Foundation 28

FOUNDATION

28

THE REVIEW OF SCIENCE FICTION

IN THIS ISSUE

George Zebrowski shares his thoughts
W.M.S. Russell traces a folklore motif in SF
Rodney Needham reappraises Tarzan of the Apes
L.J. Hurst attacks Gardner, Evans and Sladek
. . . John Sladek fights back . . .
Lucy Sussex examines a van Vogt fix-up
Mark Gorton finds an SF theme in D.H. Lawrence

Letters from K.V. Bailey, Harry Harrison, George Hay and others

Reviews by Clute, Cowper, Frost, Greenland, Kaveney, Langford, Lowe, Mathieson, Stableford and Watson of books by R.A. Lafferty, David J. Lake, Hilbert Schenck, George Turner, Jack Vance, Ian Watson, Gene Wolfe and others

FOUNDATION

THE REVIEW OF SCIENCE FICTION

Editor: David Pringle
Features Editor: Ian Watson
Reviews Editor: John Clute
Administrator: Charles Barren

Contents
Number 28, July 1983

Editorial

Space is tight again this issue, as we present you with another 108 well-filled pages. We have several announcements to make, and for the first two I hand you over to Ian Watson, Features Editor—DP.

A Word from the Ministry of Truth

To celebrate (if that's the right word) the arrival of that quintessentially dystopian year 1984 which we on Airstrip One have been awaiting nervously ever since George Orwell branded that number of the beast into the literary consciousness, we have decided to declare a special "1984" issue—which will be number 30, due out next February.

But what should a "1984" issue contain? We brooded long. Should it contain studies of the work of George Orwell? Hardly; since Orwell only wrote two futuristic/fantastic books out of many, and *Foundation* is "the review of science fiction". On the other hand it would be a bit idiotic to restrict ourselves to *Nineteen Eighty-Four* and *Animal Farm*.

Should it be a special issue on dystopias and utopias? Perish the thought. Oft (too oft) have we seen the rote litany of Zamyatin, Huxley, Orwell, Le Guin *et al* dissected out in earnest academic prose.

Perhaps we should use the occasion for a special issue on *British* sf, its virtues (and vices, if any), its unique flavour and lineaments?

Yes . . . but that might just encourage us in a patriotic ego-trip (and we had one of those, quite recently, to the Falklands).

Therefore we *will* have a special issue on British sf, indeed we will, but it will not be British sf as seen by the British—but as seen from outside, from foreign lands. Only non-resident aliens may contribute; and who knows, we may find that the image of British sf is quite different from what we imagined hitherto.

So this is a call to our foreign readers to kindly submit articles of any length or angle on their vision of "British sf". Deadline: 1st December 1983.

Help!

Readers of *New Scientist* will have noticed the recent appearance of an agony column, in which intrepid John Gribbin aims to field some of the many scientific queries which readers send to the magazine: queries such as "Why don't neutron stars decay in 11 minutes?" or "Could the redshift of distant galaxies be explained not by the expansion of the universe, but by its *contraction,* towards an onobservably distant point?"

Not to be outdone, and faced with a fair number of equally daunting questions about science fiction which arrive at the SFF, *Foundation* is instituting a similar agony column—though in reverse. The SFF don't know the answers. Do you, the readers?

Queries which stump us will appear in this *Help!* column, with the answers to follow in the next issue—courtesy, we hope, of our readers, who will receive full credit and glory.

We kick off with the following problem from the Belfast Central Library . . .

Information is required concerning an original story, by Irving Block and Allen

Adler, which was used as the story-line for the film, *Forbidden Planet.*

A novel of the film was written by W.J. Stuart and was published in 1956—but this is not the original story.

If any of our readers can identify the original story, and can give information as to where it can be obtained, then please will they get in touch with Charles Barren at the SFF, NELP, Barking Precinct, Longbridge Road, Dagenham, Essex RM8 2AS. Thank you.

And a word for one of our competitors:

Since January 1982 the Science Fiction Research Association, founded in 1970, has published the *Science Fiction & Fantasy Book Review.* It provides thorough coverage of original science fiction and fantasy books, adult and young adult, hardcover and paperback, including related nonfiction—bibliographies, indexes, history, criticism, biography, film studies, studies of fantastic art/illustration, utopian studies, classroom aids, etc. About 25% of the reviews are devoted to nonfiction. Selective coverage of original British and foreign-language books is provided by overseas reviewers. Most hardcover reprints are reviewed but few paperback reprints or reissues.

Approximately 600 books are reviewed in the ten issues published yearly (the January-February and July-August issues are combined). A separate author/title/reviewer index is included with the January-February issue. Most reviews appear within four months of official month of publication, which is shown. Approximately 100 knowledgable and experienced reviewers, almost all SFRA members, provide detailed, balanced and careful assessments, with books matched against their areas of expertise. The editor of the review is Neil Barron, editor of *Anatomy of Wonder: A Critical Guide to Science Fiction* (R.R. Bowker, NY, 2nd ed, 1981), the widely praised standard guide to the field.

The review is included as one benefit of membership in the SFRA, but you may subscribe to the *Science Fiction & Fantasy Book Review* separately. A sample copy is $2, payable to the SFRA, sent directly to Neil Barron. Subscription rates are the same for individuals and institutions. Surface mail anywhere: $15; air mail to UK/Europe, $25; air mail elsewhere, $30.

Cheques should be made payable to the SFRA and mailed to: Donald Hassler, SFRA Treasurer, 1226 Woodhill Dr, Kent, Ohio 44240, USA. Because the review accepts no advertising, it is dependent on subscriptions or memberships for financial support. Neil Barron's address is 1149 Lime Place, Vista, California 92083, USA.

Finally, we are delighted to be able to congratulate two of our recent contributors, Michael Bishop and Rudy Rucker, on winning major science-fiction awards. Michael Bishop has received the 1983 Nebula Award for his novel No Enemy But Time. *Rudy Rucker has been given the first Philip K. Dick Memorial Award for the best "paperback original" of last year, his novel* Software.

From 1970 to 1975 George Zebrowski was editor of the Science Fiction Writers of America Bulletin*—a post which he has just taken up again with Pamela Sargent as co-editor (USA) and Ian Watson as European Editor.*

In Foundation *23 we were happy to present George Zebrowski on "The Profession of Science Fiction", in the form of an interview with Jeffrey M. Elliot. Now, again with the assistance of Dr Elliot—and in the grand tradition of Samuel Delany's "Shadows" and Gregory Benford's "A String of Days"—here is a fascinating, thoughtful and provocative extract from George Zebrowski's personal journal.*

These entries are a selection from a substantially fuller journal which will appear in Borgo Press's book about the author, edited by Jeffrey M. Elliot, to be published this year. This selection was made by Ian Watson. Persons wishing to take issue with any of the opinions expressed are directed to the dates printed above each entry, which will enable them to set their time machines for the coordinates necessary . . .

Herding Words: A Journal

GEORGE ZEBROWSKI (with Jeffrey M. Elliot)

Introduction

I've had a habit in recent years of writing down what I think about things. By thoughts I mean observations, arguments, conclusions, aphorisms, ideas for stories, etc. I usually date them—to have an idea of when I started work on something, and out of a vague idea that it might seem curious to me at a future time. These small essays are for my own use; their value lies in helping me figure out what I think about things. Usually I'm not sure of what my thinking is until I write it down in a fairly orderly way. I'm appalled at what passes for thinking among most people, and in my fellow writers especially, who should know better. Many people throw away their best—in witticisms at social occasions, in casual conversations before fools. Writers should know enough not to squander what bubbles out of them, since it will slow down as they age.

June 4, 1978

Critics who attack H.G. Wells for his "radical immaturity" remind me of those adults who attack children for their creativity. Why Wells is immature is not discussed beyond mention of human failure, which cannot count conclusively against what may be possible (humanity has often done things which have never been done before). Critics like Bergonzi simply cannot see beyond their noses. Blinded by poverty, war, and human failure on a grand scale, we often fail to see that even if humankind is destroyed by its own hand (a possibility Wells knew very well), Wells' prescriptions are still both good and desirable, and that many of the things he discussed must be accomplished if we are to survive; in fact, much of what he talked about has been accomplished.

August 19, 1978

There is an aspect to writing that is akin to prayer, to pleading with the nameless fact of existence, on behalf of one's characters, on behalf of one's self.

April 16, 1979

Guidelines for Reviewers and Critics

1. Thou shalt not hoist the author by thine own petard, but by the author's. Judge his success by his aims first.
2. Thou shalt not substitute flat assertion for chapter and verse.
3. Thou shalt *finish* reading the work, at its intended pace, withholding judgement.
4. Thou shalt not be guided by blurbs, or quotes (unless they are long and say something intelligent).
5. Thou shalt confess thy prejudices and methods.
6. Thou shalt write competent, expository English, not stylish blather designed to display thy talents only.
7. Thou mayest judge whether an author's aims were worth the effort only after revealing whether he achieved them or not (subject to revision over time, since human perception is flawed).
8. Thou shalt learn how to "perform" works of fiction in the theater of thine own mind.
9. Thou shalt learn the difference between "enjoying" a work and whether it lives up to the author's aims and is worthwhile. Caveat: we all like one kind of junk or another and dislike worthy things of one kind or another.
10. Learn the difference between literature (which may entertain) and entertainment (which only entertains).
11. Keep a growing list of the fallacies that counterfeit sound judgement and argument, and measure thine own self before others do so.
12. Thou shalt not review books when thou art a young aspiring writer. It's bad for thee and the works thou art reviewing.

May 29, 1979

The erosion of democratic freedom is cumulative; every failure or exception in law and government takes its toll. The strengthening of liberty is also cumulative; every brave deed, however painful, sets precedents for the continuance of certain limits and traditions. The failures in the cases of Eichmann and Dreyfus continue to damage free societies.

June 10, 1979

I like science fiction. This is a curious statement, since it implies that there is something *general* that is science fiction, apart from individual works of fiction. We know what we mean when we say it, but what are we talking about? What we mean is that there is a collection of conventions, ideas, props, locutions, story patterns, etc., that we call science fiction, and this is what we like. This is even more curious, since this has nothing to do with individual works of fiction, which can be good or bad on literary grounds despite the use of science fiction conventions. Perhaps addicts *mean* that they like this assembly of notions *by itself,* a consensus universe in which individual works are privileged to exist. In this sense science fiction is a mythology shared by a school of writers.

I would prefer to like or dislike individual works, as fiction and as science fiction. Furthermore, we can judge the overall value and quality of this consensus mythology; and here we quickly come to the conclusion that it is not what it claims to be, that it would be a

fine thing if it were, if it even tried. Science fiction has little to do with the future, with science; it has to do mostly with our fears about science and the future. I disagree with those who claim that since there is no science in science fiction, there shouldn't be any. I would like to do it the hard way.

Science fiction is fiction dealing with the human impact of changes in science, technology. The human impact, when carried out with grace, is what makes it *fiction* and literature; the changes are what make it science fiction. Asimov's definition has not been bettered, though Lem's description—that science fiction deals with the effects of novel possibilities injected into the stream of human history, effects that are caused by a variety of factors of a new kind—equals it. But all this is for nothing as literature without written fiction to equal the visions.

June 11, 1979

The future cannot be predicted because it cannot be deduced; the future is emergent, stochastic, hidden from us by complexity; it comes to be synergetically. Therefore, it may be guessed, envisioned in part, by the imagination, which also moves by the process of emergent creation. But, we'll only know later if the guess has grasped any part of the truth.

July 6, 1979

"I like realistic novels."

"I thought they were all imaginary."

July 15, 1979

Here we have the "market" and the customs inspector critics and editors, while the Soviets have censorship. Here, those who speak out or complain are smiled at or ignored, while the Soviets simply shut them up. Here we are asked to please audiences (what editors and publishers *say* pleases audiences; that something may be good and unpopular is heresy); there they please the censors.

What attempts do we make in science fiction to affect so-called popular taste? Do we permit new works—ambitious, unfamiliar new works—even to make up ten percent of what is published? And yet no one doubts that most science fiction is junk!

August 1, 1979

You must make science your own to properly understand and love it. Science must play like music in your mind—music about to be composed, order about to be grasped and stated.

September 3, 1979

I am the son of Polish slaves.

The shock value of this fact lies beyond me; it's a mundane thing, always known to me; therefore, to make it real, I must fill up this monstrously ordinary fact with smaller component facts, specifics.

It means that at two different moments in the early forties, my mother and father were kidnapped from their families and taken to Germany as slaves for the Reich. Long before they met, they were assaulted, starved, and humiliated in hundreds of ways. The future they had expected—going to high school—was suddenly gone; they were members of a race destined for extinction, to be worked to death. Poles, like all Slavic peoples, would

eventually go the way of the Jews; millions, in fact, died well ahead of schedule.

All this is unknown to the friends I grew up with in New York City; my writing colleagues know even less. The mere mention of it drops a curtain of numbness. Poles are the subjects of Polish jokes (not a strange situation, since most American Poles came here at the turn of the century, from peasant backgrounds—their traditions show little knowledge of middle class Poles; intellectual Poles are a mystery to them). European Poles are a mutilated people. I myself bear on my body the marks of an inauspicious birth.

Do you see how this is going? Do I want to write this down? Science fiction seems very far from these realities. I read stories like Jack Dann's recent "Camps" and I laugh; such mock, false seriousness, which knows so little, such a simple view of heriosm, in a situation where heroism was a danger to survival. Heroes were the exception.

How do you look all this in the face, especially if you're a writer, and not be accused of romanticizing your past, or looking for material to exploit?

It's not romantic.

It's a brutal, cruel, and stupid past, created by people who meant it to be just that, who didn't want me to be born. There's nothing romantic or heroic in it, only one kind of life asserting itself over another, drawing its strength from an inner nature not of its own making, and having the good luck not to be among the sacrifices that made the survivors possible.

That's who I am—one who escaped because my parents were lucky not to die; and they escaped on the backs of those who perished. And I feel the force of memory that pushes out from my parents; it's always there, a shadow cast by a world gone insane.

I often feel that I don't want all this past; there's too much of it, too late. The shadow threatens to fill with light and become the present.

September 3, 1979

What happens to a book one, two, three, ten years after you've read it? Very often it loses its shine. A novel that once seemed profound now seems mildly elegaic and dull. It seems to have lost its life, and one realizes that the novel lacked vitality to begin with, that one read it with charity. One was younger. Judgments made seemed to be permanent; the world would endure forever; it was easier to be impressed.

Other books, however, still seem to resist this process.

September 26, 1979

The Lem Affair served to make me uneasy about my life in the United States. Despite my citizenship and great sense of hope about America, the Science Fiction Writers of America showed me that there are many here who will not stand up for free speech if their pride is hurt by a foreigner. I've lived here since I was six, but for the first time I became uneasy, suspicious, about what individuals in a group could, perhaps unintentionally, set in motion. I continue uneasy, watching how new SFWA administrations fear to put the whole matter right.

September 30, 1979

Expression, whether in fiction or essay, is inseparable from the right words; they are what I feel and think. I cannot know what I feel and think until I find the words. In fact, I have no right to assume what I feel and think until I find the explicit words. Herding words into their appropriate modes is all of thought and writing. What spills over and goes

unexpressed is most of life, quite naturally; however, it is slowly being gathered into the historical record of art, literature, and science. This activity will never, it seems, be complete. Experience is vague, burgeoning, recalcitrant; words can be precise, formed, constricting; but they make the vague clearer and illuminate the chaos within and without. However inadequate in the ultimate sense, words are steps into the unknown. In science, mathematics continues the work of words, moving far beyond the limits of natural languages, to embody and model what may be true, even if we never accept it intuitively. Expression is a transcendent activity, in whatever form—words, logic, mathematics, painting, music.

November 13, 1979
Why is it so much easier to turn superstition into art, than to do the same with knowledge? Fantasy is easier than science fiction.

November 15, 1979
There are those who win awards and those who have it in their contracts that the publisher must help them win awards.

November 30, 1979
Hard as it has been to accept, it has become clear to me that the reactions of fan critics (the editor of *Locus,* for example, though many others would serve as well), are completely lacking in grace or understanding of what concerns literature. They know what they like—they wallow in what they read and find a certain kind of junkiness pleasurable. Most of us know this kind of enjoyment at one time, but move on to more demanding fare. What they fail to understand is that their impulses about what is good or bad follow fashionable prejudice; what lies outside is sneered at in the great tradition of the guttersnipe's and know-nothing's fear of better things. These people show no awareness of distinguished works, even when on occasion the vagaries of their taste permit them to like one. Let's face it, these people are uneducated in the deepest sense; their perceptions are dulled and they don't even suspect that other things are going on, good and worthy things, of which they cannot be part.

Science fiction and fantasy deserve better representation than these people can give, yet they are the ones who act as if they own the field and the authors. This is not to say that fans haven't become good editors or writers, but they then stopped being fans and acquired standards of judgment. This is not the case with the current crop of fans—many of whom have talked unknowing publishers into letting them run science fiction programs, purely on the basis of self-proclaimed familiarity with the field and not on their skill in judging fiction; other fans hide behind unsigned statements in *Kirkus Review,* or *Publishers Weekly,* and such, where they publish miserable notices (often to even private scores with some writers).

It's judgment and education that count, but as more money came into the field, taste became denatured, and fan rags acquired a source of livelihood, thus encouraging the present debased state, in which many authors are afraid to speak out, feeling ashamed of what they see happening.

January 12, 1980
The environment in which an editor of a major science fiction program moves is rarely good for serious, honest editing; the personal and professional pressures are too severe.

Authors cannot be expected to speak honestly with such an editor, whose expense account and personal benefits far exceed what he may pay for a novel. Often, such an editor sells out the cause of serious work simply to keep his job. He torments writers without really knowing it, playing with their lives while he collects his weekly check. To write a serious, intelligent book, a writer must give up everything, put everything on the line, emotionally and materially; and in the end the editor goes around talking about "his books", taking the credit for beating those dumb wordsmiths into shape. Is it an accident that the finest editors in this field have been other writers?

February 27, 1980
Only a human being can behave as he does, half conscious, half hidden from himself; what would a fully conscious intelligence be like? All would be clear inside, all mystery would be outside.

May 4, 1980
Working in the science fiction milieu has taught me to sometimes feel ashamed of literature, to reject difficult books, to be blind to human evil and failure, often to accept a naive constructive faith; to see non-science fiction literature as narrow both in subject and approach. I've learned to value the "good read", the self-indulgently imaginative, the plotted, the shocking, the extravagant—a whole bag of cheap tricks—and to doubt in the end the value of seriousness and honesty, to forget the world as it is and was for what might be, and to look forward to nothing, really, since science fiction fails to see more than the exteriors of things to come, dealing as it does with how we feel about futurity. Science fiction is impossible at bottom; it withers and dies before the awesome authenticity of serious works, which contrary to received wisdom are imaginative, full of vision and ideas, for those who will look inside themselves, into the past. The soil for a made-over science fiction is to be found there.

July 5, 1980
Reading Clarke. It seems to me that Arthur C. Clarke has not been read correctly. It is not enough to dismiss his so-called optimism, or to insist that his characters are cold, his relationships unemotional. Clarke projects a sense of liberation from human foibles, from the sense of failure and sin, from everything that makes for the sense of hopelessness about human beings that is the domain of traditional literature; and he does it so well that he disturbs those for whom no other view is possible, shaking up their arrogance (which insists on setting the next billion years in cement). I think this attitude of Clarke's is held quite deliberately, and is offered as a serious alternative to other ideas about humanity's future. Clarke's heroic denial of the bog of neurosis and failure is the stand of a clear-eyed child who has failed to degenerate into an adult. This is his stand and it deserves to be considered seriously.

What is there in it? There is a Buddhist sense of detachment from irrational extremes in Clarke's work. Creative acts lead to basic changes in life. One is confronted with a mind that has decided what is important and what is not. Subjective problems are an endless Moebius strip; the human heart is filled with desires and impulses that shackle the mind and paralyze the will, unless they are repudiated.

Clarke denies the maze which confronts us in traditional literature; he seeks to rise above it and see it clearly, and it is through this effort that we tap into his strongest, most

authentic feelings about what he knows. He is a Wellsian, in that he argues that external changes deposit a new world in the human heart. It's a view which inspires great loyalty in certain readers, and leaves others cold. But the real test lies in time. Clarke looks at us from the future. Is he really doing this, or is he deluding himself? The best argument that an age of exploration and science can transform a world exists in the example of the Renaissance. Clarke has shown his capacity to contribute to the future (communications satellites), in the area of information flow, which is vital to the growth of knowledge, which leads to changes in the practical world, which then affect the human heart. It's a two-way street. We live once. We have followed so many stupid visions which have no basis in externals; why can't we follow a creative one with the same zeal?

One reason for a sense of helplessness in our culture is that the big answers can't come from any one sector. A new flowering of culture must be supported by an age of physical growth, exploration, and by a new scale of energy use. If we could be granted two hundred years of health and control over our lives, we would not wish to reform human nature from within. We wait for changes which are not yet here, and our aspirations languish before the fact of death.

July 10, 1980

As in national governments, issues of honor and morality are ignored in SFWA. Foreign affairs, standing up to publishers, come first. This is like the guy who won't bring up a union's internal failings because it fights for workers; internal corruption must be overlooked for a greater good. The behaviour of many of my fellow writers in the "Lem Affair", people whom I'd admired since childhood, has filled me with horror, second only to my revulsion at the pressure to campaign for awards. The failure of a number of SFWA administrations to set a more honorable tone for the organization is disheartening. Yet one is trapped inside the mechanism, if for no other reason than to keep informed. I tell myself that individuals are at fault, but I resent also those who have remained silent, and those who make critical noises, but who are always ready to ride the power-money train if it should stop to pick them up.

August 30, 1980

The 1960s saw a massive confrontation between rational ideals and the older, emotional human nature—the old-brain virtues of macho, family, and national loyalty came up against the newer aims of the cortex, which in its explicit, information-filled discursive formulations, could not help seeming doctrinaire and threatening, silly and insulting to those guided by instinct and savvy. The cortex is the new kid on the block, a bit too well dressed, maybe even effete. Its white magic will not so easily banish evolution-made behaviour which has ensured physical survival. That's why we have so many intelligent people who are wilfully stupid—it's a way of fitting in, of using your brains to express errors which have survival value within a group. Just look at some of the science fiction reviewers who have made a name for themselves as critics long before their own work had proven itself.

September 16, 1980

The final indictment of reading science fiction exclusively is that you cut yourself off from the authentic personal record of human experience on Earth, which lives in prose and poetry from age to age; you're here once and you let yourself miss this personal and

profound testimony. You never face up to this marvelous record of what's been distilled from living. For a writer, writing genre science fiction is death, unless he can come at it from the wider concerns of literature, which are attuned to the data of inner experience and the impingements of the world on that inner world. What am I talking about? Open your eyes at night. Ask yourself who you are; think about death and the shortness of years. Think of the people you hate, and those whom you would wish to make love to. Wonder at how thoughts arise within you from some hidden place, and you'll feel that you don't know yourself. Literature, music, can make you see into these places, to be aware, questioning, in realms where little is known but a lot is suspected.

October 25, 1980

The lesson of Lem's fiction is one of constraint, of human limits brought up against possible novelties. It seems often a denial of the kind of imaginative freedom championed by science fiction and fantasy. Now even though this kind of freedom may be the expression of wish-fulfillment and power fantasy, the fact is that human beings yearn for it and often try to bring it into the world. As such, science fiction reflects the limits of the real world and human dissatisfaction. What can become real is not so easily guessed, so it becomes difficult to dismiss even very exotic speculations. Lem's lesson of constraint may be salutary; but too much of it may be stultifying; one cannot insist on creative possibilities and their abolition at once. Still, this kind of love-hate affair with possibility and things to come is the sign of the greatest science fiction writers.

Whether he is a practising Catholic or not, Lem's depictions of human limits may owe something to the notion of "original sin". As a Pole he sees human beings in the grip of traditionally repressive forces. Thus, the alien other is never knowable, knowledge uncertain, objectivity merely relative, if not a sham. It is always dangerous to explain people by their backgrounds, but perhaps in that part of the world circumstances make plainer what is more hidden elsewhere.

October 30, 1980

John Clute belongs to the "fascinating blather" school of reviewing, in which clever, seemingly intelligent observations are made with no support; each sentence is an announcement, a conclusion, often vague, given with complete Papal assurance of its truth. There is no sense of precariousness or doubt in the judgments, only the arrogance of the untalented and envious. A reviewer who has not noticed that Malzberg is often a funny writer is a blind fool.

February 20, 1981

Art is the means by which a recently self-conscious species attempts to relive, rerun its experience to gain a measure of understanding. Art is the means by which a partially rational species calls attention to its truths, those things which it cannot approach nakedly, through reason alone.

April 4, 1981

Some of the younger editors, curiously, seem to be in competition with their science fiction writer contemporaries. Once fans, these editors now take satisfaction in earning more and in being able to control the fate of writers whom they perhaps once envied. One editor I know had ambitions to be a writer, but failed (a common story, I'm afraid); another is contemptuous of how writers live. One or two editors honestly see themselves

as editors, and try to help writers as part of their job, seeing editing as a skill in itself, not as what they had to settle for. These are rare people. What the full-of-themselves fiction procurers don't know is that even those writers who say good things about them in public, whom they count as friends, tell a different story to each other, and often hold these editors in very low esteem.

June 7, 1981

I've met people who seem to be lesser, unfortunate versions of more accomplished individuals. Are there such people for each of us, upward and downward?

June 13, 1981

Let me tell you the standard folklore about the predicament of science fiction: a beleagured genre victimized by prejudiced critics, editors, and publishers, who just can't seem to see that all these space operas are the product of highly educated minds expressing vital truths. (Is it even possible that the genre *ever* deserves its bad name? Is it even remotely conceivable that editors *and* writers help to maintain the commercial sewer in which genre works float?) What would happen if a substantial number of writers put forward radically better work? (Oh, that's what they're all doing!) Would the great prejudiced *outside* put aside its views and notice? Well, it does happen—Gregory Benford's *Timescape,* as well as a good list of science fiction works over the years, has drawn praise from the so-called hostile outside. To a degree it is up to the writers to present better work, producing it at a loss if need be, rather than to learn the genre survival habits that cannot be easily unlearned (witness Silverberg). The outside is not a monolith, and science fiction often deserves the contempt of the literate. In fact, we should not speak of the collective entity "science fiction" (a collection of imaginative materials drawn from the tradition of fantasy and scientific history); there are only individual works, and many of these have received high praise from many sources other than fandom.

July 6, 1981

I thought of the writer as demagogue as I was watching Kazan's film about a manufactured television personality, *A Face in the Crowd.* This happens on many smaller scales, of course, but the process is familiar: a "natural"—a popular writer—is seized and exploited, "brought along" as brutally as any boxer or politician. The course of talent is directed away from its natural development; independence of mind is subverted by flattery. Sometimes it happens through the simple flow of money—a fiction writer simply learns to "give them what they want"; to do so appeals to his sense of craftsmanship: "I can do it; I can do anything". After a while, craft for money may be the only thing you can do. An environment of habits and attitudes forms around the psyche, molding you into a creature of that environment. To step outside it becomes painful, terrifying, impossible when it means loss of income and danger to your family or loved ones.

Failure is disguised as success.

It is better to fail in these terms, and be a success in the unseen game whose players speak clearly to each other across the generations. Delusions of grandeur? How can it be when it costs so much? It's an achievement only if you can succeed, but you may never know that in your lifetime.

July 6, 1981
A writer builds his own prison by subscribing to the science fiction fan publications (or tolerating fans who insist on mailing free copies); he surrounds himself with sources that feed only one kind of information into his head—the kind that defines success in one narrow way—and all who speak in contradiction to that way are merely full of sour grapes.

July 8, 1981
Few good writers show the same qualities of taste and intelligence in their reading habits that are to be found in their work. Simply look at the mediocrities praised by well known writers.

August 26, 1981
Why do people build cellars, underground crypts, and passages? Perhaps the human mind reaches into its own depths and seeks to model itself in the externals of architecture. The conscious mind creates models of the universe in the cause of explanation and understanding; so why should not the unconscious? How should one regard such speculative insights?

It took me a while to understand that the major fan rags were mostly advertising outlets for publishers, and incompetent in matters of journalism and reviewing. Their self-anointed editors sit like spiders at the center of their webs and prey on the hopeful ignorance of writers. Some authors learn how to manipulate these publications, and confess their contempt in private even while treating fan editors as friends; but the younger writers, anxious to do the right thing and to be seen as up-and-coming, often take these publications too seriously. It comes as a bit of a shock to realize after a while that your work can win through on its own, and that you don't need these illiterate, philistine boors who sneer at literature. They're hangers-on, fans living out a fantasy of having power over talent.

A specific example of journalistic charlatanism may be seen in the example of *Locus* (which professes to being a newspaper, so it's fair to bring up reporting standards). Very often a book is mentioned or reviewed with no effort to suggest the range of opinion about a book; the editor doesn't even suspect that more may be going on outside his judgment; worst of all, evidence contrary to his opinions is often ignored. Occasionally, the publication will run differing reactions to a book, usually reporting a split known for quite some time by the informed; this only confirms that *Locus* plays favorites. *Locus* is a crony rag; friends get the best treatment. If the editor truly dislikes a book by a friend, he won't say anything in print. Personal antipathies play a large rôle. It only clouds the issue to point to examples of fair play in this magazine.

It is well known among professionals that they show one face to a fanzine editor, and the truthful one to their fellows. Many authors both subscribe to and publish in fanzines as a form of publicity insurance—the editors have a tougher time printing anything bad about their works. I find it humorous to hear some of these editors count certain authors among their friends, while the authors despise these editors in private.

September 5, 1981
The array of modern fictional techniques need not exclude thought and intellectual content; that this so often happens is due to a pervasive prejudice among writers and

critics, as well as editors, who believe that you "show but don't tell" the reader, that if you confront him with a minimum of exposition and development, then he will think as well as be moved emotionally. The claim that fiction is an *impression* of events and conflicts is too narrow. How can this be more than a vague expectation? Not all readers will think about what has been suggested (are they sheep to be herded?); and in time the "showing" will so favor the visual sense alone, that all thought will die. Print television, edited and packaged by teams of savvy editors and promoters, will be the final fate of literature. Writing will become a profession for those who write about nothing, who simply want to be writers, but will have nothing to say; in fact, they won't want to do more than show off their technical skills. Has this happened?

October 5, 1981

"The point is that recognition, awards, and money all come quickly in science fiction for a writer who does good work." This statement, made by a writer who should know better (George R.R. Martin in a recent awards anthology), is an out and out lie. Only the recognition part is even partly true; the awards and money just cannot happen for most writers and *most good* writers. Just look at which kind of science fiction makes money, which is popular, what wins awards most of the time. Of course, one can simply define good as that which makes money, wins awards, and gains the author recognition. Whatever is, is good. And if my grandmother had whiskers, she would have been my grandfather!

November 12, 1981

Marxism is for me both subsumed and irrelevant.

The violation of property must be the greatest crime, if you read Marx correctly; property, material wealth, is the basis of everything, whether it is owned privately or by the state; with a good material base, you can recover from anything. Human concerns, when they collide with material ones, must take second place; and this is where it all goes wrong. The public good, in Soviet Russia and in the West, is just another *trickle down* theory of wealth which doesn't work for vast sectors of human beings.

I heard recently that Philip José Farmer and others have labelled me a communist. I find this appalling and humorous, since members of my family were persecuted not only by German Nazis, but by Russian Communists. My step-uncle served eight years in a communist prison for being an underground judge who tried and executed communists. How could any Pole be a communist, or even pro-Russian—especially an immigrant, displaced person like me? The sheer ignorance of people like Farmer is beyond anything I have ever encountered. That this man, much of whose work I have admired, should poison for me the sight of his works on my shelf is disheartening. Clearly, Alfred Bester's judgment about him, made in the 1960s, that Farmer's intellect is not up to his imagination, is still true today. A moment's thought would have shown him that his *imaginings* about me could not possibly be true. I guess that if someone wants to smear you for something, they'll conjure up whatever weapon they need.

November 15, 1981

The writer is fortunate in that the tools of his art give him the means by which he might also understand his activity. Other artists have to learn how to order their thinking, and express it in spoken or written words, in addition to their art; which explains why the non-

verbal artists often seem confused in explaining themselves. Why, then, is the discursive aspect of the writer's art so frowned upon in fiction? Is it a prejudice which seeks to make the writer more like the graphic artist, the painter and filmmaker?

November 16, 1981
Writers often struggle to avoid looking into themselves, where they may have to face what they only suspect about themselves; it might not be flattering. This is especially true of science fiction writers, who are already removed from themselves by the distancing effect of fantastic materials.

December 5, 1981
Platonic dialogue, the symphonies of Mahler, utopian fiction and Wellsian prophecy—these are the personal and technical sources of *Macrolife*. I mention it for those who can't see beyond print television and the zippy "narrative pressure" of the denatured novel.

December 10, 1981
People fail to learn as they grow up; they don't learn from the past. Then they confess, when they are old and the race has been run, that they have learned from experience what they should have learned earlier; and how it's too late. They are the ticket holder who shows up at the race track, presents his losing ticket, and asks for his money back on the basis of hindsight. They dispense wisdom when it doesn't cost them to do so, when it's easy to impress younger people (it may even be sound advice), but what they really want is sympathy for their mistakes. The real test lies in the past—or in the future (I have on occasion seen older people start over and apply what they know, as if they were twenty). That requires both the courage of knowledge and action, to test yourself again.

What do I withhold? What won't I say because of subtle pressures? This: traditions of literature, philosophy and science, put me at odds with many of my colleagues. They are wrong and blind in just about everything. Ambition requires an inner humility, a strident use of talent, confrontation, a generally more thorough approach than I see in most of my fellow writers.

December 11, 1981
Thinking is a form of character-action, as revealing as feelings and physical acts; thinking should therefore be portrayed in fiction at length. I have never understood the shyness toward depicting thought expressed by many writers and critics. What are they afraid of? That thinking slows down the action, the movement of a book? Or that they have no thoughts?

Even intelligent people rarely think a problem through; they usually wait for an idea to turn up, to occur—and since it is theirs, they accept it with pride of ownership, which also prompts them to defend it uncritically. Thoughts should be expressed, written down, revised, tested; thinking is a struggle against yourself, against a humanity which follows the easy path, grateful to find it in themselves and in the world. For most people, thinking—the occurence of a notion—is merely jumping to a conclusion. They also call it thinking out loud.

December 17, 1981
A more general panspermia theory would hold that life, like the cosmos, has always

existed, that non-being (which would require creation from nothing, then evolution) is impossible. Everything is alive, to a degree, making its emergence from seemingly inert matter unstartling, not requiring a basic change from one distinct state to another. This would take care of the argument that evolution through chance is like a tornado coming through a junk pile and producing a 747 jet. Clearly, if non-living matter is radically different from living, it would not ever have the potential to be alive.

December 18, 1981

The trouble with publishing a journal is that you're exposing your tryout thoughts. Products of the human mind are notoriously unreliable as truths, to paraphrase Charles Fort, but still we try. What's true in these pages? Am I pulling my punches by writing out this question? I meant each of these entries when I made them; they will help me to refine what I think, by providing better feedback. Most people forget what they say and think.

December 21, 1981

Macrolife Background. The purpose of macrolife is not to seed the heavens and carry life to all parts of the universe; rather, it is to satisfy the deep seated needs of the individual to know, to satisfy his curiosity about nature, to give him power over energy, space, matter, and time; to destroy the empty powerlessness that comes from finitude and the knowledge of death. But all this is not won as a form of stupid self assertion; it is won through craft and knowing, through an appreciation of beauty which puts mind in a balance with what is known. The knowers of macrolife are vastly different from us, except in their early years; their minds are still, waiting for every ripple of space-time to register. Their discussions, so misunderstood by a number of reviewers, are the meditations of long-lived beings and part of their character; to expect them to be people as we know them—who speak in short, lazy sentences, whose dialogue resembles the sparseness so often demanded by teachers of film scripting, is a mistake.

December 22, 1981

The failure, with each passing year, of the *New York Times Book Review* to give adequate, merely adequate, coverage to the few worthy science fiction works published each year, is one of the great failures of American literary journalism. Some would say that not reviewing science fiction is in itself an expression of critical journalism, but a bit of examination reveals much more than ignorance or prejudice. Gerald Jonas reviews old pulp adventure novels—and confesses his boyhood pleasures to us; or he reviews Lem, because it is easier to see virtues on distant shores (Lem's merits are considerable, but the point here is that he is often reviewed on other grounds). Jonas was even so bold as to attack Thomas Disch's last science fiction novel for having characterization, for having the boldness of literary as well as science-fictional aims.

Complaints to the *Times* have the effect of bringing out a spate of science fiction reviews, but these die out; the paper seems to lose interest. What it could do is what it does with most other books—it seeks out a reviewer, an individual, who might be able to understand a particular kind of work, and assigns it to him. Take Doris Lessing's recent books. The reviewers fell over themselves not to mention science fiction, when in fact Lessing freely acknowledged her influences with specific mentions of authors. The feeling among thoughtful writers of science fiction is that the fans won't like you, and the serious reviewers won't notice even if you write a good novel. This is not true at the *Washington*

Post Book World, but anyone who is serious would also wish to see this kind of approach in the *Times* and in the *New York Review of Books,* which do many worthy things otherwise.

December 27, 1981

"What makes a novel good?"

I've often wondered what I would think of Beethoven or Mozart if the only performances of their works I heard were dreadful. Would I be able to see that they were great, but that the performances were bad? Most readers are in this situation with fairly unsung authors, even with masters. The reader fails to perform the novel, reading it badly, and doesn't even suspect that this may be the problem; after all, we all know how to read, don't we?

There are two kinds of readers: the performers and the slaves. The slave loves to have the author reach into his brain, seize it, take over, and make things happen exactly as planned. This explains the popularity of so much junk. The performing reader, by comparison, reaches into a work, sees that the novel is a series of opportunities for thought, understanding, and empathy, and in fact would resent the manipulative, totalitarian writer who wants to do it all for him. Slavery in reading science fiction is what we mean by an addict.

It might be argued that great works have been written for both slaves and performers, that impressing a reader uniquely (herding him in one exclusive direction of thought and feeling) is as hard to do as inducing him to see what is there; in fact, many authors do both, enticing a reader, then persuading him. But if we value independence of thought and the ideals of freedom, then the performing reader must be best, and we see why so many books which are excellent receive pans; the reviewer is a slave and the writer failed to deliver the proper jolt.

This is why the multi-valent, performing works of science fiction are not as popular as the zippy, good reads. I wish that editors and publishers would keep this distinction in mind and provide space for more performing works, especially in science fiction, where slaves dominate the market.

January 2, 1982

"The Burning Bell". The free lance writer is a hostage who should be happy that he's published. That is how his talents are regarded by those who hold the money (in practice if not in explicit theory), despite sympathetic editors, who are often viewed as half-writers by their publishers—especially if they are sensitive and "author-oriented". Few editors know what it's like for a writer, the day-to-day worry and suspense (they know in theory and through hearsay, but they rarely feel the facts); few well-to-do writers, those who earn their living in other ways, understand the dedicated professional; even fewer of these writers would be willing to sacrifice for the privilege of writing—they'll do it only if circumstances are favorable. But the dedicated writer must do it under any circumstances, even for free, or live with a deep sense of self-betrayal; he wants a living only to be able to write. Faced with the universal fact of death, the dedicated writer bravely decides to complete his work at whatever risk to success, financial or artistic; he or she is willing to be judged, as long as the work gets done. Becoming a writer should be difficult in regard to skill and professionalism, but not destructively difficult economically. The old story of the man in the burning bell, whose cries emerge as beautiful music to outside listeners, is

an accurate description of a writer's life. In these commercial times, even the worst screams are published and turned into money; but good, bad, or indifferent, the suffering of authors is unnecessary.

Author: "If you pay me the rest of my advance, I can rewrite the book according to suggestions in a few months. If you don't pay me, I'll have to delay while I earn enough from other projects to survive."

Editor: "We'll wait and pay you when you're done. It's your decision as to whether the book gets written or not."

February 5, 1982

Attacking science fiction is a trap; once we have admitted its excesses and failures, once we see that it exists nowhere but in its possibilities and individual works, then we see the futility of judging it by its worst works (especially for a writer, for whom so much depends on being confident). Everything remains to be done, and that is the bottom line for a writer. Readers will content themselves with varying levels of accomplishment; a few will attain to a mature taste for a "high science fiction". Writers will be both caterers and trailblazers. We do, in the end, what we can do, what we in fact manage to do. The agony of a good writer in science fiction lies in the struggle between the caterer and the trailblazer. Catering is done for money and reader acceptance, whilst trailblazing is always the result of an awakened, ambitious vision. The great defense of science fiction lies in its possibilities for literature and in its few worthy works; but the rainchecks will expire one day, if genre publishers and hostile critics don't give science fiction's possibilities some room to breathe. It is possible to so degrade a genre that its faults will begin to seem intrinsic.

In 1958, when I lived in Miami, I met a man on the bus I took to school. He saw the science fiction books which I had with me—I often read at the bus stop and during free moments at school. One day he brought me a copy of Smith's *The Skylark of Space.* When I returned that book, he brought me a copy of *Slan;* later he loaned me a few of the *Lensman* novels in the Fantasy Press editions. His name was Loomis, and I always wondered if he was any relation to Noel Loomis, the science fiction writer of the '40s and '50s. What impressed me was his trust that I would return the books on future bus rides; he didn't know my name or where I lived; I didn't know where he lived. Later, before we moved back to New York City, I learned that Loomis worked for a chain of Florida movie theaters. His interest in what I read has stayed with me; I think about him from time to time. His only motive had been that I read and enjoy what he brought me; it was not important to him that I return the books, even though they were quite valuable, I learned later. It meant something to him that I got something from reading them, and there was not one book that he gave me that I failed to enjoy.

February 9, 1982

When I was in the hospital in the fall of 1959, I read Orwell's *1984.* I was very moved when Winston Smith looked out the window from the room he and Julia had rented, and saw the prole woman singing and hanging wash in the back yard. If there is any hope, he thinks, it lies in the proles. I wrote a letter to Robert Heinlein some time later that year, suggesting that he write a sequel to Orwell's novel, one in which the proles rise against tyranny (I had recently read Heinlein's *Revolt in 2100,* and *Waldo*). How simpleminded!

How naive! But it made sense, of a kind. Heinlein's books of that time were trenchantly constructive and hopeful in a practical sounding way, American in their contempt for the mires of human nature. And it is the job of youth to do what their elders think impossible. There is no greater satisfaction, no more dramatic confrontation, than that which occurs between youth and age at that moment when youth can legitimately thumb its nose at age, having just accomplished what age had pronounced impossible.

There, on my back at the age of fourteen, in a cast from my feet to my chest, I believed that the proles could rise and throw off their chains. A part of Orwell believed it also, I suppose. In the next two years, I read Zamiatin's *We* and Huxley's *Brave New World,* and Dick's *Time Out of Joint,* and fell victim to skepticism.

May 7, 1982

The relationship of author to editor is inherently unequal, economically and otherwise (there are editors tactful enough to insulate their writers from feeling this fact). The most casual action or inaction on the part of an editor, may be devastating to an author, artistically or financially. To survive, the author must harden himself; but to be a good writer he must be sensitive; thus he's pulled in contradictory directions.

The editor, meanwhile, whatever constraints are imposed upon him by his publisher, is paid regularly. He can be leisurely. Too often he forgets that he is only the caretaker of talent, not its equal.

Rodney Needham is a Fellow of All Souls College and Professor of Social Anthropology in the University of Oxford. He has lived with the Penan of Borneo and has had varied experience of life in other forests of South-east Asia. Here he takes a new look at Edgar Rice Burroughs' best-known hero from the point of view of an anthropologist.

Tarzan of the Apes: A Re-appreciation

RODNEY NEEDHAM

". . . If I am a man, a man I must become."
—Mowgli

I

One of the numerous oddities of human nature is that when men wish to form an idea of the nature of their species, they have typically resorted to suppositious examples, not to the superabundant empirical testimonies of history and ethnography, and repeatedly they have located their prototypes in a fictive kind of existence.

Dryden's noble savage ran wild in woods, free as nature first made man ere the base laws of servitude began. Rousseau, with a less defensible neglect of contemporary ethnography, tendentiously concocted a savage who was fixed to no place, had no obligatory task, and recognized no law other than his own will. Philosophers of our day bypass what has been discovered about the variegated springs of human conduct and instead base their arguments on fictitious examples; one asks his readers to imagine the ethics of a tribe on a Pacific island, another makes up the teleology of a people in the Amazonian forest (their main aim in life, it should be mentioned, is to die of influenza, so no wonder they have to be made up), and yet another takes it as an axiom of method that we can *invent* the natural history of mankind for our philosophical purposes. This practice on the part of philosophers is open to several explanations, and perhaps in one setting or another it can be somewhat justified, but what in any event calls for remark is the explicit preference for fiction over fact.

When we turn from philosophers' inventions to the deliberately fictional, in the form of tales that carry no overt instruction but are avowedly exercises in the imaginary, the matter becomes if anything more interesting. In these instances the authors may give themselves away in their figments, or they may reflect the presuppositions or desires of those for whom they write. In either event they often tell us more about conceptions of human nature than would the inevitable qualifications of more didactic ventures. Kipling's Mowgli is a carefree example of an individual reared among animals; Golding's primeval tribes represent affectingly the clumsy initiation of articulate speech and social forms. But more famous than either of these instances is Tarzan. It is now over seventy years since Edgar Rice Burroughs, in a surprising feat of literary manufacture, wrote his story *Tarzan of the Apes,* and, against intensifying competition from science fiction and fantasy of every kind, the fame and appeal of his fictional character have only increased. The continued success of Tarzan, when set against the computerized mechanics of modern life, prompts the inference that the calculations, constraints, programs, and possible surveillance made feasible by silicon chips is not what very many people really want. Tarzan, by contrast, stands for an ideal of freedom, naturalness, and even nobility whose conditions depend on a severe deprivation of the main resources of modern western civilization. Robinson Crusoe was far better placed than the ape-man, for he salvaged a great deal of tools and other materials from the wrecked vessel, including firearms, and he knew how to use them. Tarzan had in effect only a hunting knife, and although his parents' books were in the cabin he had in the beginning no way of seeing what they contained. Crucially, moreover, he was brought up, from only one year of age, not by others of his own kind but by his foster-mother Kala, a great ape.

Judged as a piece of literary contrivance, this fiction makes for an astonishing achievement. The little Tarzan is well endowed by heredity (even with aristocratic qualities that are not genetic), but he is utterly puny; the only language he is taught is that of the apes, and his manners are theirs; when he finds his way into the cabin, still the only thing of immediate advantage that he can find is the knife. Here then is a human being who by upbringing lacks any of the products of civilization. Physically, thanks to Kala, he has survived to an independent maturity. But what exactly has he become? Is he really a human being? Here there has been posed a supreme test of human nature.

We may well admire the fictional skill with which Burroughs has set out this essential quandary, and there are numerous grounds on which his imaginative ingenuity can be

assessed and compared, but these are matters for a literary criticism which has probably been sufficiently exercised already. What is of present interest is the extent to which the premises and events of the tale can be supported from an anthropological point of view. This concern does not mean that the imaginative efficacy of *Tarzan of the Apes* is to be judged by whether or not the narrative can be grounded in some scientific body of knowledge; that would be a very misguided and dull-minded venture. But there is an independent interest to be found in considering, all the same, how far Burrough's presuppositions and inventions can be found to agree with general findings of comparative ethnography and a more detached appraisal of human nature. This is no more necessary to an appreciation of the narrative than would be a botanical check of the flora or a zoological register of the fauna of West Africa, yet it may prove revealing or consequential in its own way.

II

A ready starting point is not human but the society of apes in which Tarzan learned his first language, customs, and techniques of survival.

Burroughs does not supply many details about this "tribe"; the few particulars relate to male dominance and the acquisition of mates. The adult males contest individually with Kerchak for supremacy over the tribe, and then with his successors, including Tarzan. This reflects what seems to be common behaviour among primates, but a further practice is hardly such. The apes find it "more comfortable" to take wives from their own tribe, or, if they capture one of another tribe, they bring her back to Kerchak's band. Real apes may not do this, but it has long been a supposition that primitive man practised marriage by capture. The idea was classically established by McLennan in his *Primitive Marriage* (1865), and it has been easily taken over by subsequent generations, including that of Burroughs. Incorrect though it is, there are nevertheless numerous societies whose marriage ceremonies seem at first to justify it, and, as McLennan demonstrated, an argument can be constructed in support of the inference that it was typical of an early stage of human society. From such premises it might conceivably be attributed to great apes as well, and, after all, it is not out of the question that on occasion they might actually do something of the kind.

The same can hardly be said about another way of acquiring another kind of mate. Terkoz abducts Jane Porter as his surrogate "wife", after he has lost his mates on being driven away from the tribe; he throws her across his broad hairy shoulders and leaps back into the trees, bearing her towards "a fate a thousand times worse than death". This is a hoary tale which has often been purveyed. Schouten asserted that orang-utangs are "passionately fond of women", who cannot pass through their woods without being attacked and ravished by them, and this lurid report was embodied in Buffon's great natural history (cited in Harrisson 1955: 630-31). There appears to be no factual evidence at all behind this lubricious fantasy; we do not know what advantage an ape might take of such an erotic opportunity, nor whether it would in the event be so dreadful as all that for the woman. (Japanese zoologists are said to have procured a call girl, or someone of the sort, for the purpose of mating her with an anthropoid, but the outcome of the experiment seems not to have been reported.) Nevertheless, rape by an ape is a standard imaginary theme, and well-known enough to be ascribed to the brutal Terkoz. Burroughs could have counted on a shocked recognition on the part of his readers on the eve of the First World War, and no doubt the fantasy remains as familiar among those of the present

day. The topic of sexual intercourse with beasts has an exceedingly long history (cf. Exodus 22:19 and esp. Leviticus 18:23, 20:16), testifying to some deep urge, and when the roles are reversed, with the animal taking the initiative over a woman, its dramatic force is intensified. Little wonder that Tarzan appears "god-like" and to act righteously in killing the "primordial ape" in the deadly struggle for Jane.

In another respect Tarzan's ape companions act in a manner that to a comparativist has a particular significance, though Burroughs could not well have known of this when he described it. In a natural amphitheater in the forest there is an "earthen drum" at which the apes perform "rites of the Dum-Dum". These rites mark important events in the life of the tribe, such as a victory, the capture of a prisoner, the killing of some large fierce denizen of the jungle, the death or accession of a "king", and they are conducted with "set ceremonialism". The females and young are relegated to the periphery, and in front of them are ranged the adult males. The drum is beaten by three old females, who produce a "wild, rhythmic din". At the climax, as the rate and volume of the drumming are increased, the males attack the body of a dead victim and then eat it. Burroughs observes that from this "intoxicating revel" have arisen "all the forms and ceremonials of modern Church and State . . . " This is an extreme formulation, but nonetheless Burroughs was more right than he could have known. It is only relatively recently that a significant positive correlation between percussion and rites of passage (such as those attributed to the apes) has been demonstrated on the basis of comparative ethnography (Needham 1967). Moreover, a subsequent hypothesis traces the subliminal impact of percussive sounds to a factor that is common to both humans and anthropoids, namely the intra-uterine experience of the reverberations of the mother's heartbeats (Needham 1981: 48). We know that chimpanzees, at any rate, practise drumming (Reynolds 1965), and it is conceivable that there is a phylogenetic connection between this and the myriad percussive methods by which humans mark important events in their social lives.

III

The blacks in *Tarzan of the Apes* have not the crucial importance of the apes in forming Tarzan's character. They appear mainly as his enemies, though it is from them that he acquires bow and arrows, spears, ornaments, and a doeskin breechcloth. Burroughs's descriptions of them afford practically no purchase for a systematic analysis of any kind.

According to Jane Porter's letter to Hazel, the cabin lay on the west coast of Africa at about 10 degrees South, so that the territory into which the blacks made their incursion is perhaps somewhere in the region of Angola, but there would be no point in looking up the ethnographic literature on this part of the continent in order to check whether any people there used to file their teeth into points or torture human victims to death. Burroughs evidently made up his blacks from conventionally prejudicial components. No sooner do they march on to the scene than we are told of the "low and bestial brutishness" of their appearance. The floor of Kulonga's hut is littered with human skulls, and his father the king, Mbonga, wears a necklace of dried human hands. The blacks are of course "cruel", and they inflict hideous torments on a bound captive before preparing to cook and eat him. They superstitiously make offerings to the great god of the jungle. Most of this is pretty highly coloured, though not out of scale with contemporary stereotypes of savages. Perhaps the one detail to raise anthropological eyebrows is that poison is prepared and applied to arrows by a woman, something that is likely to be unusual anywhere.

That the blacks are said to be cannibals is a standard means of disparagement, and one that is peculiarly emotive. Arens (1979) has shown, however, that while the charge is commonly leveled against other groups that are feared, disliked, or merely different, it is exceedingly hard to discover anything like convincing evidence that alleged cannibals ever actually ate anyone. Burroughs could not have known how largely disputable the charge of cannibalism can often be, but he surely knew what would be the literary effect of imputing this horrible practice to enemies of Tarzan and of the apes.

An indication that the derogatory description of the blacks is in part a merely literary tactic, or at least not an absolute expression of Burroughs's own attitude towards dark-skinned human beings, is the explanation he gives for their incursion into Tarzan's territory. They were fleeing from the white man's soldiers, who had harassed them intolerably for the sake of rubber and ivory; they had been attacked by a strong body of troops, who had afterwards eaten their dead opponents, and it was only a little remnant (150 warriors plus several hundred women and children) of a once-powerful tribe that had slunk off into the gloomy jungle. Their cruelty to their own captives was indeed fiendish, but added to this were "the still crueller barbarities practised upon them and theirs by the white officers of that arch hypocrite, Leopold II of Belgium, because of whose atrocities they had fled the Congo Free State . . ."

IV

So much for the setting and the external factors that played their parts in the formation of Tarzan's character. As for his personal qualities and capabilities, including especially his inner nature, we are supplied with a fair range of details.

Physically of course he is superb; he is handsome, well proportioned, and beautifully muscled; he stands "straight as a young Indian" and comports himself with hereditary "grace and dignity". But this is not how he first perceives himself. When only ten years old he feels intense "shame" at being hairless; he is appalled when he sees his features reflected in the still surface of the lake, and he much admires the broad nostrils of his ape cousin. He "sees" largely through his sensitive and highly trained nose, though taste is his least developed sense, and in other respects his powers match those of the apes except in sheer brute strength. Emotionally, he is clearly more sensitive than they. He feels "love" for Kala, and "grief and anger" at her death by Kulonga's arrow; he "avenges" her, and on other occasions also he has killed for revenge. When he despatches Kulonga, nevertheless, he hesitates to eat the body, though normally he would devour his prey; "a qualm of nausea" overwhelms him, and his "hereditary instinct" saves him from transgressing a world-wide law. He repeatedly shows a sense of humour, and he is described expressly as "a joker". Of fear of any kind he has only a vague conception. His capacity for altruism is shown when he hunts and collects fruits for Jane and her companions; these labors give him the "greatest pleasure of his life". For Jane herself he feels a distinct kind of affection and desire; he writes to her that he "loves" her, and ("what no red-blooded man needs lessons in doing") he kisses her.

Morally and psychologically, therefore, Tarzan is distinctly a man. Being a man, indeed, "he sometimes killed for pleasure, a thing which no other animal does". But what most distinguishes him from the apes and other creatures is "his divine power of reason, . . . that little spark which spells the whole vast difference between man and beasts". He has an "active brain", "a superior intelligence", and "a mind endowed by inheritance

with more than ordinary reasoning powers". In his pursuit of Kulonga he refrains from killing him at the first chance, for whereas "his desire to kill burned fiercely in his wild breast, . . . his desire to learn was even greater." He is lured to the village of the blacks by "a fever of curiosity" to behold animals of his own kind; in this he intimates his capacity for foresight, something that Kala, who "could never plan ahead", had not been able to understand, even when she enjoyed the benefits of it. But what supremely exhibits his mental powers is his extraordinary feat of teaching himself to read by comparing the incidence and distribution of letters, the little "bugs". He exerts a remarkable persistence, from the age of ten to seventeen, and he perseveres "for months" at learning to write; "his studies took up the greater portion of his time", so that at eighteen he read fluently and could write rapidly and plainly.

On a number of occasions, chance played a role in his education. A lioness's charge causes him to leap into a lake and learn to swim; he cuts his finger on his father's hunting knife, and realises that it can be used to cut other things; he strikes a gorilla with his fists, in one of which he happens to be clutching the knife, and "accidentally" turns the point against the beast; a storm gives him the idea that he would have been "snug" underneath the heavy coat of the lioness Sabor. What is important, however, is that in each instance it is his quick intelligence and imagination that draw a useful lesson from the turn of chance. Similarly, he loses his rope when he tries unsuccessfully to noose Horta the boar, but when he afterwards casts a loop around the throat of Sabor, he fastens the end of the rope to the trunk of a great tree so that she is held. Here too it is his reasoning power that is decisive.

In his physical hability, incidentally, there is a rather curious question. In the accounts of his fights and other activities we are usually not told about his handedness, that is whether his right or his left is dominant. In only two passages are we given an idea. In one it is said that his long bow hangs "over his left shoulder"; this is probably the side opposite to the quiver, in which case Tarzan grasps the bow with his left hand and draws with his right. But when he killed Numa, the lion, "his right arm encircled the lion's neck, while the left hand plunged the knife . . . into the unprotected side". This makes it seem that Tarzan is left-handed, for even if he needed a strong arm to secure the beast from behind, it is not likely that he would have employed the weaker hand for the lethal work with the knife. Against the world-wide pre-eminence of the right (cf. Needham 1973), a left-handed protagonist is very unusual, and we can only conjecture the reasons (if any) that may have led Burroughs to ascribe this feature to Tarzan.

V

The preceding sections have brought together many scattered particulars which make up a description of Tarzan's character and capacities. More or less admirable as these are, they leave no doubt that he is a true man, a triumphant paradigm of human nature. But although we may make a willing suspension of disbelief, under the suasions of an exciting and original adventure story, we are nevertheless left with what on other grounds are fundamental questions. What would a real-life Tarzan actually be like? And how far does Burroughs's invention correspond to what in such circumstances as those of Tarzan's upbringing might be possible?

Fictional examples such as Kipling's Mowgli or Hudson's Rima will not serve us here. Nor will Ishi, for by the time A.L. Kroeber took him to Berkeley he was already a mature man and well educated in the culture and techniques of Californian Indians. The obvious

comparison to make is with a feral child, and among the more or less dubitable instances reported the only satisfactory record is that of the wild boy of Aveyron. The youth was captured in September 1799 by three hunters; he was completely naked and was said to be seeking acorns and roots to eat. He was taken to Paris and caused a great public stir; many people wanted to look at him, expecting to find an instructive specimen of natural man. But what they were confronted with in the event was a shocking disappointment:

> a dirty, scared, inarticulate creature who trotted and grunted like the beasts of the fields, ate with apparent pleasure the most filthy refuse, was apparently incapable of attention or even of elementary perceptions such as heat or cold, and spent his time apathetically rocking himself backwards and forwards like the animals at the zoo (Humphrey, in Itard 1962: vi).

Itard thought it probable that the boy had been abandoned at the age of four or five, and that he had lived in absolute solitude in the woods until almost his twelfth year, which is the age he may have been when he was caught. He could not speak, and at first indeed he made no sound. During years of sympathetic observation and ingenious instruction by Itard he learned to articulate only the word for milk and the phrase "Oh Dieu!" This incapacity might have been the result of a long lesion on his neck, where there was a scar as though someone had tried to cut his throat and had perhaps injured the vocal chords, but Itard rejected this possibility. Pinel examined him and found him merely an idiot, but the diagnosis was disproved by the boy's subsequent progress. He learned to read and to communicate with wooden letters, eventually by writing, and the play of his intelligence as he learned to classify things under names was most positive. Emotionally, he displayed at first only joy and anger, but with experience of human company he developed other reactions including sorrow, impatience, and boredom. After only six weeks in human society he had learnd to prepare his food with every care. (In shelling kidney beans, incidentally, he seems to have worked as though he were right-handed.) Whereas his eating habits shortly after he arrived in Paris were "disgusting in the extreme", it was not long before Itard was taking him out to dine in town. He had in any case "a most decided taste for order", and he could not rest if anything in his room was not in its proper place. Nevertheless, at the end of five years of education, during which his compassionate teacher was repeatedly at the point of despair on his account, Itard could promise little prospect of further advance and concluded that the boy should be judged only against himself. The whole experiment, invaluable and also moving as it was, tended to prove Itard's contention that "it is only in the heart of society that man can attain the pre-eminent position which is his natural destiny".

The overriding likelihood, then, is that a real Tarzan would be much like the wild boy of Aveyron, and his position would be different only by virtue of what he would have learned in the society of apes. In hardly any humane respect, it is to be feared, would he exhibit the admirable qualities of Burroughs's noble protagonist. This makes no case against *Tarzan of the Apes*, unless the book is taken for what it was never intended to be, but instead it testifies to a generous impulsion to hope, even if against hope and reason and experience, for the best in human nature.

Actually, it is not impossible to find men living free in the forest who do in many respects deserve the sympathy and respect that are evoked by Burroughs's fictional personage. The eastern Penan of the interior of Borneo are traditionally, as some of them still are in fact, forest nomads; and they are free in that in their own mode of life they have no fixed habitations, no circumscribed territories, little care for property, few posses-

sions, and no government other than the constraints of their common circumstances and their subscription to common values (cf. Needham 1972). In the eyes of one observer, who shared their wandering existence in the high rain forests, they are handsome, appealing, solicitous, stoical, diffident, and generous. When young and fit the men have the broad shoulders, lithe waist, and swelling muscles of Tarzan, and their powers of movement and survival in the forest are most impressive. Armed with blowpipe and spearhead, they courageously face beasts so dangerous as the leopard and the wild boar, and they are unflagging and wonderfully skilful hunters. In their demeanour there is a quiet level decency and composure, to the degree that they can well be thought of as, in their way, noble savages.

But, apart from their prowess as nomadic hunters, the Penan are far from being Tarzans. Despite the material simplicity of their way of life, the repertory of their cultural assets, beginning with their language and their complex system of personal appellations, is very extensive. Although they lack many typical institutions of settled and literate peoples, they embody a form of civilization, and it is as civilized men that they sustain their humane values among the rigours and hazards of a wild habitat. At the same time, however, they are physically dirty and some of their habits are unclean (Jane Porter could never have accepted these), their cooking is hardly delicate, they are professional killers of animals (though, unlike Tarzan, never of men) and are indifferent to their sufferings, and, characteristically, they are incurious to the point of apathy in the face of abstractions or queries that have no bearing on their survival. Nevertheless, in even these more negative or deprived respects they are not being merely natural but are living in accord with their tradition. Whereas they live directly in the midst of nature, and almost as exposed to it as a band of apes would be, they are not men of nature. If we seek human nature in them, their mode of livelihood makes them not in the least transparent, nor are they any easier to decipher through the cultural accretions and social forms that make them civilized human beings.

Neither the wild boy of Aveyron nor the Penan of Borneo can present us, therefore, with an example of natural man in whom nature is essentially and directly revealed. The very concept is a fiction, and if that is what we are to settle for there is much compensatory attraction in the romantically dramatic exemplar of Tarzan of the Apes.

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The following article derives from Lucy Sussex's MA thesis in Librarianship, on the theme of "The Variant Text in Science Fiction"—dealing with the tendency for sf to be rewritten (and not always by the author), together with the consequent critical pitfalls. Lucy Sussex lives in Australia.

Long Versus Short SF: The Examination of a Fix-Up

LUCY SUSSEX

It has been long claimed that science fiction is essentially a short-narrative, rather than a novel, form. Certainly, reference publications like William Contento's *Index to Science Fiction Anthologies and Collections* indicate that a considerable proportion of sf appears in small packages. Yet to assert, as Brian Aldiss has, that the short story is "ideal"[1] for science fiction is to argue from an effect rather than from a cause.

The prevalence of short fiction in sf stems from the publishing history of the genre, in particular the golden age of pulp (1920s to 1940s). During this period, magazines were virtually the only outlet for sf, and it adapted to these circumstances: short fiction is most suited to the magazine format. However, difficulties arose in the 1950s, when sf began to appear in books. Apart from anthologies, book publishing favours long narratives. As a result, a common practice in sf became to rewrite short stories, novelettes and novellas, as novels.

There are several methods by which short narratives may be brought to the appropriate length. One technique is simply to continue the story, as in James Blish's *A Case of Conscience.* Another, and far more devious method, is to construct a fix-up: "a book made up of stories previously published (independently), but altered to fit together, usually with the addition of new cementing material".[2]

Science fiction criticism has been aware of the existence of fix-ups for some time; the definition quoted above was formulated by John Clute. However, there has not yet been a

detailed analysis of a fix-up, particularly with regard to its component stories. This article will examine a typical fix-up, as a contribution to the long vs short sf debate. It needs to be established whether a fix-up is more than the sum of its parts, or whether such genre practices actually do sf a disservice, by producing novels inferior to their original (constituent) short fiction.

The fix-up chosen, A.E. van Vogt's *The Voyage of the Space Beagle* (1950) is of historical importance as the first sf novel produced by this method. In fact, van Vogt has compiled[3] more fix-ups than any other notable writer in the genre, mostly recycling in book form his early (and prodigious) magazine output. *Voyage* was composed of four novellas, three of which had appeared in *Astounding:* "Black Destroyer" (July 1939), "Discord in Scarlet" (Dec. 1939) and "M33 in Andromeda" (Aug. 1943). The fourth, "War of Nerves", was published in the March 1950 issue of *Other Worlds,* six months before the fix-up.

Before discussing these novellas as the building blocks of the fix-up, it is necessary to see how they function independently. "Black Destroyer" was only the second sf story van Vogt had written, and was the first to be sold. It was therefore an apprentice piece. The narrative is told in the third person, partly from the viewpoint of Morton, Commander of an interstellar scientific expedition, and partly from that of Coeurl, an intelligent but malign alien. The latter finds humans edible, and runs amok in their spaceship. After a struggle, he is defeated.

In synopsis, "Black Destroyer" does not sound very impressive, but the story is undoubtedly effective. Despite crude writing, and some illogicalities of plot, the story won first place in the *Astounding* readers' poll. Encouraged by this response, van Vogt wrote a sequel. "Discord in Scarlet" occurs on the next voyage of the expedition, and is practically the same story as "Black Destroyer", with Coeurl being replaced by one Ixtl. Van Vogt has admitted to using formulas in his writing,[4] and the structures of the novellas (their basic plot element is an "unfriendly Thing that gets loose inside a spaceship"[5]) are identical.

It was four years before van Vogt wrote another *Space Beagle* story. "M33 in Andromeda" is a further sequel, set "seven months" (p.130) after the events of "Discord in Scarlet". Despite the intervening and prolific years, van Vogt was still writing about Morton et al according to a strict formula: this time the hostile alien was a mist entity called the Anabis. Yet with this story van Vogt varied the system slightly, experimenting with structure. For instance, the first two novellas opened with a long section of alien viewpoint, which in "M33 in Andromeda" forms the penultimate section of the narrative. There is the inevitable intrusion into the ship, but it is not (unlike the previous tales) the main action of the story. The assault is quickly repulsed, and the rest of the novella is devoted to discovering the nature of the intelligence behind it. Van Vogt was attempting, in effect, a mystery story.

Another important difference in "M33 in Andromeda" is that the narrative has a sub-plot. "Black Destroyer" and "Discord in Scarlet" were roughly cyclic stories, with the expedition reverting to normal at the end of the novella. Van Vogt added a 'log cabin to White House' sub-plot to his basic formula. In the previous stories, the aliens had been defeated through plans conceived by various scientists. In "M33 in Andromeda" the victory is solely due to Elliot Grosvenor, "the lone, despised Nexialist" (p. 139) of the expedition. Van Vogt has had an almost fascist preoccupation with supermen, and

Nexialism is a fictional system of training that produces polymaths. In some respects, it is an interesting prefiguration of Dianetics. Neither Grosvenor nor Nexialism had appeared in the previous novellas. "M33 in Andromeda" ends with the formerly disdainful scientists treating Grosvenor with respect.

Given that "Black Destroyer", "Discord in Scarlet" and "M33 in Andromeda" had a common background, it is not surprising that van Vogt should try to convert them into a novel. His method was to write another story, into which the three novellas "not only fitted neatly but actually contributed meaning to the new material".[6] This fourth narrative was essentially an extension of the sub-plot to "M33 in Andromeda"—a story of the aggrandizement of Elliot Grosvenor and his Nexialism.

The connective narrative is concerned with a power-struggle aboard the spaceship. In the already published stories, Commander Morton's authority is unquestioned, although the ship is a democracy (van Vogt is vague on this point). *Voyage* gives Morton's title as "Director"—of what is best described as a travelling (and quarrelsome) research institute. The position is elective, and running for office is the chemist Kent, a character found in all the earlier narratives. For the purposes of the fix-up, he becomes the villain, Grosvenor's arch-enemy. In brief, Kent gains control of the ship, but is unseated by Grosvenor. The novel ends with most of the ship's company converted to Nexialism.

"War of Nerves" has not yet been discussed in this article, because its relationship to the fix-up is problematic. It appeared in the same year as *Voyage,* and of all the separately published novellas, it varies least from the novel version. "War of Nerves" was first published (and has been reprinted) with a foreword which not only refers to "three . . . deadly attacks by aliens" (p. 36), but gives a summary of the leadership crisis aboard the *Space Beagle.*

The question arises: was "War of Nerves" written before *Voyage,* or as part of the fix-up? Certainly at points the text of the novel improves on the *Other Worlds* version. An example is the sentence: "Only a score of suns were still visible of the approximately five thousand suns that made up the system" *(Other Worlds,* p. 36). In the novel, the expression is more concise: "Only a few of the five thousand-odd suns of the system were still visible" (p. 68). Also a totally erroneous use of the world 'hymen-opter' (p. 44)—van Vogt seems to think that it refers to parthenogenesis—is omitted from the text of *Voyage.*

It is likely that van Vogt wrote "War of Nerves" before the fix-up, probably while the connective narrative was still in note form. It seems fairly clear why he wrote the novella. If the novel had been constructed with the *Astounding* stories in chronological order—"Black Destroyer" followed by "Discord in Scarlet" followed by "M33 in Andromeda"—two highly similar narratives would have been adjacent. Something was needed between the 1939 novellas, and so "War of Nerves" was written. This story is basically a development of the first part of "M33 in Andromeda", in which the key action is the throwing of a switch which energizes the ship's protective screen, preventing alien intrusion. In "War of Nerves" the aliens, called Riim, have already invaded the ship, and must be ousted before the switch is thrown.

In *Voyage,* "Black Destroyer" occupies chapters 1 – 6, and "War of Nerves" chapters 9 to halfway through 12. "Discord in Scarlet" occupies chapters 13 – 21. "M33 in Andromeda" is spread over chapters 22, three-quarters of 23, 24, the middle part of 25, and almost all of the final chapter, 28. The connective narrative occupies the gaps in the above listing, and also make minor appearances throughout the novel.

George Turner has described the fix-up process as procrustean,[7] and it is certainly true that van Vogt had to alter his original novellas extraordinarily before they could constitute a whole. This is not to say, though, that they conflicted with each other, except in details. A far greater problem was dovetailing the novellas to the connective narrative, and bringing all the components to a common stylistic level.

"Black Destroyer" and "Discord in Scarlet" have Morton as the protagonist; in "M33 in Andromeda" this role is shared by Morton and Grosvenor. Making the latter the central character of the novel involved the changing of viewpoint and the re-allocation of speeches. The role of Morton was consistently de-emphasized, until in the revised "M33 in Andromeda" he disappears altogether. At the beginning of the fix-up ("Black Destroyer"), Grosvenor is an insignificant member of the ship's company. His participation in the action is largely as an observer. As the novel progresses, he comes to dominate events, appropriating most of Morton's speeches. He is also credited with some of the defence plans devised by other scientists in the original novellas.

One consequence of dovetailing was a resurrection. In "Black Destroyer", one of Coeurl's first victims was the psychological Siedel. However, the connective narrative required the presence of a psychologist in several places, notably to diagnose the malady of some crewmen hypnotised by Grosvenor (chapter 8). In *Voyage,* van Vogt spared Siedel, and in his place had Coeurl kill one Siever (p. 29).

The *Astounding* novellas were afflicted with sylistic faults that, to a certain extent, persist in the fix-up. The first is simple logorrhoea. An example occurs in "Discord in Scarlet": "where sudden intolerable hell would break loose in a devastating, irresistible torrent of energy" (p. 32). In revision, this statement is more concise: "where a hell of energy would break loose at any moment" (p. 141). Sometimes van Vogt's expression is awkward: "Kent and Jarvey had chummed together for years in the way only two men can" ("Black Destroyer", p. 17). For the fix-up, this comment was altered to "Kent . . . and Jarvey, were very good friends" (p. 17)

Van Vogt is a writer who delights in the use of language, but he is not always very accurate. Notably, he attaches ungrammatical suffixes to words, such as "extrania" ("M33 in Andromeda", p. 133), and "sadistical joy" ("Discord in Scarlet", p. 34), the latter of which survives in the novel (p. 144). One peculiar expression was "His thoughts kept breaking up into little pieces of light and lightless—a chain of dazzle and dark" ("Discord in Scarlet", p. 13). In the novel, the less idiosyncratic "His thoughts kept breaking up into kaleidoscopic memories" (p. 101) appears. At points, van Vogt seems in need of a dictionary, for instance with the word "sympodial" which he defines as "capable of adaptation to any environment" ("Discord in Scarlet", p. 18). In fact, "sympodial" refers to "A malformation in which the legs and lower extremities are united" (OED). This error was not corrected in the fix-up.

Van Vogt strives for poetic effect by using words in unusual combinations, some of which succeed, some of which defy logic. For example, is it possible to "revive long rotted machinery" ("Black Destroyer", p. 21)? Can a mist be described as "eviscerated" ("M33 in Andromeda", p. 141)? Neither of these curiosities was retained in the fix-up, but the following was: "the symphony of vibrations that throbbed in discordant melody through the ship" ("Discord in Scarlet", p. 32; *Voyage,* p. 140). Van Vogt can also be guilty of tautology, as in "sibilant voice hissed" ("Discord in Scarlet", p. 22), or of contradictions in terms, such as "formless form" ("M33 in Andromeda", p. 140). The former was

omitted from *Voyage,* the latter altered to read "formless state" (p. 186). While van Vogt greatly enhanced the style of his novellas in revision, it must be said that they are still flawed in places.

The 1939 stories were riddled with improbabilities, which were also removed in revision. One example will suffice. In "Discord in Scarlet", a physicist makes a quick sketch, which when described proves so complex that it must have taken considerable time to draw: "a single atom of neutronium alloy, with only eight hundred of the . . . electrons showing, but the design of each eighty electrons with their sixteen sides clearly indicated" (p. 24). With *Voyage,* van Vogt avoids detailing the sketch.

The fact that the novellas were written to a formula presented problems in the fix-up. The recurrence of certain events like alien attack could, in combined form, have produced a very predictable novel. The solution was to introduce some arbitrary differences. In all the original narratives, the aliens were hostile if not actively malevolent. When van Vogt revised the text of "War of Nerves" for the fix-up, he altered the intent of the Riim; their attack is a misguided attempt to be friendly. Unfortunately, this change meant that Grosvenor's treatment of the Riim now seemed callous, not to mention imperialistic. He was not intended to be an anti-hero, and the change makes him a far less sympathetic protagonist.

Kingsley Amis has commented that *Voyage* "moves well for sixty thousand words simply by introducing a succession of BEMs, each nastier than the one before".[8] This remark, although flippant, is apt, for the novel is highly episodic as a consequence of the fix-up process. However, the episodes in *Voyage* are all variations on a theme of humans and aliens. Van Vogt's formula, when repeated in the context of the fix-up, creates a patterned narrative (given that a pattern consists of the controlled repetition of certain elements). It is a very odd but successful means of achieving a unified narrative: the component stories parallel, and thereby reinforce, each other.

Unified *Voyage* may be, but it is a somewhat distasteful novel. The fault lies with the connective narrative, particularly the events by which Elliot Grosvenor comes to control the *Space Beagle.* The Grosvenor of "M33 in Andromeda" was a modest fellow ("I'm afraid my training had nothing to do with the fact that I happened to turn and see your danger"—p. 132), but in *Voyage* he was an "egomaniac" (p. 174), rendered infallible by Nexialism. Van Vogt goes to some lengths to vindicate Grosvenor, yet he cannot prove that the Nexialist's ends (saving the expedition from destruction) justify his means (using conditioning and other psychological techniques to take over the *Space Beagle*). In its later stages, *Voyage* is alarmingly totalitarian, and this aspect of the novel is arguably a flaw.

So, what is the achievement of *Voyage*? Does it represent an advance on its component novellas—is the sum greater than the parts? The answer is: substantially yes. "Black Destroyer", "Discord in Scarlet" and "M33 in Andromeda", though exciting, were highly erratic stories, and van Vogt improved them greatly in revision. However, "War of Nerves" is an exception, for it was in finer form, (barring several stylistic weaknesses) in *Other Worlds.*

Arguably, "War of Nerves" is more successful than the fix-up novel. There are several grounds for this claim. The novella was the last *Space Beagle* story written within the framework of humans versus aliens, and it represents the most sophisticated use of the formula. The inevitable description of the alien is not presented in an indigestible lump,

but gradually, through the perceptions of Grosvenor. Instead of the plethora of scientists in the *Astounding* stories and the connective narrative, there are really only two characters, Grosvenor and the collective entity of the Riim. Unlike "Black Destroyer", which brings "ideas of the most complex kind down to the level of physical combat",[9] most of the action is mental, taking place in inner space.

In *Voyage,* the text of "War of Nerves" is surrounded by two and a half chapters of the connective narrative, which tends to detract from it. In these chapters, Grosvenor clashes with Kent, in a manner that raises serious questions about his ethics, later to be underlined by his behaviour towards the pacific Riim. "War of Nerves" is at its best when self-contained—not part of a novel which links a quartet of vivid adventure stories with an apology for totalitarianism.

It is to be hoped that the critic approaching *Voyage* (or others of its ilk) will be aware that he or she is examining a fix-up. It would be easy to dismiss *Voyage* as episodic, if it were not known that the novel had originally appeared in different form. Van Vogt's book is illustrative of the general condition of the fix-up: because of its construction, it cannot avoid being episodic. *Voyage* is reasonably successful in overcoming its inherent discontinuity, and it probably constitutes a 'good' fix-up. However, this discussion of the phenomenon does support Aldiss's claim that science fiction appears at its best in short form. While *Voyage* supersedes three of its composite novellas (due to their original amateurishness) the short narrative of "War of Nerves", written as a filler, surpasses the novel in toto.

Notes

1 Brian Aldiss, *Billion Year Spree* (London: Corgi, 1975), p. 51.
2 John Clute, "A.E. van Vogt", in *The Encyclopaedia of Science Fiction,* gen. ed. Peter Nicholls (London: Granada, 1979), p. 627.
3 Clute's term, p. 627.
4 " 'A man called John W. Gallishaw wrote a book called *The Only Two Ways to Write a Short Story.* I borrowed it from the Winnipeg Library, and I read it all the way through . . . He had an idea of writing a story in scenes of about 800 words, and each scene has five steps in it. If all those steps aren't there in their proper way, then there's something wrong with that scene' . . . Van Vogt adopted this system, and has always used it"—Charles Platt, *Dream Makers* (New York: Berkley, 1980), p. 134.
5 Paul A. Carter, *The Creation of Tomorrow* (New York: Columbia Univ. Press, 1977), p. 221.
6 George Turner, Letter to Lucy Sussex, 14 May 1981.
7 Turner, letter.
8 Kingsley Amis, *New Maps of Hell* (London: Gollancz, 1961), p. 44.
9 Richard Mullen, quoted in Carter, p. 221.

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Life and Afterlife on Other Worlds

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In my first Presidential Address to the Folklore Society,[1] I made the large proposal that all worthwhile works of literature have important points of contact with folklore.[2] In my second Address (which was reprinted in this journal), I examined, in particular, science fiction, and had no difficulty in showing that folklore plots, types and motifs have been freely used, both consciously and unconsciously, in this kind of literature.[3] At the end of that Address I took up the question of the folktale background of the major themes of science fiction, and began with the theme of the robot. I now want to consider a second such theme, that of *life on other worlds*. I do not mean the alternate parallel worlds I discussed in my second Address, but other worlds in our own universe. Thanks to our growing knowledge of the solar system, life on the nearer worlds, apart from human colonies, has tended to move from science fiction to science fantasy, beginning with the moon. Throughout most of history, however, life even on the moon was a not unreasonable speculation. True, already in the 17th century Galileo and Huygens doubted the presence of water, and therefore of life, on the moon. But Kepler and John Wilkins were of the contrary opinion, and the matter of the water was not really finally settled till the moon rocks were brought back and analyzed in the 1970s.[4] In any case, I am not concerned with the scientific problem of life on other worlds, which has been exhaustively discussed, most recently in an excellent book by Isaac Asimov.[5] I am more concerned with climate of knowledge and belief, and in these terms life on the solar planets and even on the moon has been a potent idea up to recent times.

Less than 27 years before Mariner IV reported from Mars, plenty of people believed in life there, advanced enough to invade earth, to judge from the reactions to Orson Welles's famous broadcast of *The War of the Worlds* on 30 October 1938.[6] Among scenes of panic flight and traffic congestion, the *New York Times* alone received 875 calls from people desperately asking what to do. Only a century earlier there was a similar readiness to believe in life on the moon. In 1835, the New York *Sun* boosted its circulation to a then world record by deliberately publishing Richard Adams Locke's extremely circumstantial and apparently well-documented account of the new discoveries about the moon made by

Sir John Herschel with his 18-inch telescope in Capetown, where the astronomer really was at the time, engaged in studying the southern night sky. Herschel was said to have observed "trees of every imaginable kind" on the moon, then small bison-like animals and a unicorn about the size of a goat, later furry, winged human beings, and finally their buildings and temples. The story was eagerly reprinted by other newspapers, and translated into French, German, Danish, Italian and even Welsh. Edgar Allan Poe, who was jealous of this most spectacular of all hoaxes, admitted that its success "firmly established" the mass-circulation press in America. "Harriet Martineau, then travelling west through Massachusetts, found that the ladies of Springfield were collecting for a fund to send missionaries to the Moon".[7]

So I make no apology for including life on the moon in my study. In the days before the telescope, the moon and the sun, which also comes into the picture were the only heavenly bodies visibly larger than points, and therefore anything like worlds. The moon was the first world to be credited with supporting life, and it plays an important historical part in my story, which is quite unaffected by the fact that the moon is not really habitable. H.G. Wells and Edgar Rice Burroughs published stories of life in subterranean, or rather sub-lunar, caves inside the moon as recently as 1901 and 1923, respectively.[8] This idea, too, is not really possible, but the conception of a lunar underworld is, as we shall see, of great interest from another point of view. For I am concerned with the folktale background of stories of life on other worlds. In my previous Addresses, I have mainly drawn on legends and fairytales; this time it will also be the turn of myths, mythology and the general background of folk beliefs.

To introduce my central idea, I cannot do better than quote the opening words of the hero's narrative in *Beyond the Farthest Star*, published in 1942 by Edgar Rice Burroughs, the most influential of all writers in promoting the theme of life on other worlds in fiction. This novel deals with the hero's adventures on a planet 450,000 light-years from Earth. How does the hero begin his account?

> I was shot down behind the German lines in September 1939. Three Messerschmitts had attacked me, but I spun two of them to earth, whirling funeral pyres, before I took the last long dive.

After this spectacular opening, the hero finds himself in a garden on the remote planet of Poloda. In other words, this is a tale, not only of life, but of *afterlife on another world;* and it will be my contention that the two themes, of life and afterlife on other worlds, have been inextricably interwoven from ancient times right up to modern science fiction. But I shall begin in the middle of things, with the first unmistakable science fiction story of modern times.

In seeking precursors for science fiction, Sam Moskowitz goes back to the *Odyssey*, and James Gunn even to Gilgamesh. There seem to be two candidates for the first true modern science fiction story. Brian Aldiss, James Gunn and Martin Tropp favour Mary Shelley's *Frankenstein*, published in 1818. Arthur Koestler, Donald H. Menzel and Marjorie Hope Nicolson favour Johannes Kepler's *Somnium (Dream)*, published posthumously in 1634. In my second Address, I defined science fiction as "prose fiction in which science and/or technology plays an integral part in the setting and/or action", and there is no doubt at all that Kepler's *Dream* is science fiction in this sense, not to mention a great many other stories between Kepler and Mary Shelley, discussed by I.F. Clarke and Brian Stableford. John Lear has indeed shown exhaustively that the *Dream* was written to get a

scientific message across, but much of modern science fiction is doing that, and Isaac Asimov has even edited a collection of science fiction stories to be used in science teaching. He himself has elsewhere called the *Dream* "the first science fiction story to be written by a professional scientist—but not, by a long shot, the last".[9]

In 1593, as a student at the University of Tübingen, Kepler wrote a thesis on the way the heavens would look to creatures living on the moon. It was designed to support the Copernican theory of the motions of the earth. A proposed debate about this thesis was suppressed by the Lutheran authorities. In 1609, as Imperial Mathematician at Prague, Kepler returned to the subject, and turned his thesis into a science fiction story.[10] In very brief outline, the plot is as follows, presented as a memoir read by Kepler himself in a dream.

The hero, Duracotus, is a native of Iceland, the son of a widow who makes a living peddling herbal charms to sailors. In a fit of temper, she sells him to a sea-captain, who luckily deposits him on the Danish island of Hven, the domain of the great astronomer Tycho Brahe. Here he spends five years learning astronomy, after which he returns to Iceland, where his mother, who has had second thoughts, is pleased to see him again. She takes him to a cross-roads and summons a daemon or spirit from the moon, who gives them a lecture on his home world. He first describes how he and his fellow-daemons can transport human beings to the moon, with due attention to the problems of acceleration, cold and difficulty in breathing. The he gives an account of the days and nights, seasons, climatic conditions, and apparent motions of planets, on the two sides of the moon. When Kepler finally awakes, the daemon has been describing the inhabitants of the moon, huge and short-lived, most of them aquatic, some winged, some basking in the sun like serpents at the mouths of the caves that honeycomb the moon. The intelligence of this lunar life is attested by the mention of boats and buildings. With its brilliant extrapolations in astronomy, physics and biological adaptations, and its intense imaginative expression, Kepler's story gets science fiction off to a magnificent start. In Koestler's words, this is "a cosmic scenery of scientific precision and rare, original beauty".[11]

Though Kepler never visited Hven, he was of course associated with Tycho Brahe, and his own mother "collected herbs and concocted potions".[12] Parts of the *Dream* were easily taken for autobiography, and when the manuscript fell into unfriendly hands, the story of the hero's mother calling up a spirit or daemon became an impressive item in the case of witchcraft being built up against Kepler's own mother.[13] She had brought this on herself, first by betraying a friend's confidence about an abortion, so that the ex-friend had to accuse her of witchcraft in self-defence, and later by unremitting further provocations. In an age when no doubt quiet, harmless people were burned in droves as witches, the eventual release of this awful old woman is a tribute to the immense patience and resource of her great son, but it was a grievous waste of time and energy in his short life.[14]

After his mother's death in 1622, Kepler spent the last eight years of his life periodically annotating the *Dream,* until the Notes were far longer than the text. The *Dream* was finally published posthumously by Kepler's son in 1634, and with the addition of the Notes it was certainly as great a contribution to science as to science fiction.[15]

In 1595, Kepler became acquainted with an ancient Greek work, which fascinated him. He read it in the Latin translation by Xylander (Wilhelm Holzmann).[16] In his *Optics* (1604), Kepler made fourteen quotations from this Latin version. By 1609, therefore,

when he turned his thesis into science fiction, he knew the ancient Greek book well. But Xylander was not an astronomer, and Kepler was not satisfied with his version. He went to the lengths of learning Greek well enough to translate the book himself. In 1629, he wrote to a friend that he had finally translated it into Latin, the language of his own *Dream,* and that he was adding his annotated translation to his own book. They were published together in one Volume in 1634.[17] As Richard Schmertosch showed in 1897, Kepler's translation and commentary reveal him, not only as the great astronomer, but as a master of classical textual scholarship.[18]

The ancient Greek work that so occupied Kepler is Plutarch's dialogue *On the Face that Appears in the Disc of the Moon.*[19] As I observed in a paper at the Society's Centenary Conference, "this dialogue has had momentous influence in the history of both science and science fiction".[20] I summed up the life and work of Plutarch on that occasion, and need ony observe here that he was one of the most prolific, versatile and attractive writers of any age. The dialogue on the *Face in the Moon* was probably written about the year AD100.[21] It is a splendid specimen of his work. Whereas Kepler's *Dream* begins as fiction and becomes increasingly scientific, Plutarch's *Face* is mainly a scientific treatise, and ends with an explicit myth in the ancient technical sense, that is a piece of imaginative fiction in the manner of Plato. But whereas Plato has plenty of fiction and very little science, Plutarch's dialogue contains, for its date, very good science indeed, and plenty of it. S. Samburski devotes nearly a whole chapter of his *Physical World of the Greeks* to the analysis of the scientific part of the dialogue, praises the "clarity and acumen" of its "scientific reasoning", and calls it "perhaps the first work on astrophysics ever written". Edward Rosen, the great Kepler scholar, calls the dialogue "the most valuable discussion of the earth's satellite to have come down to us from antiquity".[22] In brief, to quote my Centenary paper, Plutarch "discusses the markings visible on the moon, and concludes, quite rightly, that they are depressions in a solid, planet-like object. His conclusion is carefully argued, and was far from self-evident in the age before the telescope".[23] When, in 1610, Galileo published the first book on astronomical observations made with the telescope, Plutarch was completely vindicated; and Kepler's enthusiastic commentary on Galileo's book, written at Galileo's request and published the same year, repeatedly refers to Plutarch's dialogue.[24]

The scientific part of the dialogue ends with a discussion of the possibility of life on the moon, presented by the ostensible narrator of the dialogue, Plutarch's brother Lamprias. Considering the diversity of both conditions and life on earth, Lamprias sees no reason why there should not be some form of life, certainly very different from terrestrial organisms, adapted to the very different conditions on the moon; if there are moon people, they might well regard the earth as unsuitable for life, a sort of damp, dark hell. But at this point another speaker, Sulla, interrupts. He has promised to tell them a myth, and he is afraid Lamprias's argument will interfere with it. For his myth concerns *afterlife* on the moon. We shall see another example later of this uneasy interaction between ideas about life and afterlife in the same places.

Sulla had met a traveller who told of various islands in the Atlantic, and a great continent beyond.[25] On one island, the god Cronus (Saturn) lay in a magic sleep, attended by daemons and by selected holy men from the mainland. The traveller had served a stint on this island, studying astronomy and learning from the daemons, and it is their account of the moon he reports. Each human being is made up of body, soul and mind. After the

death of the body, the soul rises in the space between earth and moon, and this space is Hades, the afterworld, and includes places of punishment, purgatories or hells, where bad souls are punished. The pure souls rise quickly to the moon, where they become daemons, in the realm of the moon-afterworld goddess Persephone. They may still return to earth to work oracles or to help or punish the living.[26] They may even do wrong themselves in their soul-life, for which they are punished in a purgatory on the moon itself, the largest of the dark hollows on the moon's surface, called Hecate's recess. The best souls pass across to the far side of the moon, called the Elysian plain; eventually the minds separate off and pass to the sun, while the souls remain on the moon and die a second death there. Less pure souls, however, do not get as far as this; they either never reach the moon or are thrown off it, to be born again on earth into new bodies.

The scientific discussion of the possibility of life on the moon clearly influenced Kepler, who refers to it in connection with his *Dream* in his commentary on Galileo's book.[27] But he was also undoubtedly impressed by the myth; as Cherniss observes, "it was probably the myth as much as the more strictly astronomical part of the dialogue that caused Kepler to make his Latin translation and commentary".[28] He was fascinated by the geography of the myth, and has a long note on the Atlantic continent, which he was quite certain meant America. "Look at the size of this continent", he wrote in the margin of his translation, "therefore don't doubt, it must be America". A little later, he boldly inserts *America* in the translation itself, where the Greek, referring to the mainlanders merely says "from their homeland".[29] As Herwig Görgemanns has observed, in an excellent book on Plutarch's *Face* dialogue, the hero of Kepler's *Dream,* like the traveller of Plutarch's myth, learns astronomy on an island.[30] The moon-daemon of Kepler's *Dream* is obviously derived from the moon-daemons of Plutarch's myth, and, like the daemons who attend the sleeping god, it is Kepler's daemon who tells us about the moon. Kepler's commentary shows him picking up with interest from Plutarch the ideas of reincarnation and purgatory.[31] In the *Dream,* he supposes some of his moon animals die in the heat of the day and revive at night, and in his two-hundred-and-twentieth note to the *Dream,* he mentions some people in Russia who were believed to die during the long winter night and revive when the sun returned.[32] In his second note to the *Dream,* he tells us he had read a story of St Patrick's *Purgatory* being in Iceland; since Plutarch had put a *purgatory* for souls on the moon, he, Kepler, was beginning his moon story in Iceland.

Now Plutarch's dialogue seems to me the most important of all precursors of science fiction. Here, for the first time, science and fiction were put squarely together in one work of literature, which had a decisive influence on Kepler's *Dream,* the first true modern science fiction story. After I formed this conclusion, and mentioned it in my paper for the Centenary Conference of 1978, I read Görgemann's book, published in 1970, and found this author had been there before me. Görgemanns noted that Plutarch, in exploring scientific *possibilities,* had expressed a principle of science fiction, and summed the whole thing up in the following words. "This is the crucial point: the linking of the fantastic to a scientific foundation is common to Plutarch and Kepler; they come thereby to be forerunners of modern science fiction".[33]

There is no doubt about the influence of Kepler, and even of Plutarch, on later science fiction. Jules Verne refers to Plutarch in the fifth chapter of *De la Terre á la Lune* (1865). In H.G. Wells's *The First Men in the Moon* (1901), when Cavor discovers the moon is honeycombed with caves, he remarks that "Kepler was right, after all". The *Dream* was

the source of ideas for many later moon-imaginings in literature, as Marjorie Nicolson has shown.[34] But before I look at modern science fiction, I must go back beyond Plutarch to the background of his dialogue. I have said that "the two themes, of life and afterlife on other worlds, have been inextricably interwoven from ancient times right up to modern science fiction". The *Face* dialogue first brought the two themes into explicit juxtaposition in a work of literature. But Plutarch's were not the first thoughts on either life or afterlife on another world, and I will now look in turn at ancient ideas about life and afterlife, respectively, on the moon. The notion of life on the moon, somewhat different from earth life, is already mentioned casually by Aristotle, in a tantalizingly brief passage ending "but that would be another story".[35] Even before him, in the 5th century BC, at least three writers were describing the moon as an earth-like world with plant, animal and intelligent life. They were Anaxagoras, the philosopher friend of Pericles, Philolaus, a member of the Pythagorean school, and Herodorus of Heraclea. Philolaus and Herodorus agreed that the moon-people were fifteen times as tall as earth-folk, and Herodorus added the interesting detail that the moon-women *laid eggs*. Herodorus wrote versions of the legends of Heracles and the Argonauts with a background of popular geography, astronomy and zoology; he may be called a precursor of science fantasy.[36]

The concept of life on the moon linked up at two points with the great legend-cycles of Greece. First, the huge Nemean lion killed by Heracles was believed to have dropped from the moon. This is mentioned in Plutarch's *Face* dialogue, and Kepler has an interesting note about it.[37] He suggests a confusion between the similar Greek words for *lion* and *stone,* presumably a meteorite. He also notes that, once the legend had dumped a huge lion in the middle of the Peloponnese, a large peninsula with a narrow isthmus, it had to come from somewhere. In Kepler's words, "fable gives birth to fable". I think we can claim him as a folklorist.

The second connection linked the egg-laying moon-folk with the children of Leda (Helen, Clytaemnestra, Castor and Pollux), who were thought to have been hatched in pairs from eggs which Leda either found or laid. There were various forms of the egg legend, which was still interesting writers and artists (including Leonardo) in Renaissance times.[38] One of the eggs was actually hanging up in a temple in Sparta described by Pausanias in the 2nd century A.D.[39] Hence a charmingly logical argument by Athenaeus, who wrote in the following century:[40] "it was not a good saying of Neocles of Croton that the egg from which Helen was hatched fell from the moon. For, as Herodorus of Heraclea tells us, the moon-women do lay eggs, but people hatched on the moon are fifteen times as big as us". He implies that Helen was not, as the Pythagoreans believed, a girl from the moon.

The ancient notion of afterlife on the moon requires more discussion. It was the outcome of a sequence of changing beliefs about the afterlife. We know a good deal about this sequence, thanks chiefly to two works by the great scholar Franz Cumont, his Silliman lectures of 1921,[41] and his book on funerary symbolism in the Roman Empire.[42] This was written in Nazi-occupied Paris when, in his own words, it was hard to keep one's thinking free, when nothing was free in one's surroundings, a difficulty he triumphantly overcame in this splendid book. The sequence of beliefs revealed by his work is an extraordinary story of the interplay between scientific observation, philosophical theorizing, organized religion and folklore.

At the Society's Conference in York in 1980, I observed that in Greek and Roman

times "the dead . . . were thought of as being *underground*".[43] This was indeed the primitive conception, and, as I showed, it persisted throughout antiquity as the basis of ritual practice, in its two forms of afterlife in individual tombs and afterlife in one great underground cavern.[44] In fact, each stage or phase, in the sequence we are to consider, left its fossil traces in later folklore, but, as Aristotle would say, "that would be another story". However, besides the simple underworld conception, there were other strands of belief, which I shall now consider.

Some followers of Pythagoras repeatedly read new meanings into Homer, quite as wildly as some early Christian writers did later with the Old Testament. But even in what was plainly Homer's own world-view, a couple of alternative destinations are added to the dim underworld in which most people spent their afterlife. A few very lucky individuals went to the Elysian fields, somewhere at the end of the earth, where the climate was always agreeable. This was promised, for instance, to Menelaus, who as the husband of Helen was the son-in-law of Zeus, king of the gods.[45] The Homeric earth was a thick disc with the sky high above it; the underworld, Hades, was in the thickness of the disc. But underneath the disc was a dark region ending with the pit of Tartarus, as far beneath Hades as earth was beneath the sky.[46] Here eternal punishment was visited on a very few outrageous criminals who had gone out of their way to offend the Olympian gods. In the Homeric afterworld, then, though only for very small minorities, we can discern the germs of heaven and hell.

These germs were brought to fruition by the promoters of the Orphic cult, which flourished from at least the 5th century B.C. to at least the 4th century A.D., when the Orphic chapel, already excavated at Littlecote in Wiltshire, was built, possibly in 360 to celebrate the accession of the Emperor Julian the Apostate, who tried to overthrow the half-established Christian Church and restore the cults of paganism.[47] Orphic ideas profoundly influenced the later development of the mystery cults, and of the Pythagorean philosophy, which was more like a cult than a school. The Orphics introduced, and the later cultists developed, the idea of hell as a place of eternal physical torture, not for a very few super-criminals, but for masses of people.

In the early 1960s, Claire Russell pointed out that a society's view of hell reflects the treatment of its lowest classes.[48] There is no doubt that the Orphic and Pythagorean hell came from the East.[49] In what are called the hydraulic societies of the Near and Far East, based on mass labour for water-control engineering, to quote from my history of the world, "no individual, however highly placed, wealthy, or useful to society, was safe from ruin or death at the whim of a ruler. All were slaves".[50] The Greeks, and later the Romans, were able to build societies in which some people were free from arbitrary confiscation, torture and death. But, as I also wrote, "the problem they failed to solve was their dependence on the (hydraulic) societies, whose food surplus they needed to feed their expanding populations. Greek (and Roman) civilization failed because it was infected by the hydraulic way of life. The virus that carried the infection was the institution of slave labour".[51] One of the symptoms thus transmitted to Greek and Roman societies was the concept of hell, and it was conceived essentially as a torture-dungeon for refractory slaves. As time went on, it cast a growing shadow over people's lives.

An odd bit of folklore among modern intellectuals, dating at least from Heine,[52] is the notion of paganism, even in its last stages when challenged by Christianity, as a sunny,

happy religion. In reality, as Jacob Burckhardt showed in his *Age of Constantine* in 1852,[53] it would be hard to imagine anything more gloomy, pleasure-hating and hell-ridden than the complex of cults making up late paganism. Plutarch was unusual in being both deeply religious and too humane and civilized to stomach a physical hell, except as fiction for myths in his dialogues.[54] Julian the Apostate compiled an index of forbidden reading for the priests of his restored pagan religion; he included the works of Epicurus, who denied the existence of hell.[55] Of course the more elaborate cults of Graeco-Roman times were mainly for the urban middle classes. The pagans in the literal sense of the Latin word, the countryfolk, and no doubt many of the common people everywhere, carried on regardless with their own sunny old religion, torturing animals to death when the urban authorities would not let them get at human beings. Early in the Christian Era, dogs were annually crucified alive in Italy, and Strabo mentions quite casually a cliff in Cyprus off which people were thrown for touching the altar of Apollo.[56]

To return to the Orphics, along with hell they introduced concepts of paradise, purgatory and reincarnation. Souls who escaped hell were punished for a finite period in the underworld, before being reborn for another chance to earn paradise. The penal sentence could be shortened by religious services, commissioned by their living friends. As for paradise, the old Elysian region, it had by this time been firmly located on the *Islands of the Blest,* as Tylor already discussed in 1871, in the chapter of *Primitive Culture* devoted to the Land of the Dead in beliefs throughout the world.[57] This island location was to have interesting consequences.

Meanwhile, with continued population growth, the underworld was getting crowded, and by Hellenistic times astronomers and cosmologists were agreed that the earth was a sphere at the centre of the larger concentric sphere making up the heavens. The topography of the afterlife was accordingly adjusted to match this new cosmos. The underworld became the *southern hemisphere* of the earth, together with the southern celestial hemisphere beyond it. The Isles of the Blest drifted out of sight over the horizon to somewhere in the region of Tahiti, and a new meaning was given to Homer's location of Tartarus, which now became a kind of spiritual convict settlement in the celestial antipodes.[58]

An underworld story which has profoundly impressed artists and writers and their audiences is the story of Orpheus, the titular founder of Orphism. His wife Eurydice was bitten by a serpent and died. Orpheus charmed the king of the underworld with his music, and was permitted to take Eurydice back to the upper world, provided he did not look back at her. He broke the taboo and lost her. In the 1960s, Claire Russell noticed the similarity between this taboo and the rules or customs in various societies that the groom must not see the bride, or not see her alone, or not see her on the wedding-day, or in her wedding-gown, before the ceremony.[59]

The Orpheus story is related to the fairytale-type I discussed in my second Address, *The Princesses Rescued from the Underworld,* in which the denizens of the underworld are living beings, from whom the hero wins or recovers a bride.[60] The people of the upper and under worlds can therefore be regarded as symbolizing the two kinship groups, the moieties, of the symmetrical mating system characteristic of early human societies, in which males of each moiety mated with females in the other.[61] Under stressful conditions, one sex (originally the males) of each moiety were liable to be sacrificed, and hence people were symbolized as belonging to a life tree or a death tree, as Claire Russell has shown in

detail in a recent paper in *Folklore*.[62]

This kinship symbolism is very clearly reflected in the curious beliefs associated with an underworld in the southern hemisphere, perfectly symmetrical with the earth and heavens above. According to the dialogue called *Axiochus*, ascribed to Plato but really much later, the two terrestrial and celestial hemispheres belong, respectively, to celestial and infernal gods; the infernal gods are the brothers, or the children of the brothers, of the celestial ones.[63] There could hardly be a clearer expression of kinship symbolism. The two hemispheres were also associated with the egg-hatched demigods Castor and Pollux, who clearly represent the twin ancestors of a pair of moieties, like the other twin heroes Claire Russell and I discussed in a recent paper on totemism.[64] As Francis Huxley has observed, the "form of moiety organization, based on inheritance through the mother's line, creates a zig-zag of inheritance and makes an opposition between alternate generations as well as between the two moieties".[65] Castor and Pollux symbolize a stressful moiety system in which males of each moiety are sacrificed by the other in alternate generations. In one version of the story of Leda's eggs, Helen and Pollux were immortal children of Zeus, Clytaemnestra and Castor mortal children of Leda's husband Tyndareus. Pollux prayed for Castor to share his immortality, and the twins were permitted to live and die on alternate days, either together, as in Homer, or each alternately.[66]

As Cumont has shown, Castor and Pollux came to symbolize the two hemispheres. In his words, "Castor and Pollux, who following the Greek legend took part alternately in life and death, were therefore seen as symbols of the sky by turns dark and light; they dwelt successively in the hells and in Olympus, just as in its daily rotation the starry sphere has always one half above and one half beneath the earth".[67] The twin demigods continued to appear on tomb-carvings, as symbols of resurrection, throughout the Roman Empire, even on Christian tombs.[68] This shows both the persistence of the hemisphere idea, and its diffusion from the philosophers into the beliefs of the ordinary people who commissioned and executed these carvings. But by that time the philosophers had been obliged to abandon the hemisphere idea and replace it by a new one.

In the *Odyssey*, the offended sun-god puts pressure on his divine colleagues, by threatening to shine in the underworld instead of the upper world,[69] and of course the underworld was supposed to be always dark. So to qualify as an underworld, the southern hemisphere also had to be in permanent darkness. The Hellenistic astronomers realized this was absurd; obviously the day and night skies rotated alternately around the whole earth, lightening and darkening both north and south hemispheres. The geographers reasoned that climatic conditions must be similar in the two hemispheres, and that there must be a temperate zone in the south with *live* people in it. If there was life in the Antipodes, it was argued, there could not be afterlife there.[70] The two are indeed combined in a medieval (12th-century) Arthurian story, in which the dying king is healed and becomes immortal on the Isle of Avalon, and is then made ruler of the still unexplored southern hemisphere, from which he brings an army of Antipodeans to defend Brittany from the Angevins.[71] But the Christian Church, finding no evidence in scripture, objected to live Antipodeans, who were declared a heresy in the 8th century.[72] As Cumont observes, this again opened the southern hemisphere for colonization by the dead, and Dante's Mount of Purgatory is a penal colony in the South Pacific. In explaining this to the poet, his guide Virgil actually mentions Castor and Pollux.[73]

The idea was only finally disposed of when the southern hemisphere was at last

explored. Even after this exploration was well launched, in the early 16th century, the outer panels of Hieronymus Bosch's triptych, The Garden of Earthly Delights, show the earth on the third day of Creation, with an upper lit and a lower dark hemisphere.[74]

In an interesting recent science fiction novel, *The Gardens of Delight* (1980), Ian Watson has ingeniously and explicitly contrived to map the inner panels of Bosch's picture on to a remote planet, with hell on one hemisphere, linked to the other regions, paradise and garden of earthly delights, because the planetary surface takes the form of a Klein bottle.[75] This is not the only science fiction story to use a hemisphere for hell. In my second Address, I described how Brian Stableford consciously used the Orpheus story in his novel *To Challenge Chaos* (1972).[76] Here his underworld is one hemisphere of a planet, called the blackside "because it never faces the sun", and has no stars in its sky: it is an anomaly in between two universes.[77] He tells me he had no conscious knowledge of the ancient belief.[78]

However, in pagan times the arguments of the geographers quickly told on educated minds. Some other *Lebensraum,* or rather *Nachlebensraum,* had to be found for the growing numbers of the dead. Here folklore showed the way. In the tales and beliefs of virtually all peoples, a few individuals have found their way after death to the heavens in the astronomical sense, to the moon, the sun or the stars, sometimes by way of that great celestial thoroughfare, the Milky Way.[79] Back in 1871, Tylor was comparing Plutarch's *Face* myth with the South American Guaycuru and Polynesian Tokelau beliefs in the moon "as the abode of departed kings and chiefs".[80] Ascents of the favoured dead to the stars are world-wide, the ancestral heroes and heroines often being conceived as becoming the stars or constellations themselves.[81] The Greeks were no exceptions, and the very names of our northern constellations record the star ascents of, for instance, Orion and the Pleiades.[82] Already in the 5th century BC, this folk idea of people turning into stars after death was becoming sufficiently intellectualized for Aristophanes to make fun of it in his comedy *Peace,* as the doctrine of the Pythagorean poet Ion of Chios.[83] With the growing social mobility of classical Greek and early Roman times, there was a growing feeling that after death the stars too might be open not just to a privileged few but to the many, or at least to paid-up members of whichever mystery cult you fancied; and as class barriers hardened again in the later Empire, there was, paradoxically, all the more hope of social mobility at least in the afterlife of joining the heroic ancestors among the stars. And so, when the temporary expedient of the hemisphere broke down, there was a strand of belief to take its place, already supported by some followers of Pythagoras. The only space left for the mass of the dead now was outer space; and by a bold stroke of the imagination the underworld was converted into what I may call the *overworld*—the space above the earth with the heavenly bodies, the moon, sun and stars.[84]

This new cosmology of the afterlife undoubtedly came from the East through Babylonia, Syria and Asia Minor, *via* the Pythagoreans and the mystery cults. The idea of afterlife on the moon, in particular, was early present in India and Iran,[85] and lunar symbols of afterlife assumed the greatest importance in the tomb of the Roman Empire studied by Cumont.[86] The fact that moon, sun and stars appeared to go underground, and re-emerge again, every day no doubt helped to smooth the transition from underworld to overworld.[87] In Asia Minor, the moon-god Men was adored under his two titles of Celestial and Infernal.[88] The Greek goddesses Persephone and Hecate, sometimes

identified, had similar links with both moon and underworld. This may be relevant to the stories of Wells and Burroughs I mentioned earlier, with an underworld, or undermoon, within the satellite itself. Modes of disposal of the dead may also have played their part in promoting their ascent. In Iran, a very important source of the whole idea, and in Spain, where the lunar symbolism is prominent on the least Romanized tombs, the dead were exposed in the air to be eaten by birds, instead of being interred. Heracles, who rose directly to Olympus from his pyre, also figures in tomb imagery, leading the way to the skies.[89]

I have mentioned the fairytale-type of winning or recovering a wife from the underworld, and its relation to the Orpheus story, the dead, and Claire Russell's interpretation of kinship symbolism. But in fairytales wives, and also husbands, may be won or recovered from another world which may be above ours; and such stories have, obviously, an equally close relation to the kind of afterlife we are now considering. Two obvious examples are the world-wide Swan Maiden and that superb Norwegian tale I mentioned in my first Address, *East o' the Sun and West o' the Moon.*[90] The fairytale parallel, now seen in two contexts, and the kinship symbolism interpretation it confirms, at least provide the clue to the meaning of that extraordinary interplay of life and afterlife that confronted us at the outset in the Burroughs novel, and continues to recur throughout my story.

East o' the Sun and West o' the Moon is a somewhat indeterminate address, but the ancients were astronomically quite precise about the overworld of the dead. There were, however, many different topographical schemes. Heaven was situated in the neighbourhood of the moon, on the moon, on the sun, or in the region of the planets or of the fixed stars.[91] Purgatory might be in a hollow on the near side of the moon, as in the *Face* dialogue; the residue of this idea in folklore is the Man in the Moon, whom I discussed in my second Address.[92] Or purgatory, or even hell, might be in the space between the moon and the earth. The Pythagoreans sometimes thought of rebirth as the ultimate punishment, and therefore saw earth itself as hell. The Neoplatonists spanned the whole range, putting hell back beneath the earth while keeping heaven above it, and it is this combination of astronomical heaven with subterranean hell that we find, centuries later, in Dante.[93] The Neoplatonists could thus retain some of the rather elaborate infernal geography that had evolved by then; everybody else had to translate it, with much ingenuity, into astronomical terms, so that the gates of Hades opened in the zodiacal signs of Capricorn and Cancer, and the infernal rivers flowed through the sky.[94]

The new overworld caught on over a broad culture area, and every sect gave it a different twist. In the famous story of Muhammad's visionary night journey, the prophet finds both the seven heavens and hell above the earth.[95] Centuries before this, on the fringes of Christianity and paganism, the Gnostic followers of Valentine elaborated so many divisions and subdivisions of the overworld that Tertullian, the wittiest of the Christian Fathers, said they were turning the universe into a high-rise apartment building.[96] The Manichaeans brought a further impulse from the East. Their sect had begun in Iran, where light and darkness were of the essence, and where, in the Zoroastrian religion, the good had their afterlife on sun, moon and stars.[97] The Manichaeans were great intermediaries between East and West, and every folklorist should have a soft spot for them as transmitters to Europe of the great Indian collection of folktales, the *Panchatantra.*[98] Their conception of the universe was that of a giant machine for the

repurification of light particles that have become contaminated by darkness. These particles include human souls, which after death may be drawn up along a purifying column to the moon, from which they are in due course transferred to the sun. The powers of darkness, however, are trying to retain as many such particles as they can, ultimately to join them in hell.[99] The Manichaean religion has been the inspiration for one of the most extraordinary science fantasies ever written, David Lindsay's marvellous novel *A Voyage to Arcturus* (1920).[100] The closing chapter is virtually a Manichaean sermon, expressed in characteristically brilliant imagery. According to J.B. Pick and Colin Wilson, Lindsay was influenced by Nietzsche, Schopenhauer, the Norse sagas and George Macdonald; I have not yet traced exactly how he picked up his knowledge of Manichaean ideas. E.H. Visiak describes him as looking at an unusually bright, white, transparent-looking full moon, and crying out: "I ought *never* to have been born in this world".[101] This fits perfectly the Manichaean belief that man was created by the demons, though in a divine image, as a means of trapping light for them.[102]

The idea of purification was not confined to the Manichaeans, and the pagan schools and sects were generally agreed that, while some pure souls might rise straight to the moon after death, most would have to be purified on the way, and many would have to be returned to earth for another birth. The stretch of atmosphere and space between earth and moon was a busy place; besides all the souls, there were demons of uncertain origin, who sometimes helped in the purification. One of these aerial daemons was still around centuries later, according to Geoffrey of Monmouth: he got into a nunnery and begat the enchanter Merlin.[103]

The Stoics, probably especially their greatest thinker Posidonius, envisaged the purification process in a very technical manner. For them, the upper air resembled nothing so much as a great refinery or chemical plant, where the corroded souls were subjected to a series of chemical treatments.[104] In the myth of another of his dialogues, *On Delayed Divine Punishments,* Plutarch tells of a Cilician called Aridaeus, who went into a coma after concussion from a fall, and was given a guided tour of the overworld.[105] Here he saw souls being processed to scour off the blotches and stains left by vices indulged on earth: the dirty-brown, blood-red, blue-grey and ugly-green patches produced by meanness, cruelty, self-indulgence and envy, respectively. The Stoics no doubt originally saw the whole sequence of operations as remedial, but other schools and sects kept introducing the retributive element that tends to creep into any penal system. In any case, however technical their conception, the treatments cannot have been agreeable for the processed souls themselves; to take another example from this myth, who wants to be case-hardened by repeated alternate dips into molten gold, freezing-cold lead, and rasping iron? No wonder his vision was a salutary experience for the hitherto rather disreputable Aridaeus, who lived an exemplary life thereafter.

Now ancient scientific and philosophical thought was dominated by the conception of four basic elements, earth, air, water and fire. Claire Russell and I have shown in detail that this is yet more kinship symbolism, and reflects the division of a tribe into four sections for the regulation of mating, a complication of the moiety system.[106] The four elements provided a ready-made sequence of operations for the penal or remedial treatment of the soul, which was soon systematized into ordeals by earth, air, water and fire, that is by rebirth on earth and by afterlife treatments in the three zones believed to lie between earth and moon, a windy atmosphere, a watery firmament, and a fiery belt, the

source of lightning, wth a cross-reference to the four rivers of Hades.[107] In Arthur Clarke's *2001: a Space Odyssey* (1968), when the hero passes through the Star Gate to be reborn as a superbeing, we read that "beyond the realms of sea and land and air . . . lay the realms of fire"; so this idea, too, has found its place in science fiction.[108]

Symbols of winds, water and fire appear on a funeral monument described by Cumont, arranged in order of ascent.[109] Wind-symbols were frequent on tombs, and furnished him with half a chapter of material.[110] This phase of the soul's punishment, no doubt technically a kind of airing, caught the imagination of Virgil, Dante and Shakespeare—in the words of poor Claudio in *Measure for Measure,* "to be imprison'd in the viewless winds/And blown with restless violence round about/The pendent world".[111] It also left its mark in folklore, for instance in the wind of the dead that blows on All Souls' Day in Brittany, the Ardennes and the Tyrol.[112]

The ordeals by four, or sometimes three, elements were simulated in the ritual initiations of the mystery cults, who offered the successful candidates exemptions from the corresponding ordeals after death. The initiation by elements in the Isis cult was mentioned in a passage of Apuleius, which was used in a forgotten French best-seller, from which in turn the idea was snapped up by that thieving magpie, Emanuel Schikaneder, along with bits and pieces from the work of the excellent poet Christoph Martin Wieland, to be dumped higgeldy-piggeldy into the wretched libretto he had the impudence to serve up to the greatest of all composers.[113] For it was Mozart's fate, after working with the prince of librettists, the magnificent Lorenzo da Ponte, to lavish on Schikaneder the wonderful music of *The Magic Flute.* In these Addresses, I am trying to show that folktale motifs can be enriched and recombined by good writers; Schikaneder's libretto shows, alas, how they can also be mangled and scrambled by bad ones. But that, in Aristotle's invaluable phrase, "would be another story". Let the final comment on the elements ordeals be the spectator's in Ludwig Tieck's delightful satiric Puss-in-Boots play, *Der gestiefelte Kater* (1797): "now the pussy cat must just go through fire and water, and then the show's over".[114]

After all these ordeals, the successful soul arrives at the moon. The gates and rivers of Hades had risen to the skies; logically enough, the Isles of the Blest got there too. The Isles of the Blest, said the Pythagoreans quite simply, *are* the sun and the moon.[115] In yet another myth of Plutarch, in his dialogue *On the Daemon of Socrates,* the hero goes into a trance in an underground oracle shrine, and has a vision of the overworld. This time it is seen as a blue lake, containing an archipelago of islands, the sun, moon and planets.[116] The Pythagoreans believed in other worlds in space besides the sun and moon, also the homes of blessed souls.[117] They apparently wrote allegorical stories of voyages to these islands in the sky. None of these have survived, but we do have a parody of a tale by the Pythagorean Antonius Diogenes, which gives a good idea of them.[118]

This parody is the famous novel *A True Story,* by the Voltairean satirist Lucian (roughly A.D. 120 – 80).[119] It has nothing to do with science fiction; as Görgemanns has rightly observed, unlike Plutarch's *Face* dialogue, Lucian's story shows no "linking of the fantastic to a scientific foundation", for there is no science in it.[120] It has an affinity with the tall tales and lying contests of folklore, and the nearest thing to it in modern fiction is the *Singular Travels, Campaigns and Adventures of Baron Munchausen,* published anonymously in 1785 by the gifted but delinquent geologist Rodolf Erich Raspe, then employed by Matthew Boulton as an assayer in Cornwall.[121] Lucian himself

refers to the travellers' tales of Ctesias and Iambulus, who may or may not have been expressing Pythagorean allegories.[122] But his primary target was the Pythagorean voyage to the islands in the sky. Though not science fiction itself, Lucian's tale must have helped to transmit the notion of afterlife on other worlds to modern literature; Kepler tells us in the second note to his *Dream* that he chose Lucian's story as a text for teaching himself Greek without tears; and H.G. Wells claimed it as one model for his scientific romances.[123]

Lucian was parodying the notion of moon and sun as Isles of the Blest, and he did so in two separate ways in the two books of his novel; Kepler mentions reading both books. In the first book, the narrator's ship is carried up to the heavens by a whirlwind; the celestial islands are described in terms reminiscent of Plutarch's myth. The narrator visits the moon, the sun and the Morning Star, all inhabited by living men, before being dropped back in the terrestrial ocean. In the second book, the narrator and his friends visit the Isle of the Blest, where they find the heroes and philosophers of the past, except for the highly sceptical school of the Academics, who wanted to get there but could never decide whether the island existed at all. The travellers also find five furnace-like Isles of the Damned, and visit one of them. There is no other mention of these hell islands by ancient writers, but presumably they too are being parodied from a Pythagorean tract. This version of hell may have been influenced by the use of islands as penal colonies by the Roman Emperors.

In the second note to his *Dream,* Kepler tells us he found in Prague a book of translations into German, containing Lucian's *True Story* and two medieval tales, *The Voyage of St Brendan* and the tale of St Patrick's Purgatory. In his voyage, St Brendan finds an Isle of the Blest, after passing a couple of hell islands strongly reminiscent of Lucian's. This tale, written probably in the 9th century, may derive in part from Lucian's Pythagorean models, as well as from Celtic sources.[124] As David Blamires has shown, St Brendan's Voyage is related to other medieval voyage tales less explicitly concerned with the afterworld, such as the 12th-century German tale of *Herzog Ernst.*[125]

Tales of St Patrick's Purgatory were about places on the earth's surface, variously located, where one could overhear the groans of the souls being tortured in purgatory.[126] These stories link up with the many medieval tales of people in trances having guided tours of the afterworld,[127] obviously Christianized versions of the visions described in Plutarch's myths. However, Richard Bowyer, who has made a special study of these visions, tells me they differ somewhat from their pagan counterparts. Purgatory is always inside the earth, though nearer the surface than hell, and he "can think of no instance of purgatory being described as situated anywhere in astronomical space". The only trace of an astronomical penal colony he can find is the tale of the Man in the Moon. Heaven is indeed above the earth, but it is rarely localized with any astronomical precision. An exception is the 12th-century vision of Alberic of Monte Cassino, who was shown seven heavens, associated, in ascending order, with the moon, Mars, Mercury, the sun, Jupiter, Venus and Saturn. The more usual total vagueness about the overworld may be connected with a new folk belief in a region called Magonia among the clouds, where living people sailed about in ships. The anchor of one of these ships came down in the sight of a congregation coming out from Mass, and, significantly, fouled a *tomb.* Once again we have an interplay between life and afterlife in the overworld.[128]

With Dante's *Paradiso* we are back in an astronomical overworld, not the sketchy one

of Alberic but a scheme of enormous precision and detail which, as Bowyer observes, breaks with the majority of medieval visions, and suggests a return to late classical conceptions. Of course, unlike ordinary monks and chroniclers, Dante had a thorough knowledge of the ancient authors then available. As M.A. Orr showed in her fascinating book *Dante and the Early Astronomers,* the poet was well versed in contemporary astronomy, and used it intensively in his account of his heavens, with their sequence of moon, Mecury, Venus, Sun, Mars, Jupiter, Saturn, the fixed stars, the Primum Mobile, and the Empyrean.[129] On one point he was misled by the Arab astronomers, who were not so good as the Greeks. Hipparchus had realised that the moon was the only heavenly body whose diameter could be measured by naked-eye methods, and Ptolemy, though misled into giving a figure for the sun, did so for no other bodies. The Arab astronomer Alfraganus, however, gave sizes (wrong, of course) for all the planets and even for some of the stars, and Dante quoted these from him in his *convivio,* apparently not having read Ptolemy.[130] He could therefore have seen the planets as potential worlds. Yet he is extremely careful to state that the blessed souls are not *really* on the relevant planets but are shown to him there as symbols of their spiritual condition.[131]

It was only with telescopes of increasing power that the sizes of the planets could finally be measured, and the detection by gravitational perturbations of planets circling other stars was not achieved until 1943.[132] Nevertheless, the Pythagoreans asserted the presence of other worlds besides the moon, sun and planets; and the conception of many other worlds in the universe, with living inhabitants, became increasingly prevalent in late medieval and modern times.[133] This had its roots in folk beliefs about star ascents, but the discussions became better informed, and by the later 17th century the possibility of other inhabited worlds had become part of educated thinking.

One of the most influential books on the subject in the 17th century was the *Conversations on the Plurality of Worlds* published in 1686 by Bernard de Fontenelle, the poet who later became secretary of the Academie des Sciences and a foreign member of the Royal Society. Fontenelle was much influenced by Plutarch: the following year he published a book on oracles which owes much to another of Plutarch's dialogues.[133A] Both books were translated into English, probably about 1688, by a remarkable writer: successful dramatist, staunch feminist, the first woman in Britain to earn her living as a writer, the first writer to make a black slave, endowed with human dignity, the hero of a novel: the redoubtable Aphra Behn.[133B] In 1687, she produced her successful comedy *The Emperor of the Moon,* still being played ninety years later. It is about a "learned Doctor" so obsessed with the idea of life on the moon that he denies his daughter and niece to their suitors because these are only earthly noblemen. After a spectacular scene in which they pretend to be potentates from the moon, with Kepler and Galileo in attendance, the doctor is cured of his obsession, and all ends happily. Most of the relevant stories and discussions then available are mentioned as "foolish books" that helped to turn the doctor's head, and the moon-folk are finally dismissed as "the Fantoms of mad Brains, to puzzle Fools withal".[133C] But after all she had herself translated one of the most celebrated of the "foolish books" about life on other worlds; and, as we have seen, plenty of people were ready enough to believe in trees, unicorns and furry-winged human beings on the moon itself some hundred and fifty years after the play was produced.

If the possibility of life on other worlds became and remained a part of educated thinking from the 17th century onwards, the notion of afterlife on other worlds also

continued to haunt people's minds. In *Il Penseroso,* Milton contemplates sitting at night in his observatory, wondering what worlds hold "the immortal mind that hath forsook/Her mansion in this fleshy nook". Kepler's own son, when publishing the *Dream,* hoped his father's soul had flown away to the region above the moon. Half-way through the 18th century, the engineer-mystic Swedenborg was describing the *spirits* inhabiting the solar planets and those of other stars.[134]

Moreover, stories and even serious discussions of journeys to the moon or planets continued to echo ancient journeys to the overworld, even to details of transport. Cumont was able to show, from literary sources and/or monumental imagery, that the soul could get to the overworld in many ways. It could be blown there by winds or whirlwinds—represented on tombs by winged heads very like the cherubs on more recent grave-stones; it could drift there in a kind of astral body, fly there on its own wings, be carried there by a bird or a griffin, be conveyed by a daemon, or travel there in a flying chariot or even a ship.[135] After reading Cumont, indeed, one needs to be reminded by folklore that not all modes of transport will work, for, as the spiritual tells us:

> You can't get to Heaven in a Ford V8,
> 'Cause when you get there, they shut the gate.

All Cumont's devices for getting the soul to the overworld can be found in the stories and discussions of voyages by the living to moon or planets that followed Kepler's *Dream,* conveniently described in Marjorie Nicolson's *Voyages to the Moon.*[136] In time, the flying chariot gave rise to the flying machine, and the ship to the space-ship, which as James Gunn points out, began in the 1930s to gain over such methods as travel in an astral body.[137]

Whatever the mode of transport, we can trace the afterlife motif in all periods of modern science fiction. In John Jacob Astor's *A Journey in Other Worlds* (1984), for instance, travellers by space-ship find Saturn to be "an abode of departed spirits".[138] In Edwin Lester Arnold's *Lieut Gulliver Jones: His Vacation* (1905), the hero travels to Mars, where his most impressive adventure is his voyage down the River of the Dead, where the Martians send their dead bodies on rafts. The Martians repeatedly take him for a ghost from another world, and one of them mentions having seen a ghost who had died on another planet.[139] In Eimar O'Duffy's *The Spacious Adventures of the Man in the Street* (1928), the hero's soul is hypnotized out of his body, and he travels as a disembodied spirit to the distant planet of Rathe, where he sees a man killed, talks to his ghost, and takes over his body.[140] In the Czech writer Jan Weiss's *The House with a Thousand Storeys* (1929), the dictator offers the rich life and the poor afterlife on other planets, cheating both.[141] In Olaf Stapledon's *Star Maker* (1937), in his disembodied flight through the galaxy the hero several times supposes he is dead.[142] In Arthur Clarke's Foreword to his *2001: a Space Odyssey* (1968), we read: "Behind every man now alive stand thirty ghosts, for that is the ratio by which the dead outnumber the living. Since the dawn of time, roughly a hundred billion human beings have walked the planet Earth". Since there are roughly as many stars in our galaxy, many probably with planets, he concludes: "almost certainly there is enought land in the sky to give every member of the human species, back to the first ape-man, his own private world-sized heaven—or hell".[143] In Sprague de Camp's *The Great Fetish* (1978), the school-teacher hero on the planet of Kforri is charged, by a characteristically neat twist, with teaching the heretical

doctrine of "Anti-Evolution, namely: that the Earth, instead of being a plane of spiritual existence, from which our souls come and to which they return, is a material place or world . . . and that all men, instead of having evolved under the guidance of the gods from the lower animals of Knorri, came from Earth . . . in a flying machine".[144]

I began with Burroughs, and I shall end with Burroughs, because, though not of course the first, he was easily the most influential writer of stories about life on other worlds. But he could almost be called a writer of stories about afterlife on other worlds. The hero of *Beyond the Farthest Star* (1942), who was shot down behind the German lines and woke up in a garden on a far planet, tells his story by operating a type-writer by some psychic means. Back in 1920, Burroughs had planned a story never completed, called *The Ghostly Script,* and it is clear he thought of the later hero as in some sense a ghost.[145] In the Martian books, John Carter gets to Mars leaving an apparently lifeless body behind on earth; the second time, mentioned in both *A Princess of Mars* (1917) and *The Gods of Mars* (1918), the body is buried, by his previous direction, in a vault he can open from inside. In the second novel, he visits what some Martians had believed to be their heaven, but which is actually inhabited by the living. In *The Master Mind of Mars* (1928), Ulysses Paxton has his body killed in war, but escapes from it to Mars, where he arrives in a house full of corpses. In *Llana of Gathol* (1948), Carter tells Burroughs he "might be considered something of a ghost by Earth men". In Burroughs's trilogy *The Moon Maid* (1926), finally, the narrator recalls many incarnations.

Because of this and the fact that both Gulliver Jones and John Carter visit Rivers of the Dead on Mars, Richard Lupoff has suggested, in his excellent book on Burroughs, that he was specifically influenced by Arnold, who also published, in 1890, a book called *Phra the Phoenician* with a much-reincarnated hero.[146] This specific transmission channel seems superfluous if, as I have shown, the afterlife motif was in the cultural air for anyone writing stories of life on other worlds. More intriguing is the numerical coincidence that Burroughs's Green Martians are fifteen feet high, while the ancient moon-folk were fifteen times as tall as us, and the still more striking circumstance that all Burroughs's female Martians lay eggs. In his book *Tarzan and Tradition,* Erling B. Holtsmark has emphasized Burroughs's classical education,[147] but a careful reading of Irwin Porges's monumental biography does not suggest the great story-teller was a great scholar.[148] A man who, shortly *after* re-reading Plutarch's *Lives* (presumably in English), could refer to the second king of Rome as the Emperor Numa is not likely to have read Athenaeus or heard of Herodorus. Fritz Leiber, however, has shown that Burroughs could have got many of his Martian details, including the eggs, (and, I might add, many of the details in *The Land that Time Forgot* and its sequels) from popular accounts of the works of Helena Petrovna Blavatsky, the founder of Theosophy.[149]

Hard things have been said about Madame Blavatsky. The investigator for the Society for Psychical Research called her, with reluctant admiration, "one of the most accomplished, ingenious and interesting impostors in history"; the forthright Margot Asquith, who met her once and was not impressed, said she "turned out to be an audacious swindler".[150] But whatever we think of her, the fact remains that, as a transmitter and diffuser of folklore, she was incomparably more important than the most gifted and blameless Gaelic story-teller or Serbian bard. True, she garbled all her messages, and stirred in her own fantasies. But she did include much traditional material in her massive tomes, admittedly without acknowledgement, and she did diffuse it, not

just to her faithful Theosophists, but *via* popular journalism to much of the modern urban world. Most of this material came from India;[151] and Yeats wrote of another occultist that "she ravelled out/From a discourse in figurative speech/By some learned Indian/On the soul's journey,/How it is whirled about,/Wherever the orbit of the moon can reach,/Until it plunge into the sun".[152]

When the science fiction writer Stanley Weinbaum died in 1935, the Editor of *Astounding Stories* asked his readers: "Did you know that Stanley Weinbaum took off on the Last Great Journey through the galaxies in December?"[153] Through whatever channels, the moon, sun and star ascents have persisted, and may still be taken seriously. Even Kant toyed with the possibility in 1755, and, shortly before he died in 1950, Burroughs himself remarked: "If there is a hereafter, I want to travel through space to visit the other planets".[154] In 1978, chatting to a taxi-driver, I spoke of worlds orbiting other stars in our galaxy, and he said: "That's where we go when we die, isn't it?"

Notes

As in my second Address, I have throughout omitted the redundant words *"op. cit."*, replacing them by a reference to the note where the source is first given in full. This takes fewer characters, and is always more, and sometimes very much more, informative. Editions listed are those I actually consulted for this Address.

1 Delivered on 22nd March 1980.
2 "Folktales and the Theatre", *Folklore,* 92 (1981), pp.3 – 24.
3 "Folktales and Science Fiction", *Folklore,* 93 (1982), pp.3 – 30; reprinted *Foundation,* No. 25 (June 1982), pp.5 – 30.
4 M. Nicolson, "A World in the Moon", *Smith College Studies in Modern Languages,* 17 (1936) No. 2, especially pp.38, 55 – 9; I. Asimov, *Extraterrestrial Civilizations* (London, 1980), Chapter 2.
5 See n.4.
6 F.L. Allen, *Since Yesterday* (New York, 1961), pp.261 – 2 (the broadcast); R.S. Lewis, *From Vinland to Mars* (New York, 1978), p.357 (Mariner IV).
7 I.F. Clarke, *The Pattern of Expectation 1644 – 2001* (London, 1979), pp.62 – 7, quotations pp.64 – 5; see also M.H. Nicolson, *Voyages to the Moon* (New York, 1960), pp.241 – 2; for Poe's jealousy of Locke, see H. Beaver (ed.), *The Science Fiction of Edgar Allan Poe* (Harmondsworth, 1976), pp.341 – 2, 351 – 2.
8 *The First Men in the Moon* and *The Moon Maid.* Bibliographical details can be found for Wells in J.R. Hammond, *An H.G. Wells Companion* (London, 1979), and for Burroughs in I. Porges, *Edgar Rice Burroughs* (New York, 1976) and R.A. Lupoff, *Edgar Rice Burroughs: Master of Adventure* (New York, 1968). To save multiplying notes, I shall not refer to them again in this context.
9 S. Moskowitz, *Explorers of the Infinite* (Cleveland, Ohio, 1963), pp.11,34; J. Gunn (ed.), *The Road to Science Fiction* (London, 1977 – 79), Vol. 1, pp.5 – 7, 162; B. Aldiss, *Billion Year Spree* (London, 1975), p.3; M.Tropp, *Mary Shelley's Monster* (Boston, 1977), p.64; A. Koestler, *The Sleepwalkers* (London, 1959), p.415; D.H. Menzel, "Kepler's Place in Science Fiction", in A. Beer and P. Beer (ed.) *Kepler: Four Hundred Years* (Oxford, 1975), pp.895 – 904, especially p.898; Nicolson (n.7), p.47; Russell (n.3), p.9; Clarke (n.7), Chapters 1 and 2; B.M. Stableford, "Scientific Imagination in Literature", *Biology and Human Affairs,* 43 (1978), pp.32 – 50; J. Lear, "Introduction and Interpretation", in P.F. Kirkwood (transl.) *Kepler's Dream* (London, 1965), pp.1 – 78; I. Asimov (ed.), *Where Do We Go from Here?* (London, 1974); Asimov (n.4), p.38.
10 Koestler (n.9), pp.240, 415 – 19; Lear (n.9), pp.2 – 3, 5 – 6; E. Rosen (transl. and comment.) *Kepler's Somnium* (London, 1967), pp.xvii – xix.
11 Koestler (n.9), p.419.
12 *Ibid,* p.230.
13 Nor did it help that Kepler's daemon facetiously recommends, as the best moon-travellers, old women accustomed to riding about for long distances at night on goats, pitchforks or old cloaks (*Somnium*—see n.16 below—p.5). As recently as the 19th century, children in Hailsham, Sussex, believed one old woman "used her walking-stick to ride to the moon" at nights: J. Simpson, *The Folklore of Sussex* (London, 1973), p.77.

14 Koestler (n.9), pp.384 – 8; Lear (n.9), pp.17 – 18, 26 – 38.
15 Rosen (n.10), pp.xix – xxiii, Stableford (n.9), pp.38 – 9.
16 Xylander had followed the fashionable practice of Hellenizing his German name ("wood man").
17 Rosen (n.10), pp.33 – 4, 209 – 11 (Appendix D), quotation p.209. The titlepage of the 1634 edition (Zagan and Frankfurt) carries the title of the *Dream, Somnium seu Opus Posthumus de Astronomia Lunari* (The Dream, or Posthumous Work on Lunar Astronomy; the Plutarch translation begins with a new titlepage on p.97; the pagination continues. The two are clearly parts of one book. To my astonishment, I found it unobtainable on interlibrary loan—there is no separate modern reprint—and had to have the British Museum copy microfilmed. The title of the translation in full is: *Plutarchi Philosophi Chaeronensis Libellus De Facie Quae in Orbe Lunae Apparet* (The Booklet of the Philosopher Plutarch of Chaeronea on the Face that Appears in the Disc of the Moon).
18 R. Schmertosch, "Kepler zu Plutarchs Schrift 'Vom Gesicht im Mondi' " in Various Authors, *Philologische-Historische Beiträge Curt Wachsmuth zum Sechzigsten Geburtstag* (Leipzig, 1897), pp.52 – 5.
19 The superb Loeb edition and translation by Harold Cherniss is invaluable for any study of the dialogue or its influence: in H. Cherniss and W.C. Helmbold (ed. and transl.), Plutarch's Moralia, Vol. 12 (London, 1957), pp.1 – 223.
20 W.M.S. Russell, "Plutarch as a Folklorist", in V. Newall (ed.), *Folklore Studies in the Twentieth Century* (Woodbridge, Suffolk, 1980), pp.371-8, quotation p.373.
21 Cherniss (n.19), pp.9 – 14; S. Sambursky, *The Physical World of the Greeks* (transl. M. Dagut, London, 1963), p.205.
22 Samburski (n.21), Chapter 9, quotations p.205; Rosen (n.10), p.31. Like all ancient authors, of course, Plutarch drew extensively on his predecessors, often without acknowledgement. For his sources for the *Face* dialogue, see especially H. Görgemanns, *Untersuchungen zu Plutarchs Dialog De Facie in Orbe Lunae* (Heidelberg, 1970), pp.66 – 78. Görgemanns concludes (p.69) that Plutarch compiled a connected account from many sources; in a real sense, the dialogue is his own work.
23 Russell (n.20), p.373.
24 E. Rosen (transl. and comment.), *Kepler's Conversation with Galileo's Sidereal Messenger* (London, 1965), pp.14, 23, 25 – 6.
25 W. Hamilton has made out a good case for this traveller being the mysterious northerner Abaris referred to by several ancient authors: "The Myth in Plutarch's *De Facie* (940F – 945D)", *The Classical Quarterly*, 28 (1934), pp.24 – 30.
26 According to Iamblichus, some people believed the philosopher Pythagoras to have been a daemon from the moon; Cherniss (n.19), p.211; cf. F. Cumont, *Rècherches sur le Symbolism Funèraire des Romains* (Paris, 1942), pp.184 – 5.
27 Rosen (n.24), p.28. Kepler here refers *both* to his thesis (1593) *and* to his *Dream* (1609), and says he is following in Plutarch's footsteps. Since he only read the *Face* dialogue in 1595, Rosen (*ibid.*, p.108) thinks he is here referring to another work wrongly ascribed to Plutarch; but this seems to me an unnecessary inference.
28 Cherniss (n.19), p.20.
29 Kepler (n.17), pp.169 – 70 (long note), 171 (marginal note: "magnitudinem ecce continentis. Itaq.; nihil dubita, American esse"), 173 (*America* in translation text—compare with Cherniss (n.19) p.190).
30 Görgemanns (n.22), p.159.
31 Kepler (n.17), pp.175 – 6.
32 On this curious story, see Rosen (n.10), pp.236 – 9.
33 Görgemanns (n.22), pp.159 – 60 (this and all other translations given in this Address are my own—the English words *science fiction* are used in the German original).
34 Nicolson (n.4), pp.38 – 9, (n.7) index s.v. Kepler, Johan: influence, p.293.
35 Aristotle, *De Generations Animalium*, 761b.
36 Cumont (n.26), p.182; G. Wissowa (ed.) *Paulys Real-Encyclopädie der Classischer Altertumswissenschaft, Band 8* (Stuttgart, 1912), s.v. Herodorus von Heraclea (F. Jacoby); for the dates when Philolaus flourished, see G.S. Kirk and J.E. Raven, *The Presocratic Philosophers* (Cambridge, 1957), p.307.
37 Kepler (n.17), pp.156 – 7.
38 J. Lindsay, *Helen of Troy* (London, 1974), pp.93 – 7, 113, 127, 149, 253 – 4; E. Wind, *Pagan Mysteries in the Renaissance* (Oxford, 1980), pp.167 – 8, Plates 6 – 8.
39 Pausanias, 3.16.1.
40 Athanaeus, 2.57. See also Cumont (n.26), p.186.
41 F. Cumont, *Afterlife in Roman Paganism* (New York, 1959).

42 See n.26. The quotation is from p.i. There are convenient summaries of the sequence in Cumont (n.26), pp.31 – 40, (n.41), pp.1 – 43.
43 W.M.S. Russell, "Greek and Roman Ghosts", in H.R. Ellis Davidson and W.M.S. Russell (ed.), *The Folklore of Ghosts* (Cambridge, 1981), pp.193 – 213, 261 – 6, quotation p.197.
44 See also Cumont (41), Chapters 2 and 3.
45 *Odyssey*, 4.563 – 8.
46 *Iliad*, 8.13 – 6; Cumont (n.26), p.45.
47 Cumont (n.41), pp.171 – 2; W.K.C. Guthrie, *Orpheus and Greek Religion* (London, 1952), pp.8 – 23, 148 – 93; B. Walters and B. Phillips, *Archaeological Excavations in Littlecote Park, Wiltshire. 1979 and 1980* (Littlecote, n.d.), pp.7 – 9.
48 Claire Russell, personal communication, 1964.
49 Cumont (n.41), pp.174 – 5.
50 W.M.S. Russell, *Man, Nature and History* (London, 1967), p.100.
51 *Ibid.*, p.150.
52 J.L. Sammons, *Heinrich Heine* (Manchester, 1979), pp.147 – 8.
53 F.S. Stähelin (ed.) Jacob Burckhardt. *Die Zeit Constantins des Grossen* (Gesamtausgabe Band 2, Berlin, 1929). For an excellent slightly abridged translation, see J. Burckhardt, *The Age of Constantine the Great* (transl. M. Hadas, Garden City, N.Y., 1956).
54 D.A. Russell, *Plutarch* (London, 1973), pp.78 – 81); Cumont (n.41), pp.83 – 4.
55 Cumont (n.41), p.9.
56 R.H.A. Merlen, *De Canibus* (London, 1971), p.89; Stabo, 14.6.3.
57 E.B. Tylor, *Primitive Culture* (London, 1903), Vol. 2, Chapter 13, especially p.63.
58 Cumont (n.26), pp.36 – 56, (n.41), pp.79 – 80.
59 Claire Russell, personal communication, 1964.
60 Russell (n.3), p.20.
61 C. Russell and W.M.S. Russell, "The Social Biology of Totemism", *Biology and Human Affairs*, 41 (1976), pp.53 – 79.
62 C. Russell, "The Life Tree and the Death Tree", *Folklore*, 92 (1981), pp.56 – 66.
63 Cumont (n.26), pp.47 – 9.
64 Russell and Russell (n.61), pp.74 – 5.
65 F. Huxley, *The Way of the Sacred* (London, 1975), p.220. Cf. C. Russell and W.M.S. Russell, "Space, Time and Totemism", *Biology and Human Affairs* 42 (1977), pp.57 – 80, especially pp.69 – 70; C. Russell, "Kinship Symbols and their Evolution", *Social Biology and Human Affairs*, 45 (1981), pp.119 – 44, especially pp.134 – 5.
66 *Odyssey*, 11.302 – 4; H.J.Rose, *A Handbook of Greek Mythology* (London, 1964), p.231.
67 Cumont (n.26), pp.68 – 9.
68 Cumont (n.26), pp.64 – 103.
69 *Odyssey*, 12.377 – 83, especially 383.
70 Cumont (n.26), pp.57 – 8, (n.41), pp.80 – 81.
71 R.S. Loomis, "The Legend of Arthur's Survival", in R.S. Loomis (ed.) *Arthurian Literature in the Middle Ages* (Oxford, 1959), pp.64 – 71, especially p.69.
72 Cumont (n.26), p.59.
73 *Inferno*, Canto 34, lines 106 – 126; *Purgatorio*, Canto 4, lines 61 – 75.
74 W.S. Gibson, *Hieronymous Bosch* (London, 1973), pp.68 – 9, 88, 92, Fig. 75, p.89.
75 I. Watson, *The Gardens of Delight* (Corgi, London, 1982), p.104. (As in my second Address, I give publishers for recent science fiction books.
76 (Daw, New York, 1972); see Russell (n.3), p.20.
77 Stableford (n.76), p.5.
78 B.M. Stableford, personal communication, 14 January 1982.
79 For the Milky Way, see Tylor (n.57), p.72; C. Hole (ed. and revised) *E. and M. Radford, Superstitions of Death and the Supernatural* (London, 1978), p.113; G.de Santillana and H. von Dechend, *Hamlet's Mill* (Boston, 1977), pp.242 – 4.
80 Tylor (n.57), p.70.
81 *Ibid.*, and e.g. A. Marriott and C.K. Rachlin, *American Indian Mythology* (New York, 1972), pp.76 – 84 (North America); D. Goetz and S.G. Morley (transl.), *Popol Vuh* (Norman, Oklahoma, 1950), pp.163 – 4, 181 (Central America); R. Poignant, *Oceanic Mythology* (London, 1967), p.117, and J. Lindsay, *Origins of Astrology* (London, 1971), pp.93 – 4 (Australia); K. Seki (ed.), *Folktales of Japan* (transl. R.J. Adams, London, 1963), pp.63 – 9 (Japan).
82 Rose (n.66), pp.116-17.
83 Lindsay (n.81), p.93; Cumont (n.41), p.95.
84 Cumont (n.26), p.203, (n.41), p.81. Among the Tupinamba of Brazil, as Francis Huxley established, sacrificed males were promised union after death with the ancestor of the group that killed and ate them: Russell (n.62), p.61.

85 Lindsay (n.81), p.92; Cumont (n.41), p.93; S. Lunais, *Recherches sur la Lune I. Les Auteurs Latins* (Leiden, 1979), p.87. In Stith Thompson's *Motif-Index of Folk-Literature* (Helsinki, 1932), Motif A.695, Moon as next world, is specially related to Hinduism.
86 Cumont (n.26), pp.203-251, *passim*.
87 Cumont (n.26), p.52; Lunais (n.85), p.87.
88 Cumont (n.26), p.181.
89 Cumont (n.26), pp.234, 28, 174-5; cf. Russell (n.43), p.197.
90 Russell (n.2), p.8; the two relevant tale-types are 400 (quest for lost wife) and 425 (search for lost husband): A. Aarne and S. Thompson, *The Types of the Folktale* (Helsinki, 1961). But the type classification is somewhat difficult here, as Stith Thompson observes, *The Folktale* (London, 1977) p.88. The obvious literary example is James Branch Cabell's immortal *Jurgen*. The Swan Maiden is not of course world-wide as a *swan*, e.g. in Micronesia she is a porpoise girl: Poignant (n.81), p.82.
91 Cumont (n.26), pp.139-184, 190-93, (n.41), pp.91-109.
92 Russell (n.3), p.22.
93 Cumont (n.41), p.78 (Pythagoras), pp.87-90 (Neoplatonists).
94 Cumont (n.26), pp.125, 162, 250, (n.41), p.153; and cf. De Santillana and Von Dechend (n.79), pp.192-203 (though they, like the Pythagoreans, read the meanings back into the earliest periods). Astrology helped to establish the new starry overworld: Cumont (n.41), p.96; J. Doresse, *Les Livres Secrets des Gnostiques d'Egypte* (Paris, 1958), pp.299-300. For the relation between astrology and kinship symbolism, see Russell and Russell (n.61), p.75.
95 J.R. Porter, 'Muhammad's Journey to Heaven', in H.R. Ellis Davidson (ed.), *The Journey to the Other World* (Cambridge and Ipswich, 1975),pp.1-26, especially pp.2-4.
96 Tertullian, *Adversus Valentinianos*, 7. He writes: "the universe has been made into a brothel, you would think it the Felicula Building, there are so many storeys of the heavens; I don't know where".The brothel remark was provoked by some very odd allegorical carryings on in the Gnostic cosmos. The Felicula was a giant apartment building in Rome, but not, apparently, a brothel: J. Carcopino, *Daily Life in Ancient Rome* (transl. E.O. Lorimer, ed. H.T. Rowell, Harmondsworth, 1962), pp.36-7. For the Gnostic ideas of the universe and afterlife, see Lindsay (n.81), pp.382-4; Doresse (n.94), *passim* and especially p.300. Pretty elaborately organized universes are found among some tribal peoples, such as the Bella Coola and the Haida on the North-West coast of North America; one Haida tradition includes a series of five superimposed sky-worlds: P. Drucker, *Indians of the North-West Coast* (Garden City, N.Y., 1963), pp.152-3.
97 J.R. Hinnells, *Persian Mythology* (London, 1973), pp.56-66, and for sources, p.20.
98 J.P. Asmussen, *Manichaean Literature* (New York, 1975), pp.39-43.
99 Asmussen (n.98), pp.114-15; Cumont (n.41),p.93
100 (Pan-Ballantine, London, 1972).
101 J.B. Pick, C. Wilson and E.H. Visiak, *The Strange Genius of David Lindsay* (London, 1970), pp.7-9, 68, 100-101.
102 Asmussen (n.98), p.115.
103 *Historia Regum Britanniae*, 6-18; cf. Augustine, *De Civitate Devi*, 7.6 (citing views of Varro and other pagan writes).
104 Cumont (n.41), p.185.
105 *De Sera Numinis Vindicta*, 563B-568A.
106 Russell and Russell (n.65), pp.71-3.
107 Cumont (n.26), pp.136-8, 195, (n.41), pp.185-6.
108 A.C. Clarke, *2001: A Space Odyssey* (London, 1968), p.239.
109 Cumont (n.41), pp.186-7.
110 Cumont (n.26), pp.146-76.
111 *Aeneid*, 6.740-42; *Inferno*, Canto 5; *Measure for Measure*, III.1.121-3.
112 Cumont (n.26), p.145, and cf. pp.117-129.
113 *Ibid.*,p.137; A.A Abert, "The Operas of Mozart", in E. Wellesz and F. Sternfeld (ed.), *The Age of Enlightenment 1745 – 90* (New Oxford History of Music, Vol. 7, London 1973), pp.97-172, especially pp.167-8; E. Blom, *Mozart* (London, 1935), pp.158-64, 296-7.
114 H. Kreuzer (ed.) *Ludwig Tieck, Der gestiefelte Kater* (Stuttgart, 1964), p.59 — "nun muss der Kater noch durch Feuer und Wasser gehn, und dann ist das Stück fertig".
115 Iamblichus, *De Pythagorica Vita*, 18.82; Cumont (n.26), pp.167, 183; Jacoby in Wissowa (n.36).
116 Cumont (n.41), p.97.
117 Plutarch, *De Genio Socratis*, 590A-592F.
118 Cumont (n.26), pp.50, 53, 190, (n.41), p.22; H.J. Rose, *A Handbook of Greek Literature* (London, 1964), p.416.

119 *Ibid.*, p.417.
120 Görgemanns (n.22), pp.159-60.
121 J. Carswell (ed.), *Singular Travels Campaigns and Adventures of Baron Munchausen* (London, 1949), pp.ix-xl vi (includes some folk and literary sources, pp.xxxiii-iv); J. Carswell, *The Prospector* (London, 1950), pp.184-92. For tall tales and some specific motifs, see also Thompson (n.90), pp.214-16.
122 Lucian, *Vera Historia*, 1,3; Rose (n.118), pp.414-15, 419.
123 Gunn (n.9), Vol. 1, p.382. In this statement Wells was trying to dodge suggestions of a debt to the very scientific and technical novels of Verne.
124 J.F. Webb (transl. and introd.), *Lives of the Saints* (Harmondsworth, 1965, pp.18-20, translation on pp.33-68. The debt to Pythagorean sources is my own suggestion.
125 D. Blamires, *Herzog Ernst and the Otherworld Voyage* (Manchester, 1979), pp.3, 5, 30-32.
126 S. Baring-Gould, *Curious Myths of the Middle Ages* (London, 1888), Chapter 11; R. Bowyer, "The Role of the Ghost Story in Medieval Christianity". in Ellis, Davidson and Russell (n.43), pp.177-92, 260, especially p.183.
127 *Ibid.*, pp.182-6.
128 R. Bowyer, letter to W.M.S.R., 11 December 1980. I am extremely grateful to Dr. Bowyer, who not only gave me the information about medieval visions and Magonia, but sent me xeroxes of passages from the relevant sources. The Latin text of Alberic's vision is published in F. Cancellieri, *Osservazioni sopra l'Originalita della Divina Commedia di Dante appogiata alla Storia della Visione del Monaco Casinese Alberico* (Rome, 1814), astronomy of heavens on pp.190-94. For Magonia, see G.G. Coulton. *Medieval Panorama* (London, 1961), Vol 1, pp.125-8.
129 M.A. Orr, *Dante and the Early Astronomers* (London, 1913), *passim;* her book is also an exceptionally good history of Western astronomy. For a convenient diagram of Dante's heavens, see the frontpiece of J.S. Carroll, *An Exposition of Dante's Paradiso* (London, 1911).
130 Orr (n.129), pp.188-91, 458-9.
131 Carroll, pp.86-7.
132 Asimov (n.4), pp.122-4.
133 For the Pythagoreans, see also Cumont (n.26), pp.183-4; Jacoby in Wissowa (n.36). For the later Middle Ages, see A.O. Lovejoy, *The Great Chain of Being* (New York, 1960), Chapter 4; H. Michel, *The Cosmology of Giordano Bruno* (transl. R.E.W. Maddison, London, 1973),Chapters 6 and 7.
133A A. Calame (ed.) *Fontenelle: Entretiens sur la Pluralité des Mondes* (Paris, 1966), see especially index s.v. Plutarque; P. Chambry (ed.), *Fontenelle: Oeuvres Choisies* (Paris, n.d.); A. Adam, *Grandeur and Illusion* (transl. H. Tint, Harmondsworth, 1974), pp.134-7; Nicolson (n.4), pp.44-5, (n.7), index s.v. Fontenelle.
133B There are two good and complementary biographies: G. Woodcock, *The Incomparable Aphra* (London, 1948), and M. Duffy, *The Passionate Shepherdes* (London, 1977). See also A.J. Meadows, *The High Firmament* (Leicester, 1969), pp.139-40; A. Adburgham, *Women in Print* (London, 1972), index s.v. Behn, Aphra. For the novel about the slave, see E.A. Baker (ed.), *The Novels of Mrs. Aphra Behn* (London, 1905), pp.1-81. For her feminism, see Woodcock, pp.48, 71-6; for her translations of Fontenelle, see Duffy, pp.270-74. There were translations by other authors: Nicholson (n.7), pp.271-2.
133C Woodcock (n.133B), pp.185-92; Nicholson (n.4), p.46.
134 E. Swedenborg, *The Earths in the Universe* (transl. anon., London, 1894). This was first published in Latin in 1758. For a brief account of Swedenborg, see J. Hyde, "Preliminary Notice", in E. Swedenborg, *Heaven and Hell* (London, 1904), pp.v-viii.
135 Cumont (n.26), pp.109-11, 154-75 (for protocherubs, see Fig. 33, p.170), (n.41), pp.153-69.
136 Nicholson (n.7), *passim.*
137 Gunn (n.9), Vol. 2, p.265.
138 Lupoff (n.8), pp.52-3. I have not read this novel, and rely on Lupoff (whose phrase I have quoted).
139 (New English Library, London, 1976), especially pp.109-17, 123-135, 153-6.
140 (Macmillan, London, 1928), pp.2, 10-20.
141 *La Maison aux Mille Etages* (transl. J. Svoboda and C. Moisse, Bibliotheque Marabout, Verviers, Belgium, 1974), pp.73-110, 236. There appears to be no English translation of this superb novel, and Weiss does not even have an entry in *The Encyclopaedia of Science Fiction* (ed. P. Nicholls, London, 1979).
142 (Methuen Paperbacks, London, 1979), pp.17, 23, 27.
143 Clarke (n.108), p.7.
144 L. Sprague de Camp, *The Great Fetish* (Pocket Books, New York, 1980), p.8.

145 Lupoff (n.8), pp.171-2, 232. For bibliographical details of Burroughs, see n.8.
146 Lupoff (n.8), Chapter 3.
147 (London, 1981), *passim*, especially pp.31-5.
148 Porges (n.8), *passim*, e.g. pp.245, 315-16.
149 F. Leiber, "John Carter: Sword of Theosophy", in L. Sprague de Camp (ed.) *The Spell of Conan* (New York, 1980), pp.211-17. I am most grateful to Derek Stokes for finding me the paper in this collection. Leiber's suggestion would also apply to other Burroughs stories, e.g. *The Land that Time Forgot* (1924) and its sequels. Additional support for Leiber is provided by Burroughs's familiarity with Atlantis, which is mentioned in *Pellucidar* and *Tarzan and the Jewels of Opar;* Burroughs nearly wrote a series of stories about it in 1922, when a correspondent sent him some references, including a Theosophical Society publication.
150 E.M. Butler, *The Myth of the Magus* (London, 1979), p.247; M. Asquith, *Autobiography* (London, 1936), pp.122-3. For accounts of Madame Blavasky see Butler, pp.243-60; L. Sprague de Camp, *Lost Continents* (New York, 1970), pp.54-60; L. Sprague de Camp and C. de Camp, *Citadels of Mystery* (London, 1972), pp.228-32; E. Howe, *Urania's Children* (London, 1967), pp.54-80.
151 De Camp (n.150), pp.57-8; De Camp and De Camp (n.150), p.231; Howe (n.150), p.55. Arnold's father, incidentally, was Sir Edwin Arnold, the Indologist: R.L. Green, "Introduction", in Arnold (n.139), p.5; Lupoff (n.8), p.55.
152 A. Norman Jeffares (ed.), *W.B. Yeats: Selected Poetry* (London, 1974), pp.138, 217. The poem is "All Souls Night".
153 Moskowitz (n.9), pp.308-9.
154 W. Wallace, *Kant* (London, 1882), pp.102, 107-8; Porges (n.8), p.1060.

Is it true, what Walter Pater didn't quite say, that all literature constantly aspires to the condition of science fiction? Mark Gorton, a producer with Granada Television based in Liverpool, here analyzes the workings of entropy in one of D.H. Lawrence's major novels.

Some Say in Ice: The Apocalyptic Fears of 'Women in Love'

MARK GORTON

The energy of the universe is constant.
The entropy of the universe tends towards a maximum.
Rudolf Clausius, 1854

Clausius' famous formulation of the first and second laws of thermodynamics *(Die Energie der Welt ist constant. Die Entropie der Welt strebt einem Maximum zu.)* embodied a prediction of cosmic dissolution—"the heat death of the universe". The German physicist argued that although the sum of energy in the universe will never change, in accordance with the principle of conservation of energy, it *will* become unavailable as a source of work.

Because heat can only flow spontaneously in one direction—from hot bodies to cold—every spontaneous energy change in an isolated system must be irreversible. Moreover, every irreversible change must be accompanied by a loss in the amount of energy available to do work—"entropy" is the measure of this loss . . . So, in the isolated system of the universe (by definition there can be nothing outside it), the increase in entropy must go on until it can increase no further; that is, until all energy has degraded into heat, uniformly distributed, and all the substance of the universe is at the same (very low) temperature, incapable of supporting the most trivial natural processes, let alone life.

In other words, according to thermodynamics, the universe was winding down. As Swithin St Cleeve, the astronomer hero of Thomas Hardy's *Two on a Tower* (1882), remarks, while he and Viviette Constantine gaze at the night sky:

> "And to add a new weirdness to what the sky possesses in its size and formlessness, there is involved the quality of decay. For all the wonder of these everlasting stars, eternal spheres, and what not, they are not everlasting, they are not eternal; they burn out like candles."[1]

Clifford and Connie Chatterley briefly discuss this theory of universal decline in D.H. Lawrence's *Lady Chatterley's Lover* (1928). Clifford reads from "one of the latest scientific-religious books": "'The universe shows us two aspects: on one side it is physically wasting, on the other it is spiritually ascending.'"[2] Connie's opinion?—"It only means *he*'s a physical failure on the earth, so he wants to make the whole universe a physical failure. Priggish little impertinence!" Clifford, on the other hand, feels that "there is something in the idea . . ."

Now had Connie read Lawrence's *Women in Love* (1920), she might well have been similarly outraged, because—and so far as I'm aware no one has pointed this out before—the concept of entropic decay, or "degradation", pervades the novel.

The Great War ("the rushing of the Gadarene swine down the slope of extinction" was how Lawrence described it in a letter) persuaded him that he lived in a hopeless "decadent era, a decline of life, a collapsing civilization". This gloom infected *Women in Love*—the letter continued: "There is another novel, sequel to *The Rainbow,* called *Women in Love* . . . This actually does contain the results in one's soul of the war: it is purely destructive, not like *The Rainbow,* destructive-consummating". A glimpse of Armageddon had shattered the rainbow's "new architecture". The "old, brittle corruption of houses and factories" would remain, would not be "swept away". Swept away instead was Lawrence's faith in the regenerative powers of Nature—his optimism that "the sordid people who crept hard-scaled and separate on the face of the world's corruption . . . would cast off their horny covering of disintegration, that new, clean, naked bodies would issue to a new germination, to a new growth, rising to the light and the wind and the clear rain of heaven"[3]—and the vacuum was filled by a nauseated pessimism, an apocalyptic despair for a culture which was enslaved by mechanism and industrial production. Futurism, with which Lawrence had flirted, had glorified machine power; now, in the dismal light of the war, the industrialized world seemed to have no future at all. The fundamental argument of *Women in Love* is that in a society which is nothing more than a vast machine designed to pursue mindless materialism, which thrives on "the base forcing of all human activity into a competition of mere acquisition", there can only be "pure organic disintegration".

One way this pessimism finds expression is in the novel's degradationist theme.

Consider *Women in Love*'s apocalyptic vision of "universal dissolution into whiteness and snow"—the realization of sculptor Loerke's "dream of fear", in which "the world went cold, and snow fell everywhere, and only white creatures, Polar bears, and men like awful white snow-birds, persisted in ice cruelty".

Lawrence's end-of-the-world imagery echoes the famous description of the world's heat death in H.G. Wells' *The Time Machine* (1895), a despondent *fin de siècle* assertion of the second law of thermodynamics over Darwinism and the confidence in Progress which it had fostered. Before his return to Victorian London, the Time Traveller rides into the distant future, "watching with a strange fascination the sun grow larger and duller in the westward sky, and the life of the old earth ebb away . . ."

> At last, more than thirty million years hence, the huge red-hot dome of the sun had come to obscure nearly a tenth part of the darkling heavens . . . A bitter cold assailed me. Rare white flakes ever and again came eddying down. To the north-eastward, the glare of snow lay under the starlight of the sable sky, and I could see an undulating crest of hillocks pinkish white . . . There were fringes of ice along the sea margin, with drifting masses further out . . . all bloody under the eternal sunset . . . The darkness grew apace; a cold wind began to blow in freshening gusts from the east, and the showering white flakes in the air increased in number . . .[4]

And through the snow, the Traveller sees that life on earth has degenerated into simple vegetation and a race of black, tentacled creatures "the size of a football".

Whether or not "the universal dissolution into whiteness and snow" was suggested by the Time Traveller's "further vision" (it could be the reason why "the ugly winter-grey houses" beneath "an angry redness of sunset", which Birkin and Ursula see from a tram-car, seem "all cold, somehow small, crowded and like the end of the world"), I'd like to suggest that Wells and Lawrence use similar images for similar reasons—as metaphors, based on what had become, since Clausius, a popularized *fin du globe,* for a much more imminent decline.

Wells' vision of a snow-shrouded earth spiralling into a burnt-out sun is the spectacular summary of *The Time Machine*'s warning that Progress may be illusory. (In 802, 701, of course, the Time Traveller discovered that the dehumanization and polarization of society required by industrialization had divided mankind into the cannibalistic, subterranean Morlocks, and their staple, the listless, leisured Eloi.)

In *Women in Love,* I believe, "the universal dissolution into whiteness and snow" also represents death by the second law of thermodynamics—a law, remember, of "the non-vital universe of forces and mechanistic order" which Lawrence castigates in *Apocalypse;* and which, he alleges, brought forth the "death products" science and machinery. In other words, mechanistic, industrial man, who (as Lawrence understood it) had turned his back on the true, living cosmos, is imagined to have become integrated in the slow, inexorable heat death of the (non-vital) universe.

Rupert Birkin is wont to talk apocalyptically in *Women in Love*—he is the mouthpiece for much of Lawrence's despair—and in so doing, it seems to me, he occasionally sounds like a man who has assimilated some degradationist ideas from contemporary physics. In the discarded prologue to *Women in Love,* we're told that he's sensed a "winter" coming upon mankind, and in winter there "can only be unanimity of disintegration . . . How to get away from this process of reduction . . . which was universal though unacknowledged, this was the unconscious problem which tortured Birkin day and night . . . The whole world's constructive activity was a fiction, a lie, to hide the great process of decomposition, which had set in . . ."[5] When he tries to express these fears in the novel proper, he

reveals that the unbreakable second law of thermodynamics is in the background of his thinking, shaping metaphors. In his conversation with Ursula in the chapter "Water Party", can we not read "entropy" for "a river of darkness . . . rolling all the time onward . . . The other river, the black river. We always consider the silver river of life, rolling on and quickening all the world to a brightness, on and on to heaven, flowing into a bright eternal sea, a heaven of angels thronging. But the other is our real reality"; and, much more obviously, for "dissolution", which, according to Birkin, "rolls on just as production does. It is a progressive process—and it ends in universal nothing—the end of the world, if you like"? ("It only means *he*'s a physical failure on the earth, so he wants to make the whole universe a physical failure. Priggish little impertinence!")

Gerald Crich is "an omen" of *Women in Love*'s *fin du globe*—"snow-abstract annihilation . . . death by perfect cold . . . the universal dissolution into whiteness and snow".

"One of those strange white wonderful demons . . . fulfilled in the destructive frost mystery", Gerald believes in the pure instrumentality of the individual and is dedicated to replacing the "organic principle" with the more efficient "mechanical principle". On his father's death, he reorganizes the microcosmic colliery, gradually reducing the miners to "mere mechanical instruments"; they become part of "a new world, a new order, strict, terrible, inhuman, but satisfying in its very destructiveness". Gerald understands "the mystic word harmony" to be synonymous with "the practical word organization"; the "great and perfect machine" he wants to construct inspires him "with an almost religious exaltation", and briefly he is "the God of the machine, Deus ex Machina" . . . But the machine is so perfect even its god becomes superfluous to it. Suddenly Gerald finds himself to be hollow and dark, and he grows afraid "that one day he would break down and be a purely meaningless babble lapping round a darkness".

From then on, Gerald's motion towards death accelerates. With Birkin, Ursula and Gudrun, he travels to the Tyrolean mountains, and at "the centre, the knot, the navel of the world, where the earth belonged to the skies, pure, unapproachable, impassable", assaults Loerke and Gudrun, then wanders suicidally across the snow. He feels that he is about to be murdered (Ursula had been unable to believe the air of that "upper-world", which had seemed "conscious, malevolent, purposive in its intense murderous coldness"), and staggers on, his hands raised in anticipation of a blow, until, at last, he falls—"and as he fell something broke in his soul, and immediately he went to sleep".

Gerald is the incarnation of mechanism and industrialism, and his death is symbolic of the cultural heat death[6] imagined in *Women in Love*. This is made clear in Lawrence's travel-book, *Twilight in Italy*, in which he sees the mountains of the Tyrol reaching into the entropic universe:

> The very pure source of breaking-down, decomposition, the very quick of cold death, is the snowy mountain-peak above. There, eternally, goes on the white foregathering of the crystals, out of the deathly cold of the heavens; this is the static nucleus where death meets life in its elementality. And thence, from their white, radiant nucleus of death in life, flows the great flux downwards, towards life and warmth. And we below, we cannot think of the flux upwards, that flows from the needle-point of snow to the unutterable cold and death.[7]

"Is this the promised end? Or image of that horror?" ask Kent and Edgar in the final scene of *King Lear;* I hope I have shown that their questions would make an appropriate epigraph to *Women in Love*.

Notes

1 *Two on a Tower,* Thomas Hardy, Macmillan, p.58.

2 *Lady Chatterley's Lover,* Penguin, p.243. cf. Bernhard Brunhes in *Degradation* (1908), p.193: "On one side, therefore, the world wears out; on another side the appearance on earth of living beings more and more elevated, and,—in a slightly different order of ideas,—the development of civilization in human society, undoubtedly give the impression of a progress and a gain". (Quoted in Henry Adams' essay, "A Letter to American Teachers of History".)

3 See *The Rainbow,* Penguin, pp.495-6.

4 *The Time Machine,* Dent, pp.95-6. The narrator reinforces the novel's mood of *fin de siècle* doubt in the epilogue: ". . . I, for my own part, cannot think that these latter days of weak experiment, fragmentary theory, and mutual discord are indeed man's culminating time! I say, for my own part. He (the Time Traveller) . . . thought but cheerlessly of the Advancement of Mankind, and saw in the growing pile of civilization only a foolish heaping that must inevitably fall back upon and destroy its makers in the end". (Interestingly, *The Latter Days* was an earlier title for *Women in Love,* along with *Dies Irae.)*

5 The discarded prologue is included in *Phoenix II.*

6 "Cultural heat death" will remind those familiar with the work of American Thomas Pynchon of the metaphor which dominates it. In his early short story "Entropy" (1960), a character called Callisto predicts "a heat death for his culture in which ideas, like heat-energy, would no longer be transferred . . . and intellectual motion would, accordingly, cease"—a vision which Pynchon has explored with increasing complexity in the novels *V., The Crying of Lot 49* and *Gravity's Rainbow.* In "Entropy" and *V.,* Pynchon revived in particular the scepticism of historian Henry Adams (1838 – 1918), who investigated the implications of entropy for the human race in his autobiography, *The Education of Henry Adams* (1907), and in two essays: "The Rule of Phase Applied to History" (1909), in which he went so far as to calculate the running-down of intellectual energy on earth—thought was to reach its limits in 1921; and "A Letter to American Teachers of History" (1910). Perhaps Lawrence too was familiar with Adams' degradationist approach to history . . .

7 *Twilight in Italy,* Penguin, p.159. See also p.12.

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Homeopathy for the Cranks: Three Studies of Pseudo-Science

L.J. HURST

Introduction

The relationship between scientific and pseudo-scientific activities is a peculiar one. Three

books claim to examine it and they are peculiar too. The books are Martin Gardner's *Fads and Fallacies in the Name of Science,* Christopher Evans' *Cults of Unreason,* and John Sladek's *The New Apocrypha: A Guide to Strange Science and Occult Beliefs*[1].

Sladek is a well-known sf author, while Gardner and Evans are both noted editors of sf and fantasy. Some of their subjects, the cultists they study and the pseudo-science they expose, arose from sf (L. Ron Hubbard, Shaver, John Campbell's psionics machines); others are reflected in it. In some ways these books can be considered professional infighting, as people from a common field take sides. The side taken by Gardner, Evans and Sladek is concerned with debunking specious claims and showing up the beliefs encouraged in some unhappy cult followers. They argue that they have left fiction behind and now are concerned with proselytizing for the scientific attitude. Perhaps, though, this triad of authors (Gardner, Evans, Sladek) do not do what they claim.

All three are critical of the abuse of popular gullibility by cult leaders and crank sponsors; but here I am not concerned with the cranks—I am concerned with these people writing about the cranks.

It is possible that the voice of authority used by all three, as they speak as the voice of definitive and known science, may be as inappropriate as the things they attack. Their philosophy and methodology must be studied for its scientific accuracy and merit.

The triad say they are dealing with cults, irrationality and fallacy. Perhaps, though, their examples are not chosen because they all share irrational bases but because the authors prove them to be irrational by choosing them. It could be that Gardner, Evans and Sladek do not have satisfactory grounds on which to base their studies of irregularity, illogicality and inconsistency. And it is important to remember that if they make any criticism of the pseudo-scientific for its logical errors, then the three authors themselves should not make logical errors, nor let their arguments depend on them.

One

Martin Gardner's *Fads and Fallacies* was first published in 1952, and republished with an updating appendix in 1957. It is still in print. Both Evans' *Cult of Unreason* and Sladek's *New Apocrypha* were published in 1973. The Sladek is currently available as a paperback.

Gardner and Sladek's books each consist of a series of short chapters describing different areas of dubious belief, and their associated proponents and practitioners. These include flat-earth theorists, Atlantis, Flying Saucers, reincarnation, perpetual motion machines, ESP, and many forms of unusual medicine (food cults, osteopathy, mud baths, colour therapy, etc). Also included are cult figures: the best known being Ron Hubbard, Wilhelm Reich and Count Korzybski (General Semantics). The authors give reasons to show why such beliefs are dubious (although sometimes the cranks are dismissed with no disproving). Sladek also includes chapters on attitudes to drugs (cannabis etc.), and the views of Marshall McLuhan and Arthur Koestler.

Evans is organized in a different way. The first half of his book describes the development of Scientology from 1950 to 1970. In the second part he describes the same areas as Gardner and Sladek.

The three authors reveal a sub-world, or series of sub-worlds, of interlinking groups. They discover that cults tend to centre about monomaniacal leaders: Wilbur Voliva seems to have been a particularly unattractive example, believing in a flat earth, faith healing and religious fundamentalism. Followers of such people may change in person but remain

constant in number, all prepared to submit to their chosen leader (and sometimes even forcing that leader to maintain his/her position).

Whether it be belief in religious fundamentalism, or a scientific device for instant healing, cultists aim at simplicity. Every thing is answered by the cult's device. Where there is a lack of facts, this is ignored, or if the absence is impossible to ignore, the facts are invented. The founders of some groups have rewritten history and the interpretation of the past: others, like Sir George King, founder of the Aetherius Society, are as certain about future events as they are of those in the past.

One need not be a cult member to be irrational. Those not within a group may be described as either believing in the need to follow strange individual practices (such as eating several pounds of molasses every day), or of holding strange individual beliefs (such as the possibility of being healed by someone with a pendulum who is miles away, or of the importance of proving Pi to be a fixed—rational—number). For any and all of which a dubious rationalization can be provided.

The three authors feel that the cause of this state of affairs is ignorance. Other causes include lack of adequate criticism of developing ideas, selfishness, ambition, social inadequacy, and a sense of guilt that desires to actively atone. Whether one is involved in individual or cult unreason, the result is a general isolation.

Within their treatment of these subjects, each author includes areas special to him. Gardner, known as a mathematician, includes notes on mathematical logic; Sladek, with his Notting Hill New Wave connections, deals with drugs and societal repression; Evans, a psychologist, includes psychological data. Interestingly, it is only Evans, the doctor, who does not include Bates' eye exercises (Better Sight Without Glasses) in his list of the unreasonable, while the two non-medics do.

Behind the authors' decision to spotlight their subjects is a belief in science that leads them to attack the pseudo-scientific. Gardner's introduction says "An even more regrettable effect produced by the publication of scientific rubbish is the confusion they sow in the minds of gullible readers about what is and what isn't scientific knowledge" (Gardner pp6-7): people, he says, should be "better trained to distinguish good from bad science" because "the best means of combating the spread of pseudo-science is an enlightened public, able to distinguish the work of a reputable investigator from the work of the incompetent and self-deluded" (Gardner p7). Gardner goes on to say that, though there are small areas of uncertainty, two clear distinctions can be made:

Firstly, the extent to which "a scientific theory is confirmed by evidence". Despite saying "there are no known methods for giving precise 'probability values' to hypotheses", Gardner says "We shall be concerned, except for a few cases, only with theories so close to 'almost certainly false' that there is no reasonable doubt about their worthlessness."

And, secondly, distinctions can be based on scientific competence. This distinction shows up the cranks and failures. A list of them includes "men whose theories are on the borderline of sanity, men competent in one field and not in others, men competent at one period of life and not at others, and so on" (Gardner p7).

Sladek makes a similar introduction—"a representative sample of these new apocrypha. I try to describe them with a minimum of 'debunking', although I must confess in advance my own bias against many occult and pseudo-scientific claims. Nevertheless, the effort is made to distinguish between ideas which are off the beaten track and

those which are simply off the rails" (Sladek p15).

The scientific ordering of the world may be divided into two types. It is either concerned with the testing of hypotheses, or it may be said to find laws that encompass the causes of observable phenomena. This second type was seen when Newton's law of gravity was found to fit the motion of the planets and all movable bodies. A hypothesis was tested when it was suggested that in burning phlogiston was not lost, but oxygen gained, and this worked and was accepted as reasonable.

Which of these two scientific ideas underlies the triad's thinking? Perhaps their thesis is that theories can be divided into scientific and pseudo-scientific. Perhaps they hope to discover a cause of pseudo-scientism. Either way we should expect them to begin from an unprejudiced position. No matter how correct their facts are (and none of them makes any deliberate errors of fact; their subjects did or do, and said or say, what is ascribed to them), it is interpretation that provides meaning. But meaning should be found, not be imposed as the quotations above seem to reveal. Instead Gardner chooses to describe what is worthless before revealing his criterion; and Sladek has already separated science and pseudo-science. (Note that the chapters in which these statements are made are Introductions not Abstracts). These two writers describe only science, but Evans' concern is wider: he is intent on describing technology and its concomitant effects. He notes "the working scientist . . . realizes that his technology can outstrip his philosophy, and holding himself to be a technologist he is content to leave it to the philosopher to make sense of it all" (Evans p10). Gardner said the scientist worked with hypotheses but Evans says "Science in general refuses to speculate, profering to its adherents only those facts it considers to be established by virtue of the inductive experimental method" (Evans p10).

So it is clear that there are discrepancies between the ideas of the three debunkers in their concept of science and what it can do. All three are aware of the threat posed by the pseudo-scientific cults: Evans says "if technology continues to outstrip advances in the philosophy of science, the need for such cults will increase . . . some of the existing ones will rise to real power" (Evans p11). Sladek says "the pseudo-scientist can call upon his theories to show how his victims are subhuman" (Sladek p338); and Gardner "tragedies cluster about the work of every medical pseudo-scientist. And they serve to point up, for any intelligent reader, a very simple and obvious moral" (Gardner p241), and he warns "it is easy to forget how far from won is the battle against religious superstition . . . doctrines of pseudo-science which may at some future date receive the backing of politically powerful groups" (Gardner pp6-7).

Against this threat, what is science, and what can it do? The three variously describe science as "objective", using the "inductive experimental method", "Man's ability to manipulate his environment", "it is the making and testing of theories". Gardner is concerned with truth and falsity in logic systems. However, he also says that "the 'repeatability' of a complicated experiment does not, and could not, demand that every single person who tried it would get identical results" (Gardner p332).

So what is science? "Science is generally taken as meaning either (a) the exact sciences, such as chemistry, physics, etc., or (b) a method of thought which obtains verifiable results by reasoning logically from observed fact"[2]. This was George Orwell's definition when he dealt with the problem in a 1945 essay.

Sladek in his final chapter says "Scientific theories may be tested in four ways": they should be a) not contradictory; b) logically meaningful (this is the Verification Principle,

although he does not say so); c) the new theory should compare favourably with existing standards; and d) the new theory's conclusions should be capable of being disproved (this is the Falsification Principle, again although he does not say so), (Sladek pp330-331).

Sladek could never have worked with the philosophy of science, or he would have realized that his four laws cannot be maintained simultaneously (which means that he breaks his first law). The Verification Principle was developed by Frege and other mathematicians, and taken over by the Logical Positivists (eg. A.J. Ayer). The Falsification Principle was developed by Karl Popper to repudiate the concept of Verification. Either one or the other is correct and applicable but not both because they are mutually exclusive (of course, neither may be right). This reveals the problems these writers face. Sladek said he did not want to do too much debunking. If he does not explain the foolishness of those he lambasts then we readers could believe them to be correct: but when he does attempt to deal with their errors he in turn makes mistakes that render his exposures useless.

The problem on which any discussion must centre is this: that the triad include, in their defence of science and their attack on pseudo-science, the methods and irregularities of the pseudo-scientists. As Damon Knight say about one of their subjects, that his attackers were led "by a familiar psychological process, to assume that since Velikovsky was wrong, *evidence to that effect* must exist"[3](emphasis in original). And the problem is not limited to that. I shall show that these works (by which many of us redeem ourselves against the claim that para-scientific literature is not scientific) contain odd biases of the authors, and that they actually serve to reinforce the non-scientific.

The New Apocrypha begins "Science came into the world a couple of centuries ago, with a twin, pseudo-science, gripping its heel. Ever since, both have been manoeuvring to get our blessing" (Sladek p13). One presents itself as the mirror of the other. But one cannot help wondering whether, despite the underlying supposition that they advance scientific thought, the three books actually reinforce the attitudes they examine. (Reinforce them by repeating them). It is possible that the triad are simply homeopathic tonics for the cranks.

Two

If one is to criticize adversely someone or something for illogicality, one must maintain a pure logic oneself. Gardner, above all, should know this: he has a degree in philosophy and writes on mathematics[4]. He deals with logic several times in *Fads and Fallacies* but he shows an inconsistent support for it, usually when it is tied to personality.

Early on in his book Gardner attacks a Roman Catholic, named Anthony Standon, who (Gardner says) "took a much-publicized swipe at 'scientism' in 1950 with a book called *Science is a Sacred Cow*". In Standon's book "John Dewey is chided for suggesting that the future of civilization depends on the spread of the scientific outlook . . . There is the familiar beating of drums for Aristotle . . . Aristotle used the falling body example as part of a completely cock-eyed proof . . ." (Gardner pp52-53).

Gardner makes it clear that by relying on Aristotle Standon's position is laughably poor. Gardner has no time for Aristotelian thought here.

Yet later on, in his chapter on Korzybski's Non-Aristotelian General Semantics, Gardner, despite calling General Semantics "philosophically naive . . . confused . . . highly dubious" says Aristotle deserves "considerable respect" (Gardner p281) and then

gives several pages of exposition of the "the Greek philosopher's manner of thinking" and say it is "inescapable".

For a man who believes in two-value logic he manages to maintain a one-value system well enough, where contraries are true. This bizarre position is used again when he writes "We can understand, for example, Saint Augustine or Martin Luther arguing that no human being could live on the underside of the earth because they would be unable to see Christ descend from Heaven at his Second Coming. But what are we to think of a man of the twentieth century who refused to admit that the earth was round?" (Gardner pp18-19). His answer is "delusions" but the logic again is faulty: if Christ was going to descend in the Third or Sixteenth centuries, then he is just as likely to do so now. If anything is to be deduced from Gardner's sort-of syllogism it is not that a man is deluded but that Christ is going to change his mode of descent so that he will be seen by everyone.

If this sounds ridiculous it is not because of a faulty logic but because Gardner's initial premiss is false, and he has not taken care to ensure his facts follow through. The falsity in this case, though, may be caused by something else. For although he attacks cults and crank religions Gardner never attacks the beliefs of the established Churches, and neither does Sladek. Skipping the problem of the establishment causes errors like the one above[5].

Gardner is perfectly willing to use literary techniques, jokes, etc. in his own work but he refuses to recognize them in others. Instances of his use include a chapter called "Sir Isaac Babson"—a merging of the names of Sir Isaac Newton and a man with strange ideas about gravity; Chapter Two begins "Every schoolboy knows . . .", a quotation with four references in the Penguin Dictionary of Quotations. And his title is an allusion to the Christian's Benediction ("In nomine patrii . . .").

But when he comes to Velikovsky he adopts a different literary style. It means that he finds "one clear—though seldom-stated—emotional premiss. 'It was in the spring of 1940,' (Velikovsky) tells us, 'that I came upon the idea that in the days of Exodus . . .'. The Old Testament is sacred scripture . . . Velikovsky's theories, like those of Voliva, are no more than rationalizations of prior-held beliefs." What Gardner fails to point out is that Velikovsky is alluding to the phrase in Gibbon's *Autobiography* describing how Gibbon first conceived of *The Decline and Fall of the Roman Empire.* Velikovsky perhaps shows pride in making an implicit comparison between Gibbon and himself as the reconstructors of history, but it does not reveal the bias that Gardner claims.

Examples like these indicate that an author like Gardner does not retain the objectivity that alone is alleged to be scientific, so that he corrupts his text by his irregular interpretations, and rare evasions. They are uncommon but they should have been avoided totally.

Evans is more descriptive than analytic but he too fails to make a full evaluation of his facts. For example, he devotes two pages to a description of L. Ron Hubbard's early life as an explorer and mariner (Evans pp23-24) but, later, describing Hubbard's departure from England in 1967 on a badly run and poorly manned ex-ferry, he fails to note that, despite Hubbard's previous experience, Hubbard travelled only as a passenger and failed to show any of his naval experience (Evans pp93-97). Since Evans chose to raise the subject of the early experience to show that not all of the background to Scientology is charlatanry and that Hubbard had some definite ability the failure to point out this discrepancy makes me wonder whether Evans was not too generous in giving history and avoiding deduction.

In Sladek's *The New Apocrypha,* though, we are back with major logical errors.

In his chapter on drugs and establishment propaganda about their use Sladek provides an accurate breakdown of a faulty syllogism: "The L.A. cop . . . manages to bludgeon logic to death . . . he begins by saying that 90 percent of narcotics addicts use heroin, which makes nonsense of all that follows . . . Next, the L.A. cop concludes that, because 90 percent of (heroin) addicts previously used pot, pot leads to heroin. The phoney logic of this can be shown by letting A be 'heroin addicts later' and B being 'earlier users of pot'. Then (he reasons) if most A are B, then most B are A. In other words, 'If most ducks are birds, then most birds are ducks' " (Sladek p140).

This is correct, and Sladek's thinking and exposition are clear. But when he does not keep it up it becomes clear that none of these works has a constant commitment to logic.

For instance, in a later chapter on Marshall McLuhan he takes a quotation from McLuhan: "Psychologists define hypnosis as the filling of the field of attention by one sense only".

And Sladek retorts, "But they don't, as Jonathan Miller points out: 'If they did, biologists would go into a trance every time they looked down their microscopes and blind men become suggestible immediately they began running their hands over a page of braille.' " (Sladek p236).

If I use the method he used the error becomes clear. If we let A be "hypnosis" and B be "the filling of the field of attention by one sense only", we can see that all A are B but not all B is A. Hypnosis is one of the ways in which the field of attention can be filled but not the only way. McLuhan says it is one (some), Miller reads it as all, and Sladek does not correct him. Biologists do not go into a trance, not because their field of attention is not filled by one sense only, but because they are not hypnotized.

Sladek probably made this error because he did not realize he was dealing with a classical syllogism. It does not matter so much that he got the conclusion wrong. What matters is that he did not realize the nature of the material with which he was dealing. He had stopped thinking and had started regurgitating from a second hand source (*McLuhan* in the rather poor Fontana Modern Masters series). And that is wrong.

And in a way similar to that in which Gardner accepts and uses, and also rejects, Aristotle, Sladek uses and abuses the work of Freud. So in discussing Ted Serios (a thought photographer) Sladek rejects the possibility of Freudian word formation (which in his example would find in the word 'Thresher' an unconscious link between 'Esther' and 'Elizabeth Regina'), but in discussing engrams in Scientology he accepts the concept —"Anything said at the time seems to compound the engram. Foetuses not only have keen ears, they're fond of Freudian puns" (Sladek p248)—he scorns the engram but accepts Freud. And Sladek uses them himself: he describes the suggestion that the appearance of Mary, mother of Christ at Fatima in 1917 was actually a UFO landing as "Virgin on the ridiculous" (Sladek p37).

Once or twice he makes stupid slips. He begins a page "Reich was intensely paranoid in later years, partly because he really was being persecuted" but only halfway down that page Reich becomes a "pathetic paranoid" (Sladek p246). If Reich's fear was reasonable, which Sladek admits ("persecuted") then the later term is not a correct description.

Similarly, some of his examples of popular psychosis are also misdirected. He gives a story that circulated in Berlin in 1946 about people being butchered and sold for meat, which was widely believed, although untrue. The tendency to belief, he says, was

increased by deprivation and by the injustices of the allied occupation. However, the Berliners had a much better reason to be fearful. There was a market for any meat and they would have remembered Fritz Haarman's activities after the First World War. Haarman murdered thirty or even forty teenagers between 1918 and 1924, and presumably disposed of the bodies through the black market business he ran from his flat[6]. So we can see that irrational as people are claimed to be, the potential for horror is always present, and for every torture a reason to act may be found. Sladek, though, prefers the more perverse premiss, even though it is less likely.

Gardner's accuracy when touching on individuals went astray, I noted, and it does in the other authors as well. In their writings about Willhelm Reich, for instance all three seem to go right over the top. Evans says "The history of Reich . . . is either the story of (a) a great mind which plunged from serious exploration of psychological phenomena into the barmiest depths of pseudo-science or of (b) a great scientist . . . whose revolutionary discoveries were spurned by a prejudiced and uncomprehending world" (Evans p207); Sladek says "There has never been general agreement . . . on the value of Reich's later work . . . almost no crank tradition remained untouched by Reich's erratic genius" (Sladek pp244-245). Gardner begins his discussion by saying "Reich's early books were fairly close to the Freudian tradition . . . they contain . . . ideas which have become a permanent part of the analytic literature" (Gardner p251). He then devotes a chapter to attacking Reich.

Out of the three books, Gardner's two sentences are the only statement that reveal Reich's early work did not stop. Even those, though, do not point out that of Reich's fifteen or so books, ten or more are not concerned with Orgonomy, and that Reich kept them in print as far as possible.

Other figures, much less well known, have a similar exaggeration placed upon the importance to themselves of one notion or interest. The triad tend to suggest that, cult leaders apart, their cranks are monomaniacs, concerned with only one idea. Reading between the lines, though, I think that frequently I am being told about men and women with a range of interests, some of which may be crank but which these people do not allow to rule their lives. Some of the people they describe clearly have given their lives over to propagandizing for antisocial, dangerous beliefs, but not all the people mentioned by the triad have done so. The situation is not so desperate as they make it appear.

The greatest distortion, though, is probably Gardner's treatment of Lysenko, the Soviet geneticist. Gardner blames Lysenko for "the steady deterioration of Soviet biology", and says "the rise of Lysenkoism provides a dramatic object for the free world" (Gardner p151). Reading the chapter one thinks he is describing the starvation of the Soviet population: it only becomes clear on re-reading that the complaint of Gardner (and others) is not about the threat to the population but to a small number of research scientists. Terrible as the Stalinist purges and individual terrors were, there is no massive proof that the acceptance of crank views (like Lysenko's) leads to national disaster. If we look at the facts and figures, in the years of Lysenko's power wheat production in the USSR rose from 32,750,000 tonnes in 1948, through 42,399,000 in 1954, to 76,568,000 tonnes in 1958. After Lysenko's fall the wheat production fell to 70,600,000 tonnes in 1962[7].

There are further inconsistencies in the authors' attempts to legitimate their allegations by appeals to authority, to well known figures. Gardner and Sladek both quote Bernard

Shaw—"a flat earther addressed a public meeting. Shaw says the lecturer remained completely calm amid the 'spluttering fury' of his questioners and 'answered easily' their strongest objections" (Sladek p25, cf Gardner p14). This example of the unreasonable self-assurance of the crank is used as a justification of those scientists who tried to vilify Velikovsky without studying his argument. The claim that Gardner and Sladek make is that if Shaw says that an idiot will remain calm, while those in the right become hot-headed and say stupid things, this should not damn the infuriated, because Shaw, the great man, excepts it. This is not an everyday scientific method.

Furthermore one hundred pages later Shaw is revealed as someone on whom we cannot rely, and he is attacked in turn. The man, the invocation of whose name has previously been enough to act like a Papal Indulgence to vindicate the nature of the attacks on Velikovsky, is now revealed as a crank himself, who rejects the germ theory of disease (Sladek pp108-109), and (cf Gardner pp196-197) "vaccination, vivesection, the eating of meat, Caesarean birth, and the removal of the tonsils and appendix".

Three

The attitudes of the authors are not identical. I have pointed out that Evans tends to describe at length, and Gardner has no confidence in anything but logic, of which he is very confident. This leads him to write "A point of view held chiefly by philologists and cultural anthropologists who like to imagine *their* subject-matter (words or culture) underlies logic and mathematics" (Gardner pp348-349). Sladek, on the other hand, accepts that there is an intervening system of perception: "When I went from Austria to Italy, I retained a false linguistic model that no longer applied: in Austria faucets are marked Heiss (hot) and Kalt (cold). In Italy I turned a faucet marked Caldo, foolishly expecting cold water" (Sladek p329). This is the Sapir-Whorf hypothesis (that language tends to shape consciousness), and in rejecting it and similar opinions Gardner clearly rejects large areas of modern (linguistic) philosophy and psychology.

I want to turn now from a discussion of the different scientific and philosophic methods avoided or ignored by the triad. I want to ask, instead, why some things are acceptable and others are not, why some ideas are credible at one time when they are unacceptable a century before.

Sladek could give us four laws to define science. Science is not one specific thing. And clearly science changes through time: Gardner thinks it would have been scientific to believe in a flat earth in the Third or Fifteenth centuries, but that it is no longer. When he thinks that a man is a crank for rejecting automatic tonsillectomy (as he does with Shaw), we can see that the view he holds is clearly located in time. His science is the science of McCarthyist America: a society where the doctor circumcised and removed tonsils so frequently that one would think the whole population of two hundred million consisted of Jewish Cantors. How can this specific location of a concept of science be explained?

The restrictions of ideas, the rejection of discoveries, by the time in which they appear seems almost universal. Thomas Kuhn in *The Structure of Scientific Revolutions* makes this clear: "Copernicanism made few converts for almost a century after Copernicus' death. Newton's work was not generally accepted, particularly on the continent, for more than half a century after the *Principia* appeared. Priestly never accepted the oxygen theory, nor Lord Kelvin the electromagnetic theory, and so on"[8]. From this Kuhn and others have drawn up a widely accepted theory of science and scientific discovery—"it is a

myth that science admits all factual evidence and revises its theories to fit all factual evidence. It is another myth that science grows in a linear and organic fashion, refining its theories step by step. Kuhn shows that any science at a given time in history, is the prisoner of its basic preconceptions, which he calls 'paradigms'. Paradigms are defined as 'universally recognised scientific achievements that for a time provide model problems and solutions to a community of practitioners' " (Knight p128, quoting Kuhn p x).

Gardner thought that science changed through time, though he wrote before Kuhn. Sladek referring to Kuhn's work argues that the new paradigm subsumes the old so that the old order is maintained. The result of this must be twofold: firstly, that the new scientists are ingested into the system; and, secondly, that the technological implications (and their social consequences) of scientific discovery are moderated by the established order.

It is because of this specific location of scientific discovery that James Blish's Cities will never go into flight. By their adoption or theft of the new paradigm the establishment prevents a breakaway or revolution. Orwell recognised that science is limited by the society in which it occurs. Science and the scientists cannot be separated: science is what scientists do; what scientists do is science. Each scientist is a person and subject to the same forces as everyone else: their sense of responsibility, or of the consequences of their actions, is the same as that of non-scientists. Orwell felt that they showed less:—"The German scientific community, as a whole, made no resistance to Hitler. Hitler may have ruined the long-term prospects of German science but there were still plenty of gifted men to do the necessary research on such things as synthetic oil, jet planes . . . More sinister than this, a number of German scientists swallowed the monstrosity of 'racial science' " (Orwell p28).

Gardner criticizes Korzybski for saying "The word is not the thing". What then is this thing—scientist—today? Chances are that he or she is involved in weapons building, for in the USA and most of Europe over half of all research and development monies is spent on it. Is this a new responsibility?

The social atmosphere in which these people work and spend their lives is now a grey one. The establishment which permits them to work creates the conditions for the whole society, which includes the effects of science. Evans is well aware of the effects of this. He writes "Faced . . . with the inescapable signs of the impact of science and technology on the world's social organisation, one sees some critical questions that need to be answered. The first is simply whether Man can survive . . . To date, no psychologist, anthropologist or sociologist seems to have been able to confront this question adequately— . . . The second major question . . . concerns the apparently widening gap between Man's ability to manipulate his environment . . . and his capacity to comprehend the implications of his technological success" (Evans p8).

It is clear that the writers do not comprehend fully the nature of technological (scientific) practice. But I cannot go further into the field opened by Evans because my discussion of rationality and pseudo-science is not complete.

Conclusion

All three writers argue that there is a link between the advancement of pseudo-science by pseudo-scientists and the general gullibility and irrationality of the public. Gardner asks "Who can say how many orthodox Christians and Jews read *Worlds In Collision* and

drifted back into a cruder Biblicism because they were told that science had reaffirmed the Old Testament miracles?" (Gardner p6), while Evans sees the failure of a scientific philosophy as a cause—"if science and present-day philosophy . . . are unprepared to offer help . . . then the field is ripe as never before for stop-gap systems, pseudo-scientific philosophies, quasi-technological cults and new Messiahs to emerge" (Evans p10).

This is a chicken-egg problem. Do people become gullible because pseudo-sciences are publicized, or do pseudo-sciences develop because general gullibility offers a market? Is there a causal connection at all? Either way the triad do not approach an answer.

Gardner's work has some non-scientific political overtones, and one cannot help feeling that his attack on Lysenko is part of a more general anti-Soviet attack; when he discusses science in the USSR he describes it as part of a "war machine". Although he shows up racist propaganda, he is prepared to attribute personal characteristics to a whole nation ("heavy with the thoroughness of German scholarship . . . The Germans refused to be surpassed even in field of pseudo-science" (Gardner p37), which shows that he has not cured himself of stereotypical thinking.

However, the essential problem is greater. I noted above that there is no attack (apart from in Evans perhaps) on the established churches or governments. There are no sustained criticisms of major scientific or other figures. The criticisms in the three books are basically on three types of people: commercial charlatans (eg in food, medicine, impossible machines); small cult figures with no clout; and others already persecuted by the authorities (eg Reich, Hubbard). Yet, in some cases at least, the differences between the beliefs of the criticized and the establishment are in extent and not in type. Reich, for example, was never disowned by Freud, nor did Reich ever claim to have done more than extend Freud's work. Reich is attacked but Freud is acceptable.

Velikovsky is attacked for using comparative mythology but Jung is left untouched. Newton's work is accepted, as is that of Einstein: yet the latter's work led to the atomic bomb (and the rise in the costs of R&D since), while the former spent most of his adult life, not discovering gravity, but as Master of the Mint, insisting on being present when counterfeiters and coiners were tortured.

The biggest silence, though, is the silence over established religion. If you show up cults who believe in divine healing; if you humiliate others who believe that God actively intervened in human history; if God does not live out in space; if you deny any supernatural cause or effect, what is left? The answer is nothing, but Gardner and Sladek do not wish to say so.

Evans begins to point this out but then fades away—"Christian Science is essentially an attempt at a practical expression of basic Christian beliefs—in one case the power of Faith to heal and in the other the survival of the soul after death. Both these tenets are implicit in orthodox Christian belief (and in most major religious systems even of a non-Christian nature) but are supposed only to have been demonstrated practically in the past by great spiritual figures such as Jesus Christ, certain saints, and so on" (Evans pp12-13).

If a religious experiment can only be performed by one Messiah, and that only every Millenium, it is not "repeatable" and thus is not scientific. Established religion is not attacked, though, as irrational. None of the triad give television viewing figures for Sunday 6-7 pm as proof of human irrationality, and yet it would be a final proof according to their standards.

The three books have been limited by an ideology which permits criticism of minorities

providing it is not extended to its logical end. In doing this these works repeat the inconsistencies that underly the cults and occult they describe, and the triad do not advance science as they think they do.

If I criticize the triad I am not defending the pseudo-scientists: but it is possible that the three authors (and readers who agree with them) actually reinforce the attitudes they suggest they oppose. Most of us are ignorant of higher science, and those in it know only some of its areas. If it is minorities that are attracted to cults (and their total membership is less than it seems because of overlap) then we are being asked to condemn them because the position we support is stronger, (remember that most of us are not in a position to judge technically). In Orwell's phrase it is "Jack the Dwarf-killer" with whom we are asked to identify, and these works written as they are in a readable, popular style, popularize identification with an intellectually unacceptable practice.

Books like these are much more rare than crank bestsellers such as *Chariots of the Gods* but there are still openings for them. Anyone who wondered what the development of works such as *Fads and Fallacies* has been over the years could study it in Theodor Adorno's comment about "its various appeals . . . (how) only the most catchy ones have survived. Their effectiveness is itself a function of the psychology of consumers . . . the surviving appeals have been standardised . . . This standardisation, in turn, falls in line with stereotypical thinking, that is to say, with the 'stereopathy' of those susceptible to this propaganda and their infantile wish for endless, unaltered repetition"[9]. (Other work by Adorno is used by Sladek.)

The overlap we see between the three books is a proof of this "infantile wish". Indeed Sladek finds Gardner's words and examples so appropriate that he uses them himself[10]. Gardner in turn is based on three earlier books and the section headings of the New York Public Library. And we note at the end of his Preface that his writing was inspired not by a Roman temple, nor the Book of Exodus, nor even the desire to be a White Knight for science, but by his agent. But then Francis Bacon was able to retire to science after being sacked as Lord Chancellor for bribery.

Obvious as the faults and rotten logic of the fallacious cults may be, one will not hit them unless aiming straight. At least part of the time, Gardner, Evans and Sladek have not bothered to do so (perhaps because they thought it was not worthwhile), and have hit the wrong thing or even missed altogether. Being personally off-balance with regard to a target may also cause a mis-hit. In a future study this must be avoided if every strike is to work. These three have not been completely successful.

References

1 Martin Gardner, *Fads and Fallacies In the Name of Science* (New York 1957) (rev. ed. of *In the Name of Science*), Dover.
Doctor Christopher Evans, *Cults of Unreason* (London 1973), Harrap.
John Sladek, *The New Apocrypha: A Guide to Strange Science and Occult Beliefs* (London 1973), Hart Davis, MacGibbon.
These are referred to in the text as Gardner, Evans, Sladek respectively hereafter.
NB: in 1973 Unwin republished selections of Charles Mackay's *Extraordinary Popular Delusions and the Madness of Crowds*, first published in 1852.

2 George Orwell, *Collected Essays, Journalism and Letters Vol. 4* (Harmondsworth 1970), Penguin Books, page 27.
This volume is referred to in the text as Orwell hereafter.

3 Damon Knight, *Charles Fort Prophet of the Unexplained* (London 1971), Gollancz, pages 136-137.
This volume is referred to in the text as Knight hereafter.

4 See the entry Gardner, Martin in *The Encyclopedia of Science Fiction.*

5 Gardner attacks the fundamentalist Jews and Christians and small sects like the Pentecostalists but there is no criticism of Methodism, Episcopelianism etc., and he includes what amounts to a defence of Roman Catholicism's ideas about evolution (Gardner pages 133-136).

6 See William Bolitho, *Murder For Profit* (London 1962), Paul Elek Books, pages 158-190. Haarman was the basis for Fritz Lang's film *M.*

7 Neville Brown, *A History of the World in the Twentieth Century Vol. 3* (London 1970), Pan, pages 260-261.

8 Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago 1962) University of Chicago Press, page 149. This volume is referred to in the text as Kuhn hereafter. The application of Kuhnian thought to sf criticism is discussed by Patrick Parrinder in his *Science Fiction: Its Criticism and Teaching* (London 1980), Methuen, p125 ff.

9 T.W. Adorno, "The Freudian Theory and the Pattern of Fascist Propaganda" in A. Arato and E. Gebhardt (eds.) *The Essential Frankfurt School Reader* (Oxford 1978), Basil Blackwell, p133.

10 John Sladek's debts to Gardner are much wider than his index might lead one to assume. There are wholesale liftings, which sometimes account for strange descriptions and inconsistencies. Here are some examples:

"Apparently Voliva circumnavigated the globe several times in the course of his lecture tours, without losing faith. He bet $5,000 that no one could ever prove to him that the earth was round, and no one ever did" (Sladek p20).
"For many years, he offered $5,000 to anyone who could prove to him the earth is spherical, and in fact made several trips around the world lecturing on the subject" (Gardner p17).

"Basic to the World Ice Theory is the notion that space isn't really empty, but filled with viscous fluid. Any body moving through this syrup is naturally losing energy through friction. Therefore any orbiting body is gradually spiralling in. The earth is slowly falling into the sun" (Sladek p22).
"Space, according to Horbiger, is filled with rarified hydrogen. It offers enough resistance to planets and moons to cause them to move in slow spirals towards the central body. Eventually, all the planets will drop into the sun" (Gardner p38).

"Fort believed, or pretended to believe, that all scientific hypotheses were equally true, and all equally false . . . This is all wonderfully symmetrical and Hegelian" (Sladek p28).
"Fort was an Hegelian . . . things that lead Fort into skepticism with a vengeance" (Gardner p48).

"And no one should be surprised that Velikovsky kept his cool; for he is, after all, a psychiatrist" (Sladek p25).
"His attitude towards those who disagree with him is one of disarming politeness. 'If I had not been psychoanalytically trained,' he told one reporter, 'I would have had some harsh words to say to my critics" (Gardner p32, cf p328).

"then, like other occultists, Teilhard begins to lean on neologisms" (Sladek p239).
". . . making use of terms and phrases he himself has coined. Schizophrenics sometimes talk in what psychiatrists call 'neologisms' . . . Many of the classics of crackpot science exhibit a neologistic tendency" (Gardner pp13-14).

" 'I'm no scientist . . .' Roger Babson once said, and went on . . . to search for a gravity shield . . . If Einstein is right, gravity is not a kind of radiation than can be screened off in this manner, but that hasn't stopped Babson" (Sladek p254).
". . . a search for some kind of 'gravity screen' . . . Since Einstein, however, the concept has become almost obsolete . . . gravity is not a 'force' . . . If Babson is aware of this he remains blithely undismayed. 'I'm no scientist . . .'" (Gardner p92).

"the 1938 broadcast of a dramatization of H.G. Wells' *War of the Worlds* . . . Listeners who tuned in late heard dance music interrupted by an ever more electrifying series of news flashes" (Sladek p301).
"1938, when Orson Welles presented a radio version of H.G. Wells' *War of the Worlds.* The broadcast opened with dance music, which was then interrupted by a series of news flashes" (Gardner p67).

"a comet catastrophe book, *Ragnarok,* anticipating Velikovsky by seventy years" (Sladek p63).
"the catastrophic effects upon the earth of a visiting comet . . . how remarkably similar these excerpts are to the passages previously quoted from reviews of Velikovsky's work" (Gardner p35).

Sometimes discoveries since the publication of *Fads and Fallacies* refute the allegations that Gardner makes. Sladek then attempts to account for this. For instance, Gardner writes (about Velikovsky):

"Stewart points out that no known laws of gravity and motion can account for the ability of Velikovsky's comet to stop . . . Velikovsky . . . invents electro-magnetic forces capable of doing precisely what he wants them to do . . . There is no scientific evidence whatever for the powers of these forces" (Gardner p33).

Sladek has a problem when the scientific evidence of these powers is discovered, and he says of

"the discovery (since 1950) that the sun and planets have electromagnetic fields . . . Electromagnetic fields are necessary to explain Velikovsky's theories, but they are not sufficient" (Sladek p26).

This changes the nature of the problem, and we find Sladek's defence of Gardner to be similar to Gardner's criticism of Velikovsky "honeycombed with evasion" (Gardner p32).

A Reply to L.J. Hurst

JOHN SLADEK

I don't recall ever visiting Hong Kong, let alone joining a *triad,* but let the label stick. I appreciate the opportunity to reply to L.J. Hurst's indictment of myself, Martin Gardner and Christopher Evans. I'll speak for myself only—as no doubt Mr Gardner will also be offered a right of reply—but it is cheering to find myself in the dock alongside anyone as sane, rational and humorous as Martin Gardner. I'm only sorry that Dr Christopher Evans is not still alive; I think he too might have enjoyed replying to this indictment.

I suppose I ought to find the Hurst paper offensive, since that is what is clearly intended by it. It accuses me of promoting pseudoscience, of knuckling under to "established Churches", of being evasive and illogical. Moreover, it hints that my book, *The New Apocrypha,* is largely plagiarized. After considering the evidence for all of this, however, I am less offended than irritated at having to waste my time with it. Hurst has not, I believe, presented a case for me or for any of the "triad" to answer.

Hurst demands of us the highest standards of accuracy, clarity and sound reasoning, for how else are we to attack pseudoscience's lies, obscurity and unreason? Agreed, but then sauce for Ms Goose is sauce for Mr Gander: Hurst must likewise be accurate, clear and logical, in order to attack *our* pseudoscience.

Let's see just how well Hurst stacks up against the Hurst standards of excellence.

1 Accuracy

At times Hurst seems almost immunized against facts. It is noted that both my book

and Martin Gardner's *Fads and Fallacies in the Name of Science* reject the Bates system of "eye exercises" as worthless. But Christopher Evans, "the doctor" does not include eye exercises "in his list of the unreasonable, while the two non-medics do". Christopher Evans was not of course a medical doctor but a psychologist with a PhD working in cybernetics. Moreover, the fact that he said nothing of eye exercises in his *Cults of Unreason* is hardly evidence that he thought the Bates system admirably scientific—he likewise failed to mention belief in Santa Claus, the tooth fairy and Jack Frost, but so what? How much significance can there be in total silence?

Again, "Gardner criticizes Korzybski for saying, 'The word is not the thing.' " Gardner does no such thing, and it would be hard to imagine anyone but an imbecile criticizing that statement.

Again, Hurst finds Gardner apparently contradicting himself on the subject of Aristotelian thought. The apparent contradiction is, however, the product of (a) Hurst's confusion between *science* and *logic,* and (b) a mutilated quotation (as we'll see, Hurst is a master of the mutilated quotation). Aristotelian *logic* is generally accepted as of fundamental importance in our science, mathematics and philosophy. Without it, for example, we could not build computers that work. Martin Gardner acknowledges this debt. However, logic is not science. Aristotle's scientific method left much to be desired. The philosopher disdained all experiment. He believed that heavier bodies fall faster than lighter ones. Martin Gardner (in criticizing someone named Standen who wants to bring back Aristotelian science) refers to this, and Hurst pounces:

> 'Aristotle used the falling body example as part of a completely cock-eyed proof . . .' (Gardner pp52-53) Gardner makes it clear that by relying on Aristotle Standon's (sic) position is laughably poor. Gardner has no time for Aristotelian thought here.

What Gardner actually wrote was (restored parts italicized):

> *Standen doesn't tell us that* Aristotle used the falling body example as part of a completely cock-eyed proof *that there couldn't be a vacuum.*

No indeed, Standen doesn't tell us, and Hurst doesn't tell us either. Standen doesn't want us to know he's promoting science of zero calibre, and Hurst doesn't want us to know that Gardner is perfectly right to dismiss such science.

Again, "And in a way similar to that in which Gardner accepts and uses, and also rejects, Aristotle, Sladek uses and abuses the work of Freud." By "use" Hurst seems to mean I make puns. By "abuse" Hurst means that I find it highly unlikely that the seedy "thought photographer" Ted Serios could produce complex punning anagrammatic puzzles (as alleged by the psychoanalyst who promoted Serios). My reason for skepticism is that Serios could not even spell words like "pigeon" and "I'm", and the pun involved would require him to spell (and understand) "Elizabeth Regina". How this abuses the work of Freud is known only to Hurst.

Again, Sladek "makes stupid slips. He begins a page 'Reich was intensely paranoid in later years, partly because he really was being persecuted' but only halfway down that page Reich becomes a 'pathetic paranoid' (Sladek, p246). If Reich's fear was reasonable, which Sladek admits ('persecuted') then the later term is not a correct description." L.J., L.J., what do I have to do to get you to read the text? "Partly" almost never means "wholly", and while persecution may exacerbate paranoia, it does not make all of Reich's irrational fears "reasonable". The text explains this clearly, in between the two passages you quote:

> Reich never understood what was going on. He remained convinced to the end that the Rockefellers and the communists were out to get him, that President Eisenhower and the Air Force were protecting him, and that the Air Force sent out planes to watch over him like guardian angels.

So much for Hurst's apprehension of facts.

2 Clarity

Hurst's limited ability to read is not evidently balanced by any great writing skill. After identifying Evans, Gardner and Sladek as a "triad", Hurst goes on: "It is possible that the triad are simply homeopathic tonics for the cranks."

Simply? The notion of a triad becoming three tonics sounds anything but simple (even, I think, in music). Couldn't we just become three homeopaths, or three charlatans? Or an unholy trinity, maybe. Or why not Evans, Gardner, Sladek: an Eternal Golden Shred? Because, see, if we're the tonics, the homeopathy (of Hurst's title) must be what produced us, rather than what we produced. Better to start the whole sentence over, okay? And while you're at it, L.J., there are a couple of other places: "No matter how correct their facts are (and none of them makes any deliberate errors of fact . . .) . . ." Not good enough, L.J. Facts are damn near always *very* correct, and errors are so seldom deliberate. But there's more to this sentence:

> No matter how correct their facts are (. . .) it is interpretation that provides meaning. But meaning should be found, not be imposed . . .

I'd always imagined that interpretation *was* imposing a meaning. If not, how does one go about finding a meaning within a fact?

There are other not quite clear passages in Hurst's article ("Gardner", writes Hurst perceptively, "is perfectly willing to use literary techniques . . ." If only Hurst felt the same willingness) but the point is made: so much for Hurst's clarity.

3 Sound reasoning

Hurst makes a main attack upon the limited reasoning powers of the imbecilic triad. It is discovered that in proposing four requirements for a scientific theory, I contradicted myself. My second rule, "is the theory logically meaningful?" is said to invoke the verification principle (the idea that a theory can be confirmed or proved by lots of testing) while my fourth rule invokes the falsification principle (the idea that a theory can never be proved by any amount of testing, but it can be disproved).

> Sladek could never have worked with the philosophy of science or he would have realized that his four laws cannot be maintained simultaneously.

This is going to be terrible news not only for me, but for Karl Popper, who formulated these four rules. Since Popper is pre-eminent in philosophy of science, Hurst's discovery ought to have global effects on that field.

I admit that in using the term "logically meaningful" in my paraphrase of Popper, I made it possible for Hurst to leap to the wrong conclusion. This is because certain philosophers who promoted the idea of verification also used the word "meaning" a lot. On the other hand, I did give my source for the four rules (Hurst could have checked the reference in Popper) and I also tried to spell out clearly in the text what I meant. I gave a counter-example: The theory that

> ESP exists, but cannot be tested (because it vanishes just when we seriously begin to look for it) is one of the "less meaningful" type.

Such a theory is perfectly logical, but it has no scientific or empirical consequences. No scientific research could be undertaken using such a theory.

This seems clear enough to me, but Popper also says: "It is impossible to speak in such a way that you cannot be misunderstood: There will always be some who misunderstand you."

Hurst again charges that Jonathan Miller has committed a fundamental logical error in which I (in quoting Miller) share. It goes like this:

Marshall McLuhan said, "Psychologists define hypnosis as the filling of the field of attention by one sense only."

Miller says they don't. "If they did, biologists would go into a trance every time they looked down their microscopes . . ."

Hurst feels this is a classical syllogism which I and Miller failed to recognize, and from which we emerged with a wrong conclusion. Hurst says:

> If we let A be "hypnosis" and B be "the filling of the field . . .", we can see that all A are B but not all B is A. Hypnosis is one of the ways in which the field of attention can be filled but not the only way. McLuhan says it is one (some), Miller reads it as all, and Sladek does not correct him.

This would be a valid criticism, except for one slight hitch. McLuhan doesn't say A is one example of B. He says that A is defined as B. Any definition, to have any power whatever, must separate the thing defined from the rest of the universe. There must not be any B which aren't A, nor any A which aren't B. Compare for example the following:

(a) Humans are primates. (All A are B, some B are A)
(b) Humans are named Smith. (All B are A, some A are B)
(c) Humans are the species which is covering this planet with trash. (A = B)

Obviously only (c) works as a definition (however clumsily worded) because only (c) proposes that A is identical with B. The concept isn't that difficult, but Hurst misses it again. So much for Hurst's sound reasoning.

4 My plagiarism

Hurst fills a long footnote with quotations, some of them badly mutilated, in an effort to show my "wholesale liftings" from Martin Gardner. We both discuss some of the same crank theories, and I certainly borrowed many excellent ideas from Mr Gardner, including the idea that Charles Fort's viewpoint was "Hegelian". Hurst, however, finds dark significance in the fact that both books use the word "neologism", that both describe the Hörbiger World Ice Theory at all, or that both mention the same facts (Velikovsky was a psychiatrist, Donnelly wrote a comet catastrophe book before Velikovsky, and so on).

Since there is no possible defence against a charge for which anything can be called evidence, I will attempt none. Readers may compare the two books and make up their own minds.

5 Other crimes

Hurst's main charge against the infamous three is that we fail to attack "the established churches or governments. There are no sustained criticisms of major scientific or other figures." Not only a triad of tonics, we're now pawns of the establishment

besides. Speaking for myself, Hurst is absolutely right: I do not attack the Pope, the Archbishop of Canterbury, high court judges, Pentagon generals, oil millionaires, crooked politicians or royalty. This may not mean that I am a lackey of the bosses, however. It may mean that I've written about—not religion nor politics nor irrationality nor injustice—but pseudoscience. In most cases, irrational religious or political beliefs are not masquerading as science. Where they are, I tried to take note of it (faith healing, Creationism, Nazi science).

As for criticizing major scientific figures, my book devotes a chapter to their follies, from Isaac Newton's astrology to Arthur Koestler's defence of UFOs and ESP. Other chapters criticize Teilhard de Chardin, Marshall McLuhan, Buckminster Fuller (all arguably establishment figures) along with H.J. Eysenck, Robert Ardrey, C.G. Jung, Cyril Burt and others. A *sustained* criticism of each of these major figures would have required more research time (*The New Apocrypha* took two years as it was) and a much larger book (the publishers felt it was too long as it was), and perhaps would have appealed to no one but Hurst. How many people really wish to know all the details of, say, Newton's astrological studies?

Hurst, however, wants the book to have an even broader brief:

> Newton's work is accepted, as is that of Einstein, yet the latter's work led to the atomic bomb (and the rise in the cost of R & D since), while the former spent most of his life, not discovering gravity, but as Master of the Mint, insisting on being present when counterfeiters and coiners were tortured.

I'm afraid I can't quite follow the thread of these Hurstological non sequiturs. Hurst seems to be suggesting new criteria for determining what is science and what is pseudoscience. Einstein will henceforth be a pseudoscientist along with all nuclear physicists because bombs are awful and research is too expensive. Newton's laws of motion can be dismissed as pseudoscience because he may have been an unpleasant character. If Hurstology comes to rule, future scientists could be required to submit cost analyses of the consequences of their discoveries. Then, when their character references have been checked, they may be allowed to do science.

Doesn't Hurstology sound a little like a pseudoscience itself, though?

Letters

Dear David Pringle December 1982

In his review *(Foundation* 26) of the Waugh and Greenberg editing of *The Best Science Fiction of Conan Doyle* Brian Stableford is much concerned to trounce what he sees as flimsiness and pretentiousness in that type of transatlantic academic exercise. Fair enough; but with the disposal of the critical bath-water, out went, or so it seemed, a very interesting baby.

Brian Stableford takes from George E. Slusser's preface to the book a slice of typically-worded appraisal and attempts to restate it in one punchy phrase, viz. ". . . most of these items are hack-written horror stories in which Doyle invested very little effort and attention." He then goes on to say he considers the assessment to be not inappropriate, since he would rate this editing itself to be "merely a potboiler from the world of academe."

We are left in doubt, in the matter of Doyle, as to what the word "most" excludes, and how far Brian Stableford endorses the condemnation he has formulated—though he does appear to be bracketing literary original and academic editing together as both examples of potboiling. In any case, as that write-off of Doyle's "occult" and science-fiction stories is the single evaluative impression of such work conveyed by the review, it may be worth looking more closely at what were Doyle's motivations and achievements in these fields.

Conan Doyle was certainly a prolific and a compulsive writer; but hack is not the right word, and certainly not if applied to his science fiction. In fact, in Doyle's own estimation the writing of the Holmes stories, particularly when he was being pushed to resurrect or revamp the detective, had more the flavour of hack work. On one such occasion in the 1920s he replied in exasperation to the editor of *The Strand:* "I can only write what comes to me." What did come to him, in the way of fiction, at this time was *The Land of the Mist* and *The Maracot Deep* (a volume which included "The Disintegration Machine" and "When the World Screamed"—both stories included in the selection under review.)

It is to be noted also that other stories in the Waugh and Greenberg selection ("Through the Veil", "The Last Galley", and "The Silver Mirror") belong to the group of stories of which Doyle said: ". . . if all my work were to be destroyed save only one single section which I might elect to preserve, my choice would certainly be those short historical pictures which come under the heading of *Tales of Long Ago."* Through these stories, and through many with a more direct science-fictional content—such as *The Maracot Deep,* with its implicit linking of the tragedy of Atlantis with what Doyle saw as the ethics and technologies of the future, run the themes of time and fate, motifs of endings, beginnings, renewals and repetitions. "The Last Galley", for example, though a tale of the Third Punic War, is intended to be prophetic (as was the more overtly forecasting story "Danger!") of the hazards facing British naval power in the approaching First World War. Its epigraph makes this sufficiently clear: *Mutato nomine, de te, Brittania fabula naratur.*

However urgently Doyle stressed them at the time, those elements in his stories which

extrapolated in the direction of future wars or technologies are now predominantly of historical interest. The equally seriously intended ideas about endurance or recurrence in time have a more lasting significance, as have those concepts, often contained in the same stories, of communication across or penetration of barriers. The barriers may be between worlds physical, temporal, or, as he would say, "etheric". His speculations as to modes of breaching them sometimes drew on material devices of travel, sometimes on experiences of dream or of the occult. Often he mixed or rang the changes on the various planes involved in his barrier infiltrations, using multivalent imagery and symbolism.

Such barriers to be crossed and re-crossed were the stratosphere in "The Horror of the Heights"; the hydrosphere in *The Maracot Deep;* the lithosphere in "When the World Screamed"; the barrier of the past in "Through the Veil"; and, symbolically and mimetically, that of death in *The Poison Belt.* One powerful image which he uses quite frequently is that of a being inhabiting more than one world. He uses it directly in "The Brown Hand", where he places his obsessed Lascar *revenant* in the category of "the amphibia of this life and the next, capable of passing from one to the other as the turtle passes from land to water." He uses the amphibian concept both literally and symbolically in *The Maracot Deep,* in his description of the survival "Ark" with its air-locks and "glass suits" and gas bubbles of communication between the upper world and the air-breathing but water-enveloped world of Atlantis—itself a symbol of alienation. With very great effect he uses it at the end of *The Lost World,* when the captured saurian denizen of that distant isolated plateau, with its contrasted and complementary elements of the universe of nature—the mephitic swamps, the paradisal and sunlit "mystic lake", escapes from the auditorium, disappearing through the windows to soar above Oxford Circus and the London streets, out over the wild and wide Atlantic to its homeland.

This essential thread in the imaginative life of Conan Doyle is never entirely absent, even from his Holmes stories. There are recurring glimpses of alienation in the character of Holmes himself, and rapid passages from phase to phase, as, for instance, in "The Red-headed League", where at one moment he is the paragon of method, deducing a life history from a pair of hands and the scales of a tattooed fish, and minutes later he is sitting in a concert hall literally entranced by German romantic music. There is also such a polarity between the snugness, the orderly racks of test-tubes, the blazing coal fire of 221B Baker Street, and the demoniac world of both human and cosmic nature outside—a contrast to be observed in such works as "Black Peter" and *The Hound of the Baskervilles.* It is particulary well-defined in a descriptive passage near the beginning of "The Five Orange Pips":

> All day the wind had screamed and beaten against the window, so that even in the heart of great man-made London we were forced to raise our minds for an instant from the routine of life, and to recognize the presence of those great elemental forces that shriek at mankind through the bars of his civilization, like great untamed bears in a cage.

This is a motif which from Poe onwards has found expression through a great diversity of forms—the Cthulhu of Lovecraft, the butterflies and beasts of Williams's *The Place of the Lion,* the ocean of *Solaris,* and all the elemental creatures, good, evil, and neutral, which seem to be manifestations of an environment, from the Great White Whale to the sand-worms of *Dune.* In Doyle there are many such imaginative embodiments: the "rough beast" of Blue John Gap; the aerial serpents and medusae of "The Horror of the Heights"; the sentient earth-core in his mo-hole story "When the World Screamed"; the

escaped and panic-producing pterodactyl of *The Lost World;* and, at a metaphysical level, the Baal-seepa/Warda personifications identified with forces making for the overwhelming or re-emergence of civilizations in *The Maracot Deep.*

In setting out to correct an impression, which Brian Stableford may have fostered, of Arthur Conan Doyle as a casual hack, I had not intended to let appreciation of the old master take me to such length; but I found that the essential point needed some circumstantial buttressing. The point is that Doyle saw and used his science fiction and fantasy stories as vehicles for conveying some of his strangest intuitions and deepest (and most poetic) insights—insights of a kind common to a very varied and brilliant body of writers in these fields. It is because of this that, despite archaic (though at the time not badly investigated) science, and all the apparatus of telepathy, psychometry, hypnotism and so on, these stories have integrity and can properly be viewed in perspectives larger than the merely historical.

K. V. Bailey *Alderney, Channel Islands*

Dear David March 1983

Re R.G. Meadley's savaging of *Helliconia Spring* ("Forum", *Foundation* 27): Mr Meadley has missed the opportunity of making some valuable comments by succumbing almost wholly to feelings of personal vindictiveness towards Brian Aldiss. This is understandable: he will not be the first reviewer, I think, who has found *Helliconia* just *too much.* When I read the book, I took at least a couple of lengthy rest-periods, as I do whenever I read anything of that length. It makes a big difference. Reviewers don't have this advantage, which is truly hard on them; but any reviewer who begins to feel personal hatred towards the author should simply return his copy to the editor, or ask for an extension.

Mr Meadley has a big point, of course, re the "game" aspect of publishing and writing today. It has always been there, but nowadays it seems to be taking over. But Aldiss is hardly an author to pounce upon as dire evidence. The marks of "the game" have always been upon his work, of course; but he has done surprisingly well in the circumstances. For one thing, the whole setup seems to echo something in Aldiss himself: rather like Franz Liszt in the Composers' League, he combines formidable talent and imagination with an undeniable streak of vulgar exhibitionism. But what a master of the typewriter keyboard!

Likewise, there is an absence of absolute values in Aldiss; and it is often very hard to tell whether he is searching for meaning in his work, or just playing around: *Report on Probability A* is the supreme case in point. And again, it is often hard to tell whether Aldiss or "the game" is to be blamed. The same goes for most writers of any import these days—John Le Carré and Iris Murdoch spring to mind, not to mention J.G. Ballard. And all this is bound up with the structure—or lack thereof—inherent in our present society.

But it's far too soon to deliver far-reaching judgements on the Helliconia Trilogy. *Helliconia Spring* is hard going at times; but it's a psychological fact that I found the lengthy Prologue—which Mr Meadley evidently found tiresome—deeply impressive. I was so impressed that I didn't notice discrepancies about bats, or even about Yuli's age. And there was enough in the succeeding pages to sustain my initial impression. It's a fact that I intend to read the book again, just for the fun of it. One of the several good things

about Aldiss is that he doesn't care *too* much about Art. He's too busy earning money—like Walter Scott. In that respect—and I disagree here with my colleague David Wingrove—there's nothing in the least modernist about B.W.A. He belongs—in this respect—to an honourable workaday tradition of storytelling; a tradition which was imperilled by the onset of Henry James, Art for Art's sake, and modernism generally. There *is* modernism in Aldiss, of course; but whether it works to his betterment or detriment is something that cannot be swiftly decided. Anyone interested in a serious treatment of these issues might get hold of a copy of *Apertures: A Study of the Writings of Brian Aldiss,* by David Wingrove and myself, when it is published by Greenwood Press early next year.

"There!" Mr. Meadley will say, "He's in the game, too!" But really: if we're going to be as cynical as all that, we may as well all lie down and die.

Brian Griffin *Barrow-in-Furness*

Dear Dave April 1983

I am both shocked and appalled by the Foundation Forum piece by R.G. Meadley. It was no good your writing that the Forum section "is reserved for provacative statements". This article is not that at all, it is simply insult, innuendo and direct attack on Brian Aldiss.

Meadley, who apparently knows little of the realities of publishing, begins by attacking *Helliconia Spring* because of what he considers publicity excesses, jacket copy and artwork. Nonsense, and he knows it. Using this form of criticism we can say that *War and Peace* is a bad book because the cover art is badly drawn.

Meadly then proceeds with unproven guilt by association. He quotes often from Tono-Bungay, implying that all the negative comments are about *Helliconia Spring*. A slander to both Wells and Aldiss.

Meadly makes his own assumptions of the derivations of the names Aldiss uses in the novel, then condemns these meanings—although they are *his* and not the author's. This is propaganda, not argument.

Meadly finally has the audacity to attack the virus that appears in the book as being impossible and unrealistic. I hope he has a doctorate in biology—he will certainly need it to stand before the wrath of Dr. Jack Cohen who did the biological design.

This purported review consists only of perverse attacks like the ones quoted above and contains no grain of wit, literary credibility or relevance to the major novel supposedly being criticized. This is a shocking affair.

At the minimum Brian Aldiss deserves a written apology from *Foundation* for publishing this malevolent and undeserved attack. If the editor was not responsible and the Features Editor inserted this disgraceful bit of insulting prose into a responsible literary journal, why then he should be relieved of his position at once.

Regretfully, Harry Harrison *Co. Wicklow, Ireland*

The Reviews Editor replies:

We should be clear from the start. If Mr Harrison had managed to focus his loyal ire on the actual criticism Robert Meadley made of *Helliconia Spring,* and if he had addressed

himself to the rebutting of these strictures, then it would not have been necessary for me, as commissioning editor of the piece, to respond to his letter. Indeed, being an avowed admirer of Aldiss's novel, with reviews in the *New Scientist* and *Omni* attesting to that admiration, I might actually have *agreed* with him, for assuredly I would dispute much of what Mr Meadley has to say in his attempt to disrupt the positive critical consensus that has already been established about *Helliconia Spring,* and told him so before accepting the piece on its obvious merits as an engaged polemic. But I would have disputed his case, not the manner of his putting it. As it turns out, in neglecting to offer any counter-arguments to Mr Meadley's, and in attacking the manner rather than the substance of his case, Mr Harrison diverts attention from the issues raised, apes what he misleadingly describes as being Mr Meadley's manner in his assault on Mr Meadley, and comes comically close to accusations of lese-majesty against both Mr Meadley and *Foundation.* Hence this response.

And I think, if there is to be some debate on the validity of Mr Meadley's arguments, that some of Mr Harrison's false trails should be signposted right off. He is, for instance, clearly wrong in claiming that Mr Meadley attacks *Helliconia Spring* for the publicity excesses of Jonathan Cape—more than once, in the extended analogy he makes between the boxing game and the publishing game, Mr Meadley specifically distinguishes between the text and the hype he sees surrounding it. Mr Harrison is also wrong in assuming that quotations from H.G. Wells's *Tono-Bungay* will confuse the readers of this journal—our knowledge that *Tono-Bungay* pre-exists *Helliconia Spring* is patently assumed by Mr Meadley in his game of ironical juxtapositing. Mr Harrison is additionally wrong in slating Mr Meadley for trying, however sarcastically, to work out Mr Aldiss's word-coinings solely on the evidence offered by the text—for it is the text that is under scrutiny, and if Mr Aldiss does not make his meaning clear *in* the text, no legatine briefing from Mr Harrison about his real intentions can be anything but anecdotal. And Mr Harrison is finally wrong in claiming (by clear implication) that only another doctor in biology could presume to dispute Mr Aldiss's use of professional advice in his fictional presentation of a fictional virus infecting fictional aliens on a fictional world—for once again the text itself provides the final (and only) Word. Mr Meadley argues against the plausibility of Mr Aldiss's virus. I myself happen to think he's wrong—though not in terms that would much assuage the wrath of Dr Jack Cohen. I happen to think the virus is a plant, a ringer. I think it's not at all unlikely that the whole history of settlement on Helliconia will unfold through the revelation that the virus is artifactual. I could be—I am almost certainly—wrong; but my argument with Mr Meadley on this score is based on a reading *of the text* which differs from his; it is in these terms that debate can be joined, not in Mr Harrison's.

In face of the clear statement that Mr Meadley's "piece was written as a review", it is decidely odd of Mr Harrison to assume that its commissioning was the responsibility of the Features Editor. How odd or revealing an assumption this is I would not care to venture to guess. But Mr Watson might wish to give it a try . . .

John Clute *London*

The Features Editor adds:

Yes, isn't it odd that I should be singled out for sacking? But not the Editor, nor the

Reviews Editor in whose purview R.G. Meadley's piece falls, as was stated in black and white in the introduction to the piece. Perhaps when Mr Harrison suggests that I "inserted" Meadley's piece, he imagines that I broke into the printer's at dead of night equipped with scissors and paste-pot?

Mr Harrison could have saved himself some egg on his face if he had bothered to read Editor David Pringle's introduction to the piece. But perhaps this was too much to expect, since Mr Harrison obviously couldn't read the piece itself with any great degree of comprehension. Otherwise—to add just one more false trail to those already listed above—Mr Harrison might have grasped the fact that Meadley didn't attack the artwork of *Helliconia Spring*. ("Mr Aldiss cannot be held responsible for the notes on the *otherwise handsome* dustjacket." My emphasis.) Meadley *praised* the artwork. This is what is commonly known as the 'opposite', a distinction usually graspable quite early on in life.

One might charitably assume that Mr Harrison was in a fraught state of mind when he wrote his letter, to judge by the non sequiturs, solecisms and misspellings in the thing. One might . . . if this wasn't such an offensive attempt to bully free speech and free criticism (as well as being an offensive attempt to get me sacked).

What is Mr Harrison's letter but propaganda? (Something which, naturally enough, he accuses Meadley of—though by this stage he can't even spell the man's name correctly.)

And why?

I recall a similar letter, from Brian Aldiss in *Foundation 18,* lacing into the "stroppy little man" Brian Stableford for presuming to criticise *Enemies of the System* and trying to bully up a favourable review for *Life in the West*. Alas, it's a case of 'here we go again'. Though with a difference. It was Marx who remarked that history repeats itself . . . as farce, the second time; and farce is the highest to which Mr Harrison aspires in this unhappy (no, disgraceful) turn of events.

Doggedly faithful, Mr Harrison is running an errand here, and there's a sickening similarity between these two episodes. Actually, I must exculpate Mr Aldiss; he would *surely* have improved the style of delivery enormously.

An attack on the Master? Knee-jerk, knee-jerk. Let's have a go at the Features Editor too, and try to get him sacked because he's made political noises about Mr Aldiss being right-wing. Let's try and get Watson kicked out of *Foundation*.

Perhaps the scrambled garbage of this letter can be accounted for by the mixture of motives underlying it; and I wouldn't myself care to bring this up in our pages, if Mr Harrison hadn't decided to pursue a vendetta here, by suggesting that *I* had done so *in re* Meadley, which is a gross slur on my work as Features Editor for this journal during the past 18 issues; during which time Mr Aldiss has appeared on numerous occasions in the Features section (without the Features Editor sneaking into the printer's at dead of night to sabotage his text)—not to mention that in issue 20 there appeared in the Features section a highly favourable study of Mr Aldiss's *Hothouse* by Brian Griffin, asked for by the Features Editor.

This is the letter of a bully. The only redeeming factor is that the letter is quite patently so.

Ian Watson *Moreton Pinkney, Northants*

The critic's first duty is to inform. Much as I enjoyed the finely-tuned invective of Roz Kaveney's demolition job on *Battlefield Earth (Foundation* 27), I have to protest, and that very strongly.

There are matters here of much greater moment than the charge that an author has been grossly maligned. However, let's start with that, and work up. "Ron was only a hack", says Roz, a statement staggering in its untruth. The facts are not difficult to sort out; one has only to ask anyone who lived through The Golden Age of sf (so-called or otherwise). Nor does one need to even enter upon the literary merits or defects of this writer. All one has to do is to ask oneself just why editors such as John Campbell went out of their way to court Hubbard as a contributor over a decade and more. All these were hard-headed men in a commercial world: does Roz think they had some deep-seated passion for losing readers? That they themselves admired Hubbard's approach is beside the point: they knew that the readers admired it.

It is of course possible that Roz translates "pro" as "hack", that the idea (I should write "ideal") of writing for money and to a deadline is one that she finds beneath contempt. Hubbard knew all about hacks: his portrait of one, in *Typewriter In the Sky* is one of the best in the literature. His own strengths, I believe, were in subtlety of plotting and skill at characterization—both, incidentally, still strongly evident in *Battlefield Earth,* not that one would guess this from Roz' review. Speaking of the novel, though, before I pass on to related matters, let me note a matter of some technical interest. Given an unlimited wordage—819 pages!—Hubbard has adopted a technique comparable to the blowing-up of minute detail in a photograph: each sub-sub-sub plot is expanded, in very short paragraphs, to what might be considered an agonizing degree. Now, although the author disclaims in his introduction any connection with Scientology, it happens to be the fact that of recent years a lot of effort there has been expended in researching and tackling problems with reading suffered by the contemporary generation. It is my guess—no more—that Ron, with a beady eye to the commercial market, has transferred some of this expertise to his new writing. Connoisseurs of fine style might regret this, but then, unlike Hubbard, they are not interested in readers, only in writers. I seem to recall Hubbard once claiming that he had had one of his instructional books proof-read by morons . . .

You see, here again I believe that Roz is totally wrong—and on a vital issue—in the statement "science fiction has moved on." I know very well that I am far from the only person claiming that science fiction had moved, if anything, *backwards.* Oh, yes, sure, we now have writers of the calibre of Disch, Crowley, Le Guin, Tiptree . . . but are they what fill the shelves of the sf bookstores, much less the shelves of the newstands? Are they hell! What the majority are reading is pure clonestuff—increasingly, in fat black type with short words, and plenty of pictures, so as not to strain the readers.

And yet . . . and yet . . . I may have regrets about this from a literary point of view, and indeed, as far as this goes, I am with Roz all the way, strange though it may seem. But from the point of view of science fiction, this is only of passing interest. *Because sf is not about literature. It is about human beings overcoming problems of space and time.* True, up till now, this was expressed in literary terms, but there is no guarantee that this will continue, and some signs that it may not. After all, it is sixty years ago now since G.K. Chesterton pointed out that writing itself may well turn out to be a purely temporary

thing, like heraldry. My own belief is that that part of sf which has depth and resonance is the attempt to deal with space and time on the subjective level. In that sense, and if I were forced to the choice, I would swap all of Hubbard's work for one reading of *Little, Big*. The point is that I'm not forced to the choice, thank God. Because—and here we get to the heart of the matter—the fact is that most readers of books are symbologically illiterate, and can only see space and time as "things": barriers to be overcome.

By this time those of Roz's persuasion will probably have decided that I am the Speaker for The People of the Abyss. Well, someone has to be . . . At all events, let me call as witness someone not easily to be dismissed: William Sims Bainbridge, author of the classic work on the interaction between sf and spaceflight: *The Spaceflight Revolution*. I quote from his article, "Religions for a Galactic Civilization", from the American Astronomical Society's publication, *Science Fiction and Space Futures,* where he deals with scientology's role in preparing the world for space colonization. "The human condition is one of extreme absurdity unless fixed in a cosmic context to provide meaning . . . Thus it is wrong to feel that irrational religion must always be a hindrance to progress. I have suggested that only a transcendant, impractical religion can take us to the stars."

I did not go to the trouble of getting the SF Foundation and its Journal off the ground to have it become a haven for bigots, of whatever persuasion, but to serve the interests of science fiction in its entirety. And that includes all those kids in Western society who, as a recent poll told us, believe that Jesus Christ came from Outer Space. It is to them that *Battlefield Earth* will sell and sell and sell, because it tells them that life is for winners as well as for losers. No intelligent person wants the genre to be entirely about heroics, but if ever a renewed emphasis on heroics were needed, it is now. Auschwitz, Roz, was not caused by imperialism, or naziism, or marxism—it was caused by Baddies. And Goodies, Hubbard believes, can beat Baddies, if they learn how to. And if we can't teach them, who can?

I am not myself a dualist, strangely enough, and I know well that spaceflight is no substitute for eternity, that the heavens are more important than the stars. But to get past dualism to something better, Roz, one has first to eliminate the dualism in one's own heart—and that is not done by sticking a knife in one's friends.

A closing note. Because I know Hubbard, have worked with his organisation, and have long admired his writings, it may be thought I have a vested interest. I have, but it is not necessarily the one you are thinking of. According to the Sea Organisation's Flag Conditions Order 7119, 15th February 1983, "George Hay is hereby declared to be a SUPPRESSIVE PERSON and is EXPELLED from the Church of Scientology."

Well, you can't win 'em all . . . Yours pig-headedly,

George Hay *London*

Dear Sir February 1983

KU TO OPEN SCIENCE FICTION STUDY CENTER

The world's first center for comprehensive, scholarly study of science fiction will open this month (February) at the University of Kansas, said James Gunn, KU professor of English and noted science fiction writer and scholar.

The KU Center for the Study of Science Fiction will take over coordination of several existing KU science fiction activities and will promote scholarly research and information exchange in the field.

The Kansas Board of Regents approved plans to organize the center Dec. 17, 1982. It will open this month as an administrative branch of the KU Center for Humanistic Studies, keeping start-up costs to a minimum. Its work will be supervised by Gunn and Stephen H. Goldman, associate professor of English, who has added science fiction scholarship to his expertise in medieval studies.

One of the center's first projects will be to raise funds to support research, scholarships and additions to KU's already-substantial collection of science fiction library holdings. It also will consolidate science fiction activities currently based in a number of KU departments and work to attract more science fiction scholars and students by publicizing KU's resources in the field.

Establishment of the center places KU in a position to claim world leadership in the field of science fiction study, Gunn said. While several other universities and organizations have supported publications, libraries, conferences or other activities in the field, Gunn added, KU is the first to register a commitment to a program so broad in scope.

For the past six summers, KU has sponsored an intensive institute for teachers of science fiction that has attracted a number of leading science fiction writers as guest lecturers and instructors.

Since 1980 the John W. Campbell Award for the best science fiction novel of the year has been presented during a conference at the University. The Campbell winner is selected each year by an international committee of authors and scholars.

The University also distributes an instructional "Literature of Science Fiction" film series, produced by the KU Division of Continuing Education.

KU's Spencer Research Library has what Gunn called "good, representative collections" of science fiction magazines and books, including a complete run of the English journal *New Worlds*. It is one of 12 US repositories of the Science Fiction Writers of America readers circle, and many foreign language science fiction books have been added since it was named the world repository for the four-year-old World SF organization last year.

In addition to Gunn and Goldman, several KU faculty from disciplines other than English have science fiction interests.

Science fiction, Gunn said, is a special form of contemporary literature that combines aspects of sociology, technology, science, anthropology, psychology, philosophy and other fields with its more traditional literary aspirations.

"It has the capacity to reach out and draw in other non-literary interests. It serves a social as well as a literary function," he said.

Though science fiction's history covers at least 150 years, it was not accepted in the academic world until recently, Gunn said. Many colleges and universities still feel that it has not achieved respectability. At least one of Gunn's research proposals to a federal agency was rejected as "too trendy". Gunn takes exception to that description.

He said in the proposal for the center, "To be trendy, of course, is to be at the leading edge of a field, and that is where opportunity exists."

Until recently, Gunn said, contemporary judgment of literature and film has been reserved for critics and reviewers, but scholars have become involved and a science fiction

study center will provide additional recognition, visibility and opportunity for them.

"Contemporary literature always has a difficult problem in being considered the equal of works that have had a chance to demonstrate their value by surviving a century or two", he said. "It is desirable to look at contemporary literature and to make judgments without having time make the judgment for you."

Mike Moore — *Univ. of Kansas Office of University Relations*

The following replies to the preceding letter have been made by SFF Council members Ron Duff and Charles Barren.

Dear Mr Moore — March 1983

While noting with approbation the announcement of the KU Science Fiction Study Center, I must take issue with the claim that this is "the world's first center for comprehensive scholarly study of science fiction".

I feel sure that you must be aware of the existence of the Science Fiction Foundation, based at North East London Polytechnic, Longbridge Road, Dagenham, Essex, RM8 2AS, UK. This was inaugurated in 1970 with the aims and objects of building a comprehensive library and making it available to bona fide students and research workers, and of instituting academic courses on science fiction and its role in education.

The Foundation has as its Patron Arthur C. Clarke and its membership comprises a few academics and a large number of science fiction writers, including most of the best-known and respected from both sides of the Atlantic. Ursula Le Guin has been a Council Member for several years and has agreed to become Co-Patron.

The Library, which occupies one large room in the Polytechnic Library, comprises over 12,000 volumes of science fiction, criticism, periodicals and fanzines. Additionally, 6,500 volumes, the property of a Council Member — John Clute — are deposited in the Library on loan and available to accredited students and researchers.

Courses have been held and the SFF has been involved in several conferences and conventions.

From the earliest days it has published a scholarly journal of news and criticism, *Foundation: The Review of Science Fiction,* which now appears three times a year and has reached issue number twenty-seven.

Although I am a member of the Council of the SFF I must emphasize that this is a personal statement and does not necessarily represent the views of the SFF. I expect an official statement will appear in the next issue of *Foundation.*

R.S. Duff — *Library, North East London Polytechnic*

Dear Mr Moore — April 1983

I write to thank you for your recent hand-out concerning the setting-up of a Science Fiction Study Center at the University of Kansas, and to congratulate you upon organizing such a facility. I trust that the Center will be eminently successful.

However, I must disabuse you of the notion that yours is the first such center devoted

to the comprehensive, scholarly study of science fiction. This honour goes to the Science Fiction Foundation, an organization based at the Barking Precinct of the North East London Polytechnic, with which higher educational body the Foundation has a warm and continuing special relationship.

The Foundation was set up in 1970, after much discussion and planning between interested academics and writers, charged, inter alia, with the remit of introducing sf into the academic world as a "respectable" scholarly discipline; with providing a resource centre for sf students and scholars; with providing a knowledgeable "clearing-house" for all those involved in sf; and with publishing a scholarly journal devoted mainly to the critical review of sf materials.

For many years, the Foundation was funded by the Polytechnic. During those years, the Foundation enjoyed the services of Peter Nicholls and Malcolm Edwards as salaried administrators. I had the honour of being the Chairman of the Council during those years.

In recent years, because of the economic climate in the UK, particularly in the sector of public higher education, that funding has been truncated to what are virtually hidden subsidies, with the minimum of direct subvention. It was in those circumstances that I relinquished the Chair to Dr John Radford, a dean and Assistant Director of the Polytechnic, a scholar with a particular interest in the paranormal, one with a long-time involvement in sf. At the same time, I took over as honorary administrator of the Foundation.

Through the years, the Foundation has been involved in the education process, arranging courses, teaching on orthodox academic courses within the Polytechnic, and supervising—or arranging supervision for—individual students and scholars of many nationalities. I had the pleasure of taking through the first DipHE and BA by independent study students validated by the CNAA for programmes involving sf and creative writing.

The Foundation has served as a resource centre for people from all over the world, and for groups, for example the Essex Gifted Children's Group, engaged upon projects involving sf. The Foundation has organized conferences and seminars. Indeed, next month it will be joining the Science Policy Foundation of London in arranging an evening seminar on Psychology and Science Fiction at the City Literary Institute, at which a visiting Australian scholar, Dr Radford, and Philip Strick—a Council member and well-known film critic—will be the chief speakers. And Dr Colin Greenland, for two years our Writer-in-Residence, has initiated a project with Dr G. Slusser of UC Riverside to mount a four-day residential conference here in the UK to honour George Orwell's "1984" and other utopian fiction.

The library of the Foundation holds the best collection of sf material in Europe. Its main holding is some 11,000 volumes of sf and cognate titles: some 1,000 reference books: long runs of most classic sf journals, tapes, illustrative material, original and facsimile manuscripts, and other marginalia dealing with this sub-genre of literature. Additionally, it holds the John Clute Reserve Collection of more then 6,000 items—a splendid library in its own right.

The Foundation's scholarly journal, *Foundation,*—of which I was the founding editor—now enjoys a world-wide reputation. It must be known to you and Dr Gunn.

The Foundation has also overseen the theses of various MPhil students. Mrs Westcott, a Devonshire teacher and scholar, received her MPhil award last term. Another scholar

takes his examination this coming term.

In America, we are linked, amongst others, with Ursula Le Guin, who is leaving our Council to become Joint Patron with Arthur C. Clarke. Need I say more?

I hope that this potted history will be of interest to you. I hope that you will emulate our example, if not improve on it. I—and I am sure my Council—wish you well, and look forward to hearing of your successful operation.

Charles Barren — *Principal Lecturer Emeritus, NELP*

Reviews

The Citadel of the Autarch
by Gene Wolfe *(Timescape, 1983, 317pp, $15.95; Sidgwick & Jackson, 1983, 317pp, £8.95)*

reviewed by Colin Greenland

"Every long story, if it be told truly, will be found to contain all the elements that have contributed to the human drama." So says Severian, and he should know. His own story, that part of it which he has chosen to tell, though little more than a year of his life, has taken four books in the telling. In that year he has himself been many characters: apprentice, traitor, lover, actor, messenger, revolutionary, magician, invalid, soldier, solitary, prisoner; Torturer, Conciliator, Lictor and finally Autarch. "Indeed, it may be that all my wanderings have been no more than a contrivance of the librarians to recruit their numbers." So when Severian meets a man called Talos, or one called Ash, and when he himself intermittently resembles Pip, or Alice, or Ulysses, or Christ, we can try to catch him in the nets of our Dictionaries of Mythology and Companions to Literature. Any hero's story is every hero's story, the story of Everyman, who goes out, receives a weapon, crosses water, passes through the underworld, atones with his Father, and returns to redeem his home. Joseph Campbell streamlined C.G. Jung to produce this monomyth, the story of *The Hero with a Thousand Faces.* The trance of erudition gave birth to teleology, and the sort of science fiction which, by constructing an imaginary future out of cycles borrowed from the past, purports to reveal the past in the future. Samuel Delany wrote *The Einstein Intersection,* Keith Roberts wrote *The Chalk Giants,* John Barth wrote *Giles Goat-Boy,* and there is nothing new under the sun.

Gene Wolfe has made a new sun.

The complete quotation is: "Every long story, if it be told truly, will be found to contain all the elements that have contributed to the human drama since the first rude ship reached the strand of Lune: not only noble deeds and tender emotion, but grotesqueries, bathos, and so on." Severian, in the nicest possible way, reminds us that his story is an epic, and he is a hero in the epic tradition, which goes back all the way to the astronauts. Lune is the Moon, green in Severian's time because lushly afforested by that long-

forgotten space-faring civilization. Thus the oldest archetype in the mythic consciousness of Severian and his race dates from 1969. In 1969 everyone from Sam Moskowitz to J.G. Ballard was saying that the future had arrived. Gene Wolfe has created a world where the future has been and gone, has become primeval, is as hypothetical as the mythopoeic unconscious. Delany turned myth into science fiction, but Wolfe has turned science fiction into myth; which accounts for "Severian's failure" (as Wolfe complains in the Appendix,) "to distinguish clearly between space-going and ocean-going craft". The distinctions Severian does make, between all the different types of weapon, for instance, are overly technical for our purposes, but not for a professional torturer. The "posthistoric" consciousness is exactly like our own, but with everything inverted, even cosmology. Instead of moonrise and sunset, Severian sees "Urth fall below Lune", and observes, "Rising inexorably while we remained unaware of their motion, the mountain peaks to the west were already clawing for the lower edge of the sun."

The teleological science fiction that counterfeits prophecy by repeating mythology is firmly deterministic, and with complete justification: if there is only the monomyth, only one story, then the hero can only act it out, do what he may. Certainly somebody, librarians or whoever, is mucking about with Severian's destiny. Sometimes it's the Autarch, sometimes it's the Increate, or at least the Increate's seraphim, the Clarkean aliens which Master Malrubius calls "Hierodules", glossing it as "holy slaves". Severian loves stories, records every one he hears, and carries through all his adventures a copy of *The Book of the Wonders of Urth and Sky,* a sort of posthistoric sf anthology. He insists that stories don't write themselves, as anyone who's produced a tetralogy will often do. "Of all the good things in the world, the only ones humanity can claim for itself are stories and music; the rest, mercy, beauty, sleep, clean water and hot food . . . are all the work of the Increate." Severian, with his much-vaunted infallible memory, is responsible for his own epic, is the hero and the narrator of it. He makes his own way, he takes his own decisions, when to serve and when not to serve. At the beginning of this fourth book his career is at its nadir. He wanders in the woods, destitute, reduced to going through the pockets of a corpse, "disgraced and outcast and homeless, without friend and without money". He is feverish, and distracted, and hallucinating, though he doesn't realize that. "I had climbed to the bottom of existence and felt it with my hands, and I knew that there *was* a bottom, and that from this point onward I could only rise." And rise he does, in a zigzag way, via war and injury and imprisonment, to the Phoenix Throne, from which he promptly steps via secret stairs to walk the city disguised as a torturer, settling debts and dispensing justice, to prepare for the new Commonwealth.

Severian the Autarch is the prince and the pauper, Superman and Clark Kent. As he says, "Except for an unusually good memory, we are only an ordinary man." A joke, an enormity of modesty, but perfectly correct. As usual, Wolfe has every sentence three ways, and probably a fourth you won't notice for a while. Here he capitalises on the double effect of sympathy and admiration that characterizes the first-person heroic fantasy, in its invitation to us to identify with a character perceived to be splendid. Wolfe then negates this perception, as he must do, with irony. Our hero is a torturer, for a start. Nor is he anything like any of us; he is a posthistoric man, and we are the ghosts behind his dreams. Severian has also, since Vodalus's banquet in *The Claw of the Conciliator,* been half woman, which does rather scupper the patriarchal Jung-Campbell myth of Everyman. Severian was two people long before he adopted the royal "we". "We are the

people, the Commonwealth." He is the Autarch, "who in one body is a thousand." Partly this is a fact of popular mythology, that same impulse to identify the pauper in the prince while acknowledging his majesty. Rudesind the old curator reports to the new Autarch how gossip has multiplied his identity: "You're every boy that's ever been here, and I've heard stories put on you that belong to men that was old when I was just a boy." Myth generalizes. But Wolfe provides a literal, science-fictional reason for the multiplication too. Which you'll have to read the book to find out.

Then you'll have to re-read it to work out the rest of the mysteries. So much of the substance of Severian's experience and his world is there, in the text, as it should be, not explained but constructed. Phrases that seemed perfectly innocent on first reading are suddenly illuminated. "I am aware," Severian says, "that at various places in my narrative I have pledged that this or that should be made clear in the knitting up of the story . . . Before you assume that I have cheated you, read again . . ."

Lyonesse, Vol. One: Suldrun's Garden
by Jack Vance *(Berkley, 1983, 436 pp, $6.95)*

reviewed by Roz Kaveney

There is something oddly characteristic about the very *name* Jack Vance; it seems to call for some raffish yet genteel epithet along the lines of Mad Jack Mytton, King of Foxhunters. Mad dandies strut through his pages, perverse, rococo, inventive, venal and dangerous; the manner of his science fiction and fantasy partakes of the first three of those adjectives. Much of his science fiction has an air of wanting to be something else, cluttered however much it may be with the classic impedimenta of space opera: *The Dragon Masters* has as its background vast feats of stellar migration and genetic engineering, yet as its subject blood feuds and guerilla actions over a few miles of rocky country. Vance is ambiguous in his reaction to civilization; there are times in his work when it seems, as in "The Moon Moth", that the point of being civilized is to have the imagination to become a barbarian haughtier than those born to it. The *Demon Princes* revenge cycle is adulatory about the polyglot viciousness and competence only possible to a protagonist who lives in a complex culture, derives much of its richness from its portrayal of the fads and fancies of worlds full of the cosmopolitan and the effete, yet is sympathetic to an elite conspiracy which seems to have as its object the return of humanity to soil-grubbing integration with Nature. There is a daftness to what seem to be the prescriptions of Vance which gives his work charm yet stops it being in the last analysis quite serious. Brecht talks in a poem about a demon mask of the strenuous effort it takes to be commitedly evil; writing about George Saintsbury, critic and reactionary, Orwell says it takes a certain amount of guts to be as much of a skunk as all that; when Vance's supreme rulers dish out torments they do so with a quantity of fee-fi-fo-fum that demonstrates the roots of Vance's imagination in fairy tale and keeps his work rather more charmingly trivial than he might wish it to be.

His best book is perhaps his first, *The Dying Earth* (1950), a cycle of sword-and-sorcery tales which Gene Wolfe has acknowledged as a major influence on the New Sun tetralogy. Since those early fantasies, and the only somewhat inferior Cugel the Clever stories of the 1960s, Vance has acquired at least that degree of mastery over form needed

for the regular production of paperback originals and it was inevitable that he would consider, particularly given the thrust of the market in that direction, that the time had come to deliver himself of a long fantasy novel. Judged by the standards of his own best work, and the higher ones set for the fantasy novel by Wolfe, this first volume is something of a disappointment.

Its major fault is one which we do not expect from Vance. It is dull. Part of the trouble is that he has felt it necessary to go into wearisome detail about the folk-wanderings and dynastic squabbles that have made Lyonesse what it is in what appears to be the Sixth Century AD. He goes into so much detail that verisimilitude starts to fail and one starts to ask childishly literal-minded questions about what so large an island in the European North Atlantic would do to ocean currents, and how classic fairy story feudalism has evolved here some centuries early. He spends so much time explaining all this sheer stuff—where normally he would have dropped in the abstention of wizards from politics and the threat posed by the totalitarian Nordic slavers, the Ska, in passing—and in a few cases actually repeating it—as if we were very deaf and very stupid and had not spent years reading this sort of thing and learning how to fill in a background from pregnant hints—that the to-ing and fro-ing and quests and campaigns of the actual plot are starved of space and imaginative force.

Vance has equipped himself with a huge cast and failed to make them so interesting that we keep track of them when he spends fifty pages or so on other bits of the plot. Suldrun, drippy daughter of the ambitious King Casimir, is imprisoned al fresco in her garden when she snubs her suitor, Carfilhiot, castellan of a key fortress and male clone of a defunct sorceress. She has a child by a prince conveniently shipwrecked on her rockery and commits touching suicide. Prince Aillas clambers from her father's oubliette too late to save her and goes off after their son whom the fairies have stolen. The boy Dhrun has meanwhile fallen in with Shimrod, clone of the powerful magician Murgen, who is pursuing a vendetta against a stranger we know to be Carfilhiot for the theft of some magic equipment and the murder of a retainer. Casimir wars inconclusively on all and sundry; Aillas is enslaved by the Ska; Dhrun's friend Glyneth tries to remove the curse placed on him by the fairies; Carfilhiot wanders round the plot doing unpleasant things to people. Only in spasms do these intrigues become more interesting than they will have been in the synopsis Vance started with.

But in spasms Vance forgets the huge mess of his plot and gets on with the more important and joyful job of being Vance. The book could be quarried for paragraphs that would make it seem vastly better than it is simply because it is so unlikely that a book so lumbering and unconvincing could contain passages of such real quality. In his descriptions of Suldrun's neglected childhood, for example, Vance recaptures a pretty melancholy missing from his work since the early days:

> Certain chairs loved Suldrun and gave her protection; others were heavy with danger. Moving among these massive entities, Suldrun felt subdued and tentative. She walked with slow steps, listening for inaudible sounds and watching for movement or shifting of the muted colours.

One can quarrel with details of the style in passages like these; "entities" is perhaps a false note given Vance's usual gift for the mot juste. But the general effect is admirable, conveying both a child's view and a sense of the way the room would look to an adult, stressing the princess' starvation for affection more effectively than the recital of wrongs

Vance inflicts on us elsewhere in these pages. His pictures of magic here have a zest sadly missing from the rest of the book:

> Sartzanek retaliated with the Spell of Total Enlightenment so that Widdefut suddenly knew everything which might be known: the history of each atom of the universe, the devolvements of eight kinds of time . . . He stood trembling in confusion until he desiccated to a wisp and blew away on the wind.

Note the brief elegance of that, the way that the joke derives from the hostility to knowledge and civilization I have noted elsewhere in Vance, the way "devolvements" suggests much more than a more directly denotative word, the sheer nerve of "eight kinds of time". But these incidental felicities cannot redeem the whole; all one can hope for is that subsequent volumes will avoid the crippling faults of this one. It is clear from his coda, a barker's spiel advertising all the potentially interesting loose ends, that Vance intends to get a lot more mileage out of his creation before he allows it to sink in the West:

> Who nets the turbot that swallowed the green pearl? Who proudly wears the pearl in her locket and is impelled to curious excesses of conduct? . . . Meanwhile the adversary stands back in the shadows smiling his smile. He is potent, and Murgen must presently tire and in great sorrow concede defeat.

The Man Who Loved Morlocks:
A Sequel to The Time Machine as Narrated by the Time Traveller
by David J. Lake *(Hyland House, Melbourne, 1981, 128 pp., no price)*

reviewed by K.G. Mathieson

One of the offshoots of the kind of self-conscious narration which has been a distinguishing feature of contemporary writing has been the development of a peculiar sub-genre, the sequel to, or extension of, famous novels. Science fiction has its share of these, ranging from the excellent, as in Aldiss' *Frankenstein Unbound,* to the ridiculous, as in Farmer's *The Wind Whales of Ishmael,* and David J. Lake has added his own contribution to the field, tackling a sequel to one of the unquestionable classics of the genre, H.G. Wells' *The Time Machine.* I approached it with misgivings, and am happy to report that this decidedly hazardous enterprise has been carried off with considerable success.

The Man Who Loved Morlocks takes up the Time Traveller's story from the moment of his disappearance from his Richmond laboratory at the end of Wells' story, and charts his return, bent on revenge, to the year 802,701, only for him to find that one of the properties of travelling through time is an inability to return to any particular spot in which he has formerly acted. Unable to save Weena from her fate, he moves on, and finds that he has been the unwitting cause of mass deaths amongst both the Eloi and the hated Morlocks, dying, like the Martian invaders in *The War of the Worlds,* from a common virus brought by the Traveller, to which they have no resistance. This echo of another Wells novel is one of many, and provides an important clue to the real nature of Lake's book, and its true subject.

That subject is, of course, Wells himself. In a note to the novel, Lake records his admiration, and goes on to describe his own work as "partly a piece of nostalgia, composed to satisfy a yearning for more of that beautiful adventure; and partly a Jacob-like wrestling with the dark angel of Wells's ideas, which rightly challenge the whole enter-

prise of hopeful Man." From the beginning, Lake calls into question the perceptions of Wells' Traveller, who immediately encounters a scene which plants seeds of doubt in his mind as to the true nature of the Eloi and Morlocks, and another which seems to undermine his suspicions of a cannibalistic relationship between them. In despair at the disaster he has brought, he races forward in time, close to the year Million, where he encounters Lake's own version of the future of Mankind.

The symbols signal the change; where Wells' Traveller alights before a huge White Sphinx, both mysterious and inhuman, Lake's, searching for the statue of a Griffen (also inhuman, and incidentally recalling Griffin, the protagonist of *The Invisible Man*), finds instead a "surprisingly classical" statue of a Warrior, a reassertion of the possibility of an idealized human future. The Traveller is captured by these people, the Lorana, and comes to see in them "a second young manhood of the race," overcoming his initial repugnance at their feline features and falling in love with a princess of the race, Wanaquil, to whom he is betrothed. Here is a society far removed from the volitionless Eloi and the vile Morlocks, a new heroic age where Spartan virtues keep the people hard and strong, the weak are weeded out in a kind of natural selection, and the evils of industry and technology banished through lack of mineral resources, all in stark contrast to his own time, to which he briefly returns, finding the working people thronging the streets repulsive, soft and snail-like, disgusting.

Lake is playing several games here, but the central one involves laying bare the ideas which motivated Wells' Time Traveller, and revealing the essential unreliability of the perceptions attributed to him. The Traveller presents us with a "reading" of his situation which is based on a subjective and irrational response to the world in which he finds himself, one which Wells hedges with a sprinkling of judiciously placed adjectives, but never denies. Lake has the "same" narrator undergo another adventure entirely, one which forces him to reappraise his original beliefs (including ultimate "documentary" evidence, a Report examining the events of *The Time Machine* from the point of view of the Morlocks), all of which suggest that the experience was not all it seemed, and the perceptions consequently "wrong". The quotation marks illustrate, of course, that any such discussion is mediated by the fact that Lake's narrator is equally fictional and equally unreliable, offering not so much a refutation of Wells as an alternative "reading".

The relationship between the Eloi and the Morlocks has generally been taken as a symbolic extension of the degenerate relations between the classes in Wells own time. Lake goes on to offer an alternative vision of this development implied by Wells, and probes the narrator's own reactions to them, made explicit in the Traveller's visit to the London of 1906 and his encounter with Dr Kemp, a practitioner of the new science of psychiatry, who offers an analysis of his psychological obsessions, all of which serves to throw a very different light on the events of *The Time Machine*. Forced into a recognition of the true origins of the Lorana, and the basis of his own repugnance at this knowledge, he returns suitably chastened to his waiting bride in 999,480, and accepts these descendants of the Morlocks as his own people. The pessimistic Darwinian reversion of *The Time Machine* is denied, and the entropic vision of the future with which that story finished reversed, with a glimpse of what may be a "wiser race", inhabiting a pre-technological paradise of sorts, to come.

The obsessions revealed by Dr Kemp originate in those often ascribed to Wells himself,

rooted in the conflict between his professed radical optimism and his pessimistic understanding of human limitations, and David Lake's engagement with them is achieved with style and wit, offering both an analysis of the ideas underlying *The Time Machine,* and an alternative vision of his own which nonetheless derives from within the framework of those ideas which Wells himself postulates. In so doing, he reveals a detailed and sympathetic understanding of the original, and his book, both as critique and homage, is probably best read in tandem with it. I have been reluctant to be more explicit in spelling out the particular events and conclusions of Lake's story, since they are carefully and skilfully revealed in the narrative, and I would not wish to mar the reader's enjoyment of them; unfortunately, it seems at present only to be available in an Australian edition, and it must be hoped that British publication of this fine novel will not be too long in coming.

Yesterday's Men
by George Turner *(Faber & Faber, 1983, 223 pp)*

reviewed by Richard Cowper

In the circumstances it is perhaps only fair to admit that this is the first novel of Mr Turner's that I have read. To that extent I was, as they say, "up for grabs" when I ran my eye down the publisher's blurb and found that the author had been credited with writing prose which had "a lyrical and energetic wonder" (sic), as well as with having already created "some of the best dialogue and characterization to come from science fiction in years" to say nothing of an enviable ability "to mystify and compel." Obviously I had a feast in store as, with what a blurbie would doubtless call "a keen sense of anticipation", I opened up *Yesterday's Men* to find myself confronted with a quotation from T.S. Eliot *(viz)* "It is not enough to understand what we ought to be, unless we know what we are."

Now I just happen to be one of those unfortunate people who cannot simply skim over such things without making at least *some* attempt to come to terms with what is being said. After all Mr Turner had presumably chosen this one with a definite purpose in mind. Yet something about it made me feel grossly inadequate. Perhaps it was the syntax. "It is not enough . . . unless . . . ?" I worried away at it and finally came up with "We must know what we are before we can hope to understand what we ought to be." It seemed, to say the least, arguable, and, dare I say it, a teeny weeny bit pseudo-profound. But I digress.

Having been booby-trapped before I'd even *started* the book I tip-toed warily through the introductory chapter which sketched in the background to the story. There I learnt how the two previous works in the trilogy *(Beloved Son, Vaneglory)* had dealt with mankind's efforts to recover from the collapse of 1992 and the Five Days of "hysterical random nuclear bombing" which has reduced the population of the world by nine-tenths. I was mildly surprised to discover that a mere forty years later (AD 2032) things had recovered sufficiently for a series of space colonies to be established "in Lagrangian Orbit". At the same time a group of mutant humans (the Children of Time) were found to exist who had the lifespans of thousands of years. At which point I swallowed hard and recalled how the average sf aficionado finds no difficulty in believing as many as six impossible things before breakfast.

Having more or less assimilated this information I was ready for the story proper, but before I was allowed to get to it I was subjected to a sort of recorded lecture by one,

Dunbar, who, it appeared, was a Child of Time. After a couple of pages I found myself sympathising profoundly with a certain "Leonard" who "caught the dreary chore of listening to their endless jabbering wires and collating them for the master record". By the time I was through Dunbar's lecture I knew just how Leonard felt, but by dint of assiduous concentration I had discovered that the Terran world (Earth) was now pacifist except for a few odd tribes of New Guinea head-hunters who pursued each other with bows and arrows and were kept in control by a group of Australian soldiers who patrolled the jungles. These troops (called "Gone Timers") acted in all significant respects like soldiers from the Second World War. Having since divined the reason for this anachronistic behaviour I undertake to reveal all in due course.

Feeling by now somewhat like a boa-constrictor who had inadvertently swallowed a very tough old goat I slithered lethargically into the next chapter to meet one Cyrano Bergerac (a Lagrangian film director) who is negotiating with the Australian government to make a holo-film (entertainment-cum-social anthropology) about War in the Jungle (c. 1943 variety). His plan is to send his "cyborg" cameraman Corrigan to join the "Gone Time" jungle patrol. Corrigan, who is quite literally a "human camera", will beam his pictures up to the satellite in stationary orbit above New Guinea where Bergerac and Co will edit them. Bergerac also has a mistress—Anna-Liza—who is (as a Gone Time soldier might have put it) pissed off with life in the Lagrangian colonies and is angling to get back to Earth (sorry, "Terra"). She has the heroine's part in the film.

At this point it struck me most forcibly that not one of these characters could be said to exist in my imagination. They were simply names on a page, mouthpieces for the author, each without exception absolutely and totally unbelievable. I had to keep back-tracking to find out which one was actually speaking and then not caring in the least when I *did* find out. And they would insist on *lecturing* me and each other till my head swam and my eyes glazed. When they weren't formally lecturing they squared off for catechetic set-pieces of which the following is a fair sample:

> "Why does the knowledge that killing each other is wrong not stop it happening?"
> "Yes, that's the Cultural Dichotomy."
> "That's one smart description; what's the smart answer?"
> "I'm here to find out."
> "Start now. The first part of the smart answer is to question the premisses. *Is* killing people wrong?"
> "You have to be joking."
> "Do I? Who says it's wrong?"
> "We do. People do."
> "But that's a biased viewpoint. What does the vast unpeopled universe think about it? Do you imagine it would miss a beat if we all pegged out overnight?"
> "The universe isn't being asked. We have to look after ourselves, not worry over the concerns of infinity . . ."

and so on and so forth. Ah, that enviable gift for dialogue. Such stuff must surely have combusted spontaneously in the bowels of Mr Turner's typewriter.

Once the patrol does eventually get under way things improve a bit. Here I hazard a guess that at some point in his life the author served a spell as a soldier in New Guinea and is drawing upon the fund of his past experience of what it is like to be a member of an infantry patrol slogging through a tropical rain-forest. At such moments (thank God) he is able to forget that he is writing an sf novel and in consequence things twitch into spasmodic life. Unfortunately he appears to have taken at face value that aforementioned critical observation that his prose has a "lyrical and energetic wonder" and in dogged

pursuit of lyricism and/or energy is prone to serve up too many constipated vignettes like: "Corrigan sat on the case and mopped his neck; half the sweat was anger, turning ferocious heat into an onslaught." This is a pity because when he's not trying to write "stylishly" he is capable of the admirable simplicity of: "The rain had ceased; the forest smelt faintly rotten through the washed brightness of the morning." But can he recognize the difference, I wonder?

The patrol is ambushed twice (Lagrangian treachery), quite a lot of extras on both sides are killed, and it is all *totally* unbelievable. When a head is cut off the surprise is to find that sawdust isn't running out. The characters are so two-dimensional that when you view them sideways they simply vanish into thin air. Anna-Liza is raped by head hunters and frightened by spiders (or was it the other way round?). It rains and rains and rains. Dunbar (remember him?) who has been pretending to be Corrigan's batman turns out to have been the key to the whole thing (the Lagrangians want to get hold of the genetic secret of immortality so they can set about colonizing the Galaxy)—as if anyone cared.

So what can one say about *Yesterday's Men* other than that it has demonstrated conclusively to this particular reader that George Turner is no novelist? Perhaps one should read the book as a sort of ghost-pale imitation of *The Naked and the Dead* with a lot of sf cliché trappings and not a single life-like character in all its 223 interminable pages . . . But that wouldn't stop the reader being bored to screaming point by the sheer futility of it all. Come to think of it wasn't it T.S. Eliot who wrote a poem called *The Hollow Men*? Now I wonder what could have put *that* into my head?

A Rose for Armageddon
by Hilbert Schenck *(Timescape, 1982, 175 pp, $2.50)*

reviewed by Brian Stableford

The world is coming to an end, and civilization is about to evaporate, leaving mankind enmeshed in a Hobbesian war of all against all. So what is there left for the gentle intellectuals to do, except fret over their esoteric puzzles and regret that they never found true love in the long-gone years when there seemed to be a chance that they might?

Naturally, there's a little more to be squeezed from the situation than that, for this is fantasy (dressed, not altogether convincingly, as science fiction) and in fantasy nothing is impossible. With luck, the esoteric puzzles might yield far greater reward than the customary intellectual and aesthetic satisfaction. Love may not be out of reach, if the old can go back through time to reinvest their younger selves, and even the end of the world might be averted, if only the miracle can be sustained beyond the brief moment of intense hallucination. On the other hand, the reality principle which reasserts itself in the moment of post-coital let-down, destroying romantic illusions, could well erase the opportunity to change things, and let the world go to hell.

Underneath the surface of *A Rose for Armageddon*, as this synopsis will suggest, is a thoroughly trite plot. This is a *Timescape* book in more ways than one, fusing the time-tipped apocalypse of Benford's novel with a much older fantasy motif—that of passionate desire transcending time. The thing about these old, old stories, however, is that they do work and continue to work, and have all the power still in them for anyone who can figure out a new way of using it. Schenck has figured out a new way, and has done it

brilliantly; indeed, I think I have never seen it done with such finesse. The suspense is maintained from the beginning to the very end, because although one can be morally certain that the peculiar love story will reach its ingenious consummation, one cannot be sure whether that consummation is going to be one moment of glory snatched from the ashes or whether it will be the means of saving the world.

They used to argue long ago about whether there could ever be authentic science-fiction detective stories. No one, so far as I know, bothered to hazard a guess as to whether there could be authentic science-fiction love stories, although that is surely a more remarkable fusion of genres. If anyone ever was anxious about it, perhaps *A Rose for Armageddon* will set their minds at rest, though the sf purist will claim that it is not *really* science fiction, but simply a tale of magic with added jargon. It doesn't really matter much: *A Rose for Armageddon* is a beautiful story, dignified in its sentimentality and convincing in its dramatic tension. It contains some of the finest characterization, especially of its unlikely heroine, that has been seen in American sf. I am absolutely amazed to find this novel missing from the list of nominees for the Nebula; it is by far and away the best science fiction novel bearing a 1982 date that I have read.

The Godmothers
by Sandi Hall *(The Women's Press, 1982, 183 pp, £3.50)*

reviewed by Abigail Frost

According to the blurb, *The Godmothers* is supposed to be about the inter-action of the lives of four groups of women, in four different timestreams: a Salem witch and her friend, a group of feminists in more-or-less modern Toronto, some media workers in give-or-take a century's time, and some timeslipping wonderwomen who seem to live outside time altogether, in the place where good feminists go when they die. In fact, though, in so far as this inter-action happens at all, it seems to be a device to link together the middle two groups of this list, thereby giving Cosmic Significance to the really rather tedious events of the present, and Contemporary Relevance to the events of the future.

In Time-Stream Two (the future) feminists have a monopoly, following a sort of cultural Yalta conference, of the communications media. We see Lydya, maker of holovids, and her friends as they work, telepathize, and drink Cocaine Splits together. This future is well rendered, and by no means the sort of goody-goody paradise one might expect (there will still be cigarettes in Ms Hall's future, hooray). Lydya suffers three crises: one personal (she is thrown out of her housing collective by jealous neighbours), one metaphysical (her telepathic powers are used, in some inadequately rendered way, by the timeslippers to help the witch as she is burnt), and one, the most devastating, professional. An alliance of religious fanatics and entrepreneurs invade the communications complex, kill a young trainee, and use a mind-control device to steal Lydya's and her colleagues' skills to put over their own evil message. Lydya, with the (unspecific) help of the timeslippers, gets hold of the device and then . . . But in fact we don't actually see what she does, though whatever it is, it must kill her, for she next turns up in the feminist heaven.

This part of the book seemed to me the best and most assured; its strength is that the world it portrays seems credible and internally consistent. Obviously, Ms Hall has not

made the mistake of assuming that a world run by women will be perfect, nor has she assumed that all women will take the gentle, co-operative, feminist way. The leading female villain is a power-mad harpy, and the men in her group are very much her creatures.

There's a female villain in Time-Stream One (the present), too, but she is a more conventional feminist villainess: the woman, who, by her perverted heterosexual lust, and her evil male-induced greed, is driven to betray her sisters. (There's also a female baddie, if you see the distinction, but she becomes a goodie in the end.) This section of the book is by far the longest, and is much weaker than Time-Stream Two. It has no sf elements, unless you count telepathic communication of a rather basic kind between identical twins; it is instead an attempt to apply the current feminist cult of co-operation to the computer-paranoia thriller. The leading characters are the twins just mentioned, the actress lover of one of them and their painter landlady. The first three are members of a network which collects information on businesses and political groups and their attitudes to women, in order to act quickly whenever there is a threat to feminists and their victories.

Working against them is an agent of the American Vehicle corporation, on a search-and-destroy mission. Ms Hall seems to have assumed that because Big Business is bad, and feminism is good, then Big Business quite naturally *would* use expensive resources to act against small groups like the heroines. No cogent reason, apart from the Chairman's being "worried about all these women" is given. What really weakens this section as a thriller, however, is its total lack of real tension; surprising, since the scenes in the besieged communications complex of Time-Stream Two are tense enough for anyone—or at least for me. Chandler told his followers "when in doubt, have a man come through the door with a gun in his hand": for Ms Hall, it's a woman with a bun—or a date loaf, or a carrot cake . . . Complex moments when the various plot-streams come together are constantly lost by diffusion, as the characters crowd round to congratulate each other on their baking.

Perhaps this wouldn't matter, in a first novel, but I have a horrid suspicion that it's deliberate; a replacement of such outmoded patriarchal ideas as suspense, plotting, and dramatic unity by illustration of the joys of sisterhood. All the real meat of the story—the piecing together of data to reveal a surprising and frightening whole—gets forgotten in this cultural travelogue.

I suspect that there were originally two books here—a fairly promising sf book and a not very successful thriller—and Ms Hall has combined them in the belief that the whole is more than the parts. On this showing, she is wrong. When will people learn that art is not a matter of trying to do everything at once?

Of Time-Stream Three (the timeslippers) and Time Past (the witch-girl) little need be said. They occupy very little space, which is one thing to cheer about, and are obviously linking devices, second thoughts. Time-Stream Three is written in the usual, "poetic", sub-experimental prose; it is embarrassing when seen against the literate, readable style used in the bulk of the book. Time Past (though this may be unfair, since it's a very short section) is even less successful as a historical story than Time-Stream One as a thriller. Salem witches with names like Selina? Friends of Salem witches talking to officials about the "Holy Virgin Mother of God"? Tush. History may be a male construct, but anachronism, it seems, is an eternal verity.

20th Century English Literature: A Soviet View
(Progress Publishers, Moscow, 1982, 477 pp, no price)

reviewed by Ian Watson

This collection of nearly thirty essays translated from the Russian doesn't set out to cover everything. So it is rather interesting that along with essays on Joyce, Virginia Woolf, Shaw, D.H. Lawrence *et al,* it should also contain an important section on "English Science Fiction Today". (This, together with essays elsewhere in the book on Wells and Huxley, as well as on other authors of speculative fictional relevance: Golding, Fowles, Colin Wilson).

Colin Wilson, eh? Whose "novels", as we read on page 228, "especially *The Mind Parasites,* put him among the major post-war English novelists". Now this may seem a slightly strange judgement to us in the UK, where I don't think that many people would class *The Mind Parasites* as a major novel. Surely at best a middling fringe-sf story? However, the author of this study, V. Ivasheva, is obviously conscious that putting Colin Wilson in the literary pantheon may seem a trifle askew. Of *The Glass Cage* she remarks, "to a lesser extent than any of the author's previous works does it call for special pleading in defence of its literary merit". This, before carrying on to praise *The Mind Parasites* very highly.

But what matters here—and this is true of other essays in this volume, which is where the Soviet perspective comes into active play—is that Colin Wilson is concerned commitedly with the perfection of the human race, and with dissecting out the adverse conditioning programmes which hobble our advancement.

Wilson's assorted subsequent tomes on crime, ESP and the Occult are ticked off as dilettante distractions from this quest. (Not that there is anything wrong in the Soviet view with ESP as such, but Wilson sidetracks from genuine mind-science towards the mystical occult.) Even so, there is no dogmatic denouncement of Wilson's plumbing of these abysses, merely a regretful reproof delivered gently and encouragingly.

This indeed is true of the whole tenor of this book, which deliberately refrains from making heavy prognostications about the state of the art of English Literature today, or issuing normative polemics. Actually, I think it's too charitably optimistic at times. "The unpredictable," writes V. Ivasheva in her wrapping-up "Conclusion" to the whole ensemble, "can still be expected from very many writers of the middle generation (like John Wain . . .) //who// has not produced anything of importance lately, but he has hardly expended himself, and his next novel—as usual following a new and unexpected direction—might well be an event." Well, it *might* be. I await the day.

Since this is *Foundation,* let's focus on the essays specifically on recent English sf. These are three, all from younger critics: A. Kubatiev on "A Landscape of Destruction, Deeds of Bravery . . . (English Science Fiction of the 60s–70s"; L. Mikhailova on "English Science Fiction of the Last Ten Years"; and V. Gopman on "J.G. Ballard's Shattered Worlds (Philosophical and Aesthetical Problems)".

Of these, Mikhailova's makes me a bit suspicious of, let's say, relative values (and the extent of her information on the subject) when she cites the different groups of authors active in the field, by decade—amongst whom "authors who entered the scene in the 50s (Kenneth Bulmer, Nevil Shute, Arthur Koestler, E.C. Tubb)". Koestler's *The Age of*

Longing in no way established him as entering "the scene"; ditto with Nevil Shute's couple of forays into sf. Indeed Koestler was openly contemptuous of sf. And the conjunction of Mr Koestler with Mr Tubb is, uh, peculiar. One feels after reading Mikhailova's piece that her heart (and brains) are in the right place, but she just doesn't have quite enough data. Yet she has the wit to perceive the basic humanism underlying an apparently down-beat book such as Brunner's *Total Eclipse*. Even so, there's a sense of archeological criticism here, as though 90% of the evidence has been buried by a volcano, and she simply does her very best with the surviving 10%. This, I'd say, is the fault of too narrow a sample of books being available to her.

V. Gopman, focusing upon Ballard, *has* got the full range of material, and makes a good job of it. Yet again this Soviet viewpoint surprises us—and perhaps should do so in a salutary way—for Ballard's earlier disaster novels are nicely and eloquently analyzed without any of hint of "enjoy your catastrophe", without any of the idea that Ballard's heroes fulfill themselves by identifying with disaster—and that this is a good thing in these late entropic days. Furthermore, Gopman's attitude to the Ballard of *Crash* or *High-Rise* is that in these books Ballard moves on towards a greater "social and civic maturity" by accurately analyzing the sickness of Western society, the fetichistic commodity culture of death-erotics and dehumanization. This is a very valid interpretation—and from the standpoint of history may seem absolutely spot-on—but to us who are enmeshed in this society, the books may seem a bit different. I don't know that "civic maturity" is the phrase that springs to mind immediately, as critical assessment; perhaps it should be.

A. Kubatiev concentrates largely upon the work of Brian Aldiss, after an introductory discussion of Wells and John Wyndham (a positive writer and a humanist).

Aldiss is a gifted artist, but one who tries to find ways of not quarreling with the unhealthy ideology of his own society. On his own admission he has abandoned hope in Reason as a guide; thus when he deals with moral questions it is merely as an aesthetic experimenter—with the result that though he writes well "more often than not the human world in Aldiss's stories is like an old dilapidated house that is falling to pieces in spirit, and in fact." Skilled as a stylist, unfailingly interesting, and erudite (despite formal education), Aldiss asserts so often that man is doomed and that the best to hope for is wry sympathy, that "only one conclusion, and not a very flattering one, can be drawn. A talent that is not humanistically disposed degenerates into its opposite, or into militant aestheticism, at best. Whether this will happen to Brian Aldiss, time will show . . . Speaking quite objectively, his credo makes him an indirect participant in the process of dehumanization which is taking place in Western art. Arthur Clarke . . . and John Wyndham have managed to escape this influence, and we should like to expect the same from Brian Aldiss."

There is much faith, hope and charity in this book; but then it is written from a committedly humanist perspective. The general over-view of contemporary English Literature is that lately it has shot its bolt—the keen aggressive spirit of earlier post-War years—and has reached stalemate (and become bound up in over-personal themes). Nevertheless, important new initiatives may be just round the corner. Science and technology ought to be particularly influential; which of course is the reason why a major chunk of the book is devoted to sf; for though the mainstream has gone "small-scale" (in Mikhailova's phrase) sf is inherently committed to bigger perspectives.

Ah yes, indeed. Let it be.

Chekhov's Journey
by Ian Watson *(Gollancz, 1983, 183pp, £7.95)*

reviewed by Nick Lowe

Ah, this is what science fiction is all about, no mistake. Consider, just consider, the Evenki peasants of the Central Siberian taiga, a people of the Tungus linguistic group that extends across central Asia from the Yenisey basin to Manchuria. The Evenki are redeemed from total obscurity by two modest legacies to the West: one famous word, and one famous explosion. The explosion took place over the uninhabited forest around the headwaters of the Makirta at 7.17 am on 30 June 1908, laying waste some 1200 square miles of trees, killing a few dogs and reindeer, and emitting a bang audible a thousand miles away. Was it a cometary nucleus?[1] a giant meteorite? a gob of antimatter? a rogue black hole? an *alien spacecraft?*[2] As for the word, it was first collected by Russian explorers in the seventeenth century, and has passed into English, via Russian and French, as "shaman", while the institution it describes persisted at least as late as, say, June 1908. In the real world, this is called a coincidence. In science fiction, and pre-eminently in Ian Watson, it is a connection.

Here is another coincidence. In 1890 a young Moscow journalist called Anton Chekhov passed within a few hundred versts of the future Tunguska site on his epic overland expedition to the penal colony on the island of Sakhalin, while closer to home a village schoolmaster called K.E. Tsiolkovsky dabbled in fantasies of other worlds and speculations about extraplanetary flight. In the real world, Chekhov reached Sakhalin, returned to Moscow, and died at the height of his literary career in 1904, while Tsiolkovsky (whom he never met) continued in relative obscurity until the October Revolution, after which he rose to recognition as a leading figure in Soviet physics and a major space science pioneer. In the real world, there was no connection between either figure and the Tunguska event (which wasn't investigated till 1921). But reality is such a plastic concept in the Watson hands that this poses no problem; rather, a challenge.

Chekhov's Journey is Watson's most elegant and accomplished novel of connections so far, a small gem of plotting whose facets multiply the closer you peer. After a trio of increasingly whimsical flirtations with death, transcendence and the face of God, his ninth solo novel is a comparatively unpretentious, though contrapuntally ambitious, intellectual fugue on his familiar theme of enhancing human capabilities through altered states of consciousness. The shamanic metaphor is a natural focus, spirit journeys of one kind or another having lain at the heart of all Watson's novels since *Alien Embassy;* the link with the Tunguska event is then too good to resist. The only difficulty is that Shirokogoroff's immense study of Tungus shamanism was based on research outside the Soviet Union, and the Evenki themselves remain rather poorly documented in English. So Watson wisely minimizes the space given to the Evenki shamanic rite, reserving it for a climactic moment in the tale while the main shamanic business occupies another level of the story entirely.

Watson's latter-day shaman is Mikhail Petrov, an actor engaged to play Chekhov in a Soviet film about the Sakhalin expedition. To help him get into the part, Mikhail is to

1 Almost certainly.
2 Almost certainly not. See e.g. *Nature* vol. 274 p207.

recreate and relive Chekhov's journey under the ingenious Dr Kirilenko's technique of Artificial Reincarnation, which brings out the latent abilities in, eg, tone-deaf policemen by the simple expedient of hypnotizing them to think they're, eg, Tchaikovsky. But Mikhail's personal remake of history inexplicably dates the Tunguska event to 1888, and as Chekhov he becomes obsessed with diverting his expedition to visit the site of the mysterious explosion. Despite the film crew's efforts, the pasts continue to diverge, dragging in Tsiolkovsky and (to the unit's hair-rending despair) three minor characters out of *Three Sisters*. Aghast at the degeneration of history, the team try to right things by sending the subject into the imaginery future instead. But here too Tunguska intervenes, as the launch of an experimental Soviet interstellar timeship, under the silly-named Captain Anton Astrov, misfires and hurls the nuclear-powered ship back towards Central Siberia and the year 1908. Meanwhile, around the lonely Siberian mountain retreat where the hypnotic experiment is in progress, strange mists begin to gather; creepy things start to happen with the telephones; and Mikhail finds himself regressing spontaneously to both Chekhov and Astrov without the aid of hypnosis. Helpless, he watches from the eye of the time-storm as his past and future selves draw closer to their destinies at Tunguska . . .

The beauty of all this lies principally in the ironic tricks of perspective Watson can play with his alternate-history and space-operatic subplots, by having them viewed through, and in a shifting sense created by, the lens of a present-day consciousness. As the characters themselves are quick to point out, both the Chekhov and Astrov scenarios are transparently fantastic, cobbled together out of anachronistic twentieth-century perspectives on the past and projections of the future. In 1890, Tsiolkovsky effortlessly anticipates the conclusions of relativity, nuclear physics, and post-WWII theories of the Tunguska body, and he and Chekhov indulge in delightfully inappropriate speculative discussions of, inter alia, revolutionary socialism, nuclear politics, and science fiction. More in earnest, Watson attractively suggests that Chekhov's Sakhalin expedition (about whose motives the playwright himself was vague and contradictory) was impelled by the same visionary wanderlust as Astrov's dream of colonizing the stars—that the Siberian wastes offered a nineteenth-century equivalent to the interstellar void, and Chekhov was in one sense a starship captain born into the wrong age.

Of course, *Chekhov's Journey* is a literary game as much as an intellectual one, richly laced with pastiche and small allusive jokes. Presumably by design, the whole of the 1990 story is itself playlike in character—presented mostly in dialogue, on a single set, with a finite cast of half-a-dozen contrasting personalities with their own private motivations and secrets. (Mind you, they still all think like Ian Watson, gaily leaping from loopy analogy to quirky metaphor like bareback circus riders, ending every other thought or utterance with a string of suggestive dots . . . But the brisk pace, wit, and refreshing lack of pompousness go some way towards disarming the irritation this incorrigible Watson trait sometimes provokes.) On the whole, the Chekhov chapters are surprisingly successful, with a convincingly Russian twist to much of the dialogue and some fine imaginative sketches of fin-de-siècle Russian provincial life. Only the 2090 chapters seem thin, toneless, and scrappy, with their indistinguishable characters, cursory technical detail, and almost complete lack of visualization: the Watson idiom at its uncommon worst.

In general, the failings of *Chekhov's Journey* are the familiar ones, which by now one either overlooks or gives up on in despair. As usual, the excitement, which is considerable, remains exclusively intellectual. Now, nobody conveys the thrill of intellectual discovery,

of tumblers clicking into place, as headily as Watson, and I don't subscribe to the naïve view that gratuitous character posturing and shameless manipulation of the reader's animal sympathies are essential to a stirring read; but I can see a lot of readers finding the incessant three-handed monologues a little tiresome. There's also the old difficulty Watson finds in delivering an ending to live up to the expectations raised by the first 100 pages. The Chekhov thread here is abruptly wound up short of its expected end, and the final chapters are hobbled by the fact that, however ingenious the mechanics, there's only a limited number of available outcomes to time-paradox stories and they've all been done too often.

Besides these minor disappointments, it's hard to shake off a feeling that, at under 50,000 words, the book is about half the length demanded by its intricate plot, extensive cast, and elaborate period settings. The pace is too rushed, the texture too shallow to stand much chance of conveying the epic flavour of Chekhov's enterprise, or the tragic fortitude with which the *Tsiolkovsky* colonists face their mass destruction. Even the thrill of penetrating the Tunguska mystery comes over less strongly in the Watson than in Krinov's factual account of the 1921 expedition (in his *Giant Meteorites,* Oxford 1966). The whole reads, with its brief, breathless chapters, like the skeletal frame of a much fuller novel, and rather suggests Watson's original draft or outline has been pruned to editorial demand.

On the whole, though, *Chekhov's Journey* is Watson's most ingenious and amusing novel to date, continuing the rather playful vein of its two predecessors: a clever, inventive work of synthesis opening up intriguing new vistas of possibility for literary parahistory. What if Seneca the younger had become an Apostle? what if Kit Marlowe had sailed to Virginia? what if Conan Doyle had written *Howard's End?*

Only connect, Watson. Only connect.

Aurelia
by R.A. Lafferty *(Donning/Starblaze, 1982, 183pp, $5.95)*

reviewed by Dave Langford

Aurelia is a fourteen-year-old girl from Shining World, where her class did Marriage and Reproduction at thirteen: the final stage of her schooling is World Government. Each in his or her own home-made spacecraft, Aurelia and classmates scatter to rule and single-handedly reform those backward planets judged to be in need of governance. But our heroine is herself backward; her cackhanded journeying leads to a specially weird world which is probably though not assuredly Earth; her rule, which should be accepted by all, generates cultism and controversy; a mysterious Dark Counterpart appears to (perhaps) oppose her; three final days of processions, meals, intrigue and speechifying end with the predicted deaths of Aurelia and dark "Cousin Clootie", the initial hilarity having steadily dimmed.

Naturally the phantasmagoric Lafferty offers more than these bare bones. One could compile long lists of black humour, clever phrases, glittering chips of outrageousness. "The worst that could happen to her was that she might fail the assignment. The commonest way of failing such an assignment was getting killed or vaporized in flight or in governorship. That caused one automatically to fail the course." There is the appalling

Instrumental Knot into which Aurelia by a secret technique ties the, ah, instrument of a man who harasses her. ("Certainly the whole Universe has to be pulled through the loop to untie it, but that's easier than it sounds.") On some worlds there is an extra prime number between five and seven. ("A variant version says that the rogue number is inserted between Eight and Nine.") By a certain private device a character talks to the "fluvial and oceanic components of himself" while believing himself to be talking to fish. ("Then how did other people hear the fish talking to Rex if it was done by private device? Oh, other people possess private devices also.")

By such titbits and by his inimitable style, Lafferty holds the attention: but no really satisfying shape emerges from the text. What is actually going on in *Fourth Mansions,* in *The Devil is Dead,* in *The Three Armageddons of Enniscorthy Sweeney,* gains power through never being too clearly articulated but growing out of oblique touches seen from the corner of the eye. In *Aurelia* it seems either that the surface distractions have proliferated to the extent of obscuring the deeps, or that—a reluctant conclusion—there is nothing much happening beneath that clever surface at all.

The final third of the book is dominated by Aurelia's flatulent speeches to the multitudes, which use moderately simple language but achieve considerable opacity, not to mention forgettability. "There is a unified theory covering all sorts of laws, for all true laws are interlinked. We should never ask of a law of any sort whether it is good or bad. We should ask whether it is true or false . . ." And Aurelia and her dark cousin, at first glance opposites representing bungling good and better-organized evil, prove to be well-meaning complements. Meanwhile, the nastiest characters of all have for their symbol the balanced yin-yang, concretized as a murderous double-bladed yo-yo; the emblem of complementarity is finally used to polish off nice Aurelia and her complement. Possibly Lafferty is implying that one should be absolute for black or white, and never embrace a compromise (a similar theme emerges early in G.K. Chesterton's *The Ball and the Cross,* and Lafferty is a Chesterton fan). Even this much is rather difficult to extract from a welter of symbology concerning horned and antlered men, mysteriously appearing primitive creatures, at least one orthodox Christian miracle, etc.

Despite confusions and disappointments, *Aurelia* does remain worth reading. Even when using familiar material (Aurelia's education recalls the Camiroi stories; the horned men recall *Fourth Mansions;* so many prior works feature a bloody eucharist and conclude on or near the moment of death), even while losing control of his inventiveness and his plot, Lafferty still writes engagingly well.

The Castle of the Otter
by Gene Wolfe *(Ziesing Brothers, 1982, ie 1983, 117 pp, $16.95)*

reviewed by John Clute

So. Out of silence exile and cunning we have had delivered unto us *The Book of the New Sun,* a text which embroils its readers in a fever of interpretation and which seems designed to unpeel its layers of possible meaning more or less indefinitely until the reader begins to feel that his exegetical dance is somehow isomorphic with the true *Book* itself; the last volume of Gene Wolfe's modernist nightmare is reviewed elsewhere in this issue of *Foundation.* And here we have something else. *The Castle of the Otter,* which is subtitled

with some small accuracy *A Book about The Book of the New Sun* but which in fact deals only with the first volumes of the tetralogy, seems to be an attempt on Gene Wolfe's part to cast some light on the darker parts of the labyrinth he has created with such mastery.

It is not.

The Castle of the Otter is a perfectly commendable set of footnotes to the writing of a complex novel. There are touches of autobiography. There is some boasting—for once, in this duckpond, justified. Some of the symbolic connections linking the rose and the sun and the individual titles of the tetralogy are illuminated, though assuredly they are not explained. There is a glossary which unravels Wolfe's extraordinarily savvy use of obscure but existing English words to help establish that dizzying sense of distance and intimacy, antiquity and unslakeable presence, by virtue of which *The Book of the New Sun,* like déjà vu, seems as indecipherable as one's inmost self, that which becomes, as it is more examined, more alien. The various epigraphs and poems in the text are referred to and justified, though assuredly they are not explained. And various proper names receive the same treatment. And in a long chapter called "Cavalry in the Age of the Autarch", Mr Wolfe rides a fine hobbyhorse into the long debate on the usefulness of mounted soldiers in warfare. And there is a self-interview. And in one chapter, in a tone hauntingly reminiscent of *The Book* itself, several of the characters of the novel tell one painful joke each.

It is all valuable enough, though too frequently Mr Wolfe sounds almost fannish in his dancelike presentation of the appearance of blameless bonhomie, but in truth *Otter* impinges not a whit upon the dense cruel serenity of Severian's twice-told disingenuous dark tale, which I (for one) am more and more coming to think of as a highly charged political apologia for his dubious (and maybe even blasphemous) assumption of the autarchy, and only secondarily a "confession"—but this is not the place for that kind of speculation. It is not Mr Wolfe's responsibility to volunteer apodictic textual confirmations (or refutations) of that kind of interpretive thought. Mr Wolfe may at some point wish to divulge (at random instance) his reasons for making the House Absolute isomorphic with the house of the recloned narrator of *The Fifth Head of Cerberus,* or he may not. More likely, he will mention that he did so *in such and such a manner*—and leave the reasoning to us. Which is just. Surely it is just. It is nothing but just. But it is the nature of any reader to long for gospel, and *The Castle of the Otter* is nothing but gloss.

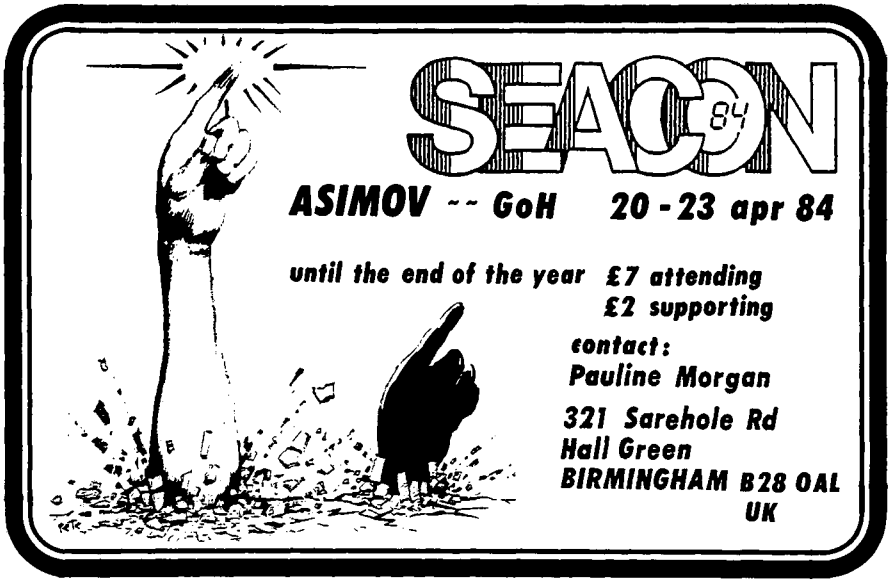
So. We are not brought safe to the other side. *The Book* and the reading of *The Book* remain (that word again) isomorphous. If this makes us feel a continuing vertigo, then so be it. Vertigo occurs when the eye is stripped bare of its bachelors.

A note from the Reviews Editor:

In *Foundation* 26 Lisa Tuttle reviewed what she had every reason to think was the only edition of *Childgrave,* by "Jessica Hamilton". For American readers in particular, what she has since uncovered about the title may be of interest; any further information will be appreciated:

"There appears to be an alternative edition of *Childgrave* by Jessica Hamilton, first published in Great Britain by Sphere Books in 1981, copyright Jessica Hamilton 1981. While I was in America I saw a book called *Childgrave* by Ken Greenhall, published by Pocket Books, with a 1982 copyright notice. Glancing through it, I thought it was the same as the Hamilton book with one exception. In the British edition the epilogue is two

pages long and ends on a menacing, ambiguous note. The American edition had a much longer determinedly up-beat ending."



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