A Little More Off The Top:
An Editorial - Mike Dickinson ............3

Genocide For Fun And Profit
- Dave Langford..........................5

SF In The 80s - Roz Kaveney..............14

Aliens: A Personal View
- Paul Kincaid...........................17

Romance & Hardening Arteries:
A Reappraisal Of The SF Of Jack Vance - Mike Dickinson........22

The BSFA Award..........................26

Reviews - by Mike Dickinson, Chris Evans, Carol Gregory, Roz Kaveney, Paul Kincaid, Dave Langford, Chris Morgan, Joseph Nicholas, Kevin Smith, Brian Stableford, Philip Stevenson-Fayne & Dave Walker........27

Coming Real Soon Now!....................42

ARTWORK:
Jim Barker..................................4
Rob Hansen..................................5
Pete Kneifton..............................Cover
John Stainton..............................9, 16, 27, 32

Mike Dickinson
Flat 7
501 Chapeltown Road
Leeds LS7 1JT (tel. 0532-620256)

Joseph Nicholas
2 Wilmot Way
Camberley
Surrey GU15 1JA

Alan Dorey (BSFA Chairman)
20 Hermitage Woods Crescent
St. John's
Woking
Surrey GU21 1UE (tel. 04867-3886)
The trouble with Science Fiction is that there is so much of it. There are about twenty SF and fantasy publishing houses in this country alone. First books, reprints and "forgotten classics" gush or simply ooze onto the market. The result can be a feeling that Sturgeon's Law of "ninety percent in crud" is a very optimistic judgement. Whilst Jim Baen has shown bravery and discrimination in banning the damnable Perry Rhodan translations from Ace, thus having the spin-off benefit of stopping their reprinting in this country, there are still far too many books written with no other aim than the provision of an acreage of verbiage at so much per word, published solely to exploit and just as mindlessly devoured. If that sounds like snobbery, then that is just too bad. Many people read the Star but I think even they would acknowledge that it is for other reasons than that it is the best newspaper on the market.

So who is to blame for this? Not the writers; in several cases they are simply keeping food on the table whilst they work on things they believe really worthwhile (although I have a private unprintable fate to which I should like to subject "John Norman"). The publishers are under pressure to produce profits and although some firms are devoted almost exclusively to rubbish they bear only a minority of the blame; others deserve only the highest praise. The real blame lies with those readers (some of them possibly members of the BSFA) who are so uncritical as to consume such trash. Science Fiction is capable of looking in fresh and entertaining ways at the basic problems of society - government, race relations, sexual roles, etc., in a way that no other form of literature, except occasionally its close neighbour fantasy, can. Several strands which once enlivened the mainstream novel have now devolved upon SF - no longer is it possible, despite William Golding's work, to isolate man on a desert island in order to study his essential nature; Robinson Crusoe would have to ride a spaceship. The great English tradition of the Utopian/Dystopian novel has also, apart from the odd touch of bigotry from such as Anthony Burgess, become an SF province. This is not unfitting since the real progenitor of SF, H. G. Wells, saw himself as just another writer when he began writing his scientific romances. This makes SF vital to the balance of literature as a whole, as all those who read this will almost certainly testify. If this entertainment in mindless, however, then we are defending nothing more important than Westerns or the Confessions series.

The argument about whether or not SF is a ghetto will not die down. When good authors find their work placed in a special section of the bookshop beside Edmund Cooper's pseudonymous hackwork and that of the "giants" of SF whose original ideas died in the nineteen-forties but whose latest books are still snapped up by their idolisers, it is not surprising that they are more than irritated. They may look instead towards
writers whose work is not different in any great regard from the best SF, such as John Barth, Angela Carter and Thomas Pynchon, and others from the field who now have the label removed from their books.

The increasing amount of attention being paid to SF from the media, including the appearance of Christopher Reeve at Seacon (instead of the usual film company functionary), shows their recognition of its importance. The success of The Hitch-Hiker's Guide To The Galaxy, the impending Patrick Woodruffe book/record project and What If..., BBC Radio's three-part survey of SF, show the degree of diversity being achieved and, since each is clearly excellent, promise future achievements. All are leaders in their way but whether Hitch-Hiker, as the most successful sustained attempt at humour in SF will stimulate more concentration in that area, whether Woodruffe's project will combat the simple-mindedness of much SF art and the pretension of SF rock, and whether both will provide a platform for viable alternatives to SF literature remains to be seen. Sadly SF film, like SF art, still seems to be firmly rooted in the first half of the century - even such a promising director as Ridley Scott can offer us only horror and still more believable hardware in Alien.

All who went to Brighton for Seacon must be left with the conviction that they have at least some influence. The BBC and the newspapers all took an interest and are responding to the size of the SF readership. It is an exciting time to be involved - and thus we come back to the people reading this. You are involved enough to pay out your membership, but are you then just content to let mailings ooze through the post. I hope that if any of you do or do not like what I am doing you will comment. There are changes being made to this magazine and it would be fitting if more members could contribute. If anyone would like to review I suggest they send me a 250-300 word sample review or better still an article. I must admit that I would prefer the controversial to the dull and I shall not print anything from such specialist groups as Prisoner, Star Trek, Blake's 7 and Dr Who fandoms. But within those limits I would be interested and at least you cannot then be accused of apathy or lack of constructive criticism.

And now:

A MESSAGE FROM OUR SPONSORS

This less-than-perfectly-reproduced issue of Vector was typed on Joseph Nicholas's ailing portable due to the current state of unwellness of the official BSFA machine (it needs a thorough servicing, like). The next issue will be printed on old rubber bath-mats with the aid of a sooty potato, and the one after that will be beamed straight into your brains by the collective telepathic will of the entire editorial staff. Reception of this will be immeasurably enhanced by the prior consumption of no less than 59 pints of (cont'd. page 94)
I'm here because, in a moment of weakness, I wrote a book on the future of military hardware. War in 2080: The Future Of Military Technology! Great title, eh? Well, I didn't think so either, but the publishers thought it up, and they still think it's the best part of the book.... I've called this talk "Genocide For Fun And Profit" because I had a good deal of fun writing the book - and, being an incurable optimist, I'm even hoping for a little profit. But of course war also involves the suffering and torment of innumerable hapless victims, and this is where the readers come in. Or in this case, the audience. The object of the talk is really to send you all scurrying, hypnotised, to the Book Room to buy a copy....and from the commotion at the door, I see this is already beginning to take effect. (I stole that joke from Bob Shaw.)

A little background follows for the benefit of anybody who wants to write a book like this: don't, I've done it now. Actually, the secret of success in this sort of speculative non-fiction is surprisingly simple. The important thing is to have patience. Keep reading New Scientist, drink two pints of beer a day and above all don't antagonise the publishers by writing to them about how you want to do a book. Follow these simple rules and, if my case is anything to go by, in the fullness of time the publishers will be totally unnerved by your silence and will write, pleading with you to write the book for them. Which is what happened to me.

As for the subject matter, I've tried to summarise it in a fanzine as follows: "War In 2080 is all about the future of Killing People. It begins with a brilliant and lucid discussion of killing people with clubs and by the last few chapters is merrily cracking planets and detonating stars as a route to killing more people. In between there are fascinating digressions on allied subjects such as seriously wounding people." I thought this was pretty fair comment, but in a little while I received a letter from the publishers saying: "This is simply not good enough. We expected full co-operation from your magazine in our advance publicity for this book, instead your readers are being told that, despite the title, the book is actually about killing people. Whatever your book may say, and few of us have managed to get past the introduction, war is a clean and glorious business where people can release built-up tensions that would otherwise be manifested in ugly violence and aggression at, say, football matches...." This, I think, was about the time when they were trying to sell it to the Children's Book Club and were editing the more violent bits - so you'd read a description of a multimegaton nuclear attack consuming while cities in a fiery hell of radiation, and then would come the line, "Of course the people who lived there were dreadfully upset by this...."

The other problem with multimegaton attacks and fiery nuclear hells is that some idiot might actually launch such an attack, with appalling consequences to my royalties. Here's part of yet another letter I've received, this time from someone who hasn't read the book: "I thought it was damn sneaky for you to mention in your first chapter that there had been a vast nuclear war in 2064 and that mankind had been reduced to primitive weapons with which to wage war. I mean, Mr Langford, I did not buy your book
to read about groups of people throwing rocks at one another - that wasn't the sort of projectiles I had in mind. The use of bones as clubs and the gradual development of bows-and-arrows as well as the spitball do not fit in with my concept of future warfare. Frankly, Mr Langford, I feel I have been had - signed, a disgruntled reader (Terry Hughes)." It's an interesting point, isn't it? As dedicated Science Fiction loonies, we're all bored to tears with vast nuclear wars; we expect future battlefields to have some more exotic props like planet-busters and colliding black holes, and yet a boring old nuclear exchange can rule out all these jolly things, leaving us with still more boring details of how best to chip your flints - not to mention talks to limit the fearful proliferation of the bow and arrow.

The assumptions to make, if the exciting things we read about are ever to come true, are - first - that everyone will indeed go on building bigger and better weapons without necessarily using them. In some cases they'll even have to do without testing them; a gadget which makes sure go nova is not something to try out in the back yard, even if you do have a high fence. Building and not using weapons is of course just what we've been doing for close on forty years. Whether they actually get used depends on the second assumption: that we don't run out of energy and start fighting over the world's dwindling stocks of coal, oil and Ever Ready batteries. There's little point in babbling about superweapons if we can't convince ourselves that there is at least an outside chance of people surviving long enough to build them, if not to use them....

So for one reason and another I won't dwell on the familiar World War III. You all know the scenario: it starts with an international incident as someone throws up at an embassy party, or with an "accidental" nuclear attack caused by a false blip on the American early warning system, or with a demented American general pressing the red button in a fit of post-convention depression. Extensive surveys of the literature show that in most cases it's America that starts World War III - my own guess is that if nuclear war does come about, it will provoked by some obscure minority group with a grievance and a home-made bomb - the BSFA, for example. Anyway, the nuclear exchange begins and in no time at all we've shot up Herman Kahn's escalation ladder like a rat up a drainpipe, with ICBMs falling literally by the thousand. Though the basic business of missiles and interceptors is pretty much old-hat, there are some surprisingly science-fictional ideas being put forward for what they call "terminal defence". The important strategic point in nuclear war is to keep enough in reserve to be able to hit the enemy again - or, on the other hand, to be able to smash the enemy's entire offensive capability on your own first attack. This means that the best-protected places - second only to the government's own hidey-holes - are the actual ICBM launching silos. At the moment it takes a direct hit at ground level to knock out a hardened launch site. Among the defences that are being suggested are what they call "nuclear rockpiles" - which means letting off your own bombs underground and filling the air with millions of tons of flying rocks to smash oncoming missiles out of the sky. I think that's slightly terrifying. Then there are proposals for short-range nuclear cannon, various models of interceptor and so on; my favourite is the forest of tall steel spikes someone wanted to put round each launch site. The idea is that since a ground-level strike is needed to destroy the target, the attacker's missiles obviously won't go off until they reach ground level - and just before they get there, they're impaled on these ruddy great spikes and put out of action. Then, of course, there's the notion for mobile launchers - not the submarines we know and love, but long underground tunnels along which the launch pads move on little railway tracks, ready to burst from the ground where they're least expected.

I might as well mention that in nuclear planning there is already a standard strategic answer to any defence - any, that is, which is even marginally less than 100% effective. The aggressor simply builds lots more missiles and saturates the defences. Clearly this doesn't work too well unless the aggressor has vast amounts of money and resources; I name no names, but it seems that there are approximately two nations against which it's not worth trying to defend oneself. Neither of these is Great Britain, which would have a hard time trying to saturate the defences of Liechtenstein; even if Britain went crazy and decided to fire both its missiles, at least one would doubtless be grounded by union disputes as to who lights the blue touch paper.

Anyway, once the standard version of World War III has been played out, there's not a
lot left. The sort of casualty levels they talk about (after a mere few thousand nuclear strikes on either side) are strongly reminiscent of those at convention banquets, with about 50% immediate fatalities and a rise to 80% or more as the after-effects sink in. The survivors have to eke out a meagre existence on contaminated food, again as at convention banquets, and are reduced to primitive weapons, like flints. All of which may be very science-fictional, but it's scarcely up to the hardware we expect from a Chris Foss cover. (Not enough windows in a flint, for a start.)

Now is this traditional version of World War III likely? It's becoming less so. At the top of its flight an ICRM actually leaves the atmosphere altogether and becomes vulnerable to a new class of weapon: energy beams, which if they work at all will certainly work best in space. Meanwhile, at ground level, there's much talk about new weapons which are in many ways more attractive to strategists than the ICM. Nobody really wants nuclear explosions, for example, since they're so inefficient. One medium-sized fireball represents the release of enough energy to kill every human being on this planet, several hundred times over - if the energy can be efficiently distributed, one little packet of kinetic energy being set to throw a blunt instrument at each person. And though I don't want to use that simile about convention banquets again, the fact remains the nuclear explosions are extremely expensive and leave a nasty mess behind.

The up-and-coming offensive weapons are the well-known cruise missile and the relatively obscure Fuel/Air Explosive or FAE warhead. Cruise missiles are economy weapons; if necessary they could come rumbling off a production line like Japanese motorcycles, while ICMs each take many patient months to produce, like British Leyland cars. The trick of the cruise missile is a micro-electronics package which controls the thing to follow a terrain map with the fanatical enthusiasm of a bloodhound or a taxman, literally at hedge height if need be. A relatively small and simple jet - since this missile need never boost out of the atmosphere - should allow the device to hop, skip and jump for a couple of thousand miles, hiding behind woods, avoiding known antimissile installations, lurking always just below the radar horizon... until in the end it explodes within 40 feet of the chosen target. You don't need a very bright microcomputer to achieve all this - it can be even stupider than the average Perry Rhodan fan and still have a vast number of evasion tactics built in. And since cruise missiles are small, you can launch one from a plane, or a dozen from a submarine, perhaps a hundred from a ship; the defences can be saturated far more easily than with ICMs, and at a fraction of the cost. No doubt improved cruise missiles will be sent on assassination attempts directed at individuals - they'll land furtively in a foreign city and consult telephone directories until they locate the victim's address. Of course there are disadvantages - important officials are usually ex-directory, for example. Other problems are the slowness of cruise missiles, their limited range, and the relatively small warheads they can carry.

There's nothing to stop people sticking nuclear warheads on cruise missiles, but certainly they can only carry little ones - doubtless just as expensive as larger ones. To stay in keeping with the image of an economy weapon, what they need is the Fuel/Air Explosive warhead, which tucks what is in effect a bomb several yards across into a small shell. The trick here is to use a volatile explosive; you'll doubtless all be arrested for possession of dangerous knowledge if I tell you that it's ethylene oxide. This comes billowing from the warhead in a cloud many yards across, and is ignited; the explosive shockwave can build up over this huge volume of gas rather than the confined space of a mere shell, and the result is quite impressive. Even now, they're talking about souped-up FAE bombs with virtually the same explosive force as Harlan Ellison - I'm sorry, I'll read that again - as the smallest nuclear weapons. In this way, whoever lets the thing off sits at home murmuring "How virtuous I am, I have used a mere conventional weapon." Of course, the nation it's been used against might not realise this was a mere conventional weapon, and one thing might lead to another, and before we know what we're back chipping those damned flints again.

Energy beams are the next likelihood on the list of weird weapons - lasers and particle beams. The science-fictional view is more or less summed up in the following extract from that celebrated story "Sex Pirates Of The Blood Asteroid", by an author whom modesty forbids me to mention -

"-And at that fateful signal, each of Nivek's countless ships and planetary installations discharged the full, awesome
power of its primary projectors, the blazing beams of destruction combining into a hellish flare of incalculable incandescence against which no defence might prevail!

"Nivek snarled in rage. 'Missed!'

"A nearby galaxy was blasted out of existence, but...."

Almost as thought-provoking is the assertion, first made by somebody in the early sixties and printed in the Guinness Book of Records for years after, that the supposition that lasers might melt an incoming missile was an exaggeration of 11 orders of magnitude - that is, a factor of one hundred thousand million. Right now, though, there are people who say that missile-killing lasers are absurd because they'd have to be much more powerful than those we've got - by a factor of ten to a hundred! This large difference is partly because lasers are very powerful these days, but partly also because certain ingenious people have realised that you don't need to melt whole missiles to put them out of action. This is the sort of point which Isaac Asimov likes to illustrate with some long and pointless analogy, and if I ever want my own SF magazine I'd better do the same - here goes. Imagine this hotel as being a mighty intercontinental missile! its essential core, the bar, represents the nuclear payload. This must be activated by delicate electronic circuitry - represented by the elite gathered in this hall - and it is this circuitry which is specially vulnerable to lasers. Of course, I represent the laser which has put you out of commission and is even now preventing you from triggering the bar into a colossal drunken explosion. To quote Robert Heinlein,

"An H-bomb with circuitry ruined is not a bomb, is just big tub of lithium deuteride that can't do anything but crash."

This is rather misleading, since you will all be aware that an H-bomb requires a fission bomb to trigger it, and a fission bomb requires an explosive charge to compress the plutonium into a supercritical mass. Fire a laser at that oncoming missile and you've an excellent chance of messing up the firing circuits; there's also a fair chance that you'll trigger the explosive with the laser beam, while in any case we expect the explosive to go off when it hits the ground. What's important is that without precise and proper detonation of this explosive, the plutonium doesn't go fully critical (did you know criticality is measured in Josephs?) and ten to one the fusion reaction never gets started....

Obviously a laser defence system has its advantages - with your beam travelling at the speed of light, there's no need to calculate how far the target is going to run before the beam arrives. Also there's no question of running out of ammunition so long as nobody unplugs you and the fusion don't blow. The disadvantages are just as obvious: anti-aircraft shells may be slow, but at least they don't get soaked up and scattered in the air as do pulses of energy. The largest and most promising battle lasers operate in the infra-red: by a fascinating coincidence, the water vapour in the air absorbs radiation with special enthusiasm in just that part of the spectrum. Lasers beams also wave about in the air for the same reason that stars twinkle, owing to the sky's being made of wobbly jelly....well, that's what Charles Fort says. Powerful lasers are even worse, since they heat the air and change its refractive index, producing a lens effect which automatically throws the beam out of focus. No wonder military technicians can often be found in corners picking their noses with their toes and complaining that whoever drafted the laws of nature was some kind of goddamn pacifist. Particle beams have much the same problems; besides which, if you use charged particles like protons and electrons you have the beam bending several degrees in Earth's magnetic field before it ever arrives. This is great as a Freudian symbol, but less good as a weapon. If you use uncharged particles you find that they don't move at all, since without some sort of charge there's no way to accelerate them. Here the trick is to accelerate protons and neutralize them by hanging electrons round their necks just as they zoom off - this is how the American "Sipapu" beam weapon works. I gather that "Sipapu" is an old American Indian word meaning neutral hydrogen beam weapon.

No matter what type of beam you choose, it works less well within the atmosphere; outside we have certain power problems since - Arthur C. Clarke notwithstanding - it's a long way to run electric cables. One possible ICBM defence system would consist of countless small satellites, each industriously storing solar power in preparation for its big moment when the ICBMs come flying from the atmosphere somewhere over the pole, and all these little satellites start shooting lasers at them under the guidance of larger ones filled with tracking gear and computers.
Since this is a relatively cheap defence in that you don't use up interceptors - the satellites can obviously fire again and again, as fast as their batteries can recharge - it might make ICBM attacks not at all attractive to strategists who pay attention to their accountants. The cunning strategic reply is likely to be "Aha, then we won't use ICBMs." And they use cruise missiles instead, gosh, what a masterstroke of strategy, I wish I'd thought of it myself.

Within the atmosphere, the problem's really very simple. If you can crank the power to a high enough level, you can use lasers or particle beams - but not very efficiently. Which brings us to that good old SF standby, the laser handgun. I don't want to go on record with a spoilsport negative prediction - enough people have made fools of themselves by asserting that bumblebees, aeroplanes and rockets would never be able to fly, that lasers were an amusing toy with no conceivable application, and that Erich von Daniken sometimes tells the truth. However, just now the prospects for a laser handgun are not encouraging. Assuming that the fearless soldier armed with such a weapon would stray further from his base than the length of your average power cable, the likeliest choice seem to be the hydrogen-fluoride chemical laser, which produces an intense infra-red beam. The chap carrying it will require a large cylinder of hydrogen, another of fluorine, and something tougher than a spacesuit to withstand the laser's exhaust of hydrofluoric acid gas. Fearlessly he will stagger towards the enemy, clutching the laser head itself (I forgot to mention that this could be the size of a bag of golf clubs, only heavier).* None can withstand the searing beam of radiation; nor is anybody likely to try; the enemy, rotten sportsmen that they are, will probably knock him off with an old-fashioned rifle at extreme range. Never mind; it should be worth a medal.

My favourite fictional handgun, of which few of you will have heard, is probably a little more practical; it's called the Dentichar handgun, and it projects this supermagnetic induction pulse which

* Somebody has now patented a smaller laser hand weapon - but it's designed merely to blind and not to kill. Feeble, I call it.

causes the victim's fillings to glow white-hot. Even that is perhaps less likely to be effective against people than biological weapons - guns firing poisoned needles, for example, or the lethal umbrellas which Bulgarians delight to use on defectors. It's about time I read you some real hard SF, so here's a specially thrilling description of the effects of a nasty weapon called the Delling, as described in Tully Zetford's notorious book Whirlpool Of Stars. The Delling fires little gobs of something known as "dis-gel"; the results are as follows....

"Giffler melted.
"His body deliquesced. It oozed. His head flowed and collapsed and sloughed. Still upright, he melted and shrank and collapsed, his body shimmered like a blood-drenched jelly. He shrunk and oozed and formed a contracting pool of scum on the yard stones.
"The man in black, Coton Telander, walked out of the Custom House door. He still held the Delling. With a finicky motion he flicked his fingers and the electronic and neural circuits whipped the gun back up his sleeve. It had all been so very slow and yet so very quick.
"Giffler had been destroyed....
"A robot vacuum cleaner and scrubber darted out on rubber wheels and began
to suck and clean the spot where Giffler had died."

So much for hard Science Fiction. Now, what about the exotic lasers we hear about: the x-ray laser, for example, without which no Larry Niven plot is complete? Well, the ordinary laser does its dirty work by amplifying a light pulse as it bounces back and forth between two mirrors; and unfortunately there's nothing which reflects x-rays effectively. They have this nasty habit of going straight through mirrors, or at best being absorbed by them. It might be possible to design a linear x-ray laser, with miles of laser amplifiers in a row to provide a long beam-path without mirrors; the smaller x-ray lasers used in dozens of Larry Niven stories obviously use his celebrated stasis field to provide the necessary perfect mirror. If you have a perfect mirror, however, you certainly won't care to stop with mere puny devices of this sort. An x-ray laser, like every current model of laser, depends ultimately on electron transfers between energy levels in the atom; the whole business has a distinctly damp-squib aspect when you think about the nuclear energy levels and the possibility of fiddling with them to produce a gamma-ray laser. The graser, as it seems reasonable to call it, would compare with ordinary lasers rather as a hydrogen bomb compares with a V-2, or as a Science Fiction convention compares with a Liberal Party conference. This is not the sort of laser to use for surveying and so on, unless you like large holes in your landmarks; one highly constructive use has been suggested by Carl Sagan, who thinks it a cunning notion to build a graser rated at 1000 billion watts (and that's an English billion, 1000 times bigger and better than its degenerate American cousin). This beam can then be directed against a star ten lightyears away, and it's believed that the intense gamma flux will be sufficient to trigger a supernova. The suggested purpose of this is wholly peaceful and nice - it's the only way to mine the core of a sun and get it to throw out some heavy elements, the assumption being that by the time we're in a position to build a graser of this power we'll have broken down the solar system into Dyson-spheres of standardized living space (a sort of orbital Milton Keynes) and because electronic substitutes for sex still haven't caught on, we'll be desperately looking for more raw materials to make and power more little worlds. Either that or we'll all be dead, but you'll remember that I've ruled out this unwholesome scenario as lacking in interesting SF-warfare possibilities.

Now, let's return to the more sober and sensible scientific predictions, such as a spaceship which - and I quote - acquires "a mass of some twenty million galaxies concentrated at one point". The relativistic mass expansion has never been the same since Charles Harness launched that ship. Bob Shaw goes one better, with a million-ton spaceship travelling at thirty thousand times the speed of light and stoppable only by detonating eight thousand nuclear devices in its path. The moral is that however unsatisfactory relativistic ships are for travel - unless you hope to get a big kick out of keeping your good looks while all your stay-at-home friends are becoming fertiliser - these ships are excellent weapons. Take a missile weighing one hundred tons and travelling at around 99.99% of the speed of light. Go on, take it. You don't really need to put any explosive in that missile, since when it falls with uncanny precision upon the chap you've aimed it at, the kinetic energy release will be something like 220 million megatons. This is noticeably more than the few thousand megatons required to reach 90% depopulation of America or the USSR. Of course, the fellow whom you're firing this missile at may have taken his own precautions. Perhaps he's built a distant early warning system out in the orbit of Pluto, which warns him of the oncoming missile by relaying a radio message. This takes nearly five hours to reach him - it's a long way to Pluto - and, travelling at 99.99% of the speed of light, the missile arrives about one fifth of a second afterwards. Hardly even time to put up an umbrella.

The snag with this irresistible missile is that you need to take a long run up, and to put in all that 220 million megatons of
energy, bit by bit. Even with one hundred percent efficiency in accelerating the missile, that's a lot of money - if you ask for that much energy from Southern Electricity, they will smugly send you a bill for close on 6000 (English) billion pounds - even more than they charged me last quarter, in fact. This is only the beginning of the problem since, as at least ninety percent of those of you who are still awake are thinking, you can't use the energy that efficiently. For less than the cost of attending this convention, you should be able to fly to the moon and back several times - which isn't intended as an insult to our wonderful committee, only to the efficiency of Apollo rockets. If we are to do despicable things along these lines, it would seem considerably cheaper - and would also save a lot of blown fuses - if we could find the energy just lying around for the taking. Lumps of antimatter, for example. If I had a pound of antimatter here, it could be used to accelerate our missile to nearly 10% of its final kinetic energy. There would, however, be this slight problem of the 20-megaton explosion as the stuff reacts with my hand - that's the beauty of antimatter, there's none of this tiresome fiddling around with explosives, lasers or blue touch paper to make it go off.

Indeed, I should pause to be rude about some of the heroic gentlemen who in Jack Williamson's SF stories (for example) have boldly loved antimatter about the place with little magnets. You'll remember the scenes: the spacesuited heroes cautiously use these magnets, meanwhile keeping themselves moving with the traditional jets attached to their suits. I'm happy to inform you that anyone fool enough to try this would shortly be dead: first, there is no such thing as a perfect seal, so air molecules, diffuse through spacesuits; second, when you use little jets, these too emit molecules of something. In other words, anyone coming close to a lump of antimatter will be releasing molecules of normal matter in its direction. The first effect is that the matter/antimatter reaction on the side of this lump nearest our jolly spaceman will send the lump moving away from him. Meanwhile, high-energy particles and gamma rays wash his genes whiter than white. Should you ever find yourself in a spacesuit near an antimatter asteroid, you are advised to get a long way away - if you must push the stuff about the place - do so by squirting gas at it from a great distance so that the matter/antimatter reaction propels it the way you want it to go. This will generally be in the direction of your enemy, since - let's face it - however appealing it may be to use the energy of mutual annihilation to shove missiles at the enemy, it's even more appealing and a good deal cheaper to present him with a piece of antimatter rated at a snappy 1-25 kilotons to the ounce. Pieces of antimatter larger than a ton or so can be divided into three easy-to-use sizes: continent buster, atmosphere stripper and planet smasher.

Unless you can find your piece of antimatter floating around somewhere - stealing by finding, they call it in British law - there is little hope of arranging one of these spectacular displays. There is a steady production line for antimatter in operation today at CERN in Geneva - but doubtless owing to the number of British workers employed there, the output is remarkably low - a few hundred antiprotons a day, perhaps. Even more disappointing, CERN don't seem able to hang on to the antiprotons they do make - there's some shabby story about the things just vanishing, though the American Chiefs of Staff have a theory that they are being pilfered and secretly sold to Communist countries. In any case, even if we could accumulate the entire output of antiprotons, it would take around $77 \times 10^{26}$ of them to make a 20-megaton bomb - and to save up that many of them at the current rate of production would take rather longer than the universe has to run. The alternative source of antimatter is a dying black hole, which according to reputable scientists (and Jerry Pournelle) should throw out great quantities of matter and antimatter in equal proportions. Find a black hole which doesn't look too healthy, and the rest should be easy.

Which brings us with rather suspicious neatness to black holes. This is an area where it's virtually impossible to say anything authoritative, for the simple reason that accepted notions in black hole physics generally last only for the two or three hours that it takes Larry Niven to fudge up a quick Hugo-winning story based on the topic. At the moment, all the best SF ideas involving black holes seem very slightly dubious. Using them for faster-than-light travel, for example, has two discouraging aspects: firstly, that there's apparently no way to get back, and secondly - a more recent speculation - you are liable to be put through a sort of mincer on the way, arriving in the form of highly disorganised gravity waves. Like British Rail, in fact, but more expensive. But we're talking about weapons, and there's no doubt that a black
hole with the mass of the Earth - one, that is, about 0.9cm in radius - would happily swallow up a planet if given time. However, if you have the energy needed to shift a mass that large, you might just as well use it shift the Moon, say, into a collision orbit. These spectacular ways of doing things are so wasteful. The real advantage of using a black hole in this way would be that it's too small to break up with any conceivable attack; but there's still a fair range of alternatives for future baddies to talk over with their evil cost-accountants.

To save these evil-doers trouble, I've done some sums for them. The thing to avoid is the traditional recourse of stopping the Earth in its tracks. That's very expensive. Shifting the orbit so that we boil or freeze is many times cheaper; and smashing the Earth into tiny fragments is, strangely enough, cheaper still. Yet more economically, the arch-baddie could arrange to stop the Earth rotating - I wouldn't like to say how, but you'll remember that our good friend Immanuel Velikovsky has suggested that by providing another planet with opposite spin, the rotation could be cancelled via immense electrical discharges between Earth and this spare planet. I think this would be a handy weapon, since the energy release would be enough to melt portions of Earth's surface, throw up fresh mountain ranges and generally cause alarm; Velikovsky is more moderate in his views, and thinks that the only tangible effect would be a small earthquake sufficient to topple the walls of Jericho. Okay - we're really in the bargain basement now, trying for economical planetary ruin using many energies on the order of the explosive release of only 60 (English) billion megatons of TNT. Next step down the cheapness ladder is to carry out some relatively mild show of force such as blasting off the outer mile or so of Earth's crust into space; and that's cheaper still if the attackers ignore the sea and concentrate on the land. By now, the destructive energies involved have dropped to a mere few hundred megatons for every human being now alive. It would be even more economical just to drop a one-megaton bomb on each square mile of Earth's surface; you'd only need 200 million or so. And even more cheaply, in terms of energy, you could just arrange to hit everybody very hard on the back of the head....

I really regret this, you know. I should like to say to all future warlords "Smash all the planets you like, my children, and to hell with the cost." And certainly planet-smashing is cheaper than shifting orbits and many of the other things which the Tyrant of the Vegan Horde likes to do in your favourite literature - but it's still too damned expensive. If I were advising the Tyrant of the Vegan Horde - and cut of sheer humanity I should like you all to promise not to tell him this - I would suggest a few thousand very, very dirty fission bombs which he could pop into the atmosphere; they would go off in the high jet streams which blow around the world. These carried the dust from the Krakatoa explosion of 1883 all around Earth - tinting the sunsets in very pretty colours for two years. These winds would do just as good a job on radiolosopes, and we could all watch the beautiful sunsets until our hair fell out and various other unpleasant things happened to us which I assure you would be even worse than a convention hangover. There are probably some even more horrid weapons available to these tyrants - imagine, for example, a missile containing a gigantic fluorocarbon aerosol which whips off our ozone layer and leaves us all to expire from terminal sunburn. Or it might be that the Vegan Horde is already among us and has arranged to add to hundreds of millions people to some carcinogenic substance so fiendish that the addicts refuse to give it up even when told it's killing them. Of course, that particular notion is far too fantastic for use in a Science Fiction story.

All this sordid talk of economics is of course arthemo to the free-ranging spirit of the SF writer. It embodies the narrow view of the underprivileged citizens of a mere Type I civilization - which is defined as a civilization with 10^16 watts of power available for use. In fact, the miserable truth is that we hapless Earthlings don't even make it as a Type I civilization, since although we certainly use about this amount of power, so much of it is tied up locally that it isn't available. By this, I mean continuously available - by detonating every nuclear weapon in the stockpiles, the Earth as a whole could manage a power output of 10^26 watts or more - but only for one second. Now if we could use the total output of a star - i.e. the Sun - we could graduate to a Type II civilization with 10^26 watts available. There are of course subtypes in between, in this extremely rough-and-ready classification, but it's fairly obvious that a Type II technology would have little trouble in planet smashing - since the maximum available power output is now equivalent to 20,000 million one-megaton bombs falling each second, which should get results considerably more quickly than sending a sunboat. There's enough power there to smash planets...
on a continuous production line, one planet every few days until there's an industrial stoppage. The power source for all this could be a star - or a black hole into which we drop things and extract part of their gravitic potential energy - or a small black hole, which under the current theory will be anything but black, and will push out incredible amounts of energy, leaking away its substance just like a wallet in the book room. If you slam black holes together, you can extract about 29% of the combined mass as energy, which should be useful. Someone has even come up with an impressive figure for the energy contained in each cc of empty space; if someone else can think of a way to get it out, it should be a cheap supply of power, considering that there seems to be more space than anything else in this universe (though we'd have to be careful not to use it all up). I'd like to say that one of these techniques will one day provide free power, only some of you will probably remember that in the 1950s there were statements in Parliament that when nuclear power stations were built, electricity would become so cheap that it wouldn't be worth installing meters. More recently, some other MP - quite possibly the same one - announced that even if electricity cost nothing to produce, it would be impossible to make it cheaper since nearly all the cost went in maintaining power lines and running advertising campaigns. Have no fear: your beloved electricity board will persist far into the future, and as the final suns expire and the netropy death of our universe draws near, they will still be begging you to invest in central heating systems. On HP.

....You will see the direction in which these Types of Civilisation go. Type I is a little bit more resourceful than us, at 10^26 watts available; Type II can do just about anything it likes, with 10^26 watts or the power-output of a star; Type III, the biggie, runs to the power-output of a galaxy at 10^36 watts. Nobody is quite sure what you'd do with all that power - but doubtless a Type III civilisation will be able to think of something. We've also come up the scale in terms of destruction from mere sterilization of continents, smashing of cities and holding of SF conventions - the abilities of Type I - to the conversion of planets to rubble and suns to supernovas as practised by Type II warmongers. What, you ask breathlessly, can top this act? No doubt a Type III maniac might be able to blow up galaxies, so to speak, by mass application of the nova-generating gamma-ray laser I mentioned earlier: but who is going to hit the jackpot and wipe out the entire universe? (Merely waiting for it to wipe itself out is considered cheating.)

My recipe for wiping out the entire universe is as follows. You must first construct a number of small black holes - say by using that super gamma-ray laser to compress lumps of iron to infinitesimal size. (I recommend iron for constructing black holes in general - it's a nice stable element which doesn't undergo fusion when you compress it, which is unfortunate for Doc Smith and Alfred Bester, both of whom have written stories in which this incredibly stable element is used as nuclear fuel.) Now, with the theory of black holes as it stands today, these little ones aren't black - although according to the simple theory nothing can escape the event horizon, there's a quantum mechanical effect which makes the radius of the event horizon slightly uncertain...and energy starts leaking past it. So, for a while, these holes behave like little suns as they merrily leak away; during this period you may relax and toast crumpets in the emitted radiation. By and by your small black holes will have entirely wasted away. Everybody would be very happy if they were nothing left behind; but unfortunately each hole contains this singularity, a point in space given to such unspeakable practices that even Philip Jose Farmer hasn't written fully and frankly about it. When the singularity is covered up by an event horizon, we can pretend it isn't there; when it gets out all hell breaks loose. Among the minor predictions is the complete breakdown of the directional flow of time: in the region of a singularity it seems that past, present and future don't really mean that much any more; by creating enough singularities you can effectively bring the universe to a chaotic end. It would be scrambled like a William Burroughs novel.

However, anybody wanting to work off his or her grudges against society in this manner is warned that the theoreticians may revise their view of the universe at any moment. In other words: should you wish to destroy the universe, you'll have to do it quickly before they trade in last week's model for the new one.

After that, there's little more to say. The creation of new universes is outside the scope of this sober and scientific talk; however, if you're interested in the subject, I think one of John W. Campbell's editorials contains complete blueprints of how to do it with only three pieces of wire and a used battery. Then, having created a suitable planet and evolved life upon it, you can get down again to the serious business of chipping flints.
Roz Kaveney.

The Science Fiction of the eighties is likely to be a continuation of the SF of the seventies. There will be changes of emphasis and minor shifts of emphasis; there will be minor struggles for the helm and the ever-growing splashes of lifeboats going over the side but the same old tacky vessel will carry on in much the same old tacky way. Science Fiction has lived through its major revolutions in the past but it is a simple and worrying fact that there is little sign of the seeds of another one in the near future. No revolution ever comes out of nowhere - there are always signs of what will be done and vague indications of who will do it. Both of the great SF revolutions happened because of the coincidence of hungry and ambitious young men and publishers looking for someone cheap to take over a declining magazine. I see no hungry young potential Campbells or Moorcocks sitting around waiting to be summoned to their destiny - instead I see a lot of smooth ambitious young men and women waiting for a call from their agent about a coffeetable book on the underwear worn by famous space opera figures; Kimball Kinnison's Y-Fronts drawn by Ross and fold-out spreads of Dejah Thoris in Directoire knickers. The publishers have to a very large extent already made their decisions about SF magazines and if they are prepared to run one have their own very clear and commercial ideas on the desirable brand identity - which will almost always be more of the same with, as an alternative, more of what was the same at some point in the distant past.

Where else is there for SF to go in the future except in the direction of a few individual writers of it becoming better and better serious artists while other practitioners sit around providing handy opiates to the semiliterate? Increasingly the relationship of many of the best SF authors to the field out of which they sprang, in which they served a part of their apprenticeship and from the common stock of which they still draw much of their material is one of extreme ambivalence. Some of this ambivalence is based on the entirely reasonable fear of contamination by the shoddy, shabby, self-congratulatory values of the somewhat incestuous world of the genre; it must be deeply depressing for a Moorcock or a Leiber to find their work tucked away in a back alcove of the local bookstore along with idiot children like Alan Dean Foster and Jack L. Chalker. As authors of quality who have grown away from the self-assertive populist philistinism of the genre ghetto, they have come to find that they have as much in common with Respectable Serious Writers as they do with people who turn out Astounding Tales of Racial Degenerates Getting Blasted with Ray-Guns. Moorcock served his time as an inspired hack but has now evolved towards a magic realism quite close to that of, say (because one always has to), Angela Carter. How much easier therefore for such writers to decide that they have grown up and will put on a suit and tie and only visit the old home when they have to.

The trouble is that there is a myth about the good writer who grows out of the SF genre and stumbles into the wider, purer world of literature, and it is something like that myth contained in Kipling's "Jungle Books". The innocent child runs with the voiceless beast and learns from them basic decency and fine instinctual perceptions, but when he reaches maturity he progresses towards a destiny that puts on one side bestial inarticulacy while avoiding the corruptions implicit in the indoctrinations of the human society of which he will now be a leader. The truth is of course a little more complex and unpleasant; the genre writer who aspires to become something more may escape the worst consequences of a feral childhood but at best he will stagger a little and from time to time exhibit a tendency to drop to all fours and worry at raw meat. With luck he will gain compensating strengths from his shameful past - as long as he doesn't deliberately dispossess...
himself of them. It shows a certain ingratitude to the pack he ran with to devote much time and rhetoric to pronouncing anathemas from the side of the pool where he once drank so long with them.

At least in this country the attempt by writers like Moorcock to cut themselves adrift from the genre has the merit of overt sincerity and understatement—true, there was a struggling native avant-garde with which they felt in tune. The attempts of American writers like Ellison and Malzberg to cut loose have partaken more of tantrums. I do not propose to discuss at any length the rights and wrongs of Ellison's toings and froings and hysterias, but it has been obvious that part of the difficulty he has experienced in leaving has had to do with the problem of where to go. He has a fatal facility combined with a tendency to shout which renders him incapable of fitting into a high literary scene in which the favoured qualities among both Establishment and avant-garde alike are laidbackness, moral worthiness and the sort of complexity which is usually called richness and means that people can write theses about you. Part of the trouble also is that he is deeply involved with one of the most unhealthy aspects of the SF genre as a whole—its obsession with, as hero, the competent individual who is in love with death. In much of Ellison's best work and in particular that mode of his which can best be described as Comicbook Baroque Expressionism, there is a fascination with death and mutilation and torture that never really becomes explicable purely in terms of his high moral purpose. Stack who kills God in "Deathbird", Jared who commits genocide in order to finance galactic peace in "Worlds To Kill", Cordwainer Bird who struggles against the New York Literary Establishment in "Runesmith"—all of them bludgeon and burn a host of victims but it's all right because they don't enjoy it. But if Ellison was not deeply fascinated with all this he wouldn't write about it so much—or feel so guilty as to spend a lot of time preaching about the repulsion of his main theme.

At least Ellison has the integrity to show us the torn skin and protruding guts of all too many writers in the genre who have this fascination with the great whore death but tend to make their excuses and leave when consumption threatens to become too graphic. Even quite distinguished writers have combined this unhealthy obsession with the inartistic coyness—often in the shape of the legalised mayhem of interstellar war or the licensed tortures of Farmer's noble savages. At the climax of Heinlein's Stranger in A Strange Land, Michael Valentine Smith is martyred but his limbs fly off him as cleanly as those of a plaster saint; earlier he never actually kills anyone, simply makes them disappear.

This tendency shows little sign of abating and some of the guiltiest practitioners are powerful men in the field. Let us look briefly and at arm's length at a thoroughly undistinguished novel: Lifeboat Earth, by the new editor of Analog, Stanley Schmidt. A scientist is warned by aliens that as the result of an industrial accident the galactic core is exploding and that the human race is doomed unless Something Drastic and Effective is Done. So he and they attach a motor to the Earth's south pole and off we shoot. Millions, most of them strangely in the Third World, die that the race may live: the hero and his successors sit chewing their stiff upper lips in splendid isolated anguish at abstract figures on charts while the author portrays the human implication of the necessary horrors in terms of little vignettes of kids looking for their drowned mummies. Never are his elite disturbed by anything so real as a backed-up lavatory, let alone the reek of a billion corpses. This is not the pornography of death—it doesn't even have that much guts—but the True Love Romances of Death.

I have had occasion elsewhere to remark on some of the other loathsome tendencies of hack commercial SF, but for the sake of my argument I shall briefly rehearse some of them again. There is the obsession with eugenicism of hacks who are themselves inadequate—if I believed all that crap I wouldn't want them breeding a horde of the obsessed. There is the populist philistinism which uses as sticks to beat contemporary high art the names (not the works, just the names) of the mighty dead—I recently read of a character in a Foul Anderson story listening to some Schoenberg instead of some Tchaikovsky and was quite taken aback until I realised that it had to be Gurreleider which is (a) romantically lush, and (b) a setting of Danish poetry. Almost all SF stories about the arts are embarrassing except those about the theatre and most of those are by Fritz Leiber who knows about it. There is a tendency by the most politically opinionated SF writers—and I think it is true that they are for the most part the
more reactionary ones - to go on and on about their views and to be assured of the villainy of their heroes' opponents in a way that makes Norman Spinrad look like a Guardian leaderwriter (but I may be biased). There is above all a tendency to cover up a basic lack of sympathy with warm human values masquerading as stern duty and necessary toughness.

There is a worrying tendency among even the finest of the writers who have risen out of the field to show calloused palms in some of these areas. Moorcock is a splendid humane writer but there is sometimes a regrettable coldheartedness in his work in which his genre roots and his avant-garde credentials unite to make him a cruel puppetmaster in love with his painted stage but a veritable President of the Immortals to his players. It is irresponsible and in a way ungrateful not to attempt to influence towards purification the language of the tribe in this respect as in so many others. Moorcock, Disch, Russ - they had their shining hours of enjoying the stuff at its worst and they as writers and others as critics have the responsibility of trying to raise standards in a genre that created them as they are. Inhumanity and callousness are almost transcended in Gloriana and are a mask for compassion in On Wings Of Song, but there is a worrying sense in which they approach through conscientious avoidance of sentimentality the cold brutishness that a Jack Chalker gets to through an ethic of cold ruthless duty and a strong commercial sense.

Combining the portrayal of real human emotion with writing worthy of respect is difficult in an age where a literary culture is so old that every means of expression has been plundered - one answer is the simple lucid statement of sophisticated naive writers like Ursula Le Guin and another way of making new the depiction of extremes of emotion and sentiment is to use the methods applied by Disch throughout On Wings Of Song and by Moorcock in the death scene at the end of The Condition Of Muzak. That is to say a patently insincere flippancy which uses all the camp old cliches but draws on the emotion still locked within them. A strength of writers who grow up within genre forms and then transcend them is that they are aware "how potent cheap music is": how popular cliches have become popular by having a genuine inner strength no matter how they are abused by inartistic hacks. They is a very limited extent to which the pulp cliches can in themselves serve as material for a novel - some of M. John Harrison's works succeeds in doing it but in patches even The Centauri Device hits the law of diminishing marginal returns - but to know them and to have once loved them is a valuable addition to a writer's vocabulary. We can never get away from emotionality and popular cliche - except, in the short term no writer should ever want to; they must be used and transformed into art.

(A writer who has concerned herself to some extent with emotion and with the cliches of the genre as a way of expressing that emotion is Joanna Russ, but the personal anger she wishes to communicate through her polemical fictions has become an almost perpetual and monotonous tone of voice. It has corroded her as a critic though it will never tarnish her superb style. The anger she wishes to communicate through the cliches has become an anger with the cliches themselves with the result that her work has become curiously cabinied and crabbed and turned in on itself.)

However much authors try to escape from the field, some at least of their audience will remain people from that field and they will still be trying to communicate to those people. Writers cannot rewrite their own pasts - the style of Gloriana evolved from that of The Dreaming City. How much better then to acknowledge and use that past and write fictions that flirt with the genre, especially since those flirtations will ensure that the genre will in time be purified of the inartistic, inarticulate, reactionary vermin who currently infest it. What is needed is a fiction that is warm and witty and wise and humane and realistic and fantastic; we live in what is possibly the closing stages of a great literary culture of which SF is merely a part and we should be using the whole of that tradition, genre and high art alike, to produce work which will justify that tradition to its posterity. A culture is really only in decay when its practitioners sit around all day and say it is, and concern themselves solely with epigrammatic and pastoral doodles. SF has evolved as a useful vehicle for human aspirations; our need for a better fiction includes the need for the expression of those aspirations. They are too important to be allowed to become purely the property of thugs, hacks and buffoons.
Forget phallic rocketships and the power fantasies of intergalactic empires; the SF cliche par excellence is the alien, the slimy green monster forcing its foul attentions upon the beautiful brass-brasslered blonde of so many pulp covers. Ask anyone who never bothers to read any of that crap labelled SF, and he'll tell you it's all about UFOs and Bug-Eyed Monsters, and Little Green Men from Mars saying "Take me to your leader" to every petrol pump they pass. Though I could never claim to have an encyclopaedic knowledge of SF I cannot, offhand, think of a single SF writer who has not used aliens, or humans so altered that they are alien in all but name.

Why this overwhelming fascination? It's easy enough to come up with deep "explanations" by the score to suit the particular obsessions of the theorist. It's all symbolic of the alienation of the writers themselves; just look how many SF writers are American Jews... (and how few are negroes, Mexicans, Chinese, Indians, etc.?). Well then, it's because SF is the modern fairy story, and fairy stories always have their horrible beasties. This is better, and must be at least partly true. "Aliens" have been a part of human consciousness since man first discovered that he couldn't control the elements and invented his gods. "Aliens" in this sense gave rise to the first literature, mythology, and have informed every other product of the human imagination since; so yes, this is one strand that works its way through Science Fiction.

It's a good game, thinking up theories, but it doesn't get us anywhere. Let's cut the crap: the alien is and always will be such a common element in SF simply because of the nature of SF itself. If I may be allowed a broad (very) broad generalisation, then mainstream fiction asks the question: what's going on here, now, inside me, around me? Science Fiction, on the other hand, asks: what's coming next, tomorrow, around the next bend? As a matter of interest, SF's first cousin, historical fiction, asks a question that sets it at a similar remove from the mainstream: what went before, yesterday, around the last bend? Where historical fictions turns to the known or partly known, however, and the mainstream is a process of discovery, the moment of becoming known, SF is all about prospects and possibilities, unrealised hopes and dreams and fears, the unknown. Since time immemorial travellers' tales have peopled the unknown, the next valley, the empty places on the map, with weird and wonderful beings. This is the tradition behind the strange creatures met by Sinbad, and the Yahoos and Houyhnhnms that Gulliver encountered on his travels, as well as the various BMs of SF. The alien is a convenient embodiment of the unknown, a framework upon which the author can hang whichever hopes or fears he may have for humanity's future. Thus the character of the alien depends on whether the author is, to a greater or lesser extent, an optimistic or a pessimist.

Now I'm no literary historian, so I couldn't hope to tell you when an alien first appeared in a story that was recognisably Science Fiction. However the first such that I am aware of is also, to my mind one of the best that the genre has yet produced: "Another World" by J-H. Rosny Aîné, first published in 1895. It concerns a young Dutchman who has been born so different from the normal run of humanity that he can perceive another world co-existing with our own:

"A fauna which lives beside, and in the midst of ours, influences the elements which surround us, and is influenced, vivified, by these elements, without our suspecting its presence. A fauna which... is as unaware of us as we of it. ...A living world as varied as ours, as puissant as ours - perhaps more so - in its effect upon the face of the planet!"

"They belong to several species, different in contours, in movement, and above all in the arrangement, design and shadings of the lines which run through
them. Taken together, these lines constitute the essential part of their being.

Whereas the mass of their bodies is dull, greyish, the lines are almost always brilliant. They form highly complicated networks, radiating from centres, spreading out until they fade and lose their identity."

"Another World" is practically unique. Gardner Dozois's "Chains Of The Sea" contains several echoes of it as, to a much lesser extent, does Bob Shaw's A Wreath Of Stars, but it is rare indeed for a writer to attempt to construct an alien ecology as Rosny has done. Most SF writers are content to create one or two aliens at a time, and it is almost always intelligent aliens with whom the author is concerned, other species being simply ignored. Even when the aliens are on their own home planet it tends to be either Earth-like or the sort of barren place where fanciful little horrors may occasionally appear; but there is no real impression of a complete order of life.

Another feature that marks "Another World" off from so much SF is the relationship between the aliens and the humans, or rather the lack of it. The two ecologies occupy the same world without either affecting the other, or even being aware of it. This indifference never became established as any sort of pattern within the genre, however, for two years later H. G. Wells produced what is undoubtedly one of the most influential books in the history of SF: The War Of The Worlds, which determined the nature of the alien in SF for decades to come.

"I think everyone expected to see a man emerge - possibly something a little unlike us terrestrial men, but in all essentials a man. I know I did. But, looking, I presently saw something stirring within the shadow - greyish billowy movements, one above another, and then two luminous discs like eyes. Then something resembling a little grey snake, about the thickness of a walking stick, coiling up out of the writhing middle, and wriggling in the air towards me - and then another....

"A big greyish, rounded bulk, the size, perhaps, of a bear, was rising slowly and painfully out of the cylinder. As it bulged up and caught the light, it glistened like wet leather. Two large dark-coloured eyes were regarding me steadfastly. It was rounded, and had, one might say, a face. There was a mouth under the eyes, the brim of which quivered and pant ed, and dropped saliva. The body heaved and pulsed convulsively. A lank tentacular appendage gripped the edge of the cylinder, another swayed in the air....

"Even at this first encounter, this first glimpse, I was overcome with disgust and dread.

Wells's hero might have expected man-like aliens, but after this no one else would; the Bug-Eyed Monster had arrived. In the same year Wells's gentler and far less xenophobic "The Crystal Egg" was published, but it was to be as the horrible invader that the aliens dominated the coming pulp era. Along with world-hopping space opera, aliens were a natural for the pulps. For a start they allowed the writer free rein, they were an easy touch of horror, and they weren't hard to write because most of them were no more than humans in funny furry/scaley/feathery/delete as applicable skins.

The typical alien of the pulps had many skins and many colours, but they had the heart and mind of an American. Usually a
hostile American, since more often than not the aliens were invading. There was a strong streak of jingoism in these stories since the aliens were usually invading America, portrayed as the most attractive piece of real estate in the universe. And it usually took your ordinary, everyday all-American hero to foil these evil beings.

Gradually, however, a cynicism entered the picture. Aliens were still invaders, but their motives were less noble. And mankind didn't always come out on top. In "The Saliva Tree" by Brian Aldiss, for example, man is just a food animal. Tom Dish made humans the pets of his alien invaders in "White Fang Goes Dingo". In a 1961 story by Claude Veillot, "The First Days Of May", the fate of humanity is even worse. Earth has been invaded by the Shrills, mantis-like creatures the female of which devours the male during intercourse. Then -

"This blonde woman looking at me, entangled in her nightmare, frozen with horror - does she already feel inside her the slow working of incubation? How long has she been there, and how many Shrills will be born inside her, to feed on her, before they emerge from her torn flesh into the grey light of the tunnels?"

There is a theory that raises its ugly head whenever someone feels the urge to justify SF to the effect that all these stories about aliens are really making comments about racism in America. I suppose that if you're looking for that sort of thing then you'll find it, but looking at the SF of the 50s and 60s it's not exactly obvious. Perhaps we are meant to interpret the stories thus: let's stop battering the blacks because we might have worse colours to contend with soon - though this hardly seems in the spirit of the argument.

Or, there again, perhaps the theory relates to the emergence of "good" aliens, at the same time as the cinema was throwing away the idea that the only good Indian was a dead one; but even in the gung-ho pulps the aliens weren't always the baddies. "Doc" Smith, for instance, had his two races of superbeings, and one was good. Moreover, there were aliens amongst Kinnison's friends and allies, and humans amongst the bad guys. But even if "good" aliens were not a novelty, it is true to say that since the Second World War there have been some significant changes in the treatment of aliens. Harbinger of this change, so far as I am concerned, is "Angel's Egg" a 1951 story by Edgar Pangborn. Concerned with goodness and hope, it is typical of him; a delicate, atmospheric story about an old man being taught to take a philosophical view of his life (a theme that has recurred often in Pangborn's work; the story "Mount Charity", for example). The alien is a tiny, fragile, angel-like being who wishes to bring good to the world, not do it harm. And she is, in terms of culture and character, far more alien than just about anything to have appeared since Roan's strange creatures. Oh, certainly, there is more than a little Eastern philosophy and wishful thinking mixed in with this alienness, but it is a refreshing step away from the traditional American from Aldebaran.

Perhaps the most immediately apparent difference from the pulp alien, however, is in the "angel's" physical appearance: she is 3" tall with ivory-coloured down and wings. This is a giant step away from the BM; and although this "humanisation" of aliens was later to produce such absurdities as Star Trek's Mr Spock who, except for his pointed ears, is less alien in terms of appearance and culture than, say, the Amish folk who still survive in America today, it was a welcome step.

The terror was defused, the humanisation of the alien continued apace. They became objects of humour rather than terror, as in William Tenn's "On Venus, Have We Got A Rabbi", or Carol Carr's "Look, You Think You've Got Troubles" (curious, the Jewish slant of alien humour). More importantly, they became objects of respect. Aliens now had their own civilisations, often superior to our own - interestingly enough, this is usually a moral, rather than a technical, superiority - and thus we find a possible justification for the racism argument: stories used aliens to take a back-handed swipe at human society, as in, for example, R. A. Lafferty's stories about the Camiroi, or Horace Milner's "Body Ritual Among The Nacirema". This latter story, which demonstrates just how incomprehensible our own customs might appear to an alien anthropologist, also illustrates that writers were now attempting to describe a truly alien psychology, and a consequently alien way of doing things.

In an offbeat way, the most successful of these, simply because of the way it works within its limitations, is "Useful Phrases For The Tourist" by Joanna Russ. She doesn't attempt to describe or explain the nature of her alien society, she simply suggests its alienness with extracts from a future phrase book.
"This is my companion. It is not intended as a tip."
"This cannot be my room because I cannot breathe ammonia.

"Waitress, this meal is still alive."

The mixture of the prosaic and the ludicrous is played for laughs, of course, but that doesn’t negate the important point that if we do encounter aliens we are likely to have to make some drastic changes in the way we look at things. Even that may not be much help. More and more writers have begun to investigate the possibility that any aliens we encounter might simply be incomprehensible. Sometimes it is their technology we cannot understand, as in Arthur C. Clarke’s Rendezvous With Rama or Frederik Pohl’s Gateway, where artefacts substitute for the beings; more often it is their culture, their social and psychological and, sometimes, biological, make-up.

This was all part of the 60s backlash against “hard” SF, which in turn was part of the whole anti-materialist thing. There had been a turnaround in the usual set-up: instead of alien invaders of Earth, there’s a human colony on the alien planet, and more often than not the alien civilisation is in apparent decline. Roger Zelazny’s “A Rose For Ecclesiastes” is typical, setting the scene for such later novels and stories as Robert Holdstock’s Eye Among The Blind and George R. R. Martin’s “A Song For Iya”. The usual thing is for the hero to be the one right-thinking member of the colony, and to make an attempt, successful or not, to join the aliens. He is warned that this course of action will result in him abandoning his humanity; sometimes he heeds the warning, sometimes not; sometimes he does lose his humanity, sometimes not. This theme has a long history: it is common in SF for a hero with special powers to have been raised or adopted by an alien race of great wisdom, as in, for example, Robert Heinlein’s eponymous Stranger In A Strange Land. But it goes back before SF to all those old stories about people raised by animals or fairies that are common in folk tales around the world.

There will inevitably be differences between humans and aliens, so that the sort of interaction between species around which these stories are mostly built is, to say the least, unlikely. Or the aliens would have to be awfully human; and remembering how diseases that were no more than childhood ailments in Europe managed to wipe out whole populations in the Pacific and the Americas, then if the aliens were human the disease possibilities alone would be frightening - consider the end of The War Of The Worlds. That’s what makes all those stories about sex between humans and aliens, from Philip Jose Farmer’s The Lovers to John Boyd’s The Pollinators Of Eden, so ludicrous. Oh, there may be the slight chance that enough similarities may exist between them to allow the king of interspecies marriage depicted in Gardner Dozois’s Strangers, but there will always be the differences that mean the human, and sometimes the alien, have to pay the price.

But these are very different humans from those brave souls who saved humanity from so many alien invaders in the old pulp era and after. In many ways these stories are the mirror image of the old invasion story in which morally superior man defeats technically superior alien; now man is the technically superior invader and the alien is the victor. It is noticeable, though, that man is never the invader in the sense of, say, Wells’s Martians. Instead he is there to trade - the traditional pattern of European dominance in the Pacific during the last century - or to study, or as a missionary - Christian missionaries were responsible for much destruction of social and cultural patterns in Central and South America in the sixteenth and seventeenth centuries. Though this doesn’t stop the missionary’s comeuppance being brutal when it comes, as in Harry Harrison’s 1962 story “The Streets Of Ashkelon” (a.k.a. “An Alien Agony”):

"God will make a miracle for us, thereby proving that He is watching us. And by this sign we will know Him and go to Him."
"That is the sin of false pride," Father Mark said, "God needs no miracles to prove his existence."
"But we need a miracle! Itin shouted, "...We have discussed this and find that there is only one miracle that is best for this kind of thing."

Poor Father Mark finds himself nearer his God than he cares to be, all part of the perennial human inability to understand the alien. But it’s also part of the diminishment of the human. I can only applaud the move away from the all-purpose cardboard hero of the pulps to the fallible human being; but it seems that once this collapse started it was unstoppable, reaching its nadir, I suppose, in the reduction of men to nothing more than interstellar sperm in James Tiptree’s "Homentary Taste Of Being" and, on a far cruder level, Kurt vonnegut’s "The Big Space Buck".
While mankind was in decline, the alien was undergoing a parallel transformation, only in this case it was aggrandisement. No more was an alien to be unspeakably evil; instead his standard character was to be god, guru or noble savage, or a mixture of all three. In terms of physical appearance, however, he was in decline. Pangborn's tiny "angel" may have been ahead of its time, but now the monsters are really dead and buried. Most aliens in contemporary SF seem to be as near-human as makes no difference. Curiously, the closer they got to human shape, the more alien they became in attitude, culture and the like - it's as though now that writers have stopped expending their creative energies on producing strange shapes, they can concentrate on producing strange societies instead. But still the alien isn't as strange as all that, and meanwhile his shrinkage continues apace, resulting in stories like Robert Silverberg's "Passengers" and Frederik Pohl's "We Purchased People" where, as in Gateway and Rendezvous With Rama, the aliens don't actually appear.

In "We Purchased People", Pohl assumes that his aliens will follow practices that we can understand, in this case trade. It is significant, though, that no one in "Passengers" has any idea why the aliens do what they do. The "invisible alien" of these stories is not unrelated to the "alien" humans perhaps shown to best advantage in Ursula LeGuin's The Left Hand Of Darkness, Olaf Stapledon's Last And First Men, James Blish's The Seedling Stars, and Samuel R. Delany's "Aye, And Gomorrah". In such stories, the human characters paraded before us are very different from the common stock of humanity, and consequently have very different ways of looking at things and different forms of social organisation and so on. R. A. Lafferty has one of his characters in Past Master say: "Mankind was the awkward childhood of our species; we do well to forget it" 7; but the child is father to the man, the human basin of it all cannot be forgotten. The underlying humanity of even the most 'alien' of these beings provides a way into their psyche, their society; the sort of entry that would not be possible with a truly alien race.

Science Fiction writers have realised how alien an alien society would be, and so they're steering clear of them. Perhaps it's just as well. There's a book called The Woman Warrior by Maxine Hong Kingston that describes the effect upon her family of their being Chinese immigrants to America. It is stranger, gives a greater sense of what it to be an alien, than any SF I've ever read.

In the beginning, in Rosny's "Another World", the aliens were alien in both form and character, and the author just accepted that they were without trying to comprehend them as well. Then, all at once, the alien became an invader and a horror, the cardboard child of the pulps. This hardly mattered at the time since their human opponents were just as cardboard; but as SF writers began to discover such marvels as characterisation, they seemed to imbue both human and alien with the same human, in fact the same American, character. It has been an uphill struggle but very slowly authors have started to think seriously about the aliens they have created, and the thought has arisen that anything that is truly alien just might be alien in every way. Maybe it won't act in the same way we do, maybe it won't think in the same way we do, maybe it won't believe in the same things we do, maybe it won't be bound by the same parameters we are; maybe we just won't be able to comprehend the why and wherefore of the thing. And as writers have begun to think about these things, so the alien has disappeared, to be replaced by distorted humans - which is all that earlier aliens were in the first place. Maybe it's only right that SF should admit itself defeated by its own greatest cliche.

Footnotes

2 Ibid, p 324.
7 R. A. Lafferty, Past Master, Ace, 1968, p 76.
There are few writers within SF who arouse more controversy than Jack Vance. He is a highly individual writer (in several meanings of the phrase) who seems to inspire supporters and detractors in equal numbers. This, while by no means unique in a competitive world, is odd for such a shy individual and is inspired wholly by his work. It is, furthermore, unlikely that this gap will be diminished by the fact that Vance is beginning to take both his role and his work more seriously.

Jack Vance (who was 63 in the week following the Worldcon) has had thirty-one novels published, although several of them only fit the old Ace Double format: "The Last Castle", for example, was unaltered from the form in which it won a 1967 Hugo as a novelette. There have also been eight collections of shorter fiction, including The Many Worlds Of Magnus Ridolph, an early series (many of the stories dating from the forties), The Best Of, and two fantasy collections, The Dying Earth and The Eyes Of The Overworld, which many rate as his best work. Much of his work has not appeared in this country; one novel, Five Gold Bands (originally published as The Space Pirate), is mentioned in the front of the Mayflower editions of Vance as having been published, but after three years it looks an increasingly forlorn promise; another, Emphyrio, had such a short life in print (in America only), that it is virtually unobtainable and I am forced to take the word of the ever-reliable Malcolm Edwards that it is one of his best.

Despite a currently fair representation, in quantity if not discrimination, this generally poor record is one of the paradoxes of Vance, for he is an undoubtedly "popular" writer - although his individual attitude to Plot, Pace, and Action (the indispensible of mass sales) means that he will always remain dependent on a cult following albeit an expanded one.

It is difficult to refute some of the adverse criticism of Vance. He does not have large enough ideas to sustain a closely-knit series - all the Durdane trilogy manages to produce, for example, is repeated revolt and counter-revolt, each undistinguishable in type from the next. Similarly, the Keith Gersen ("Star Kings") series, featuring one act of revenge after another upon a dwindling band of space pirates, has insufficient variety to maintain interest over three novels. Even more drab is the "Planet Of Adventure" tetralogy (also known as "The Tschal Quartet") where Vance has not paid his usual attention to background society and geography and, since action of the violent kind has never been his forte, the result is an aimless ramble. In almost every book, however - with the possible exception of those mentioned above - Vance has something of interest. Even his early Ace novels stand out from the mass of hastily-written, often indistinguishable adventure yarns by the quality of their imagination.

The paradigm for the early Jack Vance adventure novel is Big Planet (1951). This is set on the eponymous planet, 25,000 miles in diameter and possessing metals only at its inaccessible core. This gives Vance the opportunity for depicting a relatively metallfree culture in which metal, in this case iron, is wealth, and for improvisation, at which he can excel. An example of this occurs on the journey (one of 40,000 miles) when the party use the monoline, a non-metallic monorail, the rope for which is made from the extrusions of large snags. (Inevitably there had to be a journey; journeys are central to almost every Vance novel, whether as search (as in Nine: Alastor 953 and the "Planet Of Adventure" series), or escape (as in Slaves Of The Klaau and To Live Forever), or just a journey for its own sake.) Here the Earth Central Commissioner, Claude Gysten, must escape from a dictator with a group containing a traitor through the wild interior and its peculiar societies.

Equally inevitably these societies are the real stars of the novel. The most interesting is that of Kirstendale, which at first sight appears to be very rich, peopled by aristocrats and architecturally dominated
by great hotels - the Ritz-Carlton, the Grand Savoyard and the Metropole. These all turn out to be different entrances to the same building, one which also contains the cheaper Inna and the economic Hunt Club. The aristocrats must pay for each privileged hour by working for two as a servant or in shops and factories; nevertheless, they all say they are quite happy and are thus enabled to live several lives. Gystra's party also meet the Gypsians, a mixed culture of Romany, Polynesian and Kirghiz tribesmen who live as nomadic warriors and by robbery, slavery and cattle-herding; the Hehbiro, who are very like Touregi; the Dagoniens of Myrthese, who maintain an oracle inspired by drugs and telepathy and are Druidic in function; and have several less important encounters. Transport includes zipangotes, a sort of six-legged camel, and the aforementioned monoline.

Gystra is a fairly omniscient hero and there is some attempt at characterisation, but Vance is rarely interested in drawing individuals in depth (in this he is possibly a prisoner of his writing generation) and, despite a dramatic learning experience, Gystra remains a type. Slightly more successful in the character of Gystra's female companion Nancy, one of several Vance women of confused or disguised loyalties - Dame Blanche-Aster of Showboat World and Schamine Maddux of The Gray Prince are two others. Vance is actually quite advanced for his age in attempting to depict strong women; indeed, in one of his early Ace books, Monsters In Orbit (1965, but a collation of two 1952 novelettes) he has a woman protagonist who defeats all the male characters.

Over twenty years later Vance chose to write about the same planet again in Showboat World, and the differences show some of the developments in his work over the intervening years. Although set on Big Planet, the nearest resemblance is to another of his earlier novels, Space Opera (1965), dealing as it does essentially with the difficulties of a travelling group of entertainers playing to unpredictable cultures. In this case we have a pair of actor-manager-showboat captains competing with each other on the way to a special competition further to the north than they have previously sailed. By now Vance has solidified his iron standard to the point where one gram (half a gram) represents the ordinary wage for a day of common toil, an advance over the undiscriminating weights which were handed out in Big Planet. There is also much more concern over background, with footnotes, a map, and an explanatory forward (indeed, many of his novels of the 70s - Mosk: Theory and the Alastor books in particular - also contain glossaries). The societies encountered by the two showboat captains, Garth Ashgale and Apollon Zamp, are not as inherently hostile or predatory as those in Big Planet but have instead areas of special sensitivity: at Skiverace the people are liable to seemingly ceaseless hysterical laughter and so are only presented with programmes of religious tracts; at Port Want they are so exciting that yellow is banned as a sexual stimulant and red as a challenge, and they also resent being smiled or even looked at; and at Chist the matriarch causes a riot over the witches in Macbeth. There is also a variety of peculiar musical instruments, including the help-horn, acereedle, variboom, elf-pipe and thunder-machining; and a variety of performances: "The middle afternoon was enlivened by Gazild's and his Unfortunate Double-Jointed Idiots aboard the 'Fireglass Transp'."

The conversations between Zamp and the archivist Cossoon, however, provide the springboard for most of the humour, which occasionally reaches the standards of such masters as Fritz Leiber. They discuss possible presentations, Cossoon insisting that it must be something of Old Earth and Zamp reluctantly agreeing but equally adamant that it must be something light and diverting. Zamp would like to stage Paradise Lost but is persuaded that it would be too expensive; and rejects The Critique Of Pure Reason on the grounds that he does not want to do a "costume allegory". The version of Macbeth that is finally produced bears a resemblance to some Gellgud nightmare with pretty, half-naked girls serving the dinner, Macbeth propping the Lady Macbeth (whom both he and Cossoon fancy), and an interpolated scene with a naked Lamia sucking the blood of Lady Macbeth. Each of these is a cause of furious and amazingly silly arguments between Cossoon and Zamp - and thus, while Showboat World is nothing more than a light romp, it is well done, and full of imagination and ingenious contrivances.

While the later career of Vance does hold out the hope that he will offer more of such pleasant little tidbits it is unlikely that he will ever again be a major innovator. It is sometimes forgotten by his det-
ractors that Vance is one of SF's major innovators. He has introduced at least three major or important ideas into the genre. In *The House of Iszic* the Iszic culture grows trees which form rooms and then breaks them off by the severing of nerve ganglia. This is portrayed particularly well as house-breaking is a sensitive art-form; a form of symbiosis which causes the trees to reflect the colour of their owner's thoughts. The madhouse where homoidly violent criminals are imprisoned is thus just that (a form of literalism which Vance often employs to telling effect). The most recent use of this was by Lee Killough in "Broken Stairway, Walls Of Time" in the June 1979 issue of *Fantasy & Science Fiction*, and there have been many previous ones. Perhaps most startling in its timing, though, was his use in *Monsters In Orbit* of a sort of cloning, by the splitting of a fertilised egg (in a similar but more personalised manner to that of Huxley's *Brave New World*) to produce eight versions of the heroine, Jean Parlier. The most accomplished in execution of these innovatory novels, however, is *The Languages Of Pao* (1957), which is entirely concerned with linguistics as a reflection of culture and as a means of controlling societies and individuals. Vance produces a very well-illustrated thesis and, in its revulsion against over-individualism, a well-balanced conclusion. This theme was later to form the basis for Samuel R. Delany's superb *Babel-17* (1966).

As I have indicated previously, the 70s have seen some changes in the way in which Vance approaches his work. In addition to the greater documentation of individual backgrounds he has tended to concentrate on one period of the future: the Gaean Reach, a far cluster of loosely federated stars. *Maske: The Gray Prince*, the three *Alastor* novels and the current *Miro Hetzel* series (a novella, "The Dog Town Tourist Agency" in the Elwood and Silverberg-edited *Epoch* and a novelette, "Freitze's Turn" in the Silverberg-edited *Triax*) are all set in this area. All share the same monetary unit, the S.V.U. (Standard Value Unit, the worth of one ordinary man's unskilled labour under standard conditions for one Gaean hour) and standard honorific titles. In addition, the *Alastor* novels share a general (and rather remote) Presidential figure, the Connatic, and a game, Hussade (which receives a minor mention in *The Gray Prince*), a sort of Roman arena version of American football with curious trappings. (Its rules are explained in great detail in *Trullion: Alastor 2262* but remain incomprehensible as far as I am concerned.)

It is in the matter of politics, however, that Vance's changes give the greatest concern. He has always had a reputation for being a right-winger and was certainly a public supporter of the Vietnam War, but within his work has managed to retain a kind of balance - if Big Planet was only a world dreamed of by laissez-faire capitalists, his hero is a man of Earth. In two novels of his Gaean "series", *The Gray Prince* and *Wyat: Alastor 1716*, it would seem that he is allowing the balance to tilt. There has always been present in his work a kind of alienophobia - they are either inimical, or patronised native bearers, or skulking practitioners of obscene rituals; and in *The Gray Prince* we have all three.

The planet Koryphon was colonised by two groups of aliens, the Ultras and the Windrunners, who turned one set of natives into servants or beasts of burden and forced the other, more primitive one, onto reservations. The planet was then conquered by humanoid space pirates who became land barons, ruling great domains in what was previously Ultrad territory; while other Outkers (the word means non-Ultras or non-Windrunners) established towns in unoccupied but more fertile territory. Two hundred years after this last invasion the Outker government, the Mull (composed of town-dwellers), is under pressure from a pro-Ultrad organisation, the Redemptionists, to greatly restrict the land barons' power. The situation is thus not unanalogous to the original colonisation of South Africa, where a small number of whites conquered a much larger number of blacks, who had at some previous time evicted the original bushmen inhabitants. There is never any real doubt as to where Vance's sympathies lie, for the seemingly impartial introduction takes care to mention all the improvements that the land barons have brought, and attributes Ultrad resentment of them to the fact that they do not want to rape their women! Were it not that such humour is an acid of Vance's work this would seem the nicest of jokes. It is also reported that Mull investigations have shown that Ultras in domain lands live contented lives in comparison to those running wild, which resembles the views expressed by pro-apar-
of cultural imagination and sense of wonder. Also, incidentally, that Ursula LeGuin, having written so few works of fantasy and SF, also demonstrates in favour of (Red) Indian rights, and most attracted by right-wing libertarian views. Nevertheless, I do hope that he, unlike Custer, can leave the battlefield before it is too late. Nobody else can write with Vance's heady amalgam of cultural imagination and sense of wonder and much are still needed in both fantasy and SF. Also, incidentally, that Ursula LeGuin, having written so few works of
THE BSFA AWARD

Albacon, the 1980 British Easter SF convention, will be the occasion of the presentation of the 1979 BSFA Award, and now is an opportune time to reflect upon the fact that it is the only annual award of its kind in the UK. As such, it has a potentially wide-ranging effect on all those concerned with reading and writing SF, and with this in mind a major departure from the voting procedure of previous years is being introduced. Members of the BSFA will have the opportunity to nominate in the four categories of NOVEL, SHORT FICTION, MEDIA and COVER ARTIST; ballot papers will then be sent out to all members and will also be made available to all those attending Albacon. The size of the voting platform will thus be vastly increased and the value and importance of the Award consequently greatly enhanced.

As is customary, nominations must be confined to works which have seen their first British publication in 1979. Thus a paperback reprint of a hardback novel or collection is ineligible; similarly, a work that has previously appeared in an SF magazine or anthology cannot be nominated if it has since been reprinted in some other format. Imported magazines and books are only acceptable if they were distributed over here; individual imports, however, cannot be nominated. Otherwise nomination forms are included with this mailing; below is a list of suggested works that might be included. You may nominate as many items as you like, but all nomination forms must reach Mike Dickinson at Flat 7, Chapeltown Road, Leeds LS7 3JT by 31st December 1979. Nominated items will then be totalled up, and the final ballot, showing the top four in each category, will be sent out with the February 1980 mailing. These ballot papers should then be returned to Mike by 29th March 1980 at the very latest, although Albacon attendees may hand them in at the convention itself up to 6:00pm on Saturday 5th April 1980.

Please vote - it's in your interests to do so. We look forward to your flood of nominations.

NOVELS

The Unlimited Dream Company - J. G. Ballard (Jonathan Cape)
Profundis - Richard Cowper (Gollancz)
On Wings Of Song - Thomas M. Disch (Gollancz)
Blind Voices - Tom Hamy (Sidgwick & Jackson)
The Second Trip - Robert Silverberg (Gollancz)
Son Of Man - Robert Silverberg (Panther)
A.K.A.; A Cosmic Fable - Rob Swigart (Magnum)

SHORT FICTION

"Collaborating" - Michael Bishop (Year's Best Horror Stories: Series VII, LSP/Daw)
"Camps" - Jack Dann (Fantasy & Science Fiction, May)
"Mythological Beast" - Stephen R. Donaldson (F & SF, January)
"Fainly Loitering" - Chris Priest (F & SF, January)
"Prose Bowl" - Bill Pronzini & Barry N. Malzberg (F & SF, July)
"The Pot Child" - Jane Yolen (F & SF, February)

MEDIA

Alien - dir. Ridley Scott
Buck Rogers In The 25th Century - dir. Glen A. Larson
The China Syndrome - dir. James Bridges
Quintet - dir. Robert Altman

COVER ARTIST

Jim Burns
Adrian Chesterman
Peter Elson
Bob Powke

Peter Lord
Rodney Matthews
Patrick Woodruffe

N.B. - The above are suggestions only, and should not be mistaken for any kind of "official" short list. Your choices are the ones that will count.
VICINITY CLUSTER, Volume 1 in the Cluster Series, by Piers Anthony (Panther, 297pp, £1.25)

Reviewed by Kevin Smith

VICINITY CLUSTER is all about sex.

Well, not all about sex, but there is a lot of sex in it, and pretty graphic it is too. If you were a wheeled inhabitant of the Polaris "sphere" (where sex involves exchanging balls) there would be a pretty steamy chapter in it for you; and if you came from watery Spica (where sex is a three body problem) the authorities would very likely have censored another highly explicit chapter, including the diagrams; but strangely enough, if you were a humanoid from Capella or Canopus or Etamin you'd be greatly disappointed by the coy fade-outs whenever what we might call old-fashioned screwing was imminent.

The novel consists of a series of short stories about a stone-age human called Flint whose "overpowering Kirlian essence" makes him the ideal sucker for a plot like this. Said "essence" is transferred from alien body to alien body throughout the galaxy in an effort to unite the autonomous "spheres" against the wicked Andromedans (who want to steal our energy and make things fall apart), and to get in as much sex as possible.

Personally, I think the blurb writer is overstating it a bit when (bewitched by the thought of alternative sex, as like as not) he says: "...a brilliant science fantasy saga of cosmic scale and imagination...." In fact, it's pretty drab stuff for the most part, even the sex.

THE ANARCHISTIC COLOSSUS, by A. E. Van Vogt (Pan, 176pp, 85p)

Reviewed by Kevin Smith

You'd think, wouldn't you, that when a reviewer has reached Chapter 7 (of 55) he'd have an idea of what was going on, even a wrong one. Well, so far I haven't a clue, except that Van Vogt has Kirlians too. I'll let you know how I'm getting on....

Here I am at Chapter 17. It seems that Earth is an anarchistic society where anyone can do anything they like, only the Kirlians zap you if you get violent and emotional. (This is not the same concept of Kirlian as Piers Anthony's, but seems just as believable - i.e. hardly at all.) Personally, I think the Kirlians inhibit
logical thought; I've yet to find a single, solitary rational act in all 17 chapters. No wonder the alien observing human-kind through the perception of the hero seems a mite confused. Oh, didn't I tell you about the alien? He's been plotting to destroy the Earth in a very elaborate manner since Chapter 1, despite the fact that he can smash it almost at will. This is a game his people play, and which saves him from having to act rationally as well. More when I find the strength....

Thank God it's over! The alien lost his game and the Earth is saved, although I wouldn't like to commit myself as to the how or why, except that the hero apparently had little to do with it. Like the author, really.

The book is devoid of action, pace, character, style, grammar, literacy, interest — of everything, in fact, except words, of which there are far too many.

VISIONS AND VENTURERS, by Theodore Sturgeon (Gollancz, 300pp, £5.50)
Reviewed by Joseph Nicholas

This, as far as I can determine, is the first world hardback edition of a collection published for the first time anywhere as a Dell (US) paperback earlier this year; and all that is in fact its only real claim to fame since the stories, although dating from Sturgeon's vintage period of the late forties and early fifties (with two exceptions: "The Hag Sbleen" and "The Nall And The Oracle", first published in 1942 and 1965, respectively), can hardly be considered as all "vintage". (Indeed, that they have remained uncollected for so long is surely some indication of the author's own opinion of them.) The best is probably "One Foot And The Grave", an understated horror-fantasy about cloven hooves, black magic and an imprisoned archangel; while the worst is undoubtedly "The Nall And The Oracle" (although "The Martian And The Moron" comes a close second), a 24-page "joke" with a punchline so feeble as to provoke only anger that you should have wasted so much time reading it all in the first place. The remainder, although readable, are also very forgettable; they pass a pleasant hour or two, but little more. All amply demonstrate Sturgeon's one overriding fault: a schmaltz and tears sentimentality (as Franz Rottensteiner once so harshly but accurately described it) that repels by its very excessiveness, and in the case of a story like "The Touch Of Your Hand" simply points up the essential triteness of its theme (the wonderfulness of love, mostly). The book is for Sturgeon enthusiasts only; everyone else would do better to wait for the paperback.

SHIP OF SHADOWS, by Fritz Leiber (Gollancz, 253pp, £6.95)
Reviewed by Roz Kaveney

So much of a reviewer's time is wasted on work that pretends to be new but is simply a warming-over of the same tired old cliches that it is a pleasant change to review a collection of stories all of which one has read several times before but all of which are of a quality so high that they reveal perpetually new facets and new richesses on every reading. It is of course unfortunate that the collections of Leiber's short stories in print duplicate so many stories while leaving work of equally or almost equally high stature unavailable.... it is unfortunate that for the most part collections of his work, with the exception of the collections of his sword-and-sorcery stories and the early collection of his supernatural horror, Night's Black Agents, have been overviews of his work rather than concentrating on particular veins of it.... but it would be churlish not to welcome roundly a collection of stories which are at least united by quality if by little else.

"Ship Of Shadows" and "Belsen Express" are perhaps the nearest approaches to conventional material in the book, the first being an elegant variation on the "Universe" theme and the second an exploration through the form of the supernatural horror tale of the enduring power, as myth, of Nazi Germany. "Ship Of Shadows" transcends its material by its eloquent portrayal of the rehabilitation of the prematurely senile, alcoholic hero by a combination of his own efforts and the help of others, quietly exploding the myth of the self-sufficient hero with a fictional construct which shows interdependence and an inarticulate sense of fairness as more valid social forces. "Belsen Express" manages to treat its material adequately and is particularly effective in the way it links the traditional passivity of the horror story victim with the passivity and complicity of individuals to political terror.

"Conna Roll The Bones" is a brilliant exploration of the folklore of America — it has the feel of Paul Bunyan and Casey Jones the tall tale of the semi-urban worker aware of the seedy highlife of the under-
world and of the other Underworld of Death and the Devil, of the Big Gambler and his sidekick Mr Bones. The misogyny of this sort of folklore is expressed quietly in a mood of separation and withdrawal; the story ends with the magnificently slip yet moving period of "Then he turned and headed straight for home, but he took the long way around the world."

"Ill Met In Lankhmar" is one of the best of the extremely uneven sword-and-sorcery cycle which has formed so large a part of Leiber's output, an eloquent if in patches overwritten elegy to first love and first loss, which effectively and suspensefully turns a mood of light comedy into one of horror and tragedy. Leiber has explicitly linked this story to the death of his wife - it is a satisfactory expression of mourning and comradeship while being a first rate example of the form to which he has devoted so much of his efforts.

In "The Big Time", the oldest of the stories in the book, Leiber produces a fairly satisfactory female narrator for a moderately classic tale of bohemianism and lost love. The Change War, which unifies this novel with a number of shorts of varying quality, is one of the most convincing and moving myths that the SF genre has produced in recent years - an explanation of the mutability of memory which "doesn't seem to be bringing you exactly the same picture of the past from one day to the next" and a consolation for all lost love and lost possibility in its demonstration that this war of paradox and historical alteration is part of an evolutionary process which ensures that everything that can be will have been.

Lastly, there is "Catch That Zeppelin!", possibly the finest example of the mode that Leiber has been intermittently creating and exploring since the middle sixties, a mode in which the traditional mechanisms of the SF and fantasy genres are used playfully, with a sort of loving contempt or mockery, to write a kind of confessional prose poetry. Here Leiber uses once again the time paradox and the historical alteration to explore the paradoxes of age and the complexities of being a German American. A collection which would unite this to other stories like "Black Glass" and "Death Of Princes" is long overdue.

Overall then a useful collection which serves as an admirable introduction to Leiber's work and a fine tribute to one of the most praised but least discussed masters of the field.

QUASAR, QUASAR, BURNING BRIGHT, by Isaac Asimov (Avon/Discus, 221pp, $2.25)
Reviewed by Dave Langford

Strange things happen to you when you're famous.

I was sitting at the typewriter recently, effortlessly tapping out my fiftieth page of the morning (my enormous output and dedication are just two of the reasons for my being the best-known science and science-fiction writer in the world, and irresistible to women), when the telephone rang.

"Hello! This is Isaac Asimov, internationally celebrated writer and raconteur," I said into the mouthpiece with my usual lovable wit.

"Sorry, wrong number," said a voice at the other end.

After I had kicked the telephone into tiny fragments, I got to thinking about the sheer irrelevancy of this incident - and speaking of irrelevancy, it's time to switch to the subject of this month's essay....

It is with this form of sprightliness that Asimov opens his monthly science column in The Magazine Of Fantasy & Science Fiction; you either like it or not. Quasar, Quasar, Burning Bright assembles 17 of these columns without any overall theme: they are simply those which appeared from May 1976 to September 1977, plus an introduction and a few notes. If past experience is any guide, some of the essays will be turning up again in a collection with a theme; this column contains bits suitable for Asimov On Atoms, Asimov Vs. Economics & Technology and (more than half the book) Son Of Asimov On Astronomy.

Behind the all-purpose facade caricatured above, the essays are workmanlike pieces of exposition: Asimov does know something about everything and deploys the knowledge pretty well. He has a genuine ability to shape scientific history and even the dry bones of statistics into neatly plotted narrative - though lacking the Carl Sagan sense of wonder or the sheer fine writing of a Loren Eiseley. This is in fact an Asimovian policy point: he believes that evocative writing hinders exposition. (True for a thesis - but for a popular essay?) Despite the immense ego flaunted in the introductions, he's ready to confess past errors, a couple of these essays retract assertions from previous books and explain how it really is (a cynic might suggest that this gives the opportunity to cover much of the same ground again).

Of course the present book has its debat-
able statements, perhaps inevitable with such compression and simplification.... To insist that gaslight is invariably flickering and dim suggests ignorance of the incandescent mantle. To dismiss Milton as "weak on astronomy" on the grounds of Paradise Lost's fictional cosmology is about as sensible as berating Dante for planning his Inferno in defiance of geophysics.

Subjects covered include physics, chemistry, economics, astronomy and von danikenism - the last dismissed coolly and well, without the name-calling with which Asimov disfigured his Analog attack on Velikovsky. If you like to pick up knowledge painlessly, if you can tolerate the witty openings, the avoidance of complexities and an occasional plethora of figures, and if you don't own a run of F & SF, this collection and its twelve predecessors are worth looking at.

A DOUBLE SHADOW, by Frederick Turner (Sidgwick & Jackson, 252pp, £5.95)
Reviewed by Brian Stableford

A Double Shadow is the first novel by a British-born poet and university teacher. It is an exotic futuristic fantasy set on a Mars so lushly decanted that it makes Leigh Brackett's version of the red planet seem positively mundane. In this world, life is drama or melodrama and every man constructs his biography as a performance to be judged by fickle aesthetes. The human characters have become godlike, but they co-exist with even more powerful characters who have taken the roles of the ancients gods.

The background of the story is one on which all the metaphysical aspects of art become real - the creative vision becomes an active force which can be called upon to make dreams substantial, and style is incarnate in every action. The story is colourful, bizarre, paradoxical and eloquent, and has a good deal to offer the sympathetically-minded reader. For myself, I found it enjoyable and to some extent admirable, but I must confess that in retrospect it seems to be intellectually vacuous and in some crucial sense unsatisfying. It is well worth reading, but some readers will find it completely alien and may throw it aside contemptuously when it is finished.

WEB, by John Wyndham (Michael Joseph, 167pp, £4.95)
Reviewed by Philip Stevenson-Payne

Eight years ago, responding to a query of mine, the late Ted (John) Carnell commented: "There was a projected novel of which Web was one of the working titles. It was to have concerned giant spiders but Harris (Wyndham) found that scientifically such an event was an impossibility. Unfortunately, his publishers has publicised the plot and he tried hard to work within its framework. He and I discussed it after its first rejection and I suggested a new ending, which he liked and wrote but this didn't come out too well. "Subsequently he wrote three more endings and the publisher was given the choice of any one. However, after consultation between author, agent and publisher it was decided to withdraw the book completely as it was nowhere near his usual standard and could well harm his reputation.

"Whether a copy of the ms still exists or not, I do not know. I doubt whether anyone would be allowed to read it, in any case, although a number of publishers have been trying to obtain a copy for years."

In the light of this it is interesting to see the book published after the lapse of ten years from his death that Wyndham apparently stipulated in his will.

The novel's subject is spiders, although fortunately not giant ones. On the remote island of Tanakuwau in the South Pacific, a mutation has occurred among one species of poisonous spiders which has caused them to abandon their usual policy of individualism and to organise in groups. A small change, but enough to have devastating consequences. To the natives of neighbouring islands, Tanakuwau is tabu, following a curse laid on it by Nokiki when his people were evicted by the British because of a nearby nuclear test, and so the spiders remain undiscovered until a group of English "pioneers" land on the island with a view to founding a new "utopia" (the brainchild of an eccentric millionaire, Lord Foxfield).

Among the party are the narrator, Arnold Delgrange, and the shapely Camilla Cogent, a dedicated biologist, and it is through their eyes that we see the initial discovery of the spiders. It is also through Camilla's speculations that Wyndham brings home to the reader the full implications of these creatures - who have already taken over half the island and seem intent on conquering the other half at least.

Wyndham has always been fascinated by man's
tenuous hold on his position as "lord of creation" (as in _The Day Of The Triffids_ and _The Kraken Wakes_) and by the effects of mutations (as in _The Midwich Cuckoos_ and _The Chrysalids_), and in _Web_ he has combined these two interests. As Camilla says at one point:

"For the time being we are sitting pretty - but not for long.... The only difference between us and other species is that we have superior equipment for preying on them, and for coercing Nature for own benefit. Beyond that the same rules apply. There is no warrant whatever for supposing one can 'preserve the balance of nature' - with man comfortably in the saddle, which is what the whole concept implies."

After a fairly weak and slow start dealing first with Lord Foxfield and his ideals and then with the history of the island, the central section of the novel, introducing and developing the threat of the spiders, is superbly handled with all of Wyndham's skill, and the reader is gripped from the moment the party land on the island until the denouement many chapters later. Sadly, as Ted Carnell's remarks imply, the ending is unsatisfactory in its rounded neatness, although it is hard to think of a better way he could have done it.

Overall, _Web_ is not up to Wyndham's best, but it is a great improvement on the flood of 30s stories (written when he was young and relatively inexperienced) that we have recently seen in his name, and certainly deserves to take its place with (if slightly below) _The Day Of The Triffids_ and the rest.

---

**THE CHAOS WEAPON** by Colin Kapp (Dobson, 201pp, £4.25)

Reviewed by Dave Langford

One sometimes hears that books should be judged on their own terms - in terms of how they fulfill the authors' intentions. Thus the Star Wars and Close Encounters novelisations can be deemed successes on the intended level of moneymaking, though on no other. So it's probably futile to castigate The Chaos Weapon overmuch for its massive deployment of cardboard characters recycled from pulp; Kapp intends a galaxy-shattering space opera whose mere concepts will burst the frontal lobes (and who can wholly blame him when editors announce daily that this is what they want - that this is what the opinion poll of sales has declared Good Stuff?).

The basic notion has potential: cataclysms are detectable in advance, but free will creeps back to allow people's ingenuity to manipulate the disaster (e.g. explosion still happens but enemy is blown up rather than you - see Kapp's vaguely related _The Patterns Of Chaos_). The Weapon of the title delays and intensifies disasters to ensure they wipe out civilisation's key men, weakening us for the onslaught of the wielders (who covet this universe). But the super-science becomes steadily sillier: the Weapon is fed with an ammo belt of suns and focussed by ten black holes,... and the hero is hit by its output more than once, the bolt merely bouncing his ship "against the elastic walls of the continuum itself". He survives to instigate the destruction of the universe (not this one), achieving this and other victories by happening to be in the right metaplace at the right paratime. Wonder piles upon wonder: "the ship was not circumventing the light barrier but had become enmeshed in it". The Weapon sits in a gravityless nonspace through which matter and light can pass - but not energy. Later gravity starts working also.... why does this happen? "For some reason." (p. 184)

So the space marshal dives out of the airlock with a planet-busting hellburner bomb "clamped under one arm" and....

Not successful even on its own terms, I fear. Kapp has invented much better imaginary physics (cf. "Lambda One"); this farrago is for Van Vogt fans who care nothing for internal logic.

---

**SEX IN THE 21ST CENTURY**, edited by Michel Parry & Milton Subotzky (Panther, 172pp, £2.50)

Reviewed by Chris Evans

Theme anthologies are much loved by SF editors. Who can forget such classics as _Future Cookery_, _Origami In Orbit_ and _Great SF About Teeth_? This particular book is another collection of stories on sexual themes, although the title should be interpreted broadly since by my reckoning only 9 of the 14 stories are set in the 21st century.

Is it a good collection? Uneven, I'd say. There are strong contributions from Robert Silverberg ("Push No More" and "In The Group") and Robert Sheckley ("Can You Feel Anything When I Do This?" and "Love, Incorporated"), four stories which actually endeavour to examine some of the thorny questions of love and sex. Also present are Charles Beaumont's much-anthologised "The Crooked Man", about a future society in which heterosexuality is regarded as a perversion; Alan Dorsémiex's "The Vana", a
gentle, reflective story of one man's love for an alien creature, and an amusing end-piece by Steven Utley, "Pan-Galactic Swingers Dept", in which all manner of exotic life-forms advertise their sexual proclivities and partner requirements.

The rest of the stories range from the competent to the dull, with the exception of Isaac Asimov's "What Is This Thing Called Love?" (originally published as "Playboy And The Slime God"), which is the most awful story I've read in many a moon. The tale of an ordinary man and woman kidnapped by aliens who wish to investigate the human sexual act, this ostensibly comical story is in fact a tawdry, puerile, scurrilous piece which forever hovers on the brink of its subject-matter like a dirty old man hiding in the bushes watching young girls undress. The dialogue is inane, the characters are cliches, and the auctorial tone is one long snigger. An offensive piece of trash, a wart on the body of literature.

Yes, it made me angry.

Are we likely to see more anthologies on love and sex in SF? If so, I would recommend that prospective editors seek out "Come To Venus Melancholy" by Thomas M. Disch and "This One" by James Sallis, two stories dealing with perverse forms of love which have real emotional hearts to them. Meanwhile, I think someone should produce a collection of SF stories devoted to slimming. It would, of course, be called The Shape Of Things To Come.

Robert Sheckley has always been rather unsure as a writer of novels. This one dates from 1960 and shows him uncertain as to whether he was producing adventure, satire, or something altogether deeper and more serious, and the result is that these elements alternate, confusing the reader and detracting from the overall success of the book. The opening is grim, but familiar, with the brainwashed hero waking up and trying to find out who and where he is. He is, in fact, a convicted murderer shipped out from Earth to the world of criminals, Omega. After he learns his name (Barrent) and begins to discover how the criminal-run planet is organised, it soon becomes apparent that this will be an adventure novel, though fairly light-hearted - in the tradition of Harry Harrison's The Technicolor Time Machine or Keith Laumer's Galactic Odyssey - but some aspects of life on Omega are obvious satire, as when a priest comes to call on Barrent. (On Omega everybody worships the devil, of course, and tries to emulate his evil ways.)

"Every Monday night - at midnight - we hold Black Mass at the Wre Coven on Kirkwood Drive. After service, the Ladies' Auxiliary usually puts out a snack, and we have community dancing and choir singing. It's all very jolly.... You see, the worship of evil can be fun."

Even Ron Goulart couldn't have put it better. Yet Sheckley is not content to play it all for laughs; Barrent becomes more successful, more of a hero-figure; you could say he bears a charmed life. He seems predestined for something, and all the time he is worrying about whether he really did commit a murder back on Earth. Everybody seems to know what's going on except him. He finds out by experience, surviving the direst perils with ease. He is, naturally, the subject of that familiar Sheckley feature, a manhunt-to-the-death (see Immortality Inc., The Tenth Victim, and various of his short stories). By means of slick writing and plenty of action the author manages to slip in the most obvious of cliches (the underground movement, the return to Earth, and so on). At the end he tries to explain the whole affair as an effect of psychological conditioning, but this is unsatisfactory; in effect the book just stops, with only a partial resolution. There is fun and enjoyment along the way, though, even if the outcome is disappointing.
WHO'S WHO IN R. G. WELLS, by Brian Ash
(Elm Tree Books, 297pp, £7.50)
Reviewed by Chris Morgan

Here at last is a book from Brian Ash which I've enjoyed and can strongly recommend. It's an alphabetical encyclopedia of all the major and most of the minor characters from H. G. Wells's fiction; not only all the novels but all the short stories too, including 13 fairly rare ones not included in the Benn edition of The Short Stories Of H. G. Wells. Approximately half of Wells's fiction was to some degree speculative, and even his most devoted fans are unlikely to have read the more unusual volumes, so will find plenty to interest them here. How many of you have read The Sea Lady, The Autochracy Of Mr Parham or The Holy Terror? All three are SF novels.

The arrangement of the book is slightly cock-eyed in that nobody will remember the names of Wells's characters. Fortunately there are appendices at the back (chronologically for novels and in H. G. Wells's order for short stories) which give reference to the major character in each work. This major entry is a fairly full plot summary, frequently running to three pages in the case of novels; the minor characters mentioned can then be looked up separately to obtain even more detail (plus some suppletion). Thus, for The First Men In The Moon, the major entry is under Mr Bedford (the narrator) while other entries cover Mr Cavor, the Grand Lunar and the Selenites. For Kipps the major entry is, of course, for Artie Kipps, and there are minor entries under Old Kipps, Sid Porrink, Ann Porrink, Helen Walshingham, Mrs Walshingham, Young Walshingham, Edwin Shelford, Huggins, Carshot, Pierce, Chitterlow and Chester Coote. The short stories are generally covered by a single entry.

The quality of the entries is good. They are descriptive rather than critical, but this is not a criticism and will make the book more widely useful and more interesting to the general reader. They are naturally compressed but the standard of accuracy is high - the only mistakes I noticed are ones of omission. In particular, there is no title index to refer the reader to all the characters mentioned. In the chronological listing of novels (Appendix One) there is no major character reference for The Wheels Of Chance, so to save you looking all through the book let me tell you that it is J. E. Hoopdriver. Nor is there a major character reference for The World Set Free; although Ash's main article is under Marcus Karenin, either Frederick Barnet or King Egbert would have been a more suitable choice. The short story listing omits two titles which, though rare, are important for their earliness: "A Tale Of Twentieth Century" and "The Chronic Argonauts". But these are minor points; in general the book is an excellent one.

21ST CENTURY FOSS (Dragon's Dream, £4.75)
Reviewed by Carol Gregory

"YOU LIKED THE ARTWORK - WAIT TILL YOU SEE THE MOVIES!"

The pun on the name of a well-known film company is of course intentional.

I couldn't find a name anywhere in this book on which to pin the label "author", but we are informed on page 4 that the introduction was based on the "Profile Of Chris Foss" by one Angus Wells. Wells and his ghostly editor take the line that Foss's celebrated and highly commercial artwork is largely a rehearsal for his true creative career, which is to revolutionise art-design in SF movies. This suggestion is further emphasised by a nauseating piece by Alejandro Fodorowsky, a post-psychedelia film-maker who was to have produced the celebrated Dune movie. If this is an example of the awful aesthetic self-indulgence and semi-messianic tosh proffered by Fodorowsky - and it's more than enough to make even the most adventurous financier reach for his Bisodol - I'm not surprised the project fell through. But I digress.

Foss has contributed to at least one highly successful movie, Superman, with another to follow in Alien. In keeping with its cinematic priorities, the first section of 21st Century Foss is devoted to sketches and designwork for Dune, Superman and Alien, filling its pages with elegantly simple draftsmen's line drawings and gaudily-coloured paintings. The spacecraft and artifacts depicted are what we have come to expect from Foss: technological dinosaurs with candy stripes, working machines rubbing shoulders with ancient, pitted asteroids, but in some of the Dune images Foss's sense of scale strangely deserts him. The exotic alien vehicles are reduced to trinkets. Again, sadly, the Superman drawings look like doodles knocked up in an afternoon; presumably the film company is hanging on to the finished artwork, if any exists. The real tribute to Foss's vision lies in the film itself, in the Krypton sequence, where the imagery has just that magical
luminosity and monumentality which marks out his best work.

From the cinematic future, 21st Century Foss moves back a century with a section filled with the hardware of our own recent wars. Foss's interest in practical, nut-and-bolts technology gets to grips with tanks, aircraft and warships in paintings that are often much more energetic than his SF illustrations. Our editor chooses this chapter to drop his major artistic clanger, in daring to compare Foss's uniformly smooth, colouristically dead landscapes with those of J. M. W. Turner. Album cover Turner, perhaps - Foss's work has its own quality, but cannot even approach that of the greatest English landscapist. However, the editor is obviously carried away, and indeed some of the most atmospheric images in the book are in this section, such as "One Of Our Warships".

The last section is called "Future-Past Projections" and it's the one we've all been waiting for. All the best-known SF cover paintings are here, from Asimov's Foundation trilogy to Ballard's Crash, and many others. Foss's early training as an architect is most apparent in his massive tower blocks and gargantuan spaceships. Go into any bookshop - these objects loom at you from the shelves; they are now part of SF's conceptual props-cupboard.

So why buy the book? For fans of Foss, it's obvious: here is a well-reproduced and comprehensive collection of his illustrations. For his artistic followers, it's an ideal pattern-book and source of inspiration. For his critics, there are hints that there may be more to Foss than astronomy and airbrushes, although the emphasis is on that side of his work. An intriguing point is touched on in the introduction: did you know that Foss illustrated The Joy Of Sex? It's hard to believe in view of the wooden little figures that march through his futuristic cityscapes, but there it is in print.

21st Century Foss is more or less according to expectations, and will no doubt sell in enormous quantities. If you don't fancy it much yourself, there's always The Joy Of Sex; otherwise it's back to the spaceships.

The Girl With The Jade Green Eyes, by John Boyd (Penguin, 241pp, 75p)

Reviewed by Paul Kincaid

This is perhaps the saddest book I've had to review. There are some writers from whom one expects, at times is even prepared to accept, mediocre work, but if a writer has once proved himself capable of good work then a second-rate novel is disappointing. With his first novel, The Last Starship From Earth, John Boyd proved himself capable of excellent work; his latest plunges to the most abysmal depths of ineptitude. It is more than second-rate, it is more than disappointing, it is terrible.

According to the publishing history, The Girl With The Jade Green Eyes first saw the light of day in 1978; but for a few coy sexual references and heavy-handed jokes, it could as easily have been twenty years earlier. Certainly it is piled high with all the cliches of that "Golden Age". An alien spaceship lands in a remote part of Idaho. Naturally they are incredibly superior to man in technological terms. Naturally they are peaceful, but if they stay on Earth too long they'll end up destroying the human race. Naturally their leader, Kyra, is a beautiful female. Ranger Tom Breedlove discovers her, and naturally they fall in love. They then begin a pilgrim's progress through the intricacies of American officialdom as they try to acquire the "cupful of uranium" that the aliens need to get off the planet.

It is satire, or is intended so. For that reason there are no characters in the book, just types; which robs it of any value it might have if taken just as a work of fiction. To work at all then, it must work as satire - but what is being satirised? Bureaucracy? It's an obvious target, but Boyd misses it by a mile. For a start it is dealt with all too briefly and superficially, and at times it even seems to be going out of his way to justify the bureaucratic process, which is not the way to satirise it.

From the amount of space he devotes to it, the main target must be the paranoia of the intelligence community; yet the daily newspapers carry true-life spy stories that are far more bizarre than anything Boyd manages to conjure up. But Breedlove is an innocent abroad, so perhaps Boyd is aiming at humanity in general. If so, and broad enough target though it is, he misses. Each of his characters is a cardboard type, yet even so not one of them represents an attitude so likely or recognisable that the reader can say "Yes, I know someone just like that".

It is a terrible failure of a book, and written in such a tiresomely flat prose that it is also, quite simply, boring.
STARDANCE, by Spider & Jeanne Robinson (Sidgwick & Jackson, pp, £ • )
Reviewed by Roz Kaveney

There is a quaint superstition in the wonderfull world of SF writing that a story that has been popular, successful or good can be improved as a work of art, as well as a source of income, by bloating it, padding it, extending it, or supplementing it. The results are as grey and as squishy as those of the rather analogous process performed on geese in Strasbourg although usually considerably less tasty. Occasionally a writer will find in a completed story hints of something more to say which is best said with the deepened resonances that linking a new story to an old one can bring - Vonda McIntyre's Dreamsnake, though no masterpiece, is a good example of this. It is never the case that sufficient impulse to carry such a project through comes from the desire to pander to the audience’s childlike desire to know what happened next - if that urge can be pandered to in the process of creating a work of art that stands on its own, all well and good; but if not, then not.

The extension of Stardance is a good example of the witless hypertrophy that can result from taking a story that was itself overlong and repeating the themes endlessly with little variation and little new material until the book stops. The original story was a pleasant enough little conceit about the future of modern dance - a subject on which the Robinsons clearly have knowledge and opinions - padded out with a lot of awful old tat from Hollywood films about showbiz and art (much the same sort of thing in that sort of film). You all know the stuff: the cameraman who used to be a dancer but can now hardly walk and who drinks because he loves the heroine, who is too tall for chorus work and so starves in a garret while trying to create a new sort of dance and eventually sells herself to a lecherous millionaire who likes doing it with her in freesall, which is a good place for dancing as well. Oh God....and the mysterious aliens who are going to destroy us all but go away when she dances at them, which may mean that she conveyed the Spirit of Man but may mean that the aliens had enough sense to know that any race that pretentions didn’t need destroying. A pleasant little piece on the future of dance blown up into some sort of statement about Dance as Transcendence - but without the clout to make it work without a cartload of inspirational adjectives. The little story lost inside that hulk would have been pleasantly memorable; the hulk won the Hugo and the Nebula and got into Terry Carr’s Best Of The Year anthology which is a bit unfair on that year.

And now we have the bigger Stardance, a full-length novel of which the bloated prize-winning lump was only the first installment...and it’s all here and more. The death of the lecherous millionaire (offstage so as not to upset the kiddies) and the arrival of two new villains - a corrupt American Jewish Republican and a noble but shortsighted Chinese Communist (cardboard cliches don’t become more acceptable just because they’re brought up to date). Six, count them, six dancers doing their bit in space and discovering the joys of zero-gravity and the sexual revolution. The mission that will save mankind. The aliens revealed as liking us, and dance really. Our heroine back from the dead to join her cameraman and sister in endless bliss. Higher states of consciousness and evolutionary thingy revealed in reams of purple prose....oh, it’s all too much. Honestly, it is just too much. If the Robinsons had the skill to bring off all this Very Serious Stuff they could have brought it off in vastly fewer pages and with vastly less melodrama; if they hadn’t they should have written the pleasant short piece which they undoubtedly had in them. We want to be made to care, to feel wonder and excitement at something new, and instead we get weighed down with all this camp old maudlin stodge.

And yet, and yet...it must be said that the Robinsons wear their heart on their sleeve and have it in the right place. Given most of the stuff that appeals to the section of the SF audience for which they write - Analog - they are trying to say something about real human values, art and love, which needs to be said in that pulpit for pompous pseudo-Machiavellian sexist technobores. What they represent in the genre is the amazing pull that the old pulp cliches possess - get too close to the values in which those cliches are soaked and the bright vision that the Robinsons clearly have will be pulled down and away like bubbles down a plughole. To bore from within usually ends up being simply to bore. It is Stardance and it is a shame.

EXTRATERRESTRIAL ENCOUNTER, by Chris Boyce (David & Charles, 199pp, £4.25)
Reviewed by Dave Langford

This book’s aim is to illuminate the problem of first contact with extraterrestrials who may be so alien that there’s no common
ground for understanding. There are two difficulties in discussing this, the first being the presumable unlikelihood of our ever meeting a culture so different that it never creeps out into space. Boyce reminds us that Earthly cetaceans with their massive brains may have a complex culture inaccessible to our reasoning; true, but dolphins show no signs of interstellar ambition and one suspects they'd need to duplicate our alien, perverse science - i.e. think our way - before joining the space race. The second difficulty is that of speaking at all about creatures by definition incomprehensible.... So the book opens with some interesting historical material which illuminates the clash of differing cultures (Japan and the West is the major example) but sheds little light on contacts involving a culture without terrestrial analogue. Then follow highly readable (if not always original) speculations about evolution, the future of humanity, the mechanics of CETI and, inevitably, UFOs - about which Boyce is sensibly sceptical, though ready to admit "I was wrong and being wrong's terrific!". All good stuff. Duncan Lunan contributes a chapter rightly censuring those who refuse to consider odd phenomena even with disproof in mind (although this bit is largely a plug for his own Man And The Stars). The best piece of reasoning here concludes that rather than listen for we know not what, we should search the solar system for von Neumann probes, robot ships whose purpose in life is to seek out new worlds, to boldly go and make replicas of themselves which will continue the endless mapping (or whatever). For if one civilisation emitted such probes long ago, space may be swarming with the things and even our dull old system could harbour, say, the remnants of a probe factory. An exciting thought; only the most repulsive persons would murmur that, again, it presupposes aliens thinking very much as we do.... So Boyce continues, speculating about galactic society, detailing more things which the really alien aliens will not be and, after a sensible plea for CETI, subsiding into appendices of such things as SF films, the Boyce version of relativity and black holes (subtly wrong, I'm afraid) and relevant SF (though not short stories: the overpraised Leinster "First Contact" is well omitted, but what about Terry Carr's "The Dance Of The Changer And The Three?").

A CALLER FROM OVERSPACE, by John Lymington (Hodder & Stoughton, 189pp, £5.25)

Reviewed by Paul Kincaid

Not much distinguishes the critic from any other reader of fiction. The critic has to read a book in the knowledge that he'll shortly have to write about it, which can cast quite a pall over the novel; and the critic, out of some strange sense of duty, has to read to the end books that any sane reader would cast aside after the first chapter. But that's all, otherwise he hopes to get out of a book no more than anyone else hopes for. And he can suffer from just the same sorts of prejudices.

Which brings me to this novel. I must confess that before I even opened it I was rehearsing neat and witty phrases with which to damn it out of hand. Who knows what brought on this prejudice; perhaps the terrible title, reminiscent of 50s SF at its worst; perhaps the author, perpetrator of so much of that stuff; perhaps the most godawful cover it has ever been my misfortune to witness on any SF novel (noted for their terrible covers anyway). More than likely a combination of all these and more - certainly there was no single thing about this book that would attract me as a reader.

Which is a pity, since it turned out to be a pleasantly readable potboiler. Not great literature by a long chalk, characterisation non-existent, a plot line that is remarkable only for the number of cliches strung together and the ludicrous nature of the fillers between the cliches. It is rubbish, but told with a practised slickness and pace that keeps it rolling along with enough simple-minded entertainment to pass a couple of hours pleasurably enough.

Okay, it is neither stimulating nor exciting, but it kept me reading; and let's face it, there's precious little fiction that even manages that saving grace.

NEXT STOP THE STARS, by Robert Silverberg (Dobson, 144pp, £4.25)

Reviewed by Chris Morgan

This is an unnecessary hardcover reprint of a 1962 Ace collection - Silverberg's first, in fact, a mixture of the bad old SF adventure fiction he churned out to order in those days, about 20 years ago, together with a couple of indications of the better writing which was to come. In a new and rather bitter introduction, Silverberg
makes the point that in those early days he was unable to sell the sort of SF that he wanted to write, and thus got into the habit of not trying his hardest. Apart from the novelette "Slaves Of The Star Giants", which is a typical pulp story with a particularly rushed and predictable ending, these stories are not bad for a 20-year-old.

For the Silverberg specialist it is interesting to identify in a couple of instances the early appearances of themes which he later expanded into novels - "Hopper" became The Time Hoppers, for example. Yet all the stories lack credibility. The polished style of the mature Silverberg is nowhere apparent: it did not surface until 1967. "The Songs Of Summer" shows a contemporary American inexplicably displaced into the far future where he sets about organising the pacifist people of that time - its ending is highly predictable. "Blaze Of Glory" is a misconception from start to finish, because pathological xenophobes will never be employed as officers on spaceships visiting the planets of alien abodes. "Warm Man" is a horror story, out of place here.

There are at least a dozen better Silverberg collections than this in existence. Read them first.

THE ATROCITY EXHIBITION, by J. G. Ballard (Panther, 139pp, 85p)
Reviewed by Dave Walker

J. G. Ballard is an intelligent writer, one whose work can be appreciated as literature by a wider audience as well as by SF devotees. He has the unnerving ability to create an "other-worldly" reality - like Aldiss at his best - writing with a lyricism that can only be English, yet also with a clinical preciseness that echoes the styles of some German authors in its intensity. If Moorcock was the voice of the "swinging sixties", then Ballard is that of the seventies: a chilling and important voice, one to whom we should all listen.

The Atrocity Exhibition is not a light read, nor is it easy to judge on first reading. It deals with some of the recurring themes of the mid to late sixties and, whilst we can look back on that era with some degree of detached hindsight, it is remarkable that Ballard, writing in the midst of that social milieu - parts of the book first appeared in print as early as 1966 - could so effectively put his finger on the pulse of those times.

It is difficult to make a brief synopsis of the book, since this merely "atomises" Ballard's thought, but its major focus is on the emerging psychosis of its central character "Travis"; and Ballard's writing is such that we are left unsure as to where reality ends and his dream-world begins. His dreams are haunted by a series of recurring images: political figures of the 60s, leaders of consumer organisations, assassination victims (such as J. F. Kennedy), film stars and sex symbols (such as Marilyn Monroe), dead astronauts, and auto-crash victims. And as the central character comes to terms with his mental landscape and his social and physical environment, we see him cast in a mum of roles: H-bomber pilot, presidential assassin, car crash victim, and psychopath. Plotting his psychic turmoil, the book approaches the delineation of the "ground rules" of a bizarre and perverse sexuality, in which death and violence are the key elements.

SF? Define your own terms/pigeon holes. One can do no more than to isolate some of the related strands of The Atrocity Exhibition: take your pick from science and technology, transport and communications, the space race, the Media, war, the Bomb, society, violence, social disintegration, symbolism, religion, irrationality, sex, art, culture.

Ballard has produced a powerful and disturbing book: a study of entropy.

BLIND VOICES, by Tom Reamy (Sidgwick & Jackson, 248pp, £5.95)
Reviewed by Mike Dickinson

Looking back over the past two decades there is no doubt that the progress of quality in SF has been damaged by the death of important practitioners. Death, despite SF notions of Immortality and the odd religious advertisement, is inevitable but when it robs us of writers of unique vision we are all deprived. One thinks of the abrupt termination of Henry Kuttner's rich maturity, the halting of Cyril Kombluth at the threshold of his, and the cruel irony of the death of Edgar Pangborn just at the point where he at last seemed able to write in a quantity to match his quality.

When Tom Reamy died I think few of us knew what we had lost. He was a universally popular American fan, rare enough, an editor of well-respected fanzines, rarer, and an author of a handful of excellent stories, including the superb "San Diego
Lightfoot Sue", still more rare, but such people have erupted before and soon exhausted their creative powers. In a sense it would be more consoling to count Tom Reamy amongst those, but instead it is evident that we have been deprived of a major author's rich career at its very beginning. With this first and, sadly, last novel, Tom Reamy shows a unique talent.

Blind Voices would seem by its subject (the impact of a travelling show on a small Midwestern American town in the 1920s) to belong to that vein of rural idealism that was mined by Ray Bradbury in the 1960s. This comparison has been seized upon by critics and supported by a comparison of their "poetic" styles. In fact Bradbury's vision and style both contain a strong element of whimsy, something which is alien to Reamy. Reamy's style is beautiful, as good as that of Disch or Aldiss, as shown by the novel's opening line:

"It was a time of pause, a time between planting and harvest when the air was heavy, humming with its own slow, warm music."

However, this view is underpinned by a wealth of meaningful detail, as when on the first page he pictures the farmers' wives:

"They spread apart the collars of their dresses and fanned their necks with cardboard fans with a picture of the bleeding heart of Jesus on one side and an advertisement for the Redwine Dental Home on the other."

and in his precise details of the movie which would have introduced talking pictures to the town if the showfolk had not nobbled it.

The central story is a rather old SF/fantasy chestnut about supermen disguising their alien nature by working as magicians. We have an evil magician, Haverstock, and a boy, Angel, growing into a good one. Haverstock in fact created the circus by biological mutations on a Moreau scale to produce a snake goddess, a medusa, a minotaur and other creatures of mythology. Here it is possible to see elements of Christian allegory, with the demoniac Haverstock surrounded by his pagan creations and opposed only by the aptly-named Angel who in the fullness of his power assumes something of the aspect of St Michael. This effect is heightened by the love/hate, light/dark dichotomies between Angel and Haverstock. Nevertheless this is very much subordinate to the main attractions of the novel - the style and the authenticity of its feel. Blind Voices would stand up to the most vigorous criticism of its characterization, especially of the three girls Rose, Francine and Evelyn, who form the main viewpoints of the plot. This is a particularly good device since each is a distinct character and reflects a different aspect of the show. What is more, each is a being of burgeoning sexuality - Rose, probably experienced, Evelyn, knowing but still virgin, and Francine, virgin and virginal. Their dialogue in particular sounds realistic:

"Rose winked at Evelyn and leaned over to whisper in Francine's ear. Francine's eyes grew steadily larger and her mouth formed a small circle.

"Oh, Rose, you're so wicked." She blushed.

"You only have to worry if you're a virgin," Evelyn said in spite of herself.

"Evelyn Bradley! You're worse than Rose!"

Reamy handles their adventures with understanding and sensitivity, each contributing to the story, each touched with the danger of the impact of the exotic upon their parochial minds, all fraught and leading to death.

Angel is portrayed interestingly. The romance of the foundling waif searching for his identity is never really resolved and is certainly not milked for pathos in the way that some authors would have done; similarly his albinism is not really stressed in the only way that is important and seems therefore irrelevant. At times, as with the disappearance of some of the characters before the end, one feels that this may not have been a final draft. Not that these minor quibbles detract from the power of the book.

And that is the core of the novel: power. Too often the limited imaginations connected with SF and fantasy have missed the objective correlates which convey an impression of power to the reader, so that one has felt its paleness in comparison to, say, William Kotzwinkle's Fat Morgana. Reamy passes this test. His large set pieces, the performance and the final duel, are beautifully handled and set against the all-pervading claustrophobic feeling of the small town. Angel's vividly portrayed growth into his power and final victory is achieved classically, out of love. The abiding impression of Reamy's work is that not since Sturgeon's retreat have we had a writer who could write of and with love and make it seem so vital.
There is no doubt that Blind Voices should have won the Hugo, not for sentimental reasons, but because it was a giant in a year of pygmies. My only quarrel with Sidwick & Jackson's otherwise excellent edition is that the lateness of its publication has meant that few Britons had read it by the Worldcon and, more seriously, that David Flourde's beautiful and appropriate dustjacket illustration for the Putnam (US) edition has been replaced by their appalling grey dullness.

**THE STARS IN SHROUD**, by Gregory Benford (Gollancz, 291pp, £5.50)
Reviewed by Brian Stableford

This is a revised version of Gregory Benford's first novel, *Deeper Than The Darkness*, itself extended from a novelette. The earlier version was one of those first novels which tend to get damned by the faintest praise of all - dubbed "promising" and quickly forgotten. It was a novel combining several interesting notions, stirred together into a rather messy broth whose taste and texture left something to be desired. No doubt many-successful authors looking back at their earliest work are just as disappointed as Benford seems to have been in looking back at this one, but most are sufficiently generous to forgive and forget. Benford, however (after the manner of some of his central characters) is apparently much given to being conscience-stricken, and has produced this repaired version. (The chief precedent within the genre was set when Robert Silverberg redecorated *Recalled To Life* some years back.)

The revision which Benford has done consists mainly of putting more flesh (and rather healthier flesh) on the idealtve bones of the original. We learn a great deal more about the protagonist, Ling Sanjen, and about his motives. We overhear his thoughts in more detail, and see more of him in his everyday intercourse with other people. His plans of action, remodelled in concert with the better understanding the author cultivates regarding his reasons, lead him to do slightly different things at key points in the climax of the new version, which is thus altered a little, but the basic pattern of the plot remains the same.

There is no doubt that *The Stars In Shroud* is a better novel than *Deeper Than The Darkness*, but it is not a complete redemption of the failures of its earlier self, which had weak bones as well as frail flesh. The story told by both novels is that of the decline and fall of a Japanese dominated human interstellar culture, the catalyst of its collapse being a kind of infectious psychosis released into it by the alien Quarn with whom it is at war. Sanjen eventually makes a rather contrived contact with the Quarn, finds that they have acute cultural problems of their own, and sets out to try to save that fraction of humankind which can be saved. The main trouble with this is that it remains just as implausible in the new version as in the old. I can't accept the infectious psychosis without a much better explanation of how it can work; nor do I find the cultures of the Japanese empire or the world of Veden at all convincing in the absence of any competent account of their social structure and organisation. A culture does not simply consist of a few fancy mannerisms and a soupcon of metaphysical philosophy. The behaviour of the Quarn still seems, to me at least, nonsensical. These are the things that Benford has not tried to repair, but to me they seem to be the really important aspects of the novel - more important, at least, than the minutiae of Sanjen's motivational patterns.

Benford is not a fluent writer, and he has yet to conquer the novel form. Both *If The Stars Are Gods* and *In The Ocean Of Night*, which are better by far than *The Stars In Shroud*, are patchwork pieces written in stages. Perhaps the practice he has put in here will do him good when he attempts to plot and plan his next book, and allow him to make the best use of a fertile imagination which has not yet been shown off as it deserves to be.

**NEW WORLDS FOR OLD**, by Duncan Lunan (Westbridge Press, 260pp, £6.95)
Reviewed by Chris Evans

One of the main difficulties facing an author who writes a book popularising scientific topics is deciding on the audience-who he is aiming and therefore what style he should adopt. Broadly speaking, two classes of readers exist: the reasonably well-informed, who will have some familiarity with an interest in the subject matter; and the uninformd, who might pick up the book out of curiosity but will want it to be written in a manner that will capture and sustain their interest. The ideal popularizer usually manages to satisfy both these types of readers by achieving a delicate balance between an entertaining style and a strict adherence to factual matters; he will be neither too effusive not too arid in his
exposition.

The problem with this book - dealing with the achievements of the space programme to date - is that the author is unable to retrain his enthusiasm for his subject matter so that, in the early chapters at least, the reader is bludgeoned over the head with the thrill and wonder of it all. Lunan is at pains to convince his readers that the space programme is indeed a worthwhile enterprise for the human race and that the apparent lack of public interest in it is due to bad publicity. To this end he has adopted a style which is an irritating combination of the evangelical and the anecdotal, and his continuing harping on the superiority of manned space exploration over robot probes is ultimately antagonistic to his claims for it generates the impression that he is protesting too much. The discursive, overly-chatty style contains several instances of the kind of gosh-wowery which will merely raise a yawn or a frown in most readers; nothing creates more suspicion in the disinterested reader than the expert who is constantly stressing the importance and attractiveness of his subject matter. One chapter begins; "Early in January 1969, when our heads were ringing with the return of Apollo 8 from the Moon, a friend and I repaired to the Full Moon in Taunton, Somerset." No doubt this is an attempt to convince the reader that scientists are real people who breathe and eat and actually get pissed sometimes, but this same chapter, 14 pages long, has 39 references to specialised scientific papers and articles, and I was left unsure of whether I was reading a dissertation or a diary entry. This incompatibility of content and format is a recurrent problem throughout the first quarter of the book.

Happily, once we move on to the chapters dealing with the discoveries made about the Moon and the other bodies of the solar system (the early chapters provide a historical account of the development of space technology), the material becomes interesting enough in itself not to requireucciual embellishment, and Lunan adopts a more sedate and to-the-point style. Here he is at his best, and in addition to doling out the requisite facts and figures on the various heavenly bodies he also provides the reader with a picture of what Mars or Venus or Titan would look like to an observer standing on its surface (what colour sky, how far to the horizon, and so on). These chapters - which, in all fairness, comprise the bulk of the book - are thoroughly informative and could provide abundant raw material for SF writers of a Larry Niven bent (Lunan himself is one of these).

They also redeem the excesses of the earlier sections and make New Worlds For Old a valuable compendium of our current knowledge of the solar system. Also included are 18 colour paintings which show, for example, the Mars and Venus of legend (or popular fancy) compared with the Mars and Venus as we know them today. Lunan contends that the new, scientific versions of these planets are just as interesting as the imagined ones of yore, and on this point I would wholeheartedly agree with him.

Four of the twelve chapters are written by other contributors, and I would like to take issue with A. F. Nimm's proposition that the establishment of colonies in space would relieve population pressures on Earth. There is no evidence to suggest that the opening up of new lands for settlement on Earth put even a dent in the population curves of lands already inhabited. (For example, during the period 1500 to 1750, which roughly corresponds with the discovery and settlement of America, the population of Europe rose from 81 to 140 million.) In addition, the countries most likely to take advantage of the facilities for settlement in space will be the developed nations, whereas population pressures are at their keenest in the underdeveloped countries of the Third World. Many justifications can be found for the continuation of the space programme, but the alleviation of overcrowding on Earth is not one of them - at least not in the direct sense of transporting "billions to interstellar destinations" as envisaged by Nimmo.

My final quibble is on a matter of spelling. The publishers have evidently decided to use "-ize" verb endings instead of "-ise" (e.g. "realized" for "realised") which follows the US practice and is in fact the more correct form from strict etymological principles. However, either the author or the proof-reader has applied this practice wholesale, and thus we have variations on "surprise", "improvise", "surmise", "comprise", all of which can only have the "-ise" ending. Someone should have spotted this, and it's indicative of an increasingly prevalent laxity on the part of publishers concerning the correctness of language and spelling in their texts. Class is dismissed.

TALES OF NEVERYON, by Samuel R. Delany
(Bantam, 264pp, $2.25)

Reviewed by Paul Kincaid

Oh God, look at that cover! A muscular, near-naked swordsman battles a huge, vicious dragon while scantily-clad maidens flee. And the blurb? "Barbarous alien..."
empire...primal brutality...thick-hewn mine slave whose prowess defies the mighty masked woman warrior."

Ignore it, all of it, it is no more than a reflection of a class hunger for sales on the part of the publisher, for it all runs directly counter to the spirit and intent of this marvelous novel.

Certainly, Tales Of Nevémon is a fantasy, employing many of the most clichéd fantasy elements – there really is a thick-hewn mine slave, a masked woman warrior, along with various lords and ladies, barbarian princes, even dragons – but to describe it as just a run-of-the-mill heroic fantasy would be like describing John Fowles’s The French Lieutenant’s Woman as just a run-of-the-mill historical romance.

The comparison with Fowles is very apt, for as a writer Delany shares many of his qualities. Both have a broad and rich vocabulary, and more than that the ability to use that vocabulary with style, effect and beauty; both manage the same careful and convincing construction of characters with far more flesh and blood than cardboard; the same deft creation of places one can visualise and social interaction one can believe in.

One other thing the two novels share: auctorial awareness of the reader. Fair enough in The French Lieutenant’s Woman as a part of the meticulous recreation of a 19th century novel; but in a fantasy? And the very heavy-going, not to say pretentious, epigraphs that head each section of Delany’s novel aren’t they out of place in a fantasy? For these hiccups in the story are later to prove vital to the interpretation of the whole novel.

And through it all runs a vivid picture of a primitive society coming to terms with what we reckon to be the most vital elements of civilisation, faced with action, adventure, violence and excitement. Yet these hiccups in the story are later to prove vital to the interpretation of the whole novel.

The heading of this appendix, "Some Informal Remarks Towards The Modular Calculus, Part Three", should not be taken too seriously. It could, perhaps, be seen as an
extension of the joke at himself that was Triton (or so I have heard it described, and with some conviction). It is also far and away the most original and intriguing fiction in what is, quite simply, a remarkable book; made more remarkable by the strangely twisted perspective that the appendix casts over it.

It is difficult to talk of Tales Of Neveryon without making it seem as though one is discussing several very different books, or one incredibly disjointed and bitty work. That neither is in fact the case can only be a measure of Delany's success in blending so many diverse, not to say seemingly incompatible, elements into one whole. To do it justice in so short a review is impossible, and perhaps does the book a grave disservice since I must, for instance, bring out certain elements and leave others unstated. Let me simply say, then, that it is a unified novel containing all the usual Delany trademarks: the child who fills a non-childlike role - in this case the Child Empress who is so styled throughout her long reign; the artist - in this case story-tellers, a role filled by several characters in the novel; and so on. It is also extremely well-written, so that it is a delight for the reader to immerse himself in the sights and sounds and smells of this intensely-realised world. It is also very readable in the sense that the stories keep one enthralled and entertained if at times frustrated that they are not longer or carried through to a more conventionally satisfying conclusion. It is also a book of great seriousness, with a lot to say on quite a number of subjects, in particular though in an oblique manner - about our society today. Yet it is not without a goodly share of humour, and a sly wit that prevents it from bogging down in turgid philosophising. It is about the processes of mythology, and more particularly it is a story about story-telling, and the way in which history is distorted and fictionalised by the process of retelling, and other such counterpoints on a theme running through the entire novel, being suggested by the epigraphs and the appendix and several elements within the tales themselves, but which are the most difficult factors in the book to describe or explain.

All these diverse elements run in parallel, complementing each other, adding to each other's strengths, combining to produce a book that, while it may not be Delany's best, is a clear indication of just how far ahead of other SF writers he is.

ALSO RECEIVED:

Andromeda 3, edited by Peter Weston (Dobson, 240pp, £4.25) - a hardback reprint of the third and last of the original paperback anthology series, containing good stories from Chris Priest ("The Cremation"), David Redd ("Brother Ape") and Ian Watson ("A Time Span To Conjure With"), all unfortunately overshadowed by some appalling rubbish from Larry Niven, Darrell Schweitzer and even Fritz Leiber (being surprisingly plotless and silly). The remaining stories - from Tom Allen, William F. Wu and our very own Dave Langford - can best be described as "competent".

The Prisoner: A Day In The Life, by Hank Stine (Dobson, 156pp, £4.75) - a sequel to Thomas M. Disch's The Prisoner reviewed by Chris Evans in Vector 94, and nowhere near as good; Stine seems to have concentrated mainly on the surface elements of the concept and in consequence has failed to capture its underlying meanings.

The Worlds Of Sector P, by K. D. Franklin (Dobson, 165pp, £4.25) - lost spaceships, grim-jawed space-captains, inscrutable aliens and other clichés left over from Fantastic Universe and Planet Stories. And I could have sworn this was 1979....

COMING REAL SOON NOW!

In future issues - a transcript of Richard Cowper's Guest-of-Honour speech at Yorcon, the 1979 British Easter SF convention; an interview with J. G. Ballard, conducted by Alan Dorey and Joseph Nicholas; an article by Simon Ounsley on the gap between SF and fantasy; Don West revealing the secret art of reading for publishers; an article by Mike Dickinson on humour in SF; Joseph Nicholas on trends in modern fantasy; an article by Roz Kaveney the subject of which she is as yet unwilling to disclose; plus not quite as many book reviews as this time.

Plus the return of our letters column, giving you, the readers, the opportunity to make public your views on SF.
ARENA SCIENCE FICTION is an occasional journal of opinion, information, and criticism of the science fiction field - solid content for the reader who wants to know more about the science fiction genre. If you want to get into the thinking of the people who write sf, ARENA's for you.

Features in ARENA 8 include;
* An in-depth interview with Kurt Vonnegut.
* 'Locked in the Slaughterhouse' the novels of Vonnegut discussed by the author Brian Stableford.
* A tour of the solar system via sf, by the American author Richard Lupoff.
* Reviews of the latest fiction of Vonda McIntyre, James Tiptree, Stephen Donaldson and others.
* Letters - controversy, praise, and criticism by such sf luminaries as Michael Bishop, Thomas M. Disch, Fred Pohl, Michael Moorcock, Robert Silverberg, Christopher Priest, Brian Aldiss and others.
* Plus much more - 40 fascinating pages.

Features in ARENA 9 include;
* A detailed look at the sf writers and publishers of Australia by the author of 'Beloved Son', George Turner.
* An in-depth interview with the author of 'Eye Among the Blind', 'Earthwind' and 'Necromancer', Robert Holdstock.
* A critical article on the novels of Robert Holdstock by Paul Kincaid.
* A brief look at Chinese Parallels in the work of Ursula Le Guin by the critic Angus Taylor.
* Letters from authors and readers alike - Elisabeth Lynn, Harry Warner, Gregory Benford, Peter Nicholls, Ian Watson and many more.
* Plus much more - 44 fascinating pages.

SUBSCRIPTIONS. (Tick Boxes) My Name and Address is:

ARENA SF 8. 50 pence....

ARENA SF 9. 50 pence....

THREE issue subscription starting with ARENA SF 9. £1.40............... 

Please find enclosed the sum of 

ARENA SF. GEOFF RIFFINGTON, 6 RUTLAND GARDENS, BIRCHINGTON, KENT, ENGLAND.
INNOVATIVE SCIENCE FICTION

Nebula winner 1978

"A very beautiful work indeed... richly and beautifully imagined... a very satisfying book indeed."
Spectator

Dreamsnake

Pan Science Fiction

THE HITCHHIKER'S GUIDE TO THE GALAXY

DOUGLAS ADAMS

Winner of the BSFA Media Award

A Pan Original

Boldly goes where no SF has gone before...