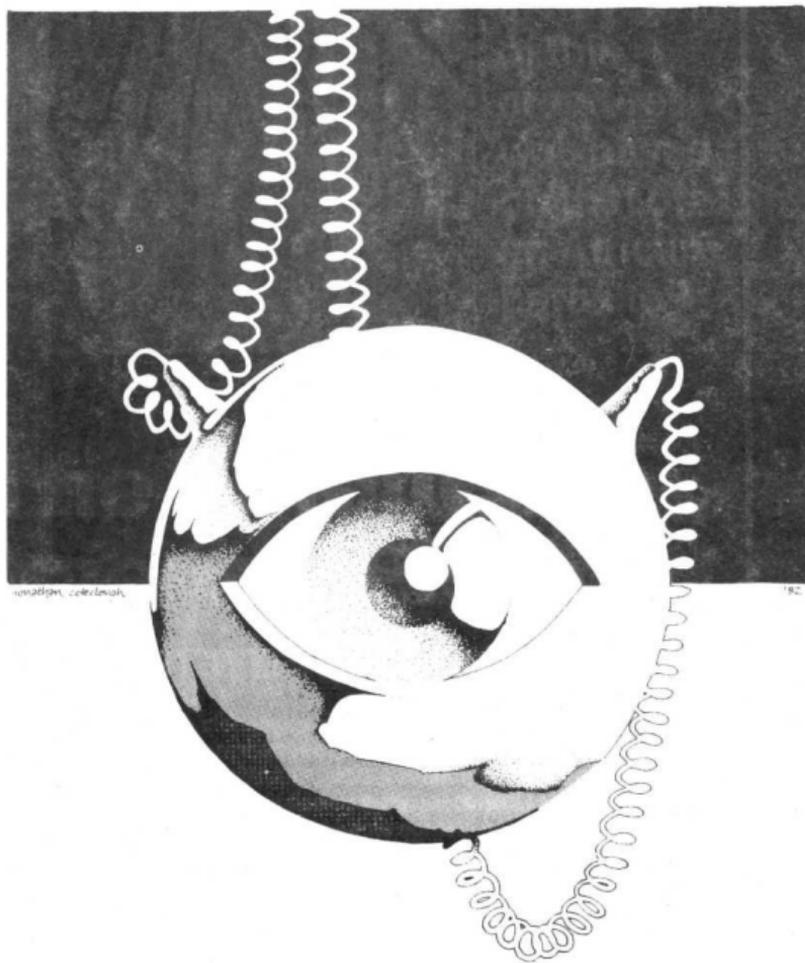


# VECTOR 75p 111



The Critical Journal Of The BSFA

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# Editorial

One of the more enjoyable moments of producing this magazine is that, now and then, you get invited to the odd film pre-release. And I do mean odd, as I've only been invited to two in the last five years. Recently, I was invited to the pre-release of the Walt Disney film Iron. Living on the extreme South East Coast travelling up to London to see the film must make the ticket one of the most expensive going, but these showings do have a special atmosphere, which makes the effort worthwhile. I have not enough space to talk about the film in detail, and it does deserve a proper review rather than just a brief mention. So let it suffice to say that while I enjoyed watching the film, I recommend you see it on the largest screen you can get to, and do remember that it is a Walt Disney Production, and all that implies.

The reason that I'm mentioning the film is that it seems to be symptomatic of a trend that is growing in science fiction. If we look at the SF blockbusters that have come our way recently, films like Star Wars, Close Encounters, Superman and Iron, they are spectacular films, made with care, attention to detail, and an eye for beauty. However, these 'pretty' films have no heart, no depth. They are like a narcotic - they manipulate by artificial means, not by real experience. I do not deny that they are great entertainment, but a film like Star Wars is, I'm afraid, just 'The Gun Fight at Boot Hill' in space. This realisation comes across when the films are converted to novelizations - without the razzle-dazzle of special effects, the story is empty.

It seems to me that there is a strong stream in SF literature that is falling into the same category. Novels like Ringworld, Rendezvous with Rama, Lord Valentine's Castle, The Many-Coloured Land and The Number of The Beast are but the successful blatant examples of the trend. Science Fiction has fallen in love with itself. It is becoming, has become, self-centered, self-satisfied, more interested in the development of wish-fulfilment, fantasy, and the love of scientific endeavour. What else is Ringworld but a homage to scientific

thought? What else is Lord Valentine's Castle but a homage to his own creation? Like the films they are enjoyable, but what else do they have to offer?

If we look at some of the 'great' SF books through history; Bacon's The New Atlantis, Shelley's Frankenstein, Butler's Erewhon, Wells' The War of the Worlds, Zamiatin's We, Huxley's Brave New World, Orwell's 1984 and Bradbury's Fahrenheit 451 they wore their social conscience, social awareness, on their sleeve. They were interested in the plight of individual humans and humankind. Man is an emotional being, and these writers recognised this. But apart from that they used the genre trappings as a means to express something greater. Today, a growing proportion of SF writers are wallowing in the genre trappings; Alternative Worlds, Alternative Histories, ESP, Heroic Barbarians, Space Opera and so on. This is damaging to SF as people are beginning to convince themselves that this is what SF is all about. We must remember that they are just the trappings of the genre, the tinsel on the tree. A fiction created on tinsel alone is as empty as the current spate of SF films. Again, as per the films, they are entertaining, well written, and even have those portly people, well-rounded characters! However, to survive as a worthwhile genre SF must contain the Socratic Method of teaching - To question every accepted belief and idea. The writer of SF must remain on the outside of society looking in. As Richard Cowper put it in a recent interview "The wind is colder out here but it sharpens the wits and helps us to tell the truth as only liars can tell it, and gives us every opportunity to bite the hand that feeds us."

It seems to me that many writers have seen the tinsel on the outside of the tree and refuse to see the tree within. Instead of biting the hand that feeds them, they are living off the fat of the land. The act of writing is not the be all and end all, it is only the beginning. Next time you read a book, ask yourself, besides entertainment, how else did it emotionally stir you? How did it affect you? What did the author have to offer?

Geoff Rippington.

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In many ways the BSFA is very similar to a political party. We crusade for more science fiction to be published, for higher critical standards within the genre, and so on. Also, like a political party we are non-profit making and rely upon subscriptions to fund the associations activities. However, we still seem to be a fledgeling party. One of the factors that I find most annoying is that, outside a few main SF publishers, the association is not well known. I've found that whenever I phone a publisher, bookshop or somebody concerned with SF publishing, it is always the best policy to ask if they have ever heard of the BSFA. Nine times out of 10 the answer is no. The simple answer to this, I can hear you saying, is advertise. Yes, fine, but where? The majority of SF related publications we already advertise in; it is all the other publications, where we cannot afford to advertise, that we need to reach. To give you a ludicrous example I wrote to the 'Radio Times' to get their advertising rates. They regularly have features on SF and if we could get an advert with one of their features we might have managed to give Sandy Brown a heart attack (only joking Sandy). However, first they could not guarantee that the advert would go with an appropriate feature, and second, a full page advert, nationwide, cost £17,700! The cheapest, a half-page advert in Wales only, cost £190. It eventually came to me that the best sort of publicity, is the kind that costs nothing.

So, lets go back to the analogy of the BSFA political party. What we need is a bit of grass-root activity. BSFA activists if you like! Last week Arthur C. Clarke was on Nationwide (and about half a dozen other programmes as well) talking about his new book 2010: Odyssey Two. As I'm sure all of you know, Arthur is our President, so, like 17 other organisations, we have a claim to him. So, if ten of us wrote to the 'Radio Times' telling them what a nice chap Arthur is, and did they know he is the President of the BSFA which is etc. etc. Now, if the letter is the correct length, it's not raining, and the Gods are smiling, 4.

they might, just might publish it. We have then placed a £17,700 advert. The same goes for the national and local newspapers, all types of magazines, local arts council magazines etc.

Impossible, you say, it would not work. In front of me I have an article by Nicholson-Morton published in 'Computer Talk', which does exactly this. Apart from plugging half a dozen SF projects, it ends with a plug for the BSFA. I doubt it we will get much response, but the BSFA will get known, and that is just as important. So, make your New Year resolution now; "I will write one letter a month, telling people about the BSFA". For a start try asking your local arts council magazine if they would like a short article on SF - they're always good for a laugh! If you require any help, or need addresses I can give them to you. Anyone who does get an article/letter published, send it to me, and I'll send you a relevant prize (a book). Good Luck!

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I always find interviews fascinating reading. Not so much for the actual questions and answers, because they always reflect the interviewer's views as much as the interviewee, but the way in which the questions are answered. Whether I'm interpreting it correctly or not, I'm not sure, but it seems to me that Benford treats his work as a hobby, while his writing is a pleasure. Everything seems to be so easy for him, he rides on the crest of the wave, and always lands gently on his feet. In fact, I would go so far as to say that he writes because he gets criticised, and that seems to be good for his soul. See what you think....

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Part Two of our Benford double bill is a paper he wrote a couple of years ago. While Vector normally only publishes original material, we do occasionally publish material that has only appeared



in other countries. I will have to admit that parts of this article are a little dry, a little academic in style, but stick with it, it is a commonsense approach to its subject, and holds a few surprises.

article, one which has a strong horticultural theme. Being an avid listener to The Archers, I fully expect to hear Ian on the programme soon. Imagine; Metaphysics and Eddy Grundy. The mind boggles!

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Reviews by Martyn Taylor, Ann Collier, Dave Langford, Mary Gentle, Nigel Richardson and Jim England on books by Lem, Silverberg, Sladek, Hoover, Rucker, Brunner and Clifton & Riley.

**ARTWORK**

The cover is by a new artist, new that is to Vector, Jonathan Coleclough. There is no truth to the rumour that I've been bribed to publish his artwork, because he promised me more if I did. It would have been published anyway. ("What do you mean you were only joking?") The above piece of artwork is by Alan Hunter. My thanks to both of you.

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Ian is round again with his second

# "The Future Is All We're Got Left"

Gregory Benford  
Interviewed By  
Joseph Nicholas

The following interview was conducted by Joseph Nicholas on the evening of 20 August 1982 at the BSFA's monthly meeting in London, with supplementary questions being asked by (in order) Dave Langford, Judith Henna, Lisa Tuttle, Chris Priest, Chris Evans, Andrew Stephenson, and Nick Trant. The resulting transcript runs to 16 pages of single-spaced A4 and is too lengthy for publication here; the article that follows is thus necessarily based on a selection of, hopefully, the most interesting and illuminating remarks.

In his 1959 Rede Lecture, "The Two Cultures and the Scientific Revolution", C.P. Snow drew attention to the growing gap between the literary and artistic establishment, which was ignorant of modern science, and the scientific establishment, which knew little of art and literature. The phrase "the two cultures" has since become a cliché, its meaning dulled by overuse, yet for all that it remains a valid concept and the gap today is as large as it ever was. In theory (and in an ideal world), science fiction could serve as their meeting place, but the fact is that it doesn't - most SF is appallingly badly written and most of its writers, their knowledge of science necessarily derived from secondary or tertiary sources, understand little of real scientific procedure. In addition, the number of scientists who have actually written SF is extremely small, and their works for the most part have been rather unmemorable - which makes Gregory Benford something of a rarity, for he is not only a practising research physicist but also demonstrates a concern for character and style unusual for a writer who belongs firmly to the 'hard science' school. (His list of favourite authors, for instance, exhibits a distinctly literary bias: Updike, Amis, Faulkner, Hemingway, Richard Stark, Conrad, Clarke, Disch, Silverberg, Aldiss, Watson, and - "for his imagination" - Barrington Bayley.)

One of a pair of identical twins, he was born in southern Alabama, across the bay from Mobile, in 1941, the son of a career military officer who fought in World War 2's the Battle of the Bulge and served on General Douglas MacArthur's staff in the Korean War. He travelled widely when young, spending three years in Germany, three in Japan, and two in various parts of Europe and Mexico, returning to live full-time in the USA in 1957. But, because of this upbringing, he feels himself to be (as he put it in Charles Platt's *Who Writes Science Fiction?*) "basically an outsider wherever I go", and began reading SF "because it was a verbal experience for

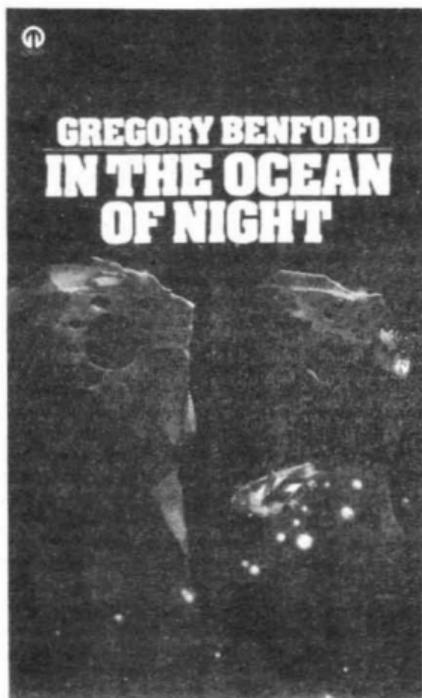
one who was outside the country - although, actually, my sin is that I've never read much science fiction. All the great classics I found so boring that I never got through them: the Foundation series, Van Vogt, E.E. Smith, lots of people like that... but I always liked to write. I was a very active fan, published a big time fanzine (Void) that was on the Hugo ballot in 190 something-or-other, and still consider myself a fan - I'm still in an apa, God help us." He became interested in science when in high school "because I found that I was reasonably good at mathematics, and then I began reading books about physics - I read a bunch of stuff about Enrico Fermi, and got interested in it... It was the usual sort of thing: you suddenly latch onto an interest, and it seems to work, so you just keep doing it." He took his degree at the University of Oklahoma (where his parents were then living) in 1963, and then went on to do graduate work at the University of California at San Diego, obtaining his doctorate in 1967. "I started out as a solid state physicist working on nuclear resonance theory, and then moved into plasma physics and relativistic plasma physics, which is a highbrow area of plasma physics... I worked at the Lawrence Livermore Radiation Laboratory for four years, mostly on fusion physics, and got really bored stiff with research projects because they tend to be monomaniacal. Besides, I was more interested in relativistic plasmas, which don't have much to do with fusion but do have a lot to do with astrophysics, so I quit there in 1971 and took a university position as an Assistant Professor at the University of California at Irvine. I was then promoted to Associate Professor and after that, in 1979, to full Professor. I now work mostly in plasma astrophysics, which concerns pulsars, extragalactic astronomy and the physics of the solar corona - I have an experimental group, with grants from the Air Force Office of Scientific Research, the Army Research Office, and NASA to work on various problems like this. We're trying to understand plasma physics well enough to predict the advent of solar storms so that when we put up long-life space stations we can tell when one is on the way and shelter all the people. This is true for deep space missions of any kind, in fact. I'm also working on supernova remnants (there have been a lot of new ones discovered recently), and on galactic jets, which are the hot topic - these enormous radio jets that have been discovered in the last seven or eight years and which appear to be coming out of black holes at the centres of galaxies. Galaxies that are at a very great remove - cosmological distances, all the way out to quasars. I've done a lot of work on them at Cambridge in the past, and I'm still working on them - we're sort of narrowing down on it, seeing them at smaller and smaller scales. It appears that a black hole with an accretion disc around it, which is capable of taking infalling matter and converting about two or three percent of  $mc^2$  into directed beams going out, is the leading explanation for these jets. The fact that nature seems to prefer beams, or that it's got a place for cylindrical symmetry and makes beams with opening angles of two or three degrees - instead of the paradigm of the last century, which had everything spherical - is rather astonishing. I've been trying to figure out the physics of these jets, why they wiggle and bunch up...to deduce what's going on at the middle. It's exactly like watching an atom bomb go off, actually: when you stand at a distance from it, all you can see is a mushroom cloud, and in astrophysics what we're trying to do when we look at these jets is figure out the reaction that causes them. If you can imagine trying to work backwards from a mushroom cloud to deduce nuclear fission, you'll get some idea of how far back you've got to go to figure out what's going on at the centres of these galaxies." Which sounds daunting, almost impossible, but "astrophysics is always dominated by the fact that you can never do an experiment; you can only make observations" he added, wryly.

Does he derive any great sense of mission from this work, feel himself to be caught up in some grand, collective intellectual endeavour? "I really do have a pretty much unreconstructed interest in what is real - or, as Dylan used to say, 'What is real and what is not' - in that science tells you things which are true whether you like it or not. Let's put it this way: radio astronomy, in a period of thirty years (it really has been no more than thirty years), has told us more about the origin and destiny of the universe than ten thousand years of philosophy

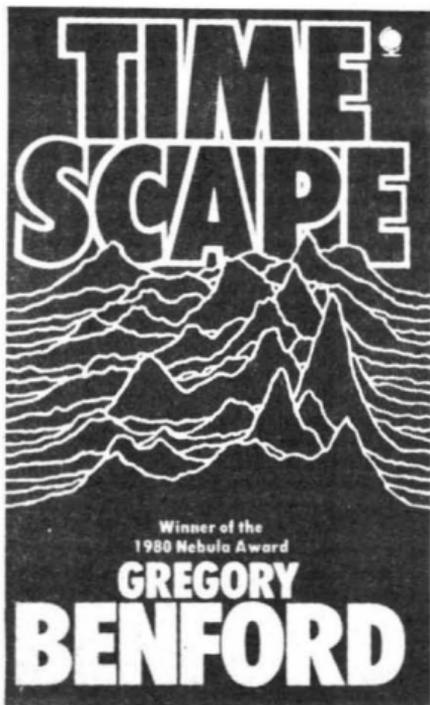
and a million years of theology. It's useful to remember this, because there's an enormous bullshit quotient...at least, there are some hard facts, and while the interpretation of them can change the facts themselves are not going to change. Facts are always subject to some degree of interpretation, but I have a feeling that intelligent creatures have been evolved so that the universe looks relatively simple and even aesthetically pleasing to them, because the creatures to whom it did not look simple, and it was ugly, aren't here. They were selected against, they weren't very good at living in this universe. The aesthetics of science, I think, come out of the way that life has evolved - if you look at a scientific theorem and say it's beautiful, then that is not independent of the way you have evolved. What I'm pushing here is a kind of anthropic principle, which says that many of the features of the universe, and of our perceptions of the universe, can be deduced from the mere fact that we are here. You try to deduce the nature of the universe from the fact that intelligent entities of our approximate size exist at all, and from that you deduce, say, the approximate lifetime of the sun, the size of the electron coupling constant, and the age of the universe. This is an ambitious programme, but it makes a certain amount of intellectual sense - we shouldn't think of the universe as something out there and ourselves as some kind of jury sitting in here. We are very involved with the universe, but we have to keep the bullshit down, we have to realise what the facts are; and you can listen to the philosophers talk about being or nothingness, but if you find out that there was an earlier hot stage of the universe which produces three degree microwave background radiation that was predicted by theory before it was found you have, I think, learned something rather more profound than, say, we got from Herr Hegel. This point of view of mine, which is unreconstructedly scientific, has led me to be interested in science fiction also; the two of them really came out of the same concern about the universe, it seems to me. I really do believe that the interesting thing in science fiction is the impact of science on people, and of the ideas of science on people. Science fiction is best when it's talking about this, even if indirectly - in, for example, the works of J.G. Ballard."

His own fiction is clearly founded on this dictum, although when he began writing SF short stories, in 1964, he did so only as a hobby, as a means of relieving the pressure of work for his doctorate, but "I then became rather more serious about writing, because it seemed to me that SF is the literature of the future, and the future is all we've got left." At the same time, though, as he said to Charles Platt, "I'm either in favour of deliberately mannered, usually stylistically mannered, stories that are trying to make a point through that method; or else realistic narratives, so you get the feeling that this is actually the way it might happen, as contrasted with stories where you think, This is not the way it would happen. Those stories are usually fiction based on other fiction, not fiction based on life. Fiction written by somebody who has read hundreds of issues of 'Astounding' magazine, and not much else." And, later in the same interview "J.G. Ballard's line about the problem with science fiction being that it's not a literature won from experience means something to me; to me, you get a sure grip on things, if you can write from direct experience. (And) it slowly dawned on me that the life of the scientist, and science itself, is an area simply lying there waiting to be written about, and nobody does it. There are C.P. Snow novels, and a few memoirs like The Double Helix, and autobiographies. But the people who are active in science, who have a career in it, don't ever write fiction about it because they're so far from the habit of mind of couching things in fiction."

Hence Timescape, undoubtedly his best-known work to date and his "first flat-out attempt to write a novel about science as she is done as opposed to the way she is said to be done. I have to admit that I wrote Timescape more or less the way I wanted to write a book, and when I finished it I thought it would be non-commercial - it was too long, it was too 'thoughty', it was too full of my concerns, and I thought it was going to be an economic disaster. I was very surprised that people liked it. In fact, I'm still rather surprised..." It also, as one might expect, contains many autobiographical elements: "The indium anti-



**GREGORY BENFORD  
IN THE OCEAN  
OF NIGHT**



**TIME  
SCAPE**

Winner of the  
1980 Nebula Award

**GREGORY  
BENFORD**

monide experiment that's described there is the one that I did my theoretical thesis on - that lab, and everything in it, is exactly the way my graduate career was. I had this divine moment, I remember, when I was writing the book, when I realised suddenly that I could just write about what I knew. All my 'training' had been as a science fiction writer, in which you write stuff that you just make up, but the liberation of writing about things as you knew them to be - and being able to write about a landscape, a territory, a society that most people didn't know but you did (that is, how physicists work, what academia is really like, the surroundings of La Jolla in 1962 and 1963) - it was tremendous. You didn't have to make it up, you could just report."

Doubtless due to its autobiographical nature, many of the professors and students who were with him at the time appear in the book, albeit in disguise - but have recognised themselves nevertheless. "Marshall Rosenbluth, who was in the department at the time and who's probably the best living plasma physicist (and who will probably win the Nobel Prize in the next decade or so), came up to me at a meeting about a year ago and said, right out of the blue, 'I really liked the way you treated the department and all the things you said about the academic politics of the time - I'd forgotten all that, but that was exactly the way it was, that was the atmosphere - and I even liked the things you said about me.' Surprisingly, though, some people who are only thinly disguised in there so not seem to have recognised themselves - Carl Sagan, for example. We were both on the programme at the American Association for the Advancement of Science annual meeting in Washington in January (he had his parka on), and I spent a couple of hours discussing writing about scientists and so forth with him - we talked about how you decide what to put in, what you do about your contemporaries, and of course, how you disguise them...we talked extensively about disguising people, and we

discussed Timescape in detail, but he never once brought up that character in the book."

Timescape took him a long time to write ("about eleven years"), partly because he was involved with other things and partly because of the way he works. "I got an idea of writing a novel about tachyons, and about the physics of tachyons - I first wrote a short story called, I think, 'Oxford, 3.02pm', and then one called 'Cambridge, 1.58am'" (published in Epoch, an original anthology edited by Roger Elwood and Robert Silverberg) "which was the later version of that... I wrote short stories about it, trying to fix the ideas; the one set in Cambridge was definitely a piece of Timescape (it's got the same characters, and I even used a piece of it in the novel). I slowly worked on it, making notes and planning it and so forth, and then spent about two or three years generating the final multi-drafts - about five drafts on most of the chapters. I even cut out a whole subplot, about three or four chapters' worth, because I thought it was superfluous. So it's a big book, it took a lot of time. But all my novels take a long time, I never can write anything in a short while any more. I've written two novels since Timescape: one of them is a relatively short novel called Against Infinity, and the other is a sequel to In the Ocean of Night called Across the Sea of Suns. I've just finished what I hope will be the last goddamn draft of the thing, which I started in 1968. Part of it is a short story, "And the Sea like Mirrors", that I published in Again, Dangerous Visions, and that short story has been transmogrified into a novella called "Swarmer, Skimmer" that came out about a year ago. But even that version is not the final novel version; it's split up in the novel also. It's a complicated procedure: I just work on things, and they keep on going on... I do that a lot with my work, in a lapidary sense - I'll work on a subject, and I'll get something out of it but know there's something else there, and I'll go back... I keep writing short stories and discovering that they're pieces of a larger work because my subconscious is like Salome and the Seven Veils - it only slowly reveals what's going on, and it takes years for me to realise 'Oh yes, story A, the protagonist here, is in story B, but he's doing something else.' I've come to realise that this is just the way I work - I never know what a thing is when I write it. It's a piece of fiction, it's about this size, but if it's connected to some other piece of fiction I'm not aware of that for a very long time. When I do become aware of that fact I've been fairly ruthless about it, saying 'Well, all right, here it is', and I'll do it. Bill Rotsler, a friend of mine, keeps saying 'God, I keep reading all these goddamn stories of yours, and then five years later I think, hey, I've read this before, or have I, or it's changed', and he's right, it has been changed. That's the way the muse works. It's sort of stupid, but I consciously try to let my subconscious do most of the work - I'll say 'This is really hard, it's not working out, I don't like this, I'll stop working on it for six months'; and then when I come back to it I'll say 'Oh yes, it was this, you see', and the subconscious has done all the work. If I run into a problem I don't just keep at it, Silverberg fashion; I simply walk away from it, let it go. I have things that I've walked away from and have never come back to; I may use them some time, but who knows." For these reasons, he has never wanted to be a full-time writer: "It strikes me that it's just too hard. It's very nice to be able to take six months or a year off, and not write anything. I'd hate to have to face a hot word processor day after day. It seems to me that you just run out of material if you become a full-time writer" (no doubt because of the loss of contact with the world) "and that's a danger."

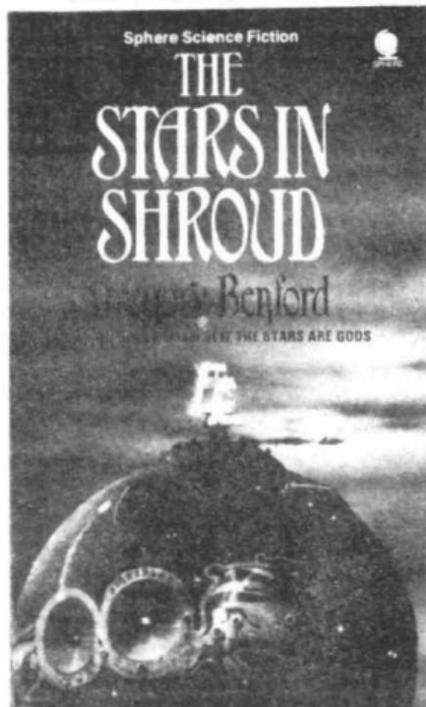
Timescape, however, is not his only book to deal with science and scientists; the protagonists of many of his other novels are, in a sense, scientists who have to struggle against the dictates of a higher bureaucratic authority - Walsley in In the Ocean of Night, for example, and Reynolds in If the Stars are Gods (never mind Bernstein and Renfrew in Timescape!) - and this, it seems, is very much a reflection of how science is done in the real world. "There's the occasional brilliant physicist for whom the red carpet rolls out, but the life of most scientists is one of unceasing effort to get adequate support, to gain some attention for their work. When I was a graduate student, one of my professors said to me:

'Doing the work is the first third. The next third is writing it up and publishing it in a prominent enough space; and the last third is going around and talking about it.' And it literally is divided up that way, in terms of the actual impact on the scientific community - those are equal thirds. That was a revelation to me but he was absolutely right because everything, in the long run, is a PR job. You've got to go out there and convince people that what you've done is important, and get money for it.... no one suffers from information deprivation in the sciences, so what you have to get through is the chaos of the input, and that becomes a problem for everyone. There are various ways to manipulate it, according to your personality, but I'm very aware of the fact that most scientists labour in the vineyards and produce only a few grapes, and very little of it gets squeezed into wine. It's this struggle which makes the life of a scientist - it's not the 'Eureka!' moment, it's the 'Oh God, do I have to do that?' moment which makes a scientist, more than anything else. Of course, it helps if you're a genius, but that's not enough - look at Mendel, for instance" (whose work on plant genetics, crucial to explaining the mechanism of evolution, lay fallow for years after its publication). "He didn't push the product. And, after all, fiction is about struggle. Fiction that's about daydreams is like masturbation - it's very nice at first, but after a while it becomes a little hollow."

His claim that science, is, in a sense, central to science fiction provoked disagreement from some members of the audience, who pointed out that while SF may sometimes discuss scientific possibilities - many of which are completely unrealistic and often downright disprovable - it is also (and perhaps more often) concerned with purely social, moral or philosophical questions; and named Ursula Le Guin, Philip K. Dick and Thomas Disch as examples of writers more concerned with the latter than with the former. To this, Benford replied that although those three 'haven't used science as major motif' they have "implicitly written about the way our perceptions are altered by the current philosophical basis of epistemology. In fact, I had a long talk with Phil Dick about epistemology and quantum mechanics, in which he showed a non-trivial layman's knowledge of quantum mechanics; he had read a lot about it. It's inconceivable to me that you can read certain of his novels and not realise he knew a lot about that, and about mutability, uncertainty principle, observer-versus-object, and so forth. These paradigms are not just in science; they're in the culture, a part of Western civilisation now - it's not just the Schrodinger equation and a couple of solutions with a hydrogen atom, it's everywhere. To read Phil Dick and not understand that is, I think, to miss an enormous influence...I knew him for twenty years, and I never doubted what he was writing about. He's not here to say so now, but I don't think he would agree that he was unconscious of modern science; he was immensely interested in it, and every time I saw him he would ask me about it. (I was supposed to go to dinner with him on the day of the memorial service for him: I flipped over the calendar to write down the date of the service and realised that I had made a dinner appointment with him three weeks in advance, and I had one of those Phil Dick shocks. I couldn't even go to that service...) And Ursula Le Guin? Well, she has a great deal of anthropology in her work, and that's a science - and what's The Dispossessed about but a relativistic physicist? I think her depiction of science in there is an arts graduate's picture, but it's a good one, and the book has a heavy undercurrent of the philosophy of science in it. The whole point about simultaneity versus linearity is a figurative form that works through in a political sense in the novel, and that's what's interesting about it, I think; most interesting." To an objection that The Dispossessed could have taken as its central character someone with quite different preoccupations, he said that he didn't think it could have been about "a guy who was just a bureaucrat" although at a pinch it could have been about an artist because "Le Guin's tactic, in most of her fiction, is to portray the scientist as an artist, and that's a rather sophisticated view; it's a European view, a very Tolstoyian view," and then added, jokingly, that "even portraying a scientist as a human being is actually rather sophisticated." But "I didn't mean to lay down the gauntlet and say 'SF has got to be about science', I'm just saying that SF is a re-

action to science in that science is an enormous driving force in the whole social equation and that a literature which calls itself science fiction cannot afford to be abysmally ignorant of it and still keep its card. A feature of many SF authors that loses them a large measure of their potential audience is their ignorance. People who can neither understand nor predict the very near future - or even the present! - can't expect to be listened to about the significantly distant future. The standard deepthink remark that SF is 'really' about the present neglects its role in helping people to think about where we're going. You have to live a lot, learn a lot, and think a lot to be able to imagine how this furiously complex society of ours is likely to change. It's interesting to me that Mike Moorcock, a gifted man, does immense amounts of research for his historical novels, like *Byzantium Endures*, but apparently none for his SF. Sad, really: I'd like to know what an informed Moorcock would see in our future, because I've always thought him one of the most intriguing of writers. Mind you, I'm not saying that SF must stick to the tenets of literary realism - viewed as realistic fiction, much SF is highly coloured and skimpy, which puts off a lot of readers. (In music, opera has the same limitations and audience problems.) But my own preference is for SF that is realistic, like Disch's 334." Trying to avoid being pushed into taking up an "absolutist, hard line position on science in SF", he said: "I'd like to stress that I am quite interested in 'literary' matters, and regard this dividing up of art into critical categories as a pernicious habit. The challenge in SF is doing it all, and I think it's harder than in the 'mainstream' because of the extras (imagination, invention, more apparent intellection) that SF requires. This is why great works of SF still have more flaws than similarly impressive conventional novels."

Asked whether he thought there was a visible difference between British and



American SF, he said: "Oh, definitely; it's about as different as you can get inside one language. One of the things that's struck me about British science fiction is that it has what seems to be a 'preferred voice', which is cool, distant, ironic and, for the narrator, rather non-involved. I've come to feel that this is a symptom of a class origin, or at least can be partially explained in this way, for this 'voice' is the primary characteristic of the upper middle class (and certainly the upper class) of all European nations, which are far more stratified than the United States has been. Therefore, it should figure in all European literature." American literature, on the other hand, "tends to be more narrator-involved. It has a different tradition, and it leads to a different set of voices, to as diverse a folk as William Faulkner and Harlan Ellison." This point of view provoked immediate dissension from some members of the audience, who felt that there was no such thing as a 'class voice' and that writers should be discussed as individuals rather than as groups. Challenged to name some British writers whom he felt conformed to the above model, he advanced Brian Aldiss, Chris Priest and Keith Roberts, and went on to say that "British SF has to some extent been polarised by the American market" which, a dominant force, tacitly encouraged them to write in a certain way if they wanted to break into it, but "you can reel off that list of Ballard, Moorcock, Aldiss, Priest, Watson, and so forth, and although they're individually very interesting they also have some things in common. I would say that if you made up a similar list of American writers it would have a clear difference" because "there's clearly a difference in our national literatures; only a maniac would maintain that there aren't, and I think it's interesting to explore why they have emerged. It's useful to understand that they do come out of different histories and social structures; and then, seeing this, understand that when you impose literary standards, or write reviews, or whatever, there are other fiefdoms. Many times I've seen reviews which appear almost comic; they're so ethnocentric that they're almost unintelligible to someone three thousand miles away and speaking the same language. But nobody wants to mix-master the English language into one nice puree of experience. One of the things I would like to see, in both Britain and particularly in the United States, is a regional science fiction literature - the United States is not just one place, and coming from the South I'm very much aware that it has long been dominated by the Eastern, or Northern establishment."

What is happening in SF at present is something about which he tries to remain sanguine. "The field is clearly devolving into a two-tiered system, in which a fairly small number of people, perhaps a couple of dozen or so, make reasonably large amounts of money (some of them great pots of it); and everyone else stays down there, trying to leap up and catch on to the parapet. That's inevitable: you only have to look at the evolution of the mystery novel, where there are now ten to twenty novelists who command a large audience and a lot of people who are just hanging on by their fingernails. That will happen in science fiction; in fact, it's already happening, the signs are everywhere. Largely, the people who come through big will not be the literary writers. But it's a mug's game, trying to figure out what's going to last - we've all been taught, at university, that the judgement of history is what matters, but my feeling is that history is largely deaf, dumb and blind. All kinds of works slip away and don't get remembered. You can find many works that, but for the moment's transitory glance of an editor, who said 'Wait a second, what's that?' would have faded utterly. For example, Henry Roth's *Call it Sleep*, from 1934, languished, won no prizes, dropped into obscurity, was rediscovered in the late fifties by an editor at Avon, and is now considered an American classic. All I wonder is: suppose that editor had stepped in front of a truck the week before? The book would have been gone for ever. So I don't think that we, and certainly not writers, should think about the judgement of history - history is a whore, really. But beyond that, I find it hard to see that there's any big moral code at work here. It's tempting to say that this latest novel by X is a bunch of exploitive crap, but I keep worrying about Dickens and people like that. Of course, there's a lot of trash about which you can say 'This had got to go, this really cannot last', but we



have to face the fact that ninety-nine percent of all this stuff is not going to last even if it's pretty good." Apart from which, he feels that "most SF readers are insufficiently appreciative and attentive because most of them have not been taught that books are sacred objects (as we know them to be) and they don't live in that 'grand tradition' a la Leavis. They're looking for a very fast plot that moves them through an experience, that takes them out of their sordid realities, and drops them back in after a while. We're not servicing that component of the readership, so of course we don't look all that zippy to them. That's always been true; it will never change. You can choose to pander to it, or ignore it, or occasionally hope that it will pick you up by the scruff of the neck and carry you into the heights of stardom, but you can't change it."

Which means, in personal terms, that he doesn't write for a particular audience. "I write in order to have fun, and to enjoy writing, and I like to think that what I've done is occasionally good." In respect of which, he is so consciously concerned to improve his work that a few years ago he went back to his first novel, Deeper than the Darkness, and rewrote it as The Stars in Shroud "because it was so

awful. I felt that depicting a career military figure, such as I'd seen while living with my family, was worth doing, particularly in the light of the romanticised views of military types usually found in SF. A bit different, too, from the more informed but necessarily more violent pictures painted by Pournelle and Haldeman, perhaps... I just hadn't done it properly the first time."

In addition to working alone, he has also collaborated with Gordon Eklund on two books, If the Stars are Gods and Find the Changeling. "I was a good friend of Gordon's, and I was just starting my academic career when I started collaborating with him. I wanted someone who could carry forward a narrative when I was too busy, because I had two or three years ahead of me in which I was going to be doing research intensively and wouldn't have time to write much, so it was good to have someone else doing the job. And I was very much aware of the fact that you needed to learn a lot about writing; I was always learning new stuff. You can learn from somebody else, too - my favourite definition of intelligence is 'the ability to learn from other people's mistakes', and if you see someone make a mistake at close range then you can learn something from it. At least, I did..." But he has no plans for further collaborations with him: "I haven't even talked to him in several years. He's pretty much dropped out of sight, but I don't know why. I think he had a lot of marital problems and stuff like that, and I have a suspicion that he may just be finished as a writer."

Future publications from him - in addition to the aforementioned Against Infinity and Across the Sea of Suns - include a fully illustrated short story collection and a new novel, Artefact, about archaeology and mathematics, on which he is currently working. "I'm going to Greece to do the research on this novel, the first line of which is: 'Just before noon, they found something odd'. But more than that I cannot say." ■

# Aliens And Knowability: A Scientist's Perspective

## Gregory Benford

The following paper was originally given at the First Eaton Conference, at the University of California, Riverside, California. I would like to thank Gregory Benford and Southern Illinois University Press for permission to publish it.

J G Ballard has said that one of the problems of science fiction is that it is not a literature won from experience. There are several ways of interpreting this assertion. It is nowhere more obviously true, though, than in the case of sf which depicts the alien.

In this paper, I am going to discuss some of the philosophical and literary problems of treating the alien. My approach will probably not resemble most literary criticism because I am not a critic but a writer and a physicist. I do not pretend to objectivity or even impartiality, since I have written some sf about this subject and am already biased.

I will attempt a brief catalog of the ways the alien has been used in sf, and then move on to the philosophical problems which concern me. I will necessarily give only slight mention to many rich areas.

### Anthropomorphic Aliens

By far, the most common alien in sf is the unexamined one - the supposedly strange reduced to a few aspects, all exaggerations of human traits.

The simplest version of this is the invader, often seen as an implacable, mindless threat, as in Heinlein's The Puppet Masters and Starship Troopers. The film The Thing is fairly typical of a vast body of magazine sf in making easy

political analogies: the Thing stands for the communist menace, the woolly-minded scientists who try to make contact despite obvious hostility represent the Adlai Stevensons of this world, and the United States Air Force stands for, of course, the United States Air Force.

A more interesting vision of the alien is typified by Hal Clement's Meskinites in Mission of Gravity. They have different bodies, determined by their bizarre planetary surroundings. This "biology is destiny" theme occurs often in sf, but like the Meskinites, the aliens commonly speak like 1950s Midwesterners and are otherwise templates of stock humans.

A variant on this is represented by Larry Niven's future galaxy inhabited by aliens who each roughly represent a type of terrestrial animal. His kzinti is a catlike carnivore, given to mindless rages. The Puppeteers are herd animals, i.e., cowards; their cities stink, like a corral. Poul Anderson has done this with more subtlety, giving his bird aliens in The People of the Wind touches of strangeness.

The trouble with most approaches to that much-sought strangeness, in my view, is that it so soon wears off. Niven's and Pournelle's The Mote in God's Eye explores aliens who are not bilaterally symmetric (an odd variant indeed), and extracts some value from the feel of three-ness versus two-ness. In the end, though, the aliens seem no more difficult for us to understand than the Chinese. (Indeed, there is an uncomfortable resemblance in the old Space Navy method of dealing with them.) They are stopped from spreading by a technical point involving faster-than-light travel; this insures that alien values and three-nesses do not flood through the sevigram.

Even as respected a work as Stapledon's Star Maker does not truly focus on the alienness of the many creatures which inhabit his future worlds. He gives them biological variations which have no impact whatever on the gross socio-economic forces which work on them. There are no alternate realities here, no genuinely different ways of looking at the universe, but instead - on the planetary level, at least - a kind of clockwork marxism that drives them inevitably into the tired confrontations of labor with capital, etc. It is the larger vision Stapledon pursued, his ultimate grinding down of the galaxies, which still affects us today. The Marxism is the most dated aspect of his work.

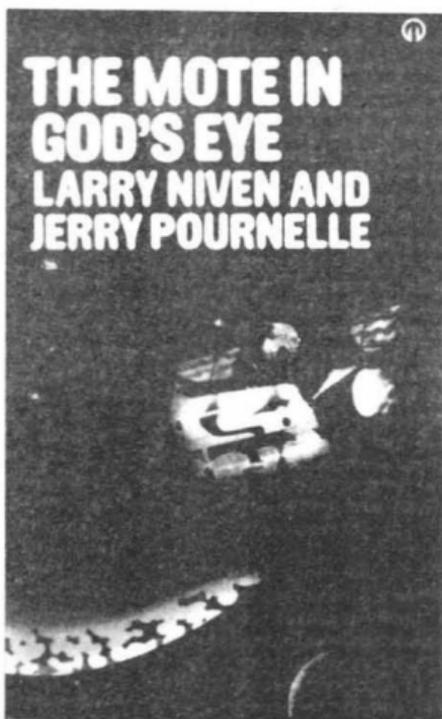
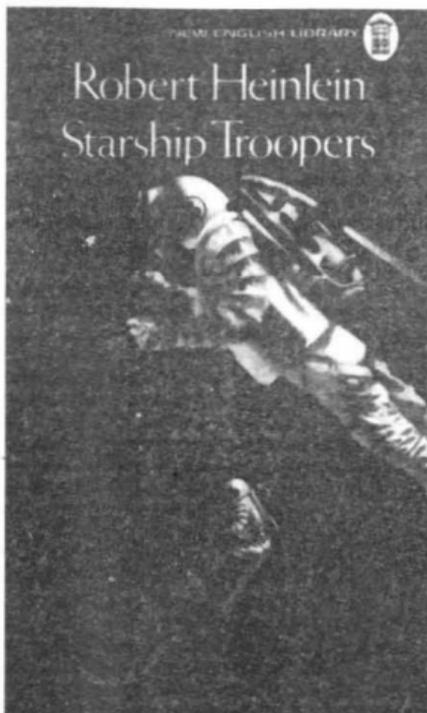
This connects with another common use of aliens in sf - as convenient foils and mirrors of ourselves. The sexual strangeness of the humans in LeGuin's The Left Hand of Darkness, for example, is a distancing device, a way to regard our own problems in a different light. In countless lesser works aliens are really stand-in humans of the Zenna Henderson sort: quasi-human, with emotions and motivations not much different from our own.

Aliens as a mirror for our own experiences abound in sf. Arthur Clarke's "Rescue Party" has humans as the true focus, though the action follows aliens who are a dumber version of ourselves. The final lines give us a human-chauvinist thrill, telling us more about ourselves than we may nowadays wish to know.

The prevalence of the Galactic Empire motif, with its equality of planet=colony, aliens=indians (either variety), is a common unimaginative indulgence of sf. There are generally no true aliens in these epics, only a retreading of our own history. This backgrounding structure is so common in sf, even now, that it is difficult to know whether we should attribute it to simple lack of imagination or some deeper unconscious need to dredge up the problem. It would be interesting to see an Asian sf writer tackle the theme.

The list of aliens-as-foils is large. Authors have taken women to be aliens, children to be aliens, robots to be alien-like . . . we are really saying something about ourselves in these tales, not about the universe beyond us. A more pointed use of this device appeared in Brian Aldiss's The Dark Light Years, in which aliens use excrement as a sacrament. This stress on the holiness of returning to the soil, so the cycle of life may go on, mirrors some Eastern ideas, though its direct target may be western scatology.

I end this catalog of more conventional uses of the alien by bringing up



a puzzle I think worth pondering. It has long been clear, to any biologist who thought about the question for more than five minutes, that any alien planetary ecology will be utterly different from ours. The old cliché - open the helmet, sniff the air; "Smells good! We can breathe it." - is avoided these days, but more subtle points are not. Even if we found alien plants we could stomach, anything resembling sugar could easily have the wrong sense of rotation from Earthly ones, and thus be unusable as food. Proteins, trace minerals - all would almost certainly be incompatible. To make a planet livable for ourselves, we will have to erase what's there and introduce a whole new man-oriented ecology. Yet in thousands of otherwise respectable sf stories this point is ignored. Why? If questioned, I imagine most sf authors would admit the point, and plead the convenience of assuming otherwise. Yet this facet of the real world is not used as a bit of insiders' footwork, as is, say, faster-than-light travel. When a new theoretical fillip for getting super-c velocities appears, the hard sf writers instantly snatch it up and ring some changes on the point; I've done it myself. But we never touch the ecology problem. Seldom do we admit in fiction that it is a problem. I can only think of one recent work which mentions the question: Joanna Russ's We Who Are About To.... The near-universal avoidance of this striking astronomical-biological fact must have some motivation. Is it a telltale signal of some deep fear? Does it indicate that we don't care to smudge the image of a difficult but generally sympathetic galaxy out there? I don't know. I do think the problem is worth considering by critics, though.

#### Unknowable Aliens

The most interesting aspect of the alien, for me, lies not in its use as

a fresh enemy or an analog human or a mirror for ourselves, but rather in its strangeness. There are remarkably few works which consider the alien at this most basic level. Of course, aliens do occasionally appear in sf works as distant, inexplicable things, often ignored by the human characters. Making them objects of indifference does not exploit or illuminate the philosophical problems involved, though. These emerge when we attempt communication.

One of the basic devices of sf is the instant translator, which enables aliens to speak in English with little difficulty (and often American English, at that). This has virtues for speeding up a story, but it sidesteps a knotty problem: how can beings be strange and still communicate easily? Some authors have been able to surmount this, but few have used the language problem itself as a major turning point.

The essence of epistemology is language, for only by communicating our perceptions can they be checked. The intuitive bedrock of perception must be given voice. Ian Watson's The Embedding involves aliens who come to barter with us for our languages, not our science or art, for these are the keys to a deeper sensing. By assembling all the galaxy's tongues, they believe they will transcend their species limitations and at last understand the real world. Thus each species' language is a partial picture. In another visit depicted in If the Stars are Gods by Gordon Eklund and myself, the aliens seek communion with our star, not ourselves. Their picture of reality involves stars as spiritual entities. The protagonist at first believes the aliens are lying, and then is drawn into their world view. He sees their vision, and reaches some sort of understanding. But the paradoxes which run through the text turn about at the end, and he sees himself as trapped, by his own use of human categories, into a fundamental ignorance of the aliens. A Wittgenstein quotation, "A dog cannot be a hypocrite, but neither can he be sincere," underlines the limits of using human concepts. The emotional reaction to this view is also varied: the aliens are deliberately compared to pastel giraffes, and there are other comic touches. The layered paradoxes of the story line all suggest a possibility of "communion with the suns" but the impossibility of knowing whether this sense, as filtered by human minds, is what the aliens mean. There are reflections of this basic either/or, subject/other habitual mind-set throughout this work, always pointing toward an irreducible strangeness.

The most extreme view one can take is to reject any category of knowledge of the alien, declaring them all to be inherently anthropomorphic or anthropocentric, and flatly declare that the true alien is fundamentally unknowable. This position is perhaps best put forward in Stanislaw Lem's Solaris.

David Ketterer has explored (in New Worlds for Old) the many images and phrases by which Lem underlines his position. The library scene adroitly satirizes science as model-building. Darko Suvin, in his afterword to the novel, attributes Lem's renunciation of final truths to "the bitter experiences of Central European intellectuals in this century." If this were in fact the only reason to adopt such a position Solaris would not be important, but of course the philosophical roots of these ideas are quite deep.

#### A Philosophical Digression

One might at first ascribe Lem's point of view to the failure of positivistic philosophy in this century. Philosophy has taken quite a few lumps from mathematics in this regard. (Recall that Kant held the truths of geometry to be synthetic a priori. Relativity and Riemann came along shortly thereafter, and now even little children in the streets of Göttingen know that geometry is in fact a synthetic a posteriori category, a checkable fact. And we don't live in a Euclidean universe, either, as Kant imagined.) The thrust of mathematical philosophy has been toward arithmetization. The logical weight of the entire edifice bears down on arithmetic, from which all the rest of mathematics can be built up, as Russell and Whitehead showed in 1913. All analytic philosophy rests on analogy with the truths of arithmetic. But are the axioms of arithmetic con-

sistent and complete? David Hilbert tried to prove this, i.e., the absolute consistency of arithmetic and thus mathematics, and was the father of the formalist school. The Dutchman L E J Brouwer championed the intuitionist school. The collision between these views led Gödel to show in the 1930s that Hilbert's question was not answerable. That is, the proof of the absolute consistency of mathematics could never be given - it was a "fundamentally undecidable proposition". A simple way of putting this is to consider the famous Barber Paradox of Russell. Barrett the Barber put a sign in his shop window saying "Barrett is willing to shave all, and only, men unwilling to shave themselves." The paradox arises when you ask, "Who will shave Barrett?" This question is undecidable within the limited language of the sign. So we need a new sign to take care of Barrett. ("Exclude Barrett from the above.") This fixes up the problem, essentially by putting a patch on it. But Gödel showed that in arithmetic, the added signs can be put in another, larger arithmetic language, and this language also must include undecidable statements. Thus if model-building in science seeks to make a formalistically exact statement, it must fail, for there is no way to prove self-consistency.

This may seem like using a philosophical howitzer on a literary mouse, but it is important to realize that it is not in the above strict sense that Lem attacks the anthropocentricity of science and the pursuit of the alien. Instead, Lem bases his thesis on the earlier positivist school of the nineteenth century. One can look up Gödel's Proof - which many consider to be the most important development in philosophy in this century - as a confirmation of much of the earlier work of Locke, Berkeley and Hume. Lem's evocation of this view is sound in the sense meant by the earlier philosophers, and in the strict sense receives further support from Gödel. But it is clear that there are senses in which Lem's position does not take into account recent developments in the philosophy of science. It is certainly not true, as some seem to assume, that Lem's treatment in Solaris and other works is the correct one, and all other treatments of the alien in sf must be regarded as ignorant or simplistic.

#### Chicken Sexing in SF

The "intuitionist" school of analytic philosophy also appears in sf about aliens, and some of the best works of the field are based on it. Terry Carr's "The Dance of the Changer and the Three" depends on a certain intuitive sense of the alien. Some of the best passages in Asimov's flawed novel, The Gods Themselves, evoke an intuition of alienness through the sensation of floating, which for the inhabitants of another universe has some central meaning. (Indeed, as an aside, it is worth noting that Lem himself has said that he wrote Solaris with "no plans, no elaborated preconceptions, no tactics, no nothing" - i.e., an intuitionist sense, not an analytic one!)

Essentially, using the intuitionist view requires an artistic balance between using understandable (human-based) images and achieving a sense of fundamental strangeness.

My own introduction to the intuitionist school came as a boy in Alabama. My relatives raised lots of chickens and one of the big events in the year was the hatching of chicks. The problem in that industry is that you don't want to keep the males, since they don't lay eggs. To save on corn, it is best to spot the males immediately. However, it is hard to tell male balls of fluff from female balls of fluff. So you hire a chicken-sexer. Learning to be a chicken-sexer is a nonverbal process. The master sexer hands you a chick and says "male". You feel it. The next one he hands you is female, but you can't, in your untutored state, tell the difference. But then, after a day or two of this, an odd thing happens. You begin to tell male from female. You don't quite know how you do it. You pick up a sense you can't describe - some aura of male or female, I suppose. The basic fact is that I can't tell you what it's like. And after a while you score 90% or better at separating out the males.

This was my introduction to the intuitionist school of natural philosophy.

My Aunt Mildred was a master at this without having ever heard of Immanuel Kant or L E J Brouwer. As a method of philosophical instruction this is, of course, rather hard on some of the chickens, but it has stuck with me through my scientific and literary career.

Perhaps this explains why, from my reading of philosophy, I conclude that the intuitionist view has not receded in this century, but rather has come to the fore. It is certainly true that language is limiting, as are the pictures in our heads, but there has emerged an obvious example of a new paradigm for casting off old pictures: quantum mechanics. It is illuminating to recall Suvin's observation on Lem: "No closed reference system, however alluring to the weary and poor in spirit, is viable in the age of relativity and post-cybernetic sciences." While "post-cybernetic" may be an oblique reference to Gödel, the reference to relativity is mysterious. It is quantum mechanics which introduced the fundamentally unknowable to modern physics. Relativity dethroned simultaneity, not certainty. And there is more to twentieth century science than a facile open-endedness.

The lesson of the wave-particle duality is that neither human picture is adequate. In a diffraction experiment electrons can appear to have wave-like properties. In other contexts, its point-particle-like nature is manifest. Reality is something beyond either category. The central point is that we have now passed beyond this early wave vs particle riddle and used mathematics itself as a guide in evolving a sense of the quantum nature of the physical world. We have continued to calculate and check, and now the terms applied to particles are "colour" and "charm" and "strangeness"(!) and other purely mathematical notions. Yet modern physicists have developed an intuition of these things which is guided by the mathematics, and is checkable. I think this intuition is basically different from the usual "physical" intuition physicists often speak of. Usually "physical" intuition in practice means describing our modes by pictures associated with particles, waves, etc. - the stuff of ordinary experience. I think Lem most effectively satirizes this habit with his library scene and the classification of the Solaris ocean's forms into 'mimoids', 'symmetriads', 'exto-sensors' etc. It is a telling attack. But it ignores the more sophisticated facets of model-building in science. Specifically, it ignores the role of mathematics, which is a more nearly universal guide than our human perceptions.

It seems to me that Lem, by taking a philosophical tack from the nineteenth century rationalists, has unnecessarily limited the argument. He has missed both Gödel and the new landscape of science in this century. By placing Solaris in the far future he seems to be saying that someday we will meet an irreducible strangeness, that it is unavoidable. (This is a prediction, actually. However, it is not a scientific statement because it cannot be falsified; Solaris can always lie around the next corner.)

I have become rather skeptical of philosophers' pronouncements on the boundaries of scientific knowledge (remember Kant's exposed a posteriori). This is why I prefer in fiction to take philosophical metaphors rooted in experience. It is difficult to convey in this short piece how genuinely strange quantum mechanics is, for example, and how much it has changed the way we think of science. There is a "feel" in the evolution of our ideas of quantum mechanics. One might say as a sort of shorthand that the world of quantum is made of models which fold into one another. When one simple picture fails, you go to the next. There is a way to make the transition. But even these last two sentences of mine fail to convey the sense of how research is done today. The notion of enfolded models is fading, to be replaced by the elaborate waltz of mathematics with déjà. You could say that there is no model, in the sense that Lem uses, which describes our progress deeper into the levels of nature. In this sense the paradoxical nature of quantum mechanics has become a side issue, because no one believes the pictures any longer anyhow. (Note that even in the early days of quantum mechanics, paradox did not equal muddiness, as it does in LeGuin's "Schrödinger's Cat".)

There can be an sf analog to what we have learned from our experience of

quantum mechanics. I would term it learning by the expansion of categories. (Or perhaps more accurately in the case of quantum mechanics, abandoning categories.) To the extent that order and mathematics are human categories and not alien ones, of course, this partition of the argument falls to the ground. But I suspect that quantum mechanics does represent the development of a new category of human experience. It is a new paradigm beyond anything that plausibly could have been predicted, using what in the nineteenth century would have seemed a "human" intuition.

There are probably several sf works which can be interpreted as reflecting this vision. Alas, like most authors, I am notoriously poorly read. The only example I can cite is my own In the Ocean of Night. The conclusion of that book particularly seeks to evoke this sense of expanding categories, and a union with the world itself, as opposed to models of it. It is important to remember that language contains only what we have learned to tell each other. This knowledge is a tiny subset of what we do in fact know, in the chicken-sexing sense. (And as my Aunt Mildred noted in one of her lectures to me - the notes have unfortunately been lost - what we can't talk about isn't necessarily unimportant or uncheckable to others; for example, to the chickens themselves.) I remember that I had a sense of these implications while writing the book, though I cannot say much about whether it was in the mix from the beginning. Like Lem in this one case, I write from intuition (though not without extensive notes and planning, paradoxically), and am usually unaware of the full analytical content of my work until it is done, or indeed, long after.

#### Two Faces

I have argued here that some weighty philosophy is tied up in the treatment of aliens in sf. There are no right answers, of course, for fiction cannot settle such issues.

My sense of Solaris is that it does not really talk about the physical sciences at all. There, the question of whether model-building is hopelessly anthropocentric can only be settled by infinite recursion - keep trying and see if the problem cracks, if predictions do bear out. It is an unfortunate fact that much fiction takes the truths of science as absolute, when they were never intended to be. Science is always provisional, yet the urge to adopt the Solaris position rests, I think, on an emotional bedrock of the sort Suvin cited, from Sartre on. I think a better view of Solaris comes from a look at the social sciences. If the ocean is alive in some sense, then Solaris can be read as a reflection on the error of applying a mechanistic description to a social science, not to a physical one. In the social sciences, including psychology, there is a fundamental limitation: you can't do completely reproducible experiments, even on very thin social groupings. Thus the Lem position applies more directly to mechanistic social theories, such as Marxism. One wonders if the literary czars of eastern Europe (or western Marxist critics) understand quite what Lem seems to be driving at.

My own instincts as a theoretical physicist and a writer lie with the intuitionist school. I think anyone who participates in science gets this human sense that by expanding our categories and using the most "universal" of descriptions (and languages, i.e., mathematics), we can make of ourselves something greater. We can ingest the alien. Yet we know from Gödel that the analytic sense of knowledge shall forever escape us. It seems to me this is fertile ground for bittersweet irony. Perhaps such philosophical issues can lead us finally to a deeper sense of what it does mean to be logical and fragile and human.

#### Acknowledgement

Bridges To Science Fiction, ed. George E Slusser, George R Guffe & Mark Rose (Southern Illinois University Press, PO Box 3697, Carbondale, Illinois 62901, USA)

# Dangerous Divisions

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Congratulations on a fine issue of Vector. There was a nice blend throughout the issue, and I hope that you can sustain the impetus with more well written and informative articles. ((( If I'm sent the material, I'll certainly try. )))

In the letter column, Eric Brown states that "...if censorship was religiously practised our literature would be gutted - SF would sink to the level of the pap a la Mills & Boon..." This view is fallacious, damaging to the genre as a whole because of its head in the sand attitude and, I believe, a view that is far more prevalent in the SF world than is generally believed.

There are two points inherent in this statement that need to be answered, and their raison d'etre dispelled. Firstly, that the introduction of censorship, and its religious practise, would damage SF. I totally agree as far as this goes - what is frightening is that Mr. Brown cannot see any further than his beloved SF. Censorship would remove all merit and distinction from the craft of the author: from the hack to the genius, all would feel the chill glare of the censor over their shoulders, all would be shackled to a set of ideals based in bigotry and dogmatism. Across the range of fiction a set of limitations would come into force where even Mills & Boon may not be safe. The most obvious effect of censorship is that it may remove what you want to read at the time. The more sinister aspect of it is that it would remove, at its very inception, what you may wish to read at some future time. It would remove the very right of freedom of choice, and should be fought on that basis alone, not because of any direct threat that it may have towards SF in isolation.

Leaving the censorship question aside, the second part of the statement shows quite clearly why SF will continue to be fraught with arguments about ghetto fiction and the US and THEM divide. Quite simply, it is because many people are adamant that their type of fiction is better than all others, that these problems will not be resolved.

Much that is published carrying the SF label nowadays is not better than Mills & Boon. SF has its series - Perry Rhodan, Dumarest etc - as does the (far larger) romantic fiction genre. Westerns have Edge, the Undertaker, while Nick Carter, Tobin and the Confessions books, permeate our fiction at what may be, albeit loosely, termed the bottom end. The world of fiction is broken down into these generalisations (my apologies for the bastardised word) but has created a 'mightier than thou' attitude in each of the categories. To escape from these suburbs - the word ghetto, and its connotations, does not seem acceptable - would be a mistake as long as it is thought that all SF would be acceptable at the top end of the market. To perpetuate the SF label is equally a mistake if the belief that it creates a fiction that is better than all else is allowed to remain.

Anyway, enough of that. Recently I have put my mind to work to try and find a way of increasing my collection of books - without buying any. I have worked out a way to encourage the large, prestige seeking publishing houses to part with their wares. What would happen is that the BSFA (Budding Science Fiction Authors) would have an annual award, and it should be a large, prestige attracting annual occurrence along the lines of the Hugo and Nebulous. What we have to do is hire the Savoy for the award ceremony after previously informing the BBC - preferably

Nationwide and Russell Harty - so that we can have full television coverage. (perhaps Sue Lawley could be persuaded to present the prizes.)

Free books? Right, as the poll would be conducted among members of the BSFA, all authors of equal, if not higher, standing and intelligence than most SFWA members. In the US of A all SFWA members get free copies of the probable candidates for the award, so all we have to do is circulate the publishers with our intention - not forgetting to mention the magic words Savoy, Lawley and Extra Profit - and a list of those eligible to vote and Bob's yer uncle!

This carefully designed scheme is a sure fire success - order your extra bookshelves now! ((( Keep thinking... )))

In reply to Mike Lewis' letter you wonder how the BSFA can get national coverage. The answer, perhaps too obvious for the BSFA, is to do something newsworthy. From past experience (e.g. the 'Interzone' launch) the council haven't the expertise for self-publicity/promotion in the media. BSFA public relations should be delegated to someone with a strong background in PR/Journalism. However, such a person is likely to be highly cynical - which may alienate the Council, whose idealists may not wish to dirty their hands with commercialism. ((( A couple of corrections Ken. The BSFA has no official links with 'Interzone' although some members of the BSFA have dealings with it. As far as I know, we had nothing to do with the launch of it. While I would agree that the Council have not got a lot of expertise in promotion/publicity, we are not exactly sitting on our collective arses and doing nothing. Recently, and in the next few months, we have adverts in 'Foundation', 'New Voyager', 'SF Chronicle' and, of course, the Arrow adverts. On top of this we are getting the posters prepared for members to place in their local bookshops/libraries. As far as national publicity goes we are not doing too well. But, as you can see from the contents pages we are trying, and with the members help, we might succeed. If someone wishes to help with publicity/promotion, I'm sure that if he/she writes to Alan Dorey it will receive serious attention. Mind you, from my own experience in getting adverts for Vector, dealing with the publishing industry is a very depressing affair. Finally Ken, I wish we were all 'idealists'. We might have all started out like that but the sheer hard work - and I'm not boasting - knocks it out of you. )))

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While David Barrett's suggestion of an anti-award (Vector 108) deserves some consideration, I have a nasty feeling that some publishers would print 'WINNER OF THE BSFA ATROCITY OF THE YEAR AWARD' across the covers of the appropriate books (Mark Hewett's letter in Vector 110) on the basis that any publicity is good publicity.

Many Londoners will remember Kenny Everett's 'World Worst Wireless Programme' on Capital Radio, which did wonders for Jess Conrad's show business career. Three of the records in the 'Bottom Thirty' which was eventually compiled were by the aforementioned 'artiste' who exploited the publicity to the full. Apparently his moribund fan club suddenly flourished with an amazing influx of new members. And how many of us went around singing 'Wunderbar'?

While the Everett Programmes etc. were done in the spirit of fun, the exploitation was not. A couple of years ago, there was so little news over one holiday that all the bulletins carried as the main news story, an item about a proposed film based on the life of Peter Sutcliffe, the Yorkshire Ripper! A friend, who is very active in NCCL, mentioned that he would defend the right of the people concerned to make a film in such bad taste, but that the British public also had a right to ensure that such a film was a complete financial disaster by staying away from the cinemas showing it.

I rather feel the same way about bad SF, including Perry Rhodan and the Norman

'Gor' books. If we don't buy them, the publishers won't reprint them, and hopefully will eventually not print new works of similar low standard (thereby, of course, denying new writers access to their public/a start in their career/a foot on the ladder etc).

This brings me back to that other subject of controversy in your letter columns of late, namely the function and influence of reviewers vis-a-vis the SF reading public. While I will not pontificate as to the extent of the power a reviewer wields, the attitude of a reviewer may influence the choice between a paperback written by a name author and that by a newcomer. An uninterested, dismissive review is less likely to encourage a fan to buy than a review that dwells on the awfulness of the book.

I would therefore suggest that the 'anti-award' be a suitably low-key affair. I suggest it be awarded to the 'work' gaining the most dismissive reviews (we the readership will not be able to vote for it as we will not have read it), and I suggest the prize be a wet kipper sent second class to the chairman of the publishing house responsible for the horror.

Finally I would like to endorse Steve Gallagher's comments. I am still waiting for someone to reprint Do Androids Dream of Electric Sheep? so that I can buy it. I refuse to buy Blade Runner (TM) on principle. Perhaps we should send Alan Dean Foster a wet kipper too. Second class post of course. ((( As far as I know there are no plans to run an 'anti-award'. For the BSFA to run such a thing I expect the AGM would have to decide, or the members asked, in one form or another, whether they are for it. )))

There are a number of points to be made about Steve Gallagher's guest editorial, but perhaps one should first establish the context of Granada's reissue of Do Androids Dream of Electric Sheep? as Blade Runner. As we know, the film is based on Phil Dick's novel. But as those of us who have seen the film and read the book will also know, there is not a lot of similarity between the two. The idea of androids/replicants illegally coming to Earth and being pursued by bounty hunter Rick Deckard is common; a few bits of background detail from the novel appear in the film, such as the scarcity of real animals (though in the film this is not explained); some of the names are the same. It's several years since I read the book, but as far as I recollect the only scene which has been transferred more or less intact to the screen is the one in which Rick interrogates Rachael to ascertain whether or not she's human.

This being so, the film company wanted a novelization done to tie in with the film. But Phil Dick was lucky enough, presumably, to have a clause in his contract enabling him to veto the idea, and sufficiently proud of his own work to turn down a reported \$500,000 to write the novelization himself and insist that the only tie-in novel would be his original book, retitled to be sure. Good for Phil Dick. The film company has its revenge, of course (being displeased by this turn of events). You will notice that the posters carry no mention of the film being adapted from the novel, and no little "see the film, read the book" ad. You will notice also that although the screen writers are prominently credited in the opening titles, the credit to the novel is buried among the closing titles, by which time most of the audience are heading for the exit.

All this is, however, a bit of luck for Granada, who have been plugging away publishing Phil Dick's novels for ten or twelve years now. Granada's devotion to Dick through years of unspectacular sales figures is one of the more notable British examples of a publishing company's loyalty to an author. It owes a great deal to the fact that three, at least, of Granada's editors over the years have been Philip Dick fans - Nick Austin, Nick Webb and Andy McKillop. (The occasional appearances of Dick books under the Corgi, Pan or Sphere imprints can be traced to the periods Messrs Austin and Webb spent working for those companies.) Over that period he has been getting advances from the UK more or less equivalent to those he received in the USA, despite our market being about a quarter the size.

MALCOLM EDWARDS,  
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So now Granada have the opportunity to get one of their Philip Dick novels across to a much larger audience than hitherto. Should they spurn the chance? Of course not. The problem arises, though, that as noted above there are really quite a small number of correspondences between book and film, so that anybody who sees the film and then goes out to buy the book-of-the-film (I suppose this is why people buy novelizations; I've never been able to understand it myself) will be getting quite a different animal. It seems only fair to point this out. Hence the publisher's note.

I'm at a loss to see, anyway, how Steve can read this as "toadying". "Brilliant novel"... "added dimension"... "classic novel": it doesn't read that way to me. I can't see any suggestion here that the movie is the "definitive statement", or any of the other implications that Steve reads into it. What it seems to me to say is quite different: Look, this is a terrific novel. It isn't the book of the film, if that's what you're looking for, but you should do yourself a favour and read it anyway.

It's a successful piece of marketing, too, as far as one can tell. The novel has been on the paperback bestseller list, and I believe has sold around 100,000 copies - probably about five times as many as under its original title. A lot of people will thereby have become acquainted with Philip Dick's writing and some of them - one can but hope - will be moved to go on and discover his other books, which may indeed be reissued in time with 'author of Blade Runner' prominently emblazoned on them. Good for Phil Dick... except, of course, that with tragic irony he isn't around to appreciate this long overdue success.

(one final point: surely Steve doesn't expect a publisher to reissue a book in 1982 at other than 1982 prices, even if that is double the price of a previous edition from six or eight years? Who would benefit? Certainly not the author.)

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I found it interesting to read Steve Gallagher's guest editorial in Vector 110 as I have been put off buying the latest edition of Do Androids Dream of Electric Sheep? in the form of Blade Runner (TM). The reason for this was due to its commercial cover and because the author's name, which is normally a similar size or a

little smaller than the title of a book, is stuck away in smallish letters in the bottom left of the cover.

Although the book Blade Runner is an obvious attempt by the publishers to cash in on the success of the film, some good may come out of its publication. Readers who would normally only buy books of contemporary fiction, may agree with Jim Darroch's review in Matrix 44 and find the book better than the film. This could lead to them buying more books by the author, and from this beginning some will go onto other SF authors.

I have read Steve Gallagher's guest editorial three times and I am afraid I still seem to be missing the points he is making. The offending publishers note says of Do Androids Dream of Electric Sheep? "...A brilliant science fiction novel..classic novel" This is Harmful? Before the film Blade Runner the book wasn't even in print! Thanks to the film Philip K. Dick is as last getting some respectful treatment from many members of the general public and 'mainstream' critics. For instance the recently published The Transmigration of Timothy Archer by Dick was reviewed on Radio 4 Kaleidoscope. We should not put this down but be only sad that it has come too late for Dick to receive the financial relief it would have given him. To slightly misquote Oscar Wilde; Dick "Died beyond his means." ((( It is not my function to explain articles, but it does seem to me that a lot of the letters are missing the point. Steve is not against the publications of Androids as Blade Runner but the fact that the publishers felt it nec-

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essary to apologise that the film and book were different. The content of what they said, per se, does not matter. The fact that they felt it was necessary at all is the point. )))

With regard to Josephine Saxton's article I would like to relate my recent Reader's Experience which occurred just before I read the article. I had just disgustedly finished another piece of SF garbage (Mission to Moulokin by Alan Dean Foster). I then picked up a book of Ernest Hemingway short stories "Men without Women" which my brother had lent me. It was the first Hemingway book I had ever read, and I thought it was quite knock-out. More power and strength in a short story of a few pages in length than in the entirety of many a SF novel. Yet despite this there I was next day plugging away at another SF book, and it will probably be absolute ages before I read another Hemingway book. Why do I, and presumably most of the BSFA membership, do this? I must admit I'm damned if I know. Is it something to do with what Josephine Saxton calls acknowledging debts and memories of those first magic exposures to the visionary ideas of SF? Certainly even today finding a real SF gem is enough to brighten me up for days and make me forget all the drivel I have had to plough through.

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To add my voice to the reviews debate, I would say that whilst the letters on the subject have been superbly argued and elegantly written (my God, do you all write SF as good as that?), nobody has quite said how I feel about reviews though one or two came quite close. Doesn't

anyone else enjoy reading reviews just to find out what someone else thinks about a book or writer already known (and perhaps despised or adored)? You read it and think "surely this guy has to be sarcastic" or "what an idiot" or "aha, somebody else has discovered C.J. Cherryh as well". You get a bit of information about new books ("must buy that one when it gets round to my seedy secondhand bookshop ten years from now at a price I can afford") but mostly you read the bloody things compulsively like other people read football match reports. Then you get to the stage (like Dorothy Davis) when the next review might be about something you wrote yourself. Phrases like "a moron with only two brain cells to rub together would have found this book too slow" begin to seem a trifle unkind - after all you know what rubbish you write yourself sometimes and some of it can easily find its way into print. Perhaps writers should band together and write reviews of reviews ("this is a disastrous piece of critical writing.."). It could certainly be argued that the best reviews do not influence the reader at all: they simply inform a little and entertain a lot.

My dear Geoff, I want to soapbox with you again. Carol Smith, Literary Agent extraordinary, and the brains behind the current series of romantic thrillers Night-shades, came up with a synopsis for a competition run in the Sunday Express.

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Not to burden your eyes, or your brain, too much, the story is essentially -

a young executive working on an old mill pushes a water wheel into life. When he turns round, hey presto and surprise surprise, there's a young woman sitting there. They fall passionately in love, spend days and nights as well, in mutual adoration, until the Fateful Night that there is torrential rain, and Our Hero rushes downstairs, clad in oilskins (conveniently situated in the Bedroom?) to check the old wheel, which surprise surprise needs a push. And his Love disappears. Distraught, he searches the town and London for her, but no one has ever heard or seen of his girl.

One year later Our Hero returns to his mill, and the wheel. It is running smoothly, and there is a 10 year old girl watching him, His girl. "the exertion and energy required to jerk the huge iron wheel into action

had rocketed Tony forward in time - and later shot him back again. Tony is happy again. Now he has found her he will never let her go. He has only to wait ten years and then they can be lovers again."

Write a 5000 word section of said synopsis, and if the judges like it, you'll get £500 and a chance to finish the book for Fontana.

Well, first I felt ill, and then I started thinking. Is Our Hero so dense he doesn't know he's been shot forward in time? No papers, no news, no aging friends, what about his job, his money, his car tax expired?????

Come back, Isaac, all is forgiven. ((( While I know of a few predominantly SF writers who have strayed into other genres like thriller and western, I know of none who have ventured into the romantic genre. What a strange Hybrid that would be! Conversely, I can only think of one genre novelist who has tried the SF genre, and that is the historical novelist, Cecelia Holland with Floating Worlds. It might make an interesting article to look at the various authors who have tried to cross the genre barriers. )))

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Chris Priest's article in V109 raised eyebrows but not pen. However, the letters from Martyn Taylor and Nick Lowe in V110 have caused the necessary effort.

Certainly the cinema and television tend to show 'bad' SF, and this is more apparent in films or series that are based upon original books. The nature of the

problem is not the intrinsic inability of the screen to portray significance or depth of feeling, the two media are not completely different. Comparing Tinker Tailor the book with the television series shows that it is quite possible to adapt a novel for the screen. However, what usually happens is that a novel is converted to a single film.

Consider a standard book of 250 pages. My normal reading speed is 40 pages per hour for standard format SF. This works out at 6½ hours for the book. If this hypothetical book was filmed, we could allow a screen time of, say, 100 minutes including credits. Within that 100 minutes all conversation must be in direct speech, which is slower to speak than read; off-stage events must either be filmed or put into direct speech, both of which take longer to show on film than to read in a paragraph. All things considered, there must be a compression ratio of 6:1. In other words 5/6 of the story must be left out.

Television series have different problems. If our novel is serialised into 6 episodes it will all fit in. But it is rather like reading 40 pages of Steve Gallagher's Chimera and putting it down for a week. So 5 minutes of each programme is wasted in resume.

It seems that the best SF films are those for which the script was written specially for, but the mechanics of film making mean that it is easier to put a film into production on the base of a best-selling novel rather than an original script. This means that the film script must of necessity be a complete re-write of the book, so it is hardly surprising that those who have read the book dislike the film. For instance, I do not justify the terrible treatment of Androids but I can see the reason why it was done.

((( A slightly shorter letter column than I would have liked, but the early deadline of the Christmas issue has meant a couple of letters arrived too late, and I expect that there are still a few more letters to come. The three letters I have on hand are by Gary Andrews, Maxwell Gerome and Andy Sawyer. You nearly made it this time Gary, I ran out of space by six lines, which would have meant cutting your letter rather too heavily! Maxwell's letter will be published next issue as it asks a couple of questions that need to be answered. I knew it would not last. Last issue Andy made a great effort and his was the first letter through the post - this time your back to your good old last place...needless to say, I'll try and print it next issue. As you've all got a couple of days holiday soon, I'm waiting in anticipation for all those letters! )))

# Into The Arena

## TYPES

### Chamaecereus



**C. silvestrii**  
Peanut Cactus

### Cephalocereus



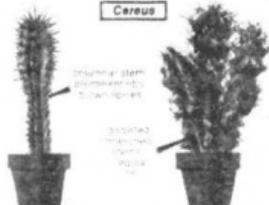
**C. senilis**  
Old Man Cactus

### Cleistocactus



**C. straussii**  
Silver Torch Cactus

### Cereus



**C. peruvianus**  
Column Cactus



**C. peruvianus monstrosus**

### Echinocactus

globular rounded stem  
thick, white spines



**E. grusonii**  
Golden Barrel

### Echinocereus



**E. pectinatus**



**E. knippelianus**

### Echinofossulocactus



**E. zacatecasensis**  
Brain Cactus

# Ian Watson

### Espositoa



**E. lanata**  
Peruvian Old Man

### Ferocactus



**F. latispinus**  
Fish Hook Cactus

### Gymnocalycium



**G. mihanovichii**  
Hibotan

### Haplocereus



**H. chalcisensis**

### Hamatocactus



**H. setispinus**

### Lobivia



**L. aurea**  
Golden Lily Cactus



**L. lamatimensis**  
Sunset Cactus

## TYPES

### Lemaireocereus



**L. marginatus**

# Some Cultural Notes And Pest Control

### Myrtillocactus



**M. geometrizans**

It occurs to me that running through my life as a writer is a strong horticultural theme. Years ago I used to collect cacti and succulents avidly; and actually my first four paid publications were columns in the pages of Amateur Gardening and Popular Gardening, written when I was fourteen or fifteen. At the moment I'm looking at the only one I still have a copy of: "Growing the Sacred Cactus," Amateur Gardening, 19th September 1959. This was about the peyotl cactus, producer of mescaline (which reminds me of another dawning interest). There were earlier articles as well, about the Cochineal Cactus, *Nopalea cochinilifera*, the Crown of Thorns, *Euphorbia splendens*, and 'living stones', of the Lithops clan.

Given the resources, I would gladly have grown orchids too, and bonsai. As it was, though, I stuck to succulents and cacti. I was even thinking of specializing - in Stapelias, that intriguing species which produce flowers that look and smell like rotting flesh, to attract the blowflies which fertilise them.

But then I gave up.

Yet did I really? When I was putting together my recent collection Sunstroke & Other Stories, it occurred to me that maybe I had never stopped at all, but instead had set out to breed my own species, by verbal rather than genetic engineering. There in the book were my queens of the night and bitter aloes, my crown of thorns, my fly traps and pitcher plants, my bonsai of the mind. More than a few had spikes or trapdoors or sticky tendrils, or otherwise played tricks; for such are the kinds of plants I would have grown.

Then again, I've written a novel called The Gardens of Delight; and here I am sitting in Moreton Pinkney while the Autumn rain pours down, with the silver cup for best front flower garden still on our mantlepiece for the second year. (Richard Cowper tells me that he won the cup for best vegetables; but, say I undaunted, we are self-sufficient in double asters and floribunda roses!)

Yes, the chilly October rainfall. And I can see black soil again in the garden, now that a lot of succumbing plants have been hauled out and trucked to the tip in our Maxi garden-refuse wagon. The dahlias are still busy, the Rudbeckias have flowered incredibly all Summer long and are still at it; and the fire-thorn *Pyrocantha* is covered with bright red berries. But otherwise it's pretty well over for the year. The lawn has been raked, and spiked, and just awaits a top-dressing. The houseplants are all in from the tubs, and the downstairs windows are curtained not with net and Drayton but with chlorophytum and geranium, yucca and ivy and begonia. There's a huge *Crassula*, the Tree of Happiness, on my desk, managing to look remarkably like a bonsai forest. The first chapter of a new SF novel lies on one side of it, and on the other side are letters about the correct thickness of tug-of-war ropes, and the Inter-Village Quiz 1982 sponsored by Avon cosmetics; as I'm secretary of the village hall

Outside, the farmers are transhumancing their sheep down Weston Lane, to pastures new.

Transhumance: I never knew this word till the other night at the village hall, when we held a quiz to select the Moreton Pinkney team for the Avon quiz. Neither did anyone else but the question master, a teacher from the grammar school in Towcester who drinks in the Red Lion and who had tackled the setting of the questions with gleeful relish. Baffled farmers stared in amaze as he revealed the true name of what they are up to: seasonal movement of livestock.

When we first moved into this village three and a half years ago, Betty from The Cobbles bounced up to our door and said, "Welcome! It's just like The Archers!" But it isn't really. Compared with here, Ambridge seems a bit ho-hum.

What do I see from my windows? Between the ironstone-walled vegetable allotments, with the Old Fire Station tucked away in them (from the days when a cart and horses trundled forth to quench any blazes); and the Scottish baronial gates of the Manor House on the other side? It's lively. There are non-stop events: teams of penny-farthing bicycles, vintage cars heading for rallies, tractors towing bales of hay, combine harvesters, flour lorries, scrap metal lorries, low flying war-planes screaming just above the trees, the local millionaire's helicopter, autogyros and hot air balloons wandering from the Silverstone racing circuit (we can hear the engines revving up like faint thunder ten

miles away), local riders astride their horses, racers from the Towcester race course being exercised, packs of (apparently) Vietnamese bicyclists, car loads of Japanese tourists, parties of ramblers in stout gear, herds of cows, cats, squirrels, geese, a pony and trap, the Hunt off to annoy the farmers. (Not quite all at once.)

This is the 'village of pigs and paupers' of the 19th century - at which time it had five pubs, now reduced to one. Since then it has upmarketed a bit. Here lives the aged president of the Bronte Society, with his library in the old stone forge on the lower green; here live an ex-librarian from Camden, ex-member of the Communist Party, Jewish atheist who married a black man - along with her nuclear physicist sister. Here lives an ex-rally driver and after-dinner raconteur; and a USAF ground controller currently with bright red eyes due to a collision between US metabolism and ale. Here lives a Canadian spy; why else did he say he was going on a course in cryptography before being sent to Mongolia? Here lives those who sell sheep-shearing clippers, and motorcycles, and rubber bits for cars; and who are likely to be off to Moscow or Melbourne at a moment's notice. In the largest house in the village, The Grange, lives the local taxi driver. There's no policeman within miles, so the local pub stays open till... but I'd better not divulge that, save to say that now I know why people in The Archers only drink half pints, which I always thought a bit soppy; it's the only way to stay conscious long enough.

And here we garden. And natter over the hedge. And weed, till there are no weeds left; and zap the pests and parasites - which unfortunately, as regards the lawn, has to include worms, since worms are mole-food. (This confession quite distressed the Vicar, who cited Darwin's early treatise on earthworms. Of the Vicar, incidentally, it is written in the Northampton Independent, this county's version of Country Life, that his old sprawling vicarage "has become an incubus" for him. Being interested in erotic demonology, I must seek more details.)

Weed. And deadhead. And zap parasites. Or the garden of delight will not flourish.

Being a great believer in sermons in stones, and tongues in trees (and duly mindful of the quip about Wordsworth that he found those sermons in stones, which he himself had put there), at this point I feel moved to a few remarks about other kinds of parasites and weeds: namely, literary ones.

After I gave up growing cacti, for a while I became an academic, of the Eng. Lit. variety. So naturally I wrote criticism. Here are some products of that period: 'Nothing else to live but sins: Jean Genet's Africa', Transition, Kampala 1967; 'E.M. Forster: Whimsy and Beyond', The Rising Generation, Tokyo 1969; 'Elias Canetti: the One and the Many', Chicago Review 1969; 'For Love or Money: Shakespeare's Merchant of Venice', Japan Women's University theatre programme 1969..

Perhaps these titles, though actual, read a little like parody? Such as we might find in one of those university novels which feed new solipsistic grist back into the academic mill?

But, then, criticism is itself parody. It is a travesty of the original words in new and condensed form: Campbell's Rhetoric Soup. It is parasitical on original creativity, something secondary. It imitates the creative act, as weeds imitate the seedlings they grow beside (in an effort to strangle them).

No harm, of course, in writing reviews and criticism as an amateur ('out of love': love of the subject). But there is a whole parasitical sub-world, in love with itself, of the middlemen of art - academics, critics, pundits, personalities, those who sit on committees for the arts - which actually harms art; and which drains resources therefrom.

This came home to me strikingly at a one-day conference I attended at the Institute of Contemporary Arts in March this year, entitled "Focus on Fiction," supposedly designed to enquire into the health of the contemporary novel, high and low, genre and literary.

I shall pass over the morning's activities, commencing with a dowager empress opening address by Marghanita Laski - who took it upon herself in passing, by a kind of paranthetical imperial fiat, to exclude pornography from the ranks

of fictional art high or low; later a puzzled questioner said, "But when I was reading The White Hotel, I suddenly realized that a lot of it was pornography, and that was why it worked so powerfully...."

I shall likewise pass over the succeeding college tutorial circa 1955, concerning the Grand Tradition, a further exercise in rampant twee, further establishing the sense of haut snobbery and sophisticated social nicety.

I will not allude to the slights, both implicit and overt, suffered by the invited representatives of the Romance genre; though I almost felt inclined to rush out at once and buy a few Mills and Boon books out of solidarity. And I will pass directly to the nub of the matter: the afternoon Writers' Forum, supposedly a panel discussion in which various authors would present their own points of view, and expound their reasons for choosing a particular literary form, to be followed by questions from the audience.

On the panel were Salman Rushdie, representing the 'art' novel, Jessica Mann for thrillers, Jeffrey Archer for best-sellers, Roberta Leigh for romance, and myself as skiffyman.

So we five authors duly presented ourselves, each clutching a crumpled page of notes about something that we particularly wanted to say.

And they changed the format. With one bound, we were chained. Hey Presto, Frank Delaney, literary lion tamer extraordinary, was brought on stage to interview us all as specimens of authors. While the critics were allowed any amount of time to flute on, and hold forth whither so ever they wished, the authors were not even permitted their promised ten minutes of free speech, but instead must have their words rigorously controlled by standard questions. The authors - the producers of the primary product without which the whole conference, and criticism itself, couldn't have existed - were to be kept locked in cages, exhibited, put through their paces, then dismissed. Each with their page of notes - about things of desperate import to the authors themselves, as authors - still clutched unused, or crumpled up in sheer frustration.

When it came to my turn to be interrogated, I asked if I might make a comment on the format; and pointed out that the assumptions implicit in this format, and implicit in the rest of the conference too, so far - of the supremacy of the secondary mediators of culture, over the primary producers - in fact vitiated the whole supposed purpose of such a conference. Salman Rushdie promptly inveighed, likewise. And Roberta Leigh, too, who had been lured along (till then, under false pretences), because she actually had something original to say about Romance, from the point of view of a practitioner of that genre. The circus animals rebelled. And at least the audience enjoyed the fray.

Alas, this episode is all too symptomatic of something rotten in the State of Creativity. The ivy thrives, but not the tree.

Consider a piece in The Observer (13 June 1982) entitled "The Critic as Undertaker", by Peter Conrad. It's a survey of the first batch in a new Contemporary Writers series of books, from Methuen; assorted critics holding forth on Saul Bellow, John Fowles, Joe Orton, Thomas Pynchon et cetera. The preferred metaphor of almost all the critics turns out to be that of an autopsy conducted on the authors and their oeuvre; plus a reckoning up of what they have 'bequeathed' us in their literary testaments. In the general background Roland Barthes conducts the funeral service, proclaiming the death of the author, negated by his text, which makes possible the birth of the critical reader. And attempts are made, in the case of authors who haven't yet literally flaked it, to diagnose fatal symptoms: thus John Fowles is detected to be 'falling off'.

A shared metaphor cropping up simultaneously so many times can only unmask the actual vested interests of such critics, who really have little in common with creators yet who are competing in the same ecological niche, for the same slice of the cake of life, the cultural slice - and for the icing upon it.

Consider, finally, the Arts Council's advertisement for Writers' Bursaries 1982/83: "It is emphasized that writers of non-fiction works of literary merit, including those books which are in any way a support to literature, are eligible." (My emphasis.) This is a bit of a new departure. So public tax money may now be

spent on funding those people who are in any way a support to literature - rather than on supporting the creation of literature itself! What is this but a charter for parasites?

One does not of course doubt the probity of the Arts Council, who administer the national largesse for the arts. Did not the out-going Director, Sir Roy Shaw, deny that he had "been offering prominent people in public life large sums of money to become directors of a new private leisure complex in London," and then change his mind and admit it? (The Observer, Pendennis column, 14 March 1982.) But as to their concept of supporting the arts by supporting people who support the arts in any way, ho ho hum. Someone has got their priorities seriously mixed up; though is that really surprising when one considers how many members of the supporters club are knit together by mutual obligations, sponsored conferences and the rest of the circuit of metropolitan supportativeness? (Oh dear, the football team have got no boots - but the supporters club is doing fine.)

Not only do authors have to put up with being at the wrong end of the publishing process, financially. Not only do they have to put up with the engulfing and axing of the publishing industry by corporate conglomerates practising bottom-line economics. Not only do they have to put up with the wholesale warping of the profession of literature by media hype, best-sellerdom, film tie-ins, ooks (artificial books), and the rest of the phoney circus. (And all the while sweat and brood and work like hell to conceive and bring their works into the world.) But they have to put up with parasites waxing strong on their bodily and cerebral juices.

Little can be done by most authors to make themselves into powers within publishing. Damn all can be done to persuade Gulf Oil that they owe a duty to that micron of their empire which spans, say, original SF anthologies.

But the sub-world of parasites is closer at hand, elbowing authors in the very same socio-economic niche.

Gardeners: zap that weevil. Authors: squash a parasite today. ■■

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## TICKETAPE BOOK

MARTYN TAYLOR

(RETURN FROM THE STARS by STANISLAW LEM. Bard/Avon 1982, 247pp., \$2.95 )

The Lem canon (and there's a novel proposition) appears divided into two principal forms. There are the short stories with their recurrent characters - Pirx the Pilot, Trurl and Klapaucius, Ijon Tichy - which are brief, often uproarious, and always severely moral, but almost always fall victim to translators incapable of rendering into English the obvious vernacular and belly-laugh vulgarisms of the original Polish. A scouse Pirx would convince far more than a Pirx uprooted from an indistinct Boston-cum-Tonbridge ambience intimated by Stern and Swiecicka-Ziemianek in "Memoirs of a Space Traveller". The other form is the mind-crippling puzzle tale as represented by The Investigation, Memoirs Found in a Bathtub and the impenetrable The Chain of Chance. Glittering constructs, these are for devotees only. Every so often, though, Lem devises a story in which he shows the hand of the master he is - Solaris and The Invincible fall into this category, the mavericks. Return from the Stars is neither brief and funny, nor long and dense. Sad to say, it is not a masterpiece either.

After a century of elapsed time, the survivors of an interstellar trip return to an Earth bearing little resemblance to the planet they left - clothes come out of a spray, poverty has been abolished. So too has violence - the process of betrization means that everyone lives in peace and harmony, admittedly of a surgical nature. On the new Earth, among the new humans, the astronauts are monsters, alien giants incapable of controlling their violent passions. They are walking reminders of the bad old days when humans hurt each other and went to the stars. Space travel has been dismissed as a worthless bauble; the new humans fly by pharmacy.

Our 'hero', Hal Bregg, has much more difficulty coping with this alien landscape than ever he had when all he had to do was fly through the Corona of Arcturus in something resembling a domestic refrigerator. More than anything else, his equilibrium is disturbed by the casual dismissal of the flight as not only worthless but also intrinsically meaningless. It was the flight that made Hal Bregg. It gave his life its definition, its substance. Perhaps he was only a mere pilot, but as a survivor of the flight he was supposed to be somebody of importance. He used the long, long years between the stars in relentless self-improvement, making himself an educated man in fields most unexpected for a jet jockey. He had a reasonable expectation of a ticketape welcome on his return (after all, there weren't that many star flights). As a consequence of not even turning a head in the street, except as an overmuscled freak, Hal spends much of the book scratching his head, physically and metaphorically. Hal, you see, is really a bit of a thickie. Despite all those years of booklearning he still thinks with his guts rather than his head. Not only does he regard himself as a genuine hero, he also sees himself as a genuine villain whose hands are stained with the barely dried blood of the comrades who died on the flight. Being a simple soul, Hal knows that spacemen are supermen, and that anything that goes wrong on their journeys must be the consequence of their dereliction. Had he been on the ball then the whole crew would have returned. The society he finds not only refuses to punish him, it refuses to acknowledge that he has done wrong.

For a simple boy down from the farm, Hal carries a lot of baggage.

I have to say that I doubt whether Return from the Stars could ever have been a really good book. The concentration upon Hal is remorseless - not only is he unsophisticated, but Lem's treatment of him is unsophisticated. He is ill-defined as a character, a ragbag of characteristics rather than a human being with those characteristics, and none of the others ever achieve that stature.





Muller-Fokker Effect. Drum Inc. is in the communications business; it and all its employees have weird and hilarious communication problems, floundering in the gap between names and things, saying and meaning, their own make-believe and Sladek's (one chap amputates all his limbs one by one in a succession of 'cries for help' which is hideously funny), the bottom line always being the alarming paradox: "There seems to be no difference at all between the message of maximum content (or maximum ambiguity) and the message of zero content (noise)". There's a good deal (but not too much) content in this 72-page story, which alone is worth the price of admission. A couple of slight pieces round the collection out to eight stories.

I love Sladek's inventive wit, his gift for parody, his flattering assumption that the reader is intelligent - so many authors feel each joke should be underlined twice and preceded by a man carrying a red flag. This cuts both ways, and sometimes I find myself metaphorically ducking in alarm at the whiz of some little piece of cleverness going over my head. All the same: recommended.



### VECTOR'S CHOICE



NEW LIGHT/OLD THEMES

MARY GENTLE



(THIS TIME OF DARKNESS by H.M. HOOVER. Methuen 1982, 167pp., £5.50 )

There's an inherent contradiction in asking adults to review children's books - children don't read book reviews, and adults don't read books in the way that children do. Having said that, no one should avoid This Time of Darkness because it is aimed at a younger readership.

True, there is nothing new in the novel's premise: totalitarian hives, urban control, dome cities and wildernesses have been around in SF for a long time - certainly since H.G. Wells, to whose eloi and morlocks this book owes a considerable debt. On the other hand, a cliché is not a cliché if it's the first time a reader has come across that particular concept; and that's more likely to happen with children.

This Time of Darkness is in part a rite-of-passage book. Two of them, in fact, going in different directions: the boy Axel on his way into and the girl Amy on her way out of the underground dystopian city. Hoover is very caustic about urban consumer societies, and presents a gritty emotional climate - it is unusual to admit, in a 'children's' book, that adults can be generally and impersonally hostile to their young. This is the child seen as outsider, but with good environmental reason rather than the usual SF neurotic, misunderstood, superbrat genius. The 11-year-old literate and streetwise Amy is intelligent, but not brilliant. Axel, overprotected and strayed in from outside, folds up like wet cardboard; but then when the entire population of the city are convincing him that what he knows to be the truth is a psychotic fantasy, he has an excuse for being borderline-crazy. Hoover has a fine eye for character in action:

' "It might make me feel better, knowing I wasn't the only one scared," Axel said... "I know you like me, but sometimes you make me feel like I can't do anything to help you... as if you always have to be in charge.."

Amy hesitated.. Axel was accusing her of something, but she didn't know what, just understanding that he wanted her to be weak. She'd always been self-sufficient, as much as she could be. Expecting help from other people didn't pay. But she liked Axel, and she didn't want to make him mad at her.

"How do you want me act?" she asked.

"Why do you have to act at all? Why can't you just be what you are?"

"Because nobody ever Likes me that way," she said simply...'

The image of the hunted child on the run - Amy bites like a trapped rat when cornered - is attractive to children, perhaps because they're basically conformist and conservative. For the same reason, the adult version is popular with adults. (The paradigm here is probably Buchan's The Thirty-Nine Steps.) But in fact This Time of Darkness follows a much older pattern: not so much cliché as archetype.

The story begins underground, in filth and poverty and totalitarian control; proceeds upwards through the Levels to the dome cities (at first sight paradise, at second glance equally controlled); then out into dangerous wildernesses, finally arriving at an agricultural Edenic society. Aside from being the shape of the twentieth century (the flight from the Industrial Revolution and the ideal of 'back to nature'), it has also the shape of myth. At each transitional stage there is a symbolic rebirth - between the underground Hell and the dome city, a quarantine cleansing where Amy loses all her possessions from her previous world; in the wilderness a trial by fire, after which she is unconscious for several days until 'born again' into the agrarian community.

This Time of Darkness utilises myth, but not didactically (as say, the Narnia books do). Just as well: for a child to be told a book is 'good for you' is an instant kiss of death. The religious and moral undertones are well under the surface of the adventure story. Still, myths have a certain shape in the human mind, whether used as religion, legend, fantasy or science fiction; and they give the book a lot of its power. The strengths of This Time of Darkness are those of throwing new light on old themes, rather than innovation. The writing has colour, clarity, and simplicity in the best sense. To say that the book is too short is also true, and there are not many books you can say that about these days. Short not because incomplete (or even because £5.50 is a helluva lot of money for 167 pages), but short because the story is compelling, the characters interesting, and - even if the reader has heard it all before - it's still a well-told tale.



"A LITTLE DARLING"

NIGEL RICHARDSON



(SOFTWARE by RUDY RUCKER. Ace 1982, 211pp., \$2.25. )

As the profile at the back of this book says, Rudolf Von Bitter Rucker holds a PhD in mathematical logic, has lectured in the Philosophy of Mathematics at Oxford and Heidelberg, is descended from Hegel and has "discussed infinity with Kurt Godel". It certainly makes a change from the usual thing (short order cook, presidential adviser, shoe salesman...), but the important question is: Can He Write?

Yes, he can. This isn't a big surprise: Gregory Benford has scientific respectability coming out of his ears and is no slouch with the syntax, but Rucker is (to quote Rumpole) "a little darling". He writes like middle period Dick: short chapters, a bit too talky, but the perfect SF style. And, of course, he knows what he is talking about - artificial intelligence and evolution are not new topics, but he seems to be one of the few people who fully understands them.

Snappy and bright, Software tells the story of Cobb Anderson, the man who programmed free will into robots and was ostracised from society for doing so, since the robots quite naturally rebelled and set up their own colony on the Moon. He now lives with the geriatric old hippies in Florida, drinking cheap sherry and trying not to think about death. One day, however, his robot double shows up and

offers him immortality; they'll extract his memories, personality and all the rest of his "software" from him and give him a durable robot body. It sounds all right to him, but everyone else is convinced that there is an Evil Purpose behind it - after all, they wouldn't give him immortality for nothing, would they? And, anyway, what about his soul?

While this is nothing new - you've read a hundred books about putting a human's mind into an android body - Rucker takes a few left turns and leads the story up paths never taken before. Anderson gets his new body despite his friend Sta-Hi's objections and is very happy with it - except that he has to scrape food out of pseudo-stomach when he realises that he can no longer digest a thing. But he can have sex again and they've given him a beautiful drunkenness sub-program that enables him to become as intoxicated as he likes by breathing through his left nostril. But Sta-Hi is still convinced that Anderson is merely a tool of the robots..

Along the way, this book gives Asimov's Three Laws of Robotics the good kicking they've long deserved, paraphrases William Burroughs and Thomas Pynchon, destroys the idea of the simple memory-box used by John Varley in "The Phantom of Kansas", and sends up everything from kinky sex to Scientology. Besides being very funny, Rucker is also very thought-provoking: how closely are randomness and free will connected? Could the human mind ever be considered as 'software', capable of being programmed into any suitable robot? How much say do we have in the evolutionary process? Without stopping dead to pontificate, Rucker asks questions that we may one day have to face, but his black humour is never far away:

' "I think you should kill him and eat his brain," Mr. Frostee said quickly.  
"That's not the answer to every problem in impersonal relations", Cobb said...'

His next novel, The Sex Sphere, is about "nuclear terrorism and a giant female torso from Hilbert space"... yes, yet another novel about giant female torsos from Hilbert space; whatever happened to originality?



## SMOKERS PARADISE

JIM ENGLAND



(WHILE THERE'S HOPE by JOHN BRUNNER. The Keepsake Press 1982, 24pp., £1.50 )

On the back cover of this publication (limited to an edition of 230 copies and illustrated by Paul Piech), we are introduced to both it and its author: "He has long been associated with the Campaign for Nuclear Disarmament, and this story-with-a-moral envisages a future in which an ingenious stratagem by a peace movement has saved the world from nuclear destruction". The 'Hope' in the title is 'Humans Opposing Probable Extermination', an imaginary international organisation founded in 1989, and the "ingenious stratagem" is for thousands of citizens of both East and West to go and live in each other's countries, so that their governments dare not bomb them.

To me, the stratagem sounds more ingenuous than ingenious. Does John Brunner really believe that the Machiavellian masters of duplicity and chicanery who hold power in both East and West, and who think in terms of 'megadeaths' of innocent foreign and indigenous civilians in a future war, would really be put off by a few of them changing places? A much better idea would be to send the leaders of these countries to the potential target nations, thus reminding them that Kings and Queens and Generals once led their armies rather than directing operations from the safety of bomb-proof shelters, and that civilians were not much involved

in war (and ought not to be). They could be assured that, with communications at their present advanced state, it is perfectly possible for them to transact their business of leadership from abroad, and be told that, if war came, they should not expect to be wined and dined in "a manner appropriate to their rank" or be able to write their memoirs afterwards.

But it is all a pipe-dream. The idea of writing SF in such a way as to become a self-fulfilling prophecy is a good one, but in this story - which starts off with a black American in China and consists largely of light conversation between half-a-dozen people - John Brunner has neither thought hard enough about his theme nor written it up well enough. With only 24 pages, While There's HOPE is a lightweight publication in every sense.



LICKING LIPS TIME

DAVE LANGFORD



(THEY'D RATHER BE RIGHT by MARK CLIFTON and FRANK RILEY. Starblaze Editions )  
(1982, 173pp., illustrated, \$4.95. )

Though only available here through specialist dealers, the Starblaze line of books is an interesting experiment: handsomely produced large-format ( trade ) paperbacks with an offbeat coverage ranging from very good to horrid. They'd Rather be Right is a historical curiosity of SF; it won the second Hugo ever presented for a novel (1955) yet hasn't been reprinted since the heavily cut paperback retitled The Forever Machine (1957). Completists and historians should give three cheers.

Unfortunately, though it contains an interesting idea, the book seems an implausible award-winner. It's fine - and at the time it was novel - to postulate a machine giving immortality, youth and a perfect complexion to those and only those who can cast aside preconceptions and prejudices, who can allow their minds to be computer-rebuilt on a newer and more cosmic scale. The idea, though, is flattened into the ground by the authors' reluctance to do the work which would make it convincing. They tell us the points they want to make, in long lectures full of flat rhetoric; they fail to show us these things through their effects on the characters. What does the nice old prostitute suffer as she allows half her mental furniture to be thrown out as the price of youth? The authors merely assure us that she has passed through the fire: we never learn what she felt about it. The book devolves into maddening descriptions of public reaction to 'the forever machine', with paragraph after paragraph of stuff like "the public licked its lips in anticipation" and never an individual character in sight. Finally there's a familiar gimmick solution and a truly dreadful speech which takes pages to say, roughly, "The Universe - or nothingness? Which shall it be, Passworthy? Which shall it be?"

The good points are that lamentably undeveloped Idea, the incidental evocation of a sinister McCarthyist America, and the flashes of promise which remind us that while Frank Riley wisely wrote no more SF, Mark Clifton is responsible for some enjoyable stories and two novels much better than this one. They didn't win Hugos, but that's life.





**Did you know the horrific life-cycle of this creature was based on that of an African parasite?**

(from ALIEN)

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