It well deserved to win the BSFA award last year. Read it, and enjoy the cold while you can.

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Paul now presents a credo. Obviously I agree with the physics bit, but that's hardly the whole story. Do skeptics feel the need to combat the

tides of mysticism enveloping the world, or just laugh at other people's fanaticism. Are such loonies dangerous, can skeptics justify attacking their ideas with such fundamentalist zeal?

J

********* Paul Cray *********

Why I am a skeptic
==========

I am a skeptic. I do not believe that traditional supernatural or paranormal systems of thought have anything to say about the way in which the external, physical universe operates, although they do tell us something about the way the human mind operates. I do believe there are objective physical principles (laws of physics) which exist external to the human mind and which govern all physical phenomena in the universe. I believe these principles may be revealed by the use of the scientific method. (The scientific method involves making empirical observations, suggesting underlying fundamental causal mechanisms to account for the observations, making further observations to test the hypotheses and thus refining one's understanding of the causal mechanisms to finally arrive at a robust set of physical principles the validity of which have been demonstrated in a wide range of circumstances). I do not believe that any empirical phenomenon are best explained by invoking supernatural causal mechanisms. I do believe that the laws of physics are incomplete as currently known and that phenomenon may in the future be observed which require revision of the laws, but as paranormal ideas have not been supported by earlier changes in the known physical principles I see no reason to suppose that future alterations will support them either.

Being born in 1968, I was brought up surrounded by scientific, technological and science fictional imagery, particularly on television and in books. I developed a strong interest in science and its fringes as a child. I always enjoyed watching TV programmes on the paranormal. I found myself siding with the debunkers. I always wanted those who tried to explain apparently supernatural phenomenon in terms of known physical principles to be shown triumphing over the paranormalists. I found it comforting that the laws of physics could explain why the universe was the way it was. I did not want any of the claims of the paranormal to be true; they frightened me. I preferred to adopt a world-view which presented the universe as an understandable and controllable place. I remember particularly feeling disoriented for weeks after seeing the pro psi powers "Horizon" programme in 1983. "Horizon" had always demolished the paranormalists' claims in the past; here it seemed to saying that psychic powers might really exist. Could it true? Reading books by prominent skeptical writers, such as Gardner and Randi, eventually convinced me that it could not and reinforced my nascent skepticism.

I seem to be particularly receptive to skeptical ideas. Other people with similar background have little trouble incorporating paranormal ideas into their world-views. There seems then to be something in my psychological make-up which makes me a skeptic. If my skepticism is merely an accident of my personality then does that mean that skepticism is just one possible world-view among many equally valid world-views? Or is there something about skepticism which makes it a more reasonable and satisfactory way of describing nature than any rival system? It seems to me there is.

Centuries of the application of the scientific method to empirical observations have produced a robust set of physical principles. As our empirical knowledge of the universe increases, new principles may have to be invoked. The scientific method and the known physical principles have been so successful in explaining observed phenomenon that this rarely needs

to be done. If we assume that the scientific method may be applied to claims of paranormal phenomenon then we find either that the empirical evidence for the objective existence of the phenomena are unconvincing (as, for instance, in the cases telepathy and astrology) or we find that the phenomena may be explained by known physical principles (as in the cases of firewalking and UFOs for example). It may be suggested that the scientific method is somehow inappropriate for testing for the existence of such subjective phenomena, but what else is there to use? The scientific method is the most successful tool known to humanity, it seems unreasonable to suggest that there are areas of purported knowledge in which it should not be used.

Science has proved very successful at explaining how the universe operates. Physics not the caprice of some supernatural entity seems to keep buildings standing and the stars shining. Thus as new phenomena are observed it is reasonable to be skeptical about any paranormal explanation advanced to account for the observations as paranormal explanations have been found in the past to be singularly unilluminating and the scientific method, and the physical principles derived with it, have invariably proved equal to the task of providing a satisfactory explanation.

********* Tom Yates *********

This was made by Mike Bender and Sarah Herr:

MATHEMATICS PURITY TEST

Count the number of yes's, subtract from 60, and divide by 0.6.

The Basics

1) Have you ever been excited about math?
2) Had an exciting dream about math?
3) Made a mathematical calculation?
4) Manipulated the numerator of an equation?
5) Manipulated the denominator of an equation?
6) On your first problem set?
7) Worked on a problem set past 3:00 a.m.?
8) Worked on a problem set all night?
9) Had a hard problem?
10) Worked on a problem continuously for more than 30 minutes?
11) Worked on a problem continuously for more than four hours?
12) Done more than one problem set on the same night (i.e. both started and finished them)?
13) Done more than three problem sets on the same night?
14) Taken a math course for a full year?
15) Taken two different math courses at the same time?
16) Done at least one problem set a week for more than four months?
17) Done at least one problem set a night for more than one month (weekends excluded)?
18) Done a problem set alone?
19) Done a problem set in a group of three or more?
20) Done a problem set in a group of 15 or more?
21) Was it mixed company?
22) Have you ever inadvertently walked in upon people doing a problem set?
23) And joined in afterwards?
24) Have you ever used food doing a problem set?
25) Did you eat it all?
26) Have you ever had a domesticated pet or animal walk over you while you were doing a problem set?
27) Done a problem set in a public place where you might be discovered?
28) Been discovered while doing a problem set?

29) Have you ever applied your math to a hard science?
30) Applied your math to a soft science?
31) Done an integration by parts?
32) Done two integration by parts in a single problem?
33) Bounded the domain and range of your function?
34) Used the domination test for improper integrals?
35) Done Newton's Method?
36) Done the Method of Frobenius?
37) Used the Sandwich Theorem?
38) Used the Mean Value Theorem?
39) Used a Gaussian surface?
40) Used a foreign object on a math problem (eg: calculator)?
41) Used a program to improve your mathematical technique (eg: MACSYMA)?
42) Not used brackets when you should have?
43) Integrated a function over its full period?
44) Done a calculation in three-dimensional space?
45) Done a calculation in n-dimensional space?
46) Done a change of bases?
47) Done a change of bases specifically in order to magnify your vector?
48) Worked through four complete bases in a single night (eg: using the Graham-Schmidt method)?
49) Inserted a number into an equation?
50) Calculated the residue of a pole?
51) Scored perfectly on a math test?
52) Swallowed everything your professor gave you?
53) Used explicit notation in your problem set?
54) Puposefully omitted important steps in your problem set?
55) Padded your own problem set?
56) Been blown away on a test?
57) Blown away your professor on a test?
58) Have you ever multiplied 23 by 3?
59) Have you ever bounded your Bessel function so that the membrane did not shoot to infinity?
69) Have you ever understood the following quote:

"The relationship between Z^0 to C_0, B_0, and H_0 is an example of a general principle which we have encountered: the kernel of the adjoint of a linear transformation is both the annihilator space of the image of the transformation and also the dual space of the quotient of the space of which the image is a subspace by the image subspace."
(Shlomo & Bamberg's _A "Course" in Mathematics for Students of Physics_)

Edited by Brad Templeton

********** Who are they all **********

Most people on here know each other through universiy and convention SF fandom, but to paper over the cracks, here's my opinion of you all:

Tim Adye adye@vax2.rutherford.ac.uk

Oxford vegetarian hard-as-they-come nuclear physicist in Cern for 6 months, mainly for the chocolate.

Amanda Baker acb@starlink.astronomy.cabridge.ac.uk

Imperial physicist now terrorising Cambridge as an astrophysics PhD student, bouncy in the mornings, tends to snuggle with Dave and publicise Illumination.

Matt Bishop mbishop@prg.ox.ac.uk

Doing the Oxford MSc in Computation, though his heart lies with maths, Dick, Phillip Glass, and Illumination.

John Bray jbray@cix.compulink.co.uk

I program for Logica cos I like the money. Tempted by a PhD, but I couldn't leave the flat in Surbiton. As I'm the editor, my joy in sensawunda and dislike of comics and roleplaying will become all too apparent.

Dave Clements dlc@astrophysics.oxford.ac.uk

Finally submitted his astrophysics Phd at Imperial, now Illuminating in Oxford or observing round the world.

Malcolm Cohen malcolm@nag.co.uk

Ask this man about Norse mythology, Icelandic rock, rebuilding steam engines, Fortran 90 compilers, fantasy, kit cars ..... Was Australian.

Adrian Cox u87apc@ecs.ox.ac.uk

Tried to become a dog to avoid comparisons with Simon. Transputer junkie intending to leave Oxford for America. Back-pedalled madly from being a big cheese in Illumination, but ... Avoid his musical taste.

Paul Cray plmc@starlink.qmw.ac.uk

Pontificating Paul is working through the canons of English Literature, as he lacks enthusiasm for protostars at QMW. Very keen on skepticism and Preston.

Mel Dymond uhah013@vax.rhbnc.ac.uk

It's a shame that when she gets her PhD in cryptography at Royal Holloway, she still won't be M.D M.D. Active roleplayer, delights in triva questions, where I borrow all the latest Terry Pratchet books.

Steve Glover bph6ssg@cms1.ucs.leeds.ac.uk

Helps Jenny edit Matrix. As he says:

Ask me about Molecular Modelling or Mechanics Calculations - - on Carbohydrates, ask me about Science Fiction Conventions - - Filk and Fanzines or just ask me to go for a drink! :-)

Paul Marrow pm7@vaxa.york.ac.uk

Shit-hot evolutionary biologist charging through a PhD in York. Eclectic literary tastes, I expect pages from this man.

Mark Nelson amt5man@cms1.ucs.leeds.ac.uk

Who are you?

Phil Raines chls18@vaxa.strath.ac.uk

Historian working on International Relations at Strathclyde. Expect incisive comment.

Simon Spero ses@rincewind.technion.ac.il

Hairy hacker working in Israel to escape jibes from Imperial that he was Adrian in disguise.

Ivan Towlson map009@vaxa.bangor.ac.uk

Ivan corrupts, and yet stays eternally pure. He is going for SMOF status with Illumination, galvanising those out in Bangor to run Mabinogicon. He can't be bettered in argument and has a small furry sheep on some elastic.

Tom Yates madhatter@spva.ph.ic.ac.uk

After his spectacular gaffiation last year, we all hope to wean this be-hatted biker/(clarinetist?) back into fandom