

BEYOND THE SENSE OF WONDER  
SCIENCE FICTION AS ADVENTURE FICTION

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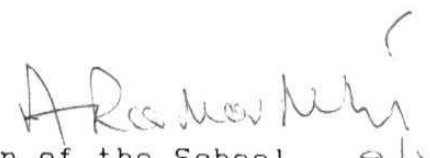
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I declare to the best of my knowledge that no part of this thesis was earlier submitted for the award of research degree of any university.

  
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C E R T I F I C A T E

This is to certify that Mr. A. Giridhar Rao worked under my supervision for the Ph.D. degree in English. His thesis entitled Beyond the Sense of Wonder: Science Fiction as Adventure Fiction represents his own independent work at the University of Hyderabad. This work has not been submitted to any other institution for the award of degree.

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I dedicate this work to the memory of my grandfather Sri Digavalli Venkata Siva Rao (1898-1092), a man of extraordinary insights into life and literature.

A. G.R.

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## Chapter 1

### "Looking Backward": The Adventure Mode

Early in his bibliographical survey of modern American science fiction (hereafter, generally, SF), Krishnamoorthy describes one of the "rudimentary functions of science fiction" as follows:

What the science fiction writer does with the novum decides the nature of his work. He may simply use it for painting marvels and horrors--to make the reader gape in amazement or tremble in fear. This is often styled the evocation of a "sense of wonder"; the works that do only this come under the rubric "Gee-Whiz SF". (1983: 2-3)

This thesis will examine the sources of this "sense of wonder" in SF. It will demonstrate that the sense of wonder is and always has been a crucial part of adventure fiction in general, not just SF. Further, we will also seek to show that significant instances of adventure fiction in all genres, including SF, "go beyond" the creation of this sense of wonder: that is, one can claim no very special significance or achievement for a piece of fiction unless it clearly transcends this sense of wonder. However, different genres have different ways of going beyond. Our focus will be on the metamorphoses of adventure fiction in SF, its characteristic ways of evoking a sense of wonder, and the recurrent patterns of meaning-making in some significant SF that take the texts beyond any simple definition of the sense of wonder.

Discussions of the sense of wonder in SF are hard to come by, even though references to the phrase occur often. For instance, "wonder" figures in Science Wonder Stories, the magazine that Hugo Gernsback began publishing way back in 1929; and the phrase, surely, is implied in the adjective in Gernsback's Amaz-

ing Stories (1926-29), which was the predecessor to his Science Wonder Stories. In fact, as far as implication is concerned, certainly many of the immediate sources of the sense of wonder that we will be discussing in this thesis are evident from the titles of the numerous (short-lived) SF magazines of the Thirties and Forties. When the genre's great editor, John Campbell, took over the editorship of Astounding Stories in 1937,

the new editor was confronted by new competition. A promising and colourful Marvel Science Stories appeared on the stands in 1938, to be followed by Startling Stories, Dynamic Science Stories, and Science Fiction. Fantastic Adventures arrived as a stable mate to Amazing, at that time owned by the Ziff-Davis chain--then Planet Stories, pursued by two magazines edited by a teenage Frederik Pohl, Astonishing Stories, and Super Science Stories. Future Fiction, Comet Stories, Cosmic Stories, and Stirring Science Stories pop up around the same time. (Aldiss 1986: 216)

"Wonder" is associated with SF not only in the titles of the magazines that have so definitively moulded its identity, and in such anthologies as Robert Silverberg's Worlds of Wonder (1987), but also in such pioneering critical exercises as Damon Knight's In Search of Wonder (1956; enlarged ed., 1967). However, though Knight's title takes "wonder" as the object of its quest, the book is primarily a collection of acerbic evaluations of the SF writers of his time: as Williamson says, "Exposing 'chuckleheads', and 'cosmic jerrybuilders', dissecting 'half-bad' writers, [Knight] brought a sharp mind and a new sense of value into the field" (1974: 315).

Indeed, even in an otherwise thorough bibliographic survey such as Krishnamoorthy's, we find no reference to where, if anywhere, the phrase, "sense of wonder" comes from; nor even who uses it: he merely says that the purpose of a certain kind of

naive SF "is often styled the evocation of a 'sense of wonder'". Perhaps it is all too easy to not bother any further with the phrase once it is used disparagingly to describe "Gee-Whiz SF". But the sense of wonder, as we shall see in the course of this chapter and the next, has a vastly greater scope than Krishna-moorthy grants it, and its resonances are various and surprising. Therefore this study.

One critic who does mention "this elusive quality" is Ben Bova. In an argument for SF as a "modern mythology", Bova adduces the vast scale of objects and events:

When a Larry Niven hero detours his spaceship so that he can take a look at the complex beauty of the double star Beta Lyrae, when James Blish creates a detailed and marvellous world of intelligent creatures of microscopic size whose world is a tiny pond, when A.E. van Vogt's time traveller swings across the aeons to trigger the creation of the universe--the sense of wonder inspired in the reader is twofold. First is the sheer stupendous audacity of the writer in attempting to create such exciting settings, and getting away with it! But at a deeper, perhaps unconscious, level is the thrill of realizing that the human mind can reach this far, can encompass such ideas, can both produce and appreciate such beauty. (1974: 13)

However, the sources of wonder that Bova identifies are far from limited to SF. They are to be found elsewhere too. Writers such as Isaac Asimov (in his vast output of non-fiction), and the popular historians of science and society, Ya. Perelman (1962), Jacob Bronowski (1973), Daniel Boorstin (1976), and Stephen Jay Gould (1991), for instance, are prompted by the second of Bova's sources - for a sense of wonder: "that the human mind can reach this far, can encompass such ideas, can both produce and appreciate such beauty". And, there is at least a third source for the sense of wonder in Bova's examples, which is the realization of

scales of phenomena and existence: both the very large and the very small invariably perspectivize our familiar scale of existence, the daily world we inhabit, what physicists call "middle-order reality": this effect of "scales" routinely lends power to many a myth in various cultures, and finds literary expression in forms like the Medieval Romance in Europe, Swift's novel Gulliver's Travels, and "fairie" stories and "Jack and the Beanstalk"-like narratives. The sense of the contingency of our existence, the sense of how easily things might have been otherwise, is a powerful motive that may make us re-view our own lives afresh. Such a sense of the contingency of our here-and-now informs, in letter and spirit, the work of popularizers of science like Lewis Thomas (197A), and Carl Sagan and Ann Druyan (1992), for example, and makes them regard even the most "mundane" phenomena around us with an almost endless sense of wonder, for what these phenomena imply about our existence. All these writers and works, then, not only create a vivid sense of wonder, but they do so to reflect on our lives: they do not merely say, "Look! How Wonderful!"; rather, they persuade one to ponder, "Look! This is Wonderful because. . . ." That they manage repeatedly to go to the "because" through the sense of wonder, never abandoning that "first, fine, careless rapture" (to borrow Browning's phrase), is the singular achievement of these writers. Significant SF too "goes beyond" the creation of a sense of wonder, as our discussions in the next chapter will show.

A rather more detailed examination of the sense of wonder in SF occurs in Gary Wolfe's discussions of the opposition of the

known and the unknown (1977: 94-116). After commenting on the lack of discussion of the sense of wonder that we noted above, Wolfe quotes a part of Ben Bova's reference to the phrase (although he wrongly attributes it to Reginald Bretnor in whose book Bova's article appears). Wolfe then quotes Sam Lundwall's passing mention of the phrase as well (1971: 24), describing that too as unhelpful. "Other writers on this subject", Wolfe declares, "are hardly more revealing" (115, n. 3). He then goes on to examine "certain recurring structures in science-fiction narratives" (95), concluding that

the known exists in opposition to the unknown, with a barrier of some sort separating them. The barrier is crossed, and the unknown becomes the known. But the crossing of the barrier reveals new problems, and this sets the stage for a further opposition of known and unknown. This barrier is crossed, yet another opposition is set up, and so on. (114)

The sense of wonder, Wolfe says, "grows in part out of the tension generated by awareness of this opposition, and the images of the sense of wonder are those which most strongly reinforce this tension, images that stand at the barrier" (114). These images are what he has earlier called "icons", "almost ritualistic images", such as "the spaceship, the creature, and the city" (95).

In speaking of the origins of the sense of wonder in the crossing of a barrier from the known into the unknown, Wolfe refers to a narrative device that is surely not the property of SF alone. Indeed, the opposition Wolfe describes is perhaps the characteristic narrative device that story-tellers in both literate and pre- or sub-literate societies have used throughout human memory to create a sense of adventure. The act of exploration, which is essentially the **attempt** to **bring** an unknown into the



ambit of the known, or in **confrontation** with it, is inextricably associated with the creation of a sense of adventure.

In the course of our brief survey of the history of adventure writing (primarily adventure fiction), we will return to the idea of exploration repeatedly, and see the variety of purposes for which this device has been used. The strange, faraway lands of which travellers tell (real, part-real/part-fictitious, or totally **fictitious--indeed**, the entire spectrum of "word-worlds" familiar to us from, say, colonizers' fictions from various periods of world history) have been one obvious, recurrent motif in evoking a sense of wonder. The journey along which strange, marvellous things are seen or encountered, and "wondrous events passing strange" occur, has been a perennial source in fiction and fact for evoking a sense of **wonder--Odysseus'**, and Marco Polo's travels, for instance. The creation of the strange setting, thus, has had a large part in the art and craft of evoking a sense of adventure, a sense of wonder. This is as true of an SF novel as it is of The Odyssey.

However, the moment of surprise, the encounter with the unexpected, may not necessarily involve a "going away" to a strange land. Various alternatives include the encounter with the unfamiliar in one's own life and world: which may range from the wonder of seeing a blade of grass push its way through the cobbled streets of the mighty city of London, the **"ultimate"** symbol of **civilization**, (in Defoe's Journal of the Plague Year [1722a]), to the sense of wonder at a life transformed by a mystical experience (in Robertson Davies' Fifth Business [1970]). The encounter

with the **unfamiliar** which transforms our perception of the familiar world is often **alternatively** imaged, instead, as an invasion by the unfamiliar into the familiar world--the staple device of the Gothic, of contemporary horror fiction and film, and much **alien-invasion** and **"BEM"** (Bug-Eyed Monster) SF. Yet another variation on the encounter with the unfamiliar is that such an encounter may not involve physical exploration at all: the shaman battles monsters of the mind, and Victor Frankenstein's "dark labours" are dangerous intellectual explorations. The sense of wonder of the **Frankensteinian** kind, which we **will** invoke often in this thesis, is captured even in Hamlet's well-known speech, "There **are** more things in heaven and earth, Horatio, / Than are dreamt of in your **philosophy**" (I.v.166).

Whether in the case of The Odyssey, in which the eponymous hero survives vast forces of nature and supernature that thwart his return to Ithaca, or in the horror film, The Exorcist (1973), where the familiar world of a teenager is rendered terrifyingly strange, or in the amoral pacts of knowledge that Faust makes with the Devil, the sense of wonder is inextricably linked with the sense of danger: awe mixed with terror. This Burkean variation on the Sublime we will encounter repeatedly both in our survey of adventure fiction and in our discussions of SF, thus enlarging the scope of wonder beyond a naive, wide-eyed innocence. As we shall see, often it is a certain quality in this admixture of awe and terror that lifts a text beyond what Krishnamoorthy calls the **"Gee-Whiz"**.

As the foregoing makes clear, no account of the sense of wonder in SF may be complete, nor would we clearly see what it

means to say that significant SF "goes beyond" the sense of wonder (as the title of our study claims), unless we examine in some detail the shapes which the creation of this sense of wonder has taken in adventure writing in general. Further, SF's genre-specific contribution to an enriched **understanding** of the sense of wonder that life and literature evoke can emerge only from an assessment of how various genres of the adventure mode go beyond the creation of a sense of wonder. For here we **encounter** a historicity, an artistic and technical umbilical link, a progression or development, in SF that too have found no genuine scholarly analysis in **SF-criticism**.

In fact, considering the obviousness and **extensiveness** of Science Fiction's debts to the adventure mode, it is surprising indeed that so little has been made of the links between them. This **lack** of attention on the part of writers and critics of SF **seems** even more remarkable when one considers the energy they have expended in trying to define and justify SF. Indeed, as the following section shows, Parrinder is right in describing the definitions of SF as constituting a "small, parasitic sub-genre in themselves"! (1980: 2). For these reasons, our survey of attempts at defining SF is followed by a brief literary history of the "shapes" that the adventure mode has taken in various genres from the **epic**, through the medieval Romance and the Gothic, to the various genres of the modern novel, especially SF. The third section of this chapter will then attempt a thematic discussion

of the adventure mode so as to examine various aspects of the creation of the sense of adventure. We examine the creation of setting, a prime source for the sense of wonder that adventure writing evokes; the creation of character, especially the creation of the figure of the hero, which gives narrative focus to the adventure; and the relation of both character and theme to narrative setting and our own real-life setting as an indication of the "significance" of the adventure.

From its very beginnings SF has been wondering what manner of "word-beast" it is. In the preface to the 1818 edition of Frankenstein (a preface reportedly written by her husband Percy Shelley), Mary Shelley, perhaps the genre's earliest self-conscious practitioner, speaks of the "the event on which this fiction is founded ... as not of impossible occurrence." Distinguishing her tale from tales "merely weaving a series of supernatural terrors," she states that the

event on which the interest of the story depends ... was recommended by the novelty of the situations which it develops, and however impossible as a physical fact, affords a point of view to the imagination for the delineating of human passions more comprehensive and commanding than any which the ordinary relations of existing events can yield. (7; emphases added)

More than a century later, H.G. Wells, in the Preface to the 1933 edition of his Collected Romances, describes the combination of fantasy, speculation and realism he is striving towards in his SF:

In all this type of story the living interest lies in their [sic] **non-fantastic** elements and not in the invention itself.... The thing that makes such imaginations interesting is their translation into commonplace terms and a rigid exclusion of other marvels from the story. Then it becomes human.... As soon as the magic trick has been done the whole business of the fantasy

writer is to keep everything else human and real. Touches of prosaic detail are imperative and a rigorous adherence to the hypothesis. Any extra fantasy outside the cardinal assumption immediately gives a touch of irresponsible silliness to the invention. So soon as the hypothesis is launched the whole interest becomes the interest of looking at human feelings and human ways, from the new angle that has been acquired. (Quoted in Parrinder 1980: 11-12; emphases added)

As we shall see in the definitions that follow, Wells has not only indicated the distinction between the mere "Gee-whiz" response and a genuine, serious sense of wonder, but also anticipated many of the approaches that later critics have taken. In his superb study of SF, Trillion Year Spree (1986), Aldiss says, "as with all arts, science fiction is [now] more concerned than ever before with its own nature" (28). If, however, the comments of Shelley and Wells are any indication, SF has been from its earliest days self-consciously distinguishing itself from other genres (and of course, acknowledging kinships with them also) in content, narrative technique, reader-response, and significance. And while Shelley highlights the "event" on which the story is based, Wells contextualizes the "invention" (although he does call it "the cardinal assumption") both in its technical dimension and its technical impact. Thus, even in their brief efforts at definition, they have been quite elaborate. And while neither explicitly speaks of the adventure mode, it is implicit in Shelley's "novelty of the situations" which develop, and markedly explicit in both Frankenstein and all of Wells' SF novels in the narrative itself, as we shall see in our discussion in the next chapter.

Often, definitions of SF have tended to be based on its "science" content, and definers have interpreted this term va-

riously. Hugo Gernsback (to whose magazines we owe the popularization of the term SF) defined "scientifiction" as "a charming romance intermingled with scientific fact and prophetic vision" (quoted in Scholes and Rabkin 1977: 37). In his early study Pilgrims through Space and Time, J.O. Bailey described SF as "a narrative of an imaginary invention or discovery in the natural sciences and consequent adventures and experiences" (1947: 10; emphasis added). In speaking of SF as an "intermingled" romance, Gernsback is also no doubt implicitly acknowledging SF's debt to the adventure mode, while Bailey does speak of SF as an adventure narrative, if only as a feature of secondary importance. Kingsley Amis, who himself is in comparison a mainstream novelist, in his influential lectures on SF (Princeton, 1958) said that SF treats "a situation that could not arise in the world we know, but which is hypothesised on innovation in science, technology, pseudo-science, pseudo-technology, whether human or extraterrestrial in origin" (1960: 18). Among these "SF-as-extrapolation" definitions, perhaps the most extreme one comes from the SF writer Robert Heinlein: SF is "realistic speculation about possible future events, based on adequate knowledge of the real world, past and present, and thorough understanding of the nature and significance of the scientific method" (1959: 22). This is a definition that ignores SF's debts to genres such as the Romance entirely, a debt that abundantly manifests in Heinlein's own SF. The view of SF as extrapolation that Amis and Heinlein advance continues to find favour, as for instance, in Gee's review of the Spielberg film Jurassic Park (1993) in which he says "all good science

fiction ... takes established science and pushes it just a little further than reality currently allows\*' (681; emphasis added). Any reader familiar with SF will readily acknowledge that the bulk of at least "popular" SF clearly fantasizes well beyond this reasonable-sounding constraint.

Other definitions have interpreted the scientific-technological content of SF more loosely. For Bretnor, SF is "rational speculation regarding the human experience of science and its resultant technologies" (1974: 150). The SF writer Sturgeon too lays stress on human beings when he describes a good SF narrative as a "story about human beings with human problems and human solutions which wouldn't have happened at all without its science content" (quoted in Krishnamoorthy 1983: 9). The writer, teacher and critic James Gunn says that SF deals with "effects of change on people in the real world as it can be projected into past, future or distant places. It often concerns itself with scientific or technological change, involves matters whose importance is greater than individual or community; often civilization itself is in danger" (1977: 1). Sturgeon's stress on the human aspect of SF, and even more importantly, Gunn's comment on the civilizational scale of SF, are features we shall encounter repeatedly in the SF we examine in the next chapter. Edmund Crispin sees SF as presupposing "a technology, or an effect of technology, or a disturbance in the natural order such as humanity, upto the time of writing, has not in actual fact experienced" (1955: 7). A later definition he offered described SF as an "Origin of Species Fiction", since it is "about us as we have been shaped by our genesis, biology, environment and behaviour"; he reiterates that SF

"is not really about the Martians, or Morlocks, or miraculously intelligent machines.... It is about us, here, now" (1963: 865; emphasis added). Crispin's view is one we shall have occasion to return to several times during the course of our discussion of SF novels in the next chapter, especially when we discuss post-catastrophe SF. Aldiss defines SF as the "search for a definition of mankind and his status in the universe which will stand in our advanced but confused state of knowledge (science), and is characteristically cast in the Gothic or post-Gothic mode" (1986: 25, emphases added). Quite apart from SF's explicit connection with the Gothic, in describing the **characteristic** activity of SF as a "search", Aldiss invokes SF's kinship with the Romance, or romantic quest narratives.

Comprehensive definitions such as those offered by Gunn, Crispin and Aldiss have often tempted definers to place SF in an **extravagantly** hierarchical relation to other genres. Thus Campbell, the famous **magazine-SF** editor, says that since SF "deals with all places in the universe and all times in eternity, so the [rest of the] literature of here-and-now is, truly, but a subset of science fiction" (quoted by Schmidt 1977: 28-9). In his theory of literary modes, Northrop Frye describes SF more modestly as "a mode of romance with a strong inherent tendency to myth" (1957: 49). The anthologist Moskowitz, however, heads in another parallel direction when he describes SF as "a branch of fantasy which eases the 'willing suspension of disbelief' ... by utilizing an atmosphere of scientific credibility for its imaginative speculation in physical science, space, time, social science and **philo-**



sophy" (1963: 11). Silverberg concurs, describing SF as a "subset of fantasy" which "works with that which is or seems possible but not yet a reality ... and tries to give unrealities the feel of reality ... coaxing from the reader a 'willing suspension of disbelief" (1987: xiii). Kagarlitski and Schmerl also view SF as a variant of fantasy (1971: 29-52; 1971: 105-111). Both Todorov (1975: 56-57), and Rabkin (1976: 119) see SF as parts of "super-genres"--the "marvellous" in Todorov's typology, and a certain space or stretch on a continuum of the fantastic in Rabkin's scheme. Brooke-Rose, finding both Todorov's and Rabkin's accounts too simplistic, draws on a wealth of **narratological** theory to tabulate the similarities between realistic fiction and SF in terms of narrative tropes (1983). While **narratologically** nuanced, with many fine distinctions made between narrative strategies, Brooke-Rose's analysis does not account at all for the history of SF in the adventure mode.

However, Bruce Franklin (1978: 3) and **Samuel Delany** (1971: 140; but see also **Delany's** other insightful SF criticism [cited in our **bibliography**], as well as **Tatsumi** [1986], and Dery [1993]) eschew discussion of root and branches altogether and consider SF as bearing a different relation to "reality" than other genres of fiction such as mundane fiction, historical fiction, and fantasy. These two critics, thus, invalidate a thesis such as the one Little advances that SF is "merely an industrialized fairy-land where impossible machines take the place of an **equally** impossible magic. The wizard is given a **lab** coat and called a scientist" (1980: 78). Among other critics who follow the **line** taken by **Delany** and Franklin are Dieter Petzold, who

classifies four different ways in which the "secondary worlds" of "fantasmatic" texts relate to reality (1986). Extending his earlier argument, Rabkin (1979) identifies the "metalinguistic" aspects of SF that distinguish it from a related genre such as fantasy. Drawing upon the work of the Russian Formalists of the early twentieth century, Darko Suvin offers a structural-functional definition of SF as "the literature of cognitive estrangement" (1979: 3-48), which he then develops in several articles and books (for instance, 1984 and 1988). However, as Parrinder rightly points out, Suvin's definition is not so much descriptive as "a highly normative one which asserts that SF has the presentation of a 'distancing' vision, leading to social criticism, as its essential (but usually unfulfilled) promise or purpose" (Parrinder 1980: 74). Using Suvin, Delany, and the work structuralist critic, Jonathan Culler (1975), Kathleen Spencer (1983) discusses briefly some characteristic narrative strategies of SF that set it apart from related genres. Discussing the different relations SF and fantasy bear to the idea of "conceivability" (i.e., plausibility), Manlove defines fantasy as "a fiction evoking wonder" (1975: 1). However, this description applies equally well, if differently, to SF, as we shall argue in the next two chapters.

Indeed, the relation of the worlds of fantasy (and by extension, all fiction including SF) to "reality"--"one of the few words which mean nothing without quotes" as Nabokov aptly says (1956: 314)--has occupied many, many critics. Since a discussion of that will take us far afield from the task at hand which is to adumbrate definitions of SF, here we will only direct the inter-

ested reader to the overview of the "definitions, genres, import" of the "literary fantastic" in Cornwell (1988).

As even this brief account of definitions and discussions of SF indicates, much discussion is available in the secondary literature on the genre about the content, context, techniques and "agendas" of SF. However, very little explicit attention has been paid to the pervasive mode of SF; that is, the apparent shape of the story or narrative in the bulk of SF, adventure, seems to find no genuine acknowledgement in the discussion. Even where more-than-passing mention of adventure in SF has been made, as in Asimov (1971), a very limited sense of the idea of adventure has been explored. Asimov divides SF into three categories depending on how it treats an invention such as the automobile. Beverly Friend summarises the three kinds of SF as follows:

A gadget SF story would concentrate on the car and its workings, climaxing with the new invention puttering down the street. Adventure SF would present the inventor with a beautiful daughter, expressly so that she might be kidnapped and ultimately rescued via judicious use of the new invention. Social SF would look beyond the invention itself to its ramifications ... traffic jams, highway death tolls, possibly even pollution. (1977: 140, emphases added)

Clearly, even Asimov seems to interpret adventure in a simple-minded manner here.

In general, of course, adventure as a category of literary analysis has tended to be ignored or treated mainly in passing reference, or else, relegated to domains categorized as paraliterature, subliterature, or juvenile literature. In anthologies with such titles as Boys' Adventure Stories, it has been relegated to a domain altogether outside serious discussion of literary genre or technique, subject or audience. As Martin Green has

argued in his superb study of the intimate connections between adventure writing and imperialist projects, this lack of attention has worked to the detriment of creation of serious literature itself (or of serious reading of implicit ideological and other burdens in works of literature):

Insofar as serious writers have turned away from the adventure tale, and its subject matter, the frontier and the empire, they have turned away from an essential part of modern history. I think that turning away has weakened the character of their seriousness. (1979: 347, n. 11)

Perhaps the main reason for this sustained lack of attention has to do with the ready or unthinking **identification** of the idea of **"adventure"** merely with physical action and sensation. For instance, Hinckley and Hinckley (1989) distinguish novels of adventure from those of "suspense" and "drama" in the following fashion in their guide to American bestsellers:

A story of exciting exploits, typically of a physical nature and **out-of-doors**. While the characters may be placed in high-risk positions, the emphasis is on the action more than the suspense. (140)

But the omnipresent elements of adventure, those thematic and narrative features of a text that evoke a sense of adventure, are hardly **confined** to merely physical action and sensation: exploration, the creation of a setting, narrative suspense, the encounter with an Unknown, conflict between a hero and a villain, and the more or less satisfactory presentation of the conflict between what they stand for, the besting, the initiation of the hero, his growth, and the challenge given to him to show leadership qualities, for instance.

Thus, **characterizations** of adventure based on physical ac-

tion and sensation, while generally true as far as they go, are quite clearly inadequate responses to the adventure mode. For even a cursory glance at examples of adventure writing will show many instances in which the sense of adventure does not lie (only, or at times at all) in physical action, or in the literal "chill running down one's spine".

The omnipresence of the elements of adventure in longer narrative literature is striking. This will be evident from even the brief history of adventure writing that follows. Quite apart from the sheer range of genres that employ this mode (from the epic to spy novels), the variety of the ends which elements of adventure have been expected to achieve is vast indeed. These ends range from the construction of a heroic ideal in the epic and medieval Romances (different in many ways yet similar in the obvious elements of adventure such as encounters with monstrosities and landscapes of difficulty), through savage Swiftian satire, to intrepid explorations of the tenebrous psyche that many masters of the modern novel have undertaken. Considering the uses to which adventure has been put and the range of genres it has radically affected, it is incorrect to see all adventure narratives merely as **action-packed** thrillers which serve to keep unpleasant and pressing questions of modern existence at bay. Indeed, this whiff of "escapism" seems to hang in the air always in critical and canonical assessments of adventure fiction. It is important for us to notice the escape function of adventure in general, because the charge of escapism is quite regularly levelled against SF as well.

Further, it is not just genres of fiction that adventure

permeates; travel writing, as we will **see**, is as indebted to the adventure mode as any genre of fiction, and in turn has moulded adventure fiction **decisively**. This much can be deduced from the propensity of adventure fiction of many kinds to exploit the experience of a journey to provide the presence of, and encounters with, the unfamiliar, the unknown, the strange. Narrative devices of the adventure mode may easily be found even in genres as distant from adventure writing as the popular science essay and the **autobiography**. It is this use of themes and narrative devices associated with excitement and adventure in a wide variety of domains other than fiction, that forces us to speak of adventure not as a genre but as a mode.

Maintaining a working distinction between genre and mode allows us to defer questions of defining science fiction and urges us to examine its existence as genre and mode instead. That the issue of defining SF (as opposed to describing it) needs to be deferred (if not altogether by-passed) is evident from our foregoing summary of definitions of SF at the beginning of this chapter. As Wilson (1990), in his wide-ranging study of the **them-**atics of "play" in Western literature, has insightfully and persuasively argued, discussions of definitions of genres are necessarily inconclusive since literary categories such as Gothic, or postmodern, denote at one and the same time a kind of writing that emerged at a particular historical period, as **well** as a loosely identifiable set of themes and narrative techniques which may in fact be found in various periods of literary history: thus the Odyssey is full of the supernatural while yet not a Gothic,

and Sterne's Tristram Shandy is quite thoroughly self-reflexive without being post-modern. Thus, genealogies of SF prepared by various authorities have included the Sumerian epic Gilgamesh, Homer's The Iliad and The Odyssey, and Plato's Republic. Such a problem with literary categories, of course, is only part of the reason why SF has been ascribed such ancestries. At least as important a reason is the attempt to give **respectability** to what has often been regarded by canon-makers not only as a **subliterature**, but one that is fit only for adolescent minds. Apologists of SF therefore tend to make **correspondingly** forceful (if also extravagant) claims for the genre's 'hoary' ancestry: witness Alex Eisenstein and Lester del Rey's ascriptions of the Icarus legend, and Gilgamesh, respectively as SF (Aldiss 1986: 446, n.3, 4).<sup>1</sup>

One way around debates about origins of SF and various foundationalist myths ("In the Beginning was the\_\_\_\_\_"), as well as questions about what is to be included as SF and what excluded, is to maintain a working distinction between genre and mode. While genre signifies a kind of writing associated with a historical period, mode denotes a set of themes and narrative techniques, in some sense "always already" available to the author. Thus, since adventure writing is to be found in a wide variety of genres and an overwhelming family-tree that arches over vast historical time, it may be called a mode. Similarly, as the elements of the Gothic are employed in an increasingly large number of genres, from Edgar Allan Poe's poetry to Robin Cook's medical **thrillers**, the Gothic too tends "mode-wards". And in so far as a great deal of modern SF creates **technological** Utopias (or dystopias), a **pre-modern** example such as More's Utopia (1516) may be

retrospectively labelled science fictional. Hence too, scientific and technological advances are often described in the popular press as ushering in "science fictional scenarios". Fancifully, one might describe genre as nominal since it denotes an entity, and mode adjectival since it describes properties. Further, borderline cases such as Shelley's Frankenstein (1818) may with equal legitimacy be described as Gothic SF, or science fictional Gothic (among other possible descriptions) depending upon the requirements of the argument.

Multiple descriptions such as those of Frankenstein are possible firstly because SF is a retrospectively created category (like so many others). That is, the term had its origins in the pulp fiction of the twenties of this century. Only thereafter have attempts at definition sought to bring some nineteenth-century texts into a category that did not exist at the time of the writing of those texts. Indeed, Ketterer (1979) adduces just this reason for not calling Frankenstein SF (cited in Aldiss 1986: 51). Other critics (e.g., Schulz [1987]) have persuasively argued that there is an important discontinuity in genric traditions between the Utopian writing of the latter half of the nineteenth century and the American pulp SF of the first two decades of this century--a discontinuity in theme and readership that needs to be kept in mind as one seeks to subsume both kinds of writing under the rubric SF.

A second reason why Frankenstein may be described variously lies in the ways genres are constituted and legitimated. Today SF



is a **well-organized** genre with its own forums of magazines and journals; both publishing houses and academic presses have series of and on SF. It has its own annual genre conventions and systems of awards (see Killheffer [1991] for a recent overview of the publishing industry's involvement in SF) as **well** as fan-clubs and other "cult" phenomena. The amount of secondary material available, already vast, is increasing rapidly. An SF text is thus in some sense **over-determined as** SF immediately upon first appearance. It acquires the SF label and that is reaffirmed by the several institutions mentioned above. Now, Frankenstein comes from a period when none of these institutions exerted themselves in the interest of SF, and even if re-issued under an SF imprint it still occupies only an ambiguously science fictional niche.

That even Huxley's Brave New World (1932) and Orwell's 1984 (1949) remain only ambiguously science fiction is perhaps the more surprising fact, given that these two novels have for long been among the most well-known **SF** novels where non-SF readers are concerned. That is, the fact that Huxley and Orwell published in the mainstream (and not under an SF imprint) meant that their books were seen as continuations of other generic traditions such as **utopian/dystopian** writing, or political fiction, thus reinforcing our point that equally valid multiple generic descriptions of a work are possible, as well as the important observation that the modality of a work allows for such multiple **descriptions**. Market forces' such as the publishing industry's fiat on what **counts** as **SF** and what does not are crucial determinants of how even writers view their work: a fact evident in the desire of authors like Vonnegut (1962; also see Klinkowitz and Somer 1973),

and recently, Delany and Sladek (see Disch [1992]) to break out of the "science fiction ghetto". Even more instructive of the ways in which genre identity is contingent upon socio-political factors is the occasional attempt by a publishing house to market a text originally published as SF, afresh in the mainstream. Scholes narrates the strange fate that befell Daniel Keyes' "Flowers for Algernon" (1959) as it was shorn of its extra-textual generic markers, one by one, as it journeyed from SF to mainstream to film. Scholes reports that the story

was made into a movie and given, of course, a new title: CHARLY (with the R childishly **reversed**).... My paperback copy ... has a scene from the film on the cover, with the word CHARLY prominently displayed, and a bundle of "rave" quotations from reviewers on the back cover. Nowhere on the cover of this book does the expression "science fiction" appear. Even the Hugo award (which is at least as reliable an indicator of quality as, say, the Pulitzer Prize for Fiction) goes **unmentioned**. Inside in very fine print, the ultra-snoopy purchaser may find in the back pages some words about the author, which indicate that this work first appeared as a "magazine story" (but the name of the magazine is suppressed) and that it won a Hugo award as the "best science novelette" in 1960. Even there, the cautious editors have managed to avoid the stigmatizing expression. Flowers for Algernon has gone straight, folks; it has passed the line around the SF ghetto, and to remind us of its sordid history would be downright impolite. And it might chase away a lot of potential customers who "hate science fiction". (1975: 55)

This discussion of the distinctions between genre and mode began with the observation of the vast number of genres which employed the adventure mode. After drawing some of the lineaments of the adventure mode and its presence in various genres, we will look more closely at the ways in which adventure is employed in a single genre, science fiction. Such an exercise, we hope, will allow us, firstly, to see how adventure informs different SF

texts to different degrees and to different ends, and secondly, how these **intersections** of adventure and SF modify our notions of both adventure and SF as such.

Indeed, it is one of the aims of this thesis--for general reasons as well as for a better **understanding** of SF--to try and recover adventure as a literary term and modal category from its widespread **underestimation**, even **disparagement**. We hope to do this by adumbrating the range of ways in which it informs texts, even though the focus of the present argument **will** be on SF texts. It is proposed to attempt this recovery by examining the ways in which SF texts employ such elements of the adventure mode as the figure of the hero (as distinct from merely the "main character"), the journey to the strange land, the creation of an unknown setting, and the growth or initiation narrative of a **"representative"** character, even as these texts engage with contemporary reality. We hope that such an exercise **will** demonstrate the degree to which SF both participates in the traditions of adventure writing and predictably and **characteristically** modifies those traditions.

In preparation for the attempt to achieve the above aim, this introductory chapter will undertake an overview of adventure writing. A thorough-going history of adventure writing, incidentally, still remains to be written. However, two book-length studies which focus on aspects of adventure writing may be mentioned. Paul Zweig's The Adventurers (1974) is a fascinating, if somewhat **idiosyncratic**, discussion of a variety of adventurers, among them **Odysseus**, Robinson Crusoe, and Don Juan. As Martin Green says, Zweig finds that "adventurers always flee women, and reinvent

themselves as men, in order to find wholly male pleasures; [Zweig] cites Achilles and **Patroclus**, Quixote and Panza, as pattern **examples**" (Green 1979: 346, n. 11). Zweig's account, while quite illuminating on such **"adventurers"** as Odysseus, leaves out a much of the **socio-cultural** matrices of adventure writing. Perhaps the best available account of those aspects of adventure writing is Martin Green's Dreams of Adventure, Deeds of Empire (1979) which argues elegantly and persuasively that

the adventure tales that formed the light reading of Englishmen for two hundred years and more after Robinson Crusoe were, in fact, the energizing myth of English imperialism. They were, **collectively**, the story England told itself as it went to sleep at night; and, in the form of its dreams, they charged England's will with the energy to go out into the world and explore, conquer, and rule. (3)

In collocating adventure and empire Green **intelligently** delimits the scope of his discussions of adventure. For all that, his study of adventure writing is a wide-ranging one **with** implications as far afield as cultural studies and pedagogy, indicating, no doubt, the magnitude of the task ahead for the critic who undertakes a full-fledged history of the adventure mode.

The following brief history of adventure writing, on the other hand, owes much to Satyasree's discussion of the writings of Richard Jefferies (1988) as to these other works of criticism. After outlining its historical development, we shall discuss the adventure mode in terms of some of its **characteristic** themes and narrative devices, for instance the crucial thematic opposition of the Known versus the Unknown. This discussion **will** prefigure the variations that SF **characteristically** "plays" on the almost stock themes and narrative techniques of adventure fiction. In

the second chapter, subsequently, we will examine the elements of adventure which SF in particular employs, and the purposes for which it employs them.

#### Adventure: a Background

The literary associations of adventure, which reflect the bewildering yet quotidian real-life phenomenon of adventures which people encounter, may be adumbrated by going to the word's original as well as cumulatively acquired meanings. The word "adventure" comes from the Latin roots "ad" and "venire", which literally mean "to come at" or "to chance upon" something. The word as we know it in English is formed by the combination of the prefix "ad" with the word "venture", which means experience at-a-venture, that is to say an experience or undertaking involving chance or happenstance, and which includes a measure of risk or danger. Thus, unexpectedness--and as we shall see, in some self-conscious adventures, even an expected unexpectedness--also becomes one of the essential elements of the idea of adventure. This unexpectedness is usually experienced by the character-participant-narrator-commentator, who offers (or offer) an organizing focus for the adventure.

If we look at the genealogy of adventure, certain crucial and basic facts emerge. Any event in real life can be regarded as an adventure if it is made up of a combination of the following factors: a possibility of undergoing a significantly, markedly new experience (quite frequently, indeed, such an experience

arises from a journey); naturally, a character-participant who encounters the experience; chance or unpredictable happenings more or less beyond the control of the character; and the unusual or heightened effects, on the character, of the happenings as experienced by some real person. In real life, again, anything that someone thinks of as an adventure is an adventure, accompanied, no doubt, by such biochemical indicators as an upsurge in adrenaline level in the blood, vasodilation of the superficial blood-vessels, etc, and of course the heart that beats harder, the sweat that breaks out on a body, the thrill of excitement or fear experienced. The sensational effects that adventure fiction "typically" creates are, after all, based on very real patterns of experience.

In literature, in contrast to real life, the creator of fictitious adventures has to create, and make the reader feel, the character's sense of adventure; a literary adventure does not come into existence, does not simply happen, as does a real-life adventure but has to be brought into existence. In a very important sense, consequently, a literary adventure is a somewhat paradoxical creation of the unexpected. For it is knowing, deliber-

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ate, predictive. Adventure narratives, then, chiefly comprise all the strange and exciting things that may happen to their characters, whether or not the telling chooses to emphasize the happenings (the action) or the character's reaction to them (the psychological effect). Predominance of such out-of-the-ordinary occurrences and the protagonist's involvement with and reaction to them form the basic framework of the genuine adventure narrative, whether or not it deals with other overt themes or works

towards fulfilment of hidden or not-so-covert programmes, for instance, to excite the reader, or to "reform" him. Martin Green offers a preliminary definition of adventure which serves to distinguish, for the purposes of his study, "between the romances and the adventures ... : using romances for the Scott and Scott-type books, adventure for Defoe and his affiliates" (1979: 24). "In general", Green says,

adventure seems to mean a series of events, partly but not wholly accidental, in settings remote from the domestic and probably from the civilized (at least in the **psychological** sense of remote), which constitute a challenge to the central character. In meeting this challenge, he/she performs a series of exploits which make him/her a hero, eminent in virtues such as courage, fortitude, cunning, strength, leadership, and persistence. (23)

In the light of these pared-down definitions, the advent of adventure fiction cannot be seen as having occurred in the work of avowed, **self-conscious** and highly successful latter-day writers like R.L. Stevenson, but in the earliest human attempts at **story-telling**. Clearly, no story will grip its audience unless it imparts to them to some degree a sense of the unexpected (again, often, an expectedly unexpected event), of suspense regarding the **novelty** of the action or of the reaction. For an account of an event to become a story, therefore, the event has always had to contain within itself, or be "**given**" in narration, a sense of **anticipation**. If the event which is recounted contains a sense of adventure, its audience will be gripped by the matter itself: such is the expectation, quite frankly fulfilled for vast **readerships**, of the formula adventure narrative, one that relies on the standard list of sensational features **alone** for its impact. One

finds recurring use of this facility in all literatures of all ages. On the other hand, it is always possible to colour, heighten or intensify the sense of adventure by the manner and method of narration, even when the events are not obviously chancy or perilous. This brings us to the "artist", or the craftsman of heightened effects of adventure, and the craft he practises.

The subject matter of the early artist of adventure, the itinerant singer or the shaman who recounted or re-enacted folk tales, myths and legends, was the apotheosis of ordinary types of exciting encounter in the extraordinary adventures of extraordinary yet conventional heroes (in the case of the shamans, themselves). These heroes fought with gigantic, even monstrous natural or supernatural forces of evil, confusion, and tyranny or pursued goals nearly or quite beyond human ability, barely within the **realm** of our imagination, even: therefore the wide-eyed and open-mouthed response to such narratives in juvenile listeners and in all other types of unschooled (i.e., unspoilt, un-cynical) audiences. It does not take much, thus, to see how the "sense of wonder" with which we began our discussion forms part of the response to all adventure in some sense. In passing we may note that in the presentation of all stock adventures in conventional forms, which are invariably performing arts, a great deal of very elaborate preparation is needed on the part of the **narrator-actor**. And this preparation reflects both **culture-specific** and highly developed and various crafts. For instance, the Kathakali **dance-drama-adventures** of Kerala or their counterparts in Thailand or Indonesia employ highly elaborate costume, make up, masks and accessories, **musical** accompaniment and dance techniques **ela-**



borated and kept alive for centuries by highly dedicated and disciplined troupes and schools of performers. The consequences of ignoring such contemporary performing adventure arts and their ancient ancestry would be disastrous for any genuine effort to understand this perennial and clearly universal aspect of human life, the narration of adventure. That the occurrence of such performance, whether by select and specialized people, or participatory, is found in all cultures need not be elaborately proven once we recognize its range from Cossack dances to Amerindian **pre-enactments** of hunts, from medieval Biblical dramas to African or south-east Asian dance dramas, and their progeny in modern "folk" forms such as the popular film with its invincible hero and the rewards he receives while enthralling audiences all over the world. This much is clear from all of them, that they are different variations on the same theme, the struggle of humanity against forces beyond their normal powers to withstand or understand.

Interestingly, and significantly, at least one contemporary account of the creative writer is thoroughly reminiscent of the shamans' **explorations**. Susan Sontag, in an essay on the extremes of experience that avant-garde writing explores, describes one of the tasks art has performed as "making forays into and taking up positions on the frontiers of **consciousness** (often very dangerous to the artist as a person) and reporting back what's there". It is because of this task which the artist performs, she says, that "within the last century art conceived as an autonomous **activity** has come to be invested with an unprecedented stature--the nearest

thing to a sacramental human activity acknowledged by secular society" (1967: 92). Sontag's account of the artist's task, of course, draws heavily on the terms with which adventure writing is conventionally associated: forays, frontiers, and dangers. As we shall see in the next chapter, SF is often involved in the portrayal of just such forays into dangerous physical, moral, emotional and intellectual territory. Beginning in the dim (pre-) history of shamanistic narratives, then, the adventure tale has undergone transformations through the epic, ballad, Romance, the conte and the (short) story; its transformations have continued in the novel from its very beginnings. (This is a process most clearly evinced by western literature in the early development of the form and emulated in recent times by non-Western literatures).

As a well-developed, consolidated and "heroic" literary tradition, the epic may be analyzed for its use of the adventure mode and as the first major recognizable literary form to do so. We must, however, not forget the long, incremental, stratified history of arche- or proto-adventure narratives from which all epics are eventually composed. The subject matter of the epic, generally great themes such as the rise and fall of an entire civilization, is explored by means of the adventures of the hero that at least in part include encounters in some supra-human realm of experience. Aeneas, Odysseus, or Rama become elevated representatives of their cultures, even mediating between it and the gods. Their adventures lend unity to the large scope of the epic action. In the hands of the epic story-teller, the adventures of the hero become occasions for examining (and perhaps

reaffirming) the established values of that **civilization**. The adventure represented in the epics occurs, if not in, then within sight of a higher realm which is inhabited by gods and other superhuman or **elevated** figures. The epic hero himself is, or at times rises to become a half-human, half-divine personage whose adventures are either caused, or their progress complicated or furthered, by the gods (precursors of later devices of Chance). Thus, while an audience may recognize the humanity as well as **representative** role or value of the epic hero, they may not readily identify with him, since the distancing arises partly from superhuman adventures. **Indeed**, traditional modes of adventure narration everywhere rely on sympathy rather than on identity with the characters, and exploit the distance thus established for creating for **themselves** a sacred status and niche in the culture. However, the hero's actions and reactions severely and seriously test, and affirm and reaffirm, the ethical framework of the audience's culture; indeed, the hero's tasks are at times **specifically** undertaken on their behalf, as the Pandavas and Krishna do in the Mahabharata. While the recurring, universal or **culture-transcending** aspects of these narratives make for the hold that these tales have on human imagination, their dissimilar details confirm the endless **possibilities** of the adventure mode **itself**.

The scale of theme and action is perhaps the most striking similarity between the epic and SF. In fact, as we saw at the beginning of this chapter, Ben Bova and others have argued for SF as a "modern mythology" largely on the basis of the sense of

wonder evoked by the sheer scale of action, while Sontag as we saw argues for the same idea in more general terms. The scale of the epic as a crucial feature of its aesthetic power as well as social, even communal has, of course, long been known: "Longinus" bases his theory of the Sublime on precisely this aspect. As Atkins explains in his commentary, "Longinus" believed that

grandeur in literature appeals irresistably to man.... mankind is drawn to what is vast or great or beautiful in Nature, to the great waters of the Nile ... to the lightning flash of heaven or the fierce fires of Etna.... the world-embracing stride of the steeds of Hera, the cosmic nature of the upheaval occasioned by the battle of the gods, the transcendent image of Poseidon under whose footsteps mountains and forests tremble, or again the divine heroism of Ajax praying for light, not safety, in the darkness of defeat. (Atkins 1934: 238, 240)

While "Longinus" cites examples, as do many modern critics, from Western culture, he does so partly from ignorance of parallels in other cultures, and partly from a desire to understand and explain his own culture. Parallel lists can easily be made and the same point asserted by examination of instances from other cultures as well. Entire worlds under threat and the future of entire civilizations hanging in balance are common SF themes, as indeed, are epic battles fought with weapons and shields of unimaginable power: irresistible force meeting immovable object. Wells' The War of the Worlds (1898) is thus a typically explicit SF title. Again, as in the epic, the heroes in SF too undertake their stupendous tasks on behalf of entire civilizations. And here too, the action often takes place within sight of a "higher realm"; often the battles humanity fights in SF are, unknown to it, part of a larger conflict, involving civilizations far in advance of humanity, between the Devas and Asuras, so to speak:

E.E. Smith's "Lensman" series (Triplanetary [1948] for example) is a pioneering instance of this elevation practised by SF.

It is well worth stating here, again in relation to the sympathetic distancing of audience from narrative action, with regard to the majority of epic and non-epic adventure narratives in the long history of this mode, that in the main such narratives tend to be "descriptive" in method (not "dramatic", although the specified or generalized narrator switches these methods according to desired effect, and in any case the "descriptive" is often "dramatic" in an affective, if not technical, sense). They concern adventures in the (usually distant, already legendary) past. They are in this important sense historical documents, whatever their authenticity vis-a-vis established or establishable historical facts, just as they are themselves important historical documents because of their incremental and cumulative origin. This preoccupation with real or presumed or even repeatedly and consciously embroidered contents of earlier or by-gone times will be a significant point of contrast when we come to discuss all futuristic fiction, including much SF. The later history of the adventure narrative also appears to be a gradual descent or movement away from elevated, and venerable narrative conventions suited to distant matter and large cultural scope of epic or epic-like narratives, till it ultimately forsakes that domain and ventures into immediate reality with that palpably social narrative form, the novel. (The, classic exploration of this "descent" is, of course, Frye's [1957] analysis of literary forms by the relation that their heroes bear to the world around

them. )

In the epic the adventure is at a higher or superhuman plane, while in the next dominant form of adventure literature, the medieval Romance, in terms of the abilities of the hero and his adversaries, we find that the adventure may be said to operate at a slightly lower (i.e., more mundane, though still highly stylized) plane. Heroes of medieval Romance, such as the Knights of the Round Table (in the tales of Gawain or Roland for instance, or in Malory's Morte d'Arthur), in contrast to Odysseus, courted or went abroad assertively. They were questors, or agents, in search of adventure, **accomplishment**, recognition and glory: similar motives drive many a later "adventurer", both in fiction and life, as we shall see. Themes of love, honour and religious (Christian) duty predominate in this form as primary motive forces of the ventures presented to us, combining with the **quest**, initiation and testing of the hero. Also, unlike the "cosmic" goals of many epics, Romances have clearly limited or at least specifically defined and **culture-specific** social goals such as those of winning favour of the sovereign, or providing protection to innocent people, or rescuing damsels in distress. The theme and content of Romances being thus more worldly than those of an epic, and supernatural in a more "magical" sense than a divine sense, in the course of the adventure in a Romance, the structure and hierarchy of social, moral and spiritual values is more clearly evident **and** it is represented much more obviously by the Romance hero. The testing of Sir Gawain by the Green Knight not

only suggests the high value placed in principle on veracity, honour, and strict moral conduct within both specific and general ethical compacts in that society, but it also reveals the inner, spiritual weaknesses (and, to believe the Gawain poet's ironic treatment, even bankruptcy) of that society. Incidentally at least, therefore, we must see in the more sophisticated medieval Romance an ancestor of the later more overtly social-concern form, the novel.

Although the shift from the epic to the Romance illustrates the changing context of adventure in a changing world (for instance, the new values, the new technology, the new social order, etc., reflected in it), adventure as such still remains elevated in it, now occupying the middle ground between mundane and supernatural worlds. The actual task of bringing adventure to bear upon the immediate social reality--that is to say, in a recognizable or realistic treatment of realistic circumstance and relationships--was left to the novel. This development, it will be seen, hardly abandons the adventure mode, but merely secularizes, rationalizes it more, and this change is in tune with the changes in intellectual-technological-political changes which are characteristic of the three major European movements towards modernity--the Renaissance, the Enlightenment, and the Industrial revolution. The task devolved on the novel through early picaresque narratives. The palpably, deliberately poor, and often parodic imitation of a heroic character in picaresque narratives, who is on the margins of society--far from "representing" it--is motivated either by human necessities of food and shelter or criminal tendencies or, even delusion, and is involved in several reason-

ably independent episodic adventures. However, as Sieber points out, these "European rogues", at the end of the narrative, far from remaining "hunted fugitives or social outcasts, had improved their situation **considerably**. Whether country-gentlemen, prosperous planters or pilgrim hermits, they had advanced beyond the level of mere survival" (1977: 55). Whether or not the narratives reveal conscious satirical intentions, in the course of the heroes' travails, however, they lay bare the corruption, **ruthlessness** and **pointlessness** of (usually) outdated customs and moral conventions mainly observed in their breach in their contemporary society. The satirical purposes of Don Quixote (1616), and those English descendants of the picaresque, Moll Flanders (1722), Joseph Andrews (1742), and Roderick Random (1748) are quite evident.

Such is the resilience of the adventure mode that apart from using the picaresque model for the by then conventional satirical purposes, Defoe in Robinson Crusoe (1719), Swift in Gulliver's Travels (1726), and Fielding in Joseph Andrews (1742) and Tom Jones (1749) created new types of adventure heroes going beyond the aristocratic or **psuedo-aristocratic** types. These earliest fictional explorations of the modern period explore, as their protagonists' motives, a **dissatisfaction** with their middle-class or lower-class lives, and a wanderlust. Through his **eponymous Picaresque** heroes Fielding, for instance, exposed the foibles and vanities of the human race, **represented** by their contemporary **Society**, episode after episode accumulating in the process into composite "comic epics in prose". Fielding even presented a frank



manifesto of a prose-epic used for moral purposes. Indeed, so rich was the adventure mode in its **reincarnation**, that the same century also produced in English an outer-fringe adventure classic in Laurence Sterne's Tristram Shandy. (1759-1767).

Defoe's Robinson Crusoe was an entirely different kind of hero. Robinson Crusoe is not **just everyman**, he is a modern everyman, for he belongs to a recognizably new social class altogether, the "middle" station in life, thus **simultaneously** moving away from the privileged conventional model of the hero and giving rise to a new and just as privileged **"modern"** hero, the middle-class adventure protagonist. That the type proliferated need not be specifically asserted because it is so obvious from the history of the **novel** in the last three hundred years or so. Crusoe apprehends the world in the "best" traditions of the Enlightenment in which the world is treated confidently as measurable, **comprehensible** and manipulable. Combined with this **Enlightenment intellect** is a British pragmatism, a new pattern of social-economy held up as ideal. The island itself is **technologically** virgin. However, Crusoe brings with himself a large number of skills and primary artefacts or **tools** which he then exercises to demonstrate how a use may be found for everything on the island. With these skills and this attitude he sets out to master the island. He fashions implements and weapons, captures and domesticates goats, begins agriculture, devises a calendar, and builds a stockade--in short marking time and space around him in characteristically **English-human** fashion and **pragmatic-adventurous** ways which eventually lead to another recurrent adventure (and **SF**) pattern, the creation of a colonized land. As Green argues,

what Crusoe does on his island is primarily to create value.... The ship is a wreck; it is no longer any use; the island is a desert; it has never been of any use. But Crusoe, swimming out to the wreck, and paddling back with loads of planks, ropes, nails, carpenters' tools, sews the two together and creates something new out of the two of them; creates a property. (1979: 76)

While there is a supernatural element in Robinson Crusoe, it is so comically **opportunistic** as to amount to parody of traditionally elevated supernatural (epic, Romance) presences. In consequence, then, Crusoe is the ancestor of SF heroes in more than one sense. For he is **technological** man, Homo faber. While "crafting" the island is one way in which he overcomes the non-**technological** strangeness ("**primitiveness**", which was until recently accepted as life's condition in Romance narratives) of the island, **meticulously** recording all that happens to him is another. By giving a form to his fears--a narrative "habitation and a name" in his journal--he renders them **understandable** (at least to himself). Unlike Romances, therefore, which chiefly described landscapes etc., as locations of adventure, Robinson's records constitute a thus far **unanticipated** Inventory-type of description. We shall encounter this property, or **method** of dealing with the landscape of difficulty, in a great deal of SF also. Robinson Crusoe converts unthinkable, paralysing fears into problems for which solutions exist and can be found, again in a parody of epic or Romance heroes undertaking a venture at hap-hazard and almost succeeds in overturning an **essentially** adventurous experience into a **problem-solution** type of external, superficial and exploitative experience.

For all that, Robinson Crusoe retains a terrific tension

between **technological** smugness and supernatural as well as mundane fear and doubt: witness Crusoe's fear of God, the unknown, danger and death all of which the episodes of the novel illustrate most **dramatically**. Crusoe's terror of the unknown, as we shall see, is an important adventure experience which finds its major expression in Gothic fiction at the end of the century, while in this novel itself it is limited to a few brushes with **death-by-drowning** and the "footprint in the sand" experience of an alien world. However, for Crusoe, the explicit adventure of survival and stay on the island are a peculiarly narrow realization of the **"rational"** history of Europe--in the light of the phenomenally subtle analyses of human situations which the form achieved **subsequently**, Crusoe's encounters are somewhat easily reducible to a series of problem-solving exercises. Each "surprising adventure" of Crusoe that the sub-title of the novel promises results in his **domesticating** the island a little more.

Both the **problem-solving** and the utilitarian aspects of Crusoe's attitudes to the island, the exercise of what the philosopher Charles Taylor calls **"instrumental reason"** (1992), were to find far more explicit expression in the **technological** SF that began a **century-and-a-half** later with Jules Verne and continues into the **late-twentieth** century. Thus, given the thematic trajectory a great deal of SF has taken, it is entirely appropriate that Defoe thought of those tracts of land in which no human being could be seen as "desolate". We will have more to say on parallel aspects of SF's world-making in the next chapter.

For all the "strange surprising adventures" that Crusoe undergoes, his survival in solitude, as Zweig persuasively argues

"is one of eighteenth century's staunchest defenses of man's social nature" (1974: 120). What begins as an outward-bound adventure with the protagonist stripped to his bare **civilizational** bones ends in the praise of social and domestic life. In a perverse way, Crusoe learns the wisdom in his father's counsel that "the upper station of **low** life, which he had found by long experience was the best state in the world, [was] the most suited to human **happiness**" (Robinson Crusoe, 9). Thus, Zweig describes Robinson as an "**unadventurous** hero" in spite of Defoe's narrative being full of the elements of which most other adventure **fiction** is made. Defoe's "unadventurous hero" finds an echo in Voltaire's *Candide* (1759) who too, after stumbling from disaster to disaster (all the while repeating Dr. Pangloss' [i.e., Spinoza's] absurd comment that this is the best of all possible worlds) finally settles down to **enthusiastically** cultivating his garden, grateful for the **walls** which protect him from a sea of troubles.

But of course, Candide, in its exposure of human cruelty and **irrationality**, has much more in common with Swift's Gulliver's Travels (1726). Gulliver, to begin with, seems very Crusoe-like: a solid man from the middle station in life, rational, curious. He is a surgeon using a similarly **straight-forward** prose; and, like Crusoe, as prone not only to shipwrecks but also to the tendency to measure and quantify things. Moreover, in a way that is important for our **historicization** of SF, he is prone also to the delusion that the world may be "read" as an English "text". But the resemblance ends there. The book's full-blown misanthropy emerges only in the fourth voyage of the adventure but it has

been prepared for by the preceding three. The pomp and politics of the **Lilliputians**, whose size makes mockery of these human **institutions**; the large perspective of the **Brobdingnagians** in which human ways seem petty; and the Laputans' entanglement in an absurd speculative universe, all (ought to) prepare the reader for Gulliver's encounter with the **Houyhnhnms**--horses endowed with reason who have a clean, simple society--and the **Yahoos**--beasts in human shape, in whose **filthy** ways Gulliver is reluctantly forced to recognize human vice. In its approval of the noble horses, of course, Swift subscribes to the **Enlightenment** ideals of rationality although his conclusions about human perfectibility are drastically pessimistic ones. Interestingly, Aldiss (1986: 84) argues that it is Gulliver who subscribes to the utopia of the horses, not Swift: their "limited vocabularies and limited **imaginations**" could only have been portrayed to warn us about the dangers of a utopia of Reason, Aldiss argues, a theme much beloved of SF writers this century as we shall see in the next chapter. We must see in any case in all these early **adventure** novels a very drastic **modernization** of the traditional generic **possibilities** of the adventure mode. The lowering of the tone and reference to other realms is not mere **domestication** of adventure. It is the birth of an entire new age of adventure writing without which SF could hardly have been born.

The actual title of what has come to be known as "Gulliver's Travels" is Travels into Several Remote Nations of the World: in Four Parts. The title thus makes an explicit announcement that it is as a travelogue that we must expect adventure, an important narrative device which **will** recur in our discussions both in this

chapter and the next. As for the purposes or objectives behind Swift's accounts of travels, we might do well to remember that this kind of weave was very much part of an age that saw what Brinton in his introduction to the Age of Reason Reader (1956) calls "bastard anthropology--deliberate use of invented Chinese, Persians, Red Indians, South Sea Islanders to attack Western institutions and ways of life..." (8). These deployments of the tropes of adventure (from travelogue and anthropology) provide indication of the fresh possibilities of the mode. The parallel of the device of travel to a strange land notwithstanding, the stronger similarity between Robinson Crusoe and Gulliver's Travels is the assessment of the power of human technological rationality to counter mundane adventurous reality. One can argue, therefore, that this descent to earth from the loftier or rarer realms of epic and Romance was a necessary rite of passage before fiction could pass into the otherwise elevated realms of SF. The conclusions the two novels arrive at, however, are radically different ones. Briefly, while Defoe's novel celebrates the Enlightenment, Swift can only detail its failure--the vast amount of pettiness and irrationality that is still man's lot.

Science Fiction often uses its two most "spectacular" icons, the Alien and the Robot, precisely for the purposes for which Enlightenment writers used "invented" people; we shall encounter many instances of this in the next chapter. The device of travel to a strange land, the dominant device of the novels of Defoe and, more prominently, Swift, is one which SF writers have mined extensively, as indeed is the assessment of human technological

rationality. Further, travel, of course, is the classic device for setting up the oppositions of the Known and the Unknown that so much adventure fiction explores, as our next section in this chapter indicates.

The **walls** behind which Crusoe and Candide barricaded themselves serve (or at least strive) to keep out the vicissitudes of life: the adventure of life proves entirely unpalatable to both, albeit for different reasons. But the chaos without turns out to be paralleled by a chaos within. And as the century wanes, the **walls** that the self has erected against the evil outside become prison walls. Candide's garden goes to seed and Crusoe's stockade is in ruins. In what we have been suggesting as the route of adventure fiction from the outer and universal, through the global and mundane, to the inner realms of adventure, the Gothic is born. It is entirely appropriate that **Walpole's** The Castle of Otranto (1764), usually regarded as inaugurating the genre of Gothic fiction, should have emerged, not from the "dry light of reason", but from a dream. And, what is more, this nightmare vision receives aesthetic sanction as well from Edmund Burke in his adaptation of the classical notion of the sublime. Such assimilation of new and apparently "popular" genres into critically validated realms of creativity is rare. Surely we know that lack of just this kind of assimilation has given rise to SF's often rather self-gratulatory reflexivity.

We saw in our discussion of the epic that "Longinus" had described the immensities of the **natural** world--the oceans, volcanoes, mountains, and stars--as a source of the sublime. To this idea of the grandeur and violence of nature, in his The Sublime

and the Beautiful (1756), Edmund Burke added a new emphasis on terror:

Whatever is fitted in any sort to excite the idea of pain, and danger ... or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion which the mind is capable of feeling. (39)

Burke speaks of "delightful horror, which is the most genuine effect and truest test of the sublime" (quoted in Aldiss 1986: 33). According to Burke, the sublime, with pain as its basis, inspires awe and terror and disturbs the emotions--a sense of the sublime that de Sade's Justine (1797) strove to achieve. Burke contrasted the sublime--associated with obscurity, darkness, solitude, vastness and power--with the beautiful, which was associated with smoothness, delicacy, smallness, light, and absence of suspense and terror. The "new" sense of wonder that SF evokes primarily through the "science" in it partakes of both the sublime and the beautiful as we shall try to demonstrate in the next chapter.

The Gothic no doubt built on elements found in genres of earlier periods--from Odysseus' and other epic heroes' visits to Hades, through the "tragedies of blood" that flourished in late Elizabethan and Jacobean drama, to "the wound" of "man's first disobedience" in Paradise Lost (1667). Yet the particular achievement of the Gothic lies in bringing together in a fresh re-shaping of the form of the novel many of the strands or tendencies of the adventure mode.

The Gothic "tales of the macabre, fantastic, and supernatural, usually set amid haunted castles, graveyards, ruins, and wild



picturesque landscapes" (Oxford Companion, 405) marked the beginning of widespread use of an "inwardness" in adventure writing. It was an inwardness that had surely found expression earlier in more conventional genres, say in Bunyan's Pilgrim's Progress (1684) where the external landscape stands, allegorically, for the landscape of the mind; it was an inwardness also to be found in the Shakespearean tragedies where the setting was used, and atmosphere created, to effect and reflect, in character and reader, psychopathological states. In the twentieth-century, SF's intersections with fantasy explore this inwardness, using the classic devices of adventure writing like the journey into the Unknown and the consequently surreal setting, in the works of such diverse writers as David Lindsay (1920), J.G. Ballard (1966), and Gene Wolfe (1980). Indeed, Gothic fiction made widespread use of setting for this purpose--the very castle in The Castle of Otranto becomes a character, a moral agency, declaring its will through portents, apparitions and prophecies.

The Gothic Castle of Otranto is, if anything, anti-Enlightenment in theme and treatment. See, for instance, Phelps' catalogue of the "main ingredients" of a Gothic narrative:

various supernatural manifestations; a mysterious crime, usually of an illicit or incestuous nature; a villain who in many cases has pledged himself to diabolical powers; persecuted maidens or fatal, Medusa-like women; **charnel-houses**, tombs and graveyards; and nature itself conspiring to produce effects of gloomy terror. (1982: 110-111)

For the most part, explanations for events in the novel do not turn out to be "natural," "scientific," or "commonsensical", unlike the "rational" tenor of the age from which it emerges

(although in Anne Radcliffe's The Mysteries of Udolpho [1794], the "supernatural" threats to Emily St. Aubert's life, honour and fortune do turn out at the end to be the villainous Montoni's machinations). In its explorations of those shadows that the clear light of reason does not illuminate, the Gothic as often casts light on the shadows caused by a warped reason. The figure of evil in the Gothic transgresses the moral order of the universe. In the Castle of Otranto, the transgressor is Prince Manfred, the tyrant of Otranto. He wishes to marry his dead son's betrothed, Isabella. And he seems to carry out his purposes in mysterious ways. In later Gothic, as in much Gothic and non-Gothic SF, the transgressor would often take or revive the form of the magician or alchemist who dabbles in knowledge forbidden to or hidden from humankind. One literary archetype is of course Faust. And Faust, from a period in history when science and mystery cohabited in the learning of the "philosophers", has a literary descendant in the figure of the evil, irresponsible scientist of much pulp and some serious SF, a theme and figure we will encounter in the next chapter.

Thus just as the Gothic looked backwards, in using elements of theme and technique from preceding forms, it also looked forward in that it has provided grist for narrative mills for over two centuries now. However, before we come to the pulp SF of early twentieth century, we have a whole century of proto-SF, non-SF, and indeed often, non-fiction as well, to account for, for its varied treatment of the adventure mode--treatment that contributes greatly to the origin and development of SF. One intersection of the Enlightenment project and the Gothic is Mary

Shelley's Frankenstein, Or the Modern Prometheus (1818) which we will look at in some detail in the next chapter. Shelley's Frankenstein is of course not the only transformation the Gothic underwent, nor indeed the only course it took. The Gothic thrived all through the nineteenth century in various guises. For all the condemnation it received from such high-priests of Romanticism as Coleridge, the Romantics themselves used elements of the Gothic extensively and effectively. Coleridge's "Rime of the Ancient Mariner" (1798) and "Christabel" (1816) are only two instances of such a debt, just as James Hogg's Confessions (1824) show that Frankenstein was not by any means the only Romantic Gothic adventure narrative.

The poetry of the Romantics was one home the Gothic found. Indeed Victorian poetry too, in poems such as Browning's "Childe Roland to the Dark Tower Came" (1855), used the Gothic adventure possibilities extensively. While Jane Austen parodied the Gothic novel in Northanger Abbey (1818), as did other authors of the age, many of the major nineteenth-century writers on both sides of the Atlantic as elsewhere (Poe, Emily Bronte, Hawthorne, Melville, Dickens, and Dostoyevsky) made creative use of the combination of Gothic and adventure elements in both their prose and poetic narratives. Bronte's Wuthering Heights (1847) shows a highly original handling of Romantic and Gothic as well as more obvious adventure elements inherited from lesser works, extending the direction of psychological and ethical exploration. Regional traditions of the supernatural, such as the Scottish, produced haunting Gothic tales (for instance, from Hogg and Stevenson at

either end of the century).

Across the Atlantic Poe and Hawthorne wrote Gothic tales, each of them definitely and **substantially** extending the adventure mode in their major works. Dickens used the Gothic often in his portrayal of people and places. Bulwer-Lytton in Zanoni (1842) and Corelli in The Sorrows of Satan (1895) vigorously continued the **"straight"** Gothic. And as the century closed, those fin-de-siècle obsessions with decay and degeneration in Stevenson (The Strange Case of Dr. Jekyll and Mr. Hyde [1886]), Wilde (The Picture of Dorian Gray [1890]), and Stoker (Dracula [1897]) were again saturated with the Gothic. Conrad's exploration of the "heart of darkness" (1902) formed one continuity of the Gothic into this century's **characteristic preoccupation** with the possibility of venturing into that dark continent within ourselves, concretized by outward, physical adventure. Clearly, in **mainstream** fiction, this too was a **productive** advance as witnessed by the novels, say, of Graham Greene (The Burnt-Out Case [1961]). Even other forms showed the **possibilities** of use of Gothic and other kinds of adventure writing (e.g., T.S. Eliot's The Waste Land [1922] and Christopher Fry's The Lady's not for Burning [1949], as in Yeats' use of the uncanny past of Ireland in his plays).

Conrad and Kafka's use of the Gothic to explore the dark inscapes of the modern mind was an early instance of the creative refinement of the varieties of the Gothic that were to flourish in the twentieth century, prominently the modern tales of the

supernatural. The primary intent of these later tales is a more physical, **sensationalizing** one, a devalued achievement of the Burkean sublime with most of its **metaphysical** baggage removed. The very definitely adventurous **Gothic-occult** tales of Wilkie Collins and Conan Doyle constitute its precursors: a particularly curious **pair** of ancestors these two, given that they were instrumental in the fashioning of the Detective novel as well--that adventurous and "**rational**" genre par excellence. Indeed, Conan Doyle's sustained interest in the occult and supernatural (see J.D. Carr's biography [1949], for instance) was such that his The Maracot Deep (1929) begins as a rational, scientific exploration, and then slides unexpectedly into an allegorical, supernatural encounter with the "Lord of the Dark Face". The pattern of Doyle's novel is comparable to that in Collins' The Moonstone (1868), where a mystery is solved, but "the totality of the design ... remains beyond any one criminal's power of executing or any one detective's power of unraveling" (Hughes 1980: 164).

Collins' Moonstone is a landmark of the "Sensation Novel" that flourished especially in the 1860s in England, a genre of melodramatic adventure writing that forms yet another link in SF's genealogy. Emerging from the Gothic of Ann Radcliffe, and "Monk" Lewis, and taking much from the Newgate novels of Bulwer-Lytton, and Harry Ainsworth (not to mention the criminal-biography novels of the early eighteenth century)--literature of the gallows and prisons which flourished during the 1830s and 1840s--the sensation novels of Charles Reade, M.E. Braddon, Mrs. Henry Wood and Wilkie Collins were such a success that a reviewer for Fraser's Magazine bemoaned:

a book without a murder, a divorce, a seduction, or a bigamy, is not apparently considered worth either writing or reading; and a mystery and a secret are the chief **qualifications** of the modern **novel**. (quoted in Hughes 1980: 4-5)

In Collins' novels, however, may be found not just the sensational effect but also the ancestor of the modern whodunit adventure. As Hughes says,

It is sufficiently ironic to find this tidy, complacent literary product as the only direct descendant of a genre that attempted to deal with the grotesque and the irrational in a modern framework. The link between the two visions, between the sensation novel and the detective thriller, is Wilkie Collins himself and The Moonstone in particular. (162-3)

Collins' device of a detective who solves a crime by invoking plausible human agencies and entirely **comprehensible** causes, moves the tale out of the realm of the **supernatural**, if not entirely, then at least **significantly**. This penchant for the rational and the scientific, married to the occult or **pseudo-occult** was already seen in the writings of Poe. Charles Reade too was obsessed with what he called the "science of sciences, statistic" (quoted in Hughes 1980: 74). Hughes **characterizes** the narrative technique of the sensation novel aptly:

The narrative technique combines a melodramatic tendency to abstraction with the precise detail of detective fiction, an unlimited use of suspense and coincidence with an almost scientific concern for accuracy and **authenticity**.... The chosen territory of the sensation novelists lies somewhere between the possible and the improbable, **ideally** at their point of intersection. (16)

This is a description that fits much modern fiction of the supernatural as well. Stephen King and Peter Straub's The Talisman (1984) with its amalgam of horror, fantasy and parallel universes is one recent **bestselling** example of the evolutionary

process within the adventure mode, and it obviously reminds us of a variety of factors and devices in use in twentieth-century SF as well. King and Straub's use of the idea of parallel universes, for instance, is an interesting (if terrifying) blending of the fantastic with the science fictional. But, of course, the genres of the supernatural and SF share much more than the occasional injection of a science fictional idea into tales of the supernatural. As we shall see in the next chapter, in the creation of a strange, sometimes bizarre setting, the depiction of threat from incomprehensible forces, the creation of outlandish narrative suspense, for instance, SF's overlaps with the Gothic are considerable.

Stephen King's injection of a science fictional idea into what is primarily a Gothic-horror-fantasy story has a history going back to Mary Shelley's Frankenstein (1818). While the theme of the creature turning against its creator--Frankenstein's theme at its most general description--is certainly not new, Shelley's achievement is the embedding of the theme in a narrative replete with information from the then emerging disciplines of physics, chemistry and biology as Vasbinder (1984) shows. Thus Frankenstein played upon one of humankind's oldest themes in a startlingly contemporary as well as (historically) anticipatory way. For Shelley embedded her science in a narrative that owed much to the Gothic, while her overarching frame was that of adventure, both physical and intellectual. Another major landmark in the kind of interpenetration of genres that we are here attempting to bring out, was the work of Edgar Allan Poe, for in his work came together in addition the historical-descriptive adventure (witness

Sir Walter Scott's preceding fiction) and the **ratiocinative** tone which anticipates an essential aspect of **especially** twentieth-century SF.

The Gothic legacy played a major part in Poe's writings. In his "tales of mystery", secular bodies of organized knowledge--code-breaking in "The Gold Bug" (1843), for instance--sit in bizarre **juxtaposition** with occult evil. Thus, whereas Conan Doyle wrote tales in which detection and the supernatural were mutually exclusive, Poe had some **half-a-century** earlier combined them into an **amalgam** that has endured as a formula in our own contemporary horror fiction and film. (A somewhat lower level but comparable **blend** of the supernatural or putative supernatural and the ratiocinative became the hallmark of Wilkie Collins' fiction after Poe.) In his essay "From Poe to Valéry" (1948), T.S. Eliot describes Poe's **preoccupation** with "wonders of nature and of mechanics and of the **supernatural**, cryptograms and cyphers. puzzles and labyrinths, mechanical chess players and wild flights of speculation" as the "**preoccupation of a pre-adolescent** mentality" (quoted in Disch 1992). But Poe's pathological obsession with themes of death, decay, sadism, and necrophilia, an obsession that the Goncouft brothers vividly described as "something **monomaniacal**" (cited in Aldiss 1986: 54), are inextricably woven into the tales of "cryptograms and cyphers, puzzles and labyrinths" that Eliot disparages. Further, these tales of a "rationality gone mad" provided inspiration, among others, for the metaphysical SF of writers like Borges over a century later; his **epistemological** adventures, which we **shall** encounter in the next chapter, owe



much to Poe.

In any case, "cryptograms and cyphers, puzzles and labyrinths" have an ancient history in myth and legend, folklore and ritual as also in literature that was meant to evoke what Burke later called "sublime" effects in audiences. However, a strong association does exist in the modern period of these activities with children's pastimes. Indeed, it was as children's literature that one of nineteenth century's most sophisticated adventure exercises in language and logic was conceived, and so it has come down to us. The logico-linguistic puzzles in Lewis Carroll's Alice's Adventures in Wonderland (1865) brought their readers up repeatedly against hitherto unexamined assumptions about their everyday reality, while the "adventures" of the title entertained them endlessly with surprise after surprise. Its numerous ludic allusions to contemporary mathematics and logic both in theory and in mundane practice are but one of its achievements. (Gardner's magnificently annotated edition of the text [1975] makes

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many of these connections clear.) Indeed, besides being in this sense "scientific", Alice in Wonderland also plays games with the Gothic conventions of distortion and fear of the grotesque, all of which have found secure places in the development of subsequent SF.

While, in America, in his short stories Poe combined the Gothic with the "scientific", in Dr. Jekyll and Mr. Hyde (1886) Stevenson continued that strain in England albeit with a far more explicit moral purpose, using a device that Henry James disparagingly described as "that business of the powders", but in fact most effectively and modernly harking back to traditional advent-

ure genres such as allegory. Jekyll and Hyde used a science fictional device only in a minor way to explore the aridity and hypocrisy of Victorian life. Stevenson's tale is one of detection too, the detection of Jekyll/Hyde's identity and motivation. Indeed, Stevenson exemplifies at both obvious and subtle levels the **preoccupation** of the adventure mode with motive as cause and difficult encounter as consequence. We will examine in greater **detail** the novel's complex structure of oppositions and narrative **points-of-view** in the next chapter. As in much SF, Jekyll's motive for his experiments is a quest, in this case, the Utopian quest for a purely good human being whose "evil self" has been (here, only **half**) exorcised as a separate self.

The problem of the several selves that seem to constitute humans, and the difficulty of keeping them apart (**even telling them apart**) are themes that preoccupied H.G. Wells in his Time Machine (1895) and The Island of Dr. Moreau (1896), as they have preoccupied ancient and modern thinking in psychology. In these magnificent adventures **Wells** uses science fictional devices much more extensively than Stevenson did, combining them, **especially** in The Island of Dr. Moreau, with the Gothic, and critiquing his contemporary world throughout his fast-paced narratives. These tales of Wells, one set on a remote Pacific island, and the other in the remote future, we **will look** at later in greater detail for their use of the adventure mode, because they are also definitely early classics of SF adventure.

Commenting on the present through a tale set **elsewhere** was, we saw, Swift's strategy, itself already a late, but immensely

advanced exploration of the potential of u-topia, in a long line of Utopian, journey, dream or fantasy narratives in the European tradition. Elsewhen was another matter. Commenting on the present through a tale set elsewhen was not only Wells' literary strategy, but had been done in another, though rather unrelated, fashion by Scott and others in the genre of historical fiction. The fashioning of intricate historical other-worlds is another of the adventure modes' major **contributions** to SF. However, Scott's worlds were far more richly realized as was the historical fiction of other writers like Meadows Taylor in his Romances set in India and Stevenson in his Romances of the Scottish Highlands. Curiously, and **productively**, a comparably detailed future delineated in that same period is Richard Jefferies' After London (1885). Curiously, and yet productively because its post-catastrophe world is a medieval one with humankind struggling to reverse its slide into a totally **non-technological**, non-Enlightenment barbarism, which is a theme that recurs emphatically in **twentieth-century** SF. The world Jefferies creates is significant not just in itself, but also as a detailed, complex thematic anticipation of much later SF. We shall examine this debt of SF also in some detail in the next chapter.

Another vision of the future, another tale of the elsewhen, from the same era, is Edward Bellamy's Looking Backward (1888). A story short on action (and hence not adventure fiction in the purely **conventionally** understood sense of the term), Looking Backward is set in the world of the year **2000**, and is an institutionally detailed story, depicting a world governed by metaphors from the **"machine age"**, and populated with early prototypes

of Auden's "The Unknown Citizen", though Bellamy's vision cannot be considered in the same way altogether negative. As Tichi (1987) insightfully observes, Bellamy's novel is saturated with metaphors of engineering. Indeed, Tichi goes further, concluding after examining Hemingway's writings that "the dominant technology does define or redefine the human role in relation to nature. [Hemingway] is full of nostalgia for a **preindustrial** 'natural' environment but his sentences are irrevocably of another, a **gear-and-girder**, world" (229). As in most Utopias before and after, Bellamy's novel provides a detailed "blueprint" for possible, even desirable, social organization and not merely an **intellectuallized** ideal society. In this sense, while all Utopias provide an intellectual adventure, the excitement of working out to its fullest an alternate social reality, particularly in terms of the new economic key notion of **"distribution"** of resources, can be called Bellamy's achievement. The frankly technocratic basis of Bellamy's alternate social reality makes him progenitor to (or one of the earliest examples of) a line of utopian-SF writers who place faith in what Raymond Williams calls "the will-ed **transformation**" and "the **technological transformation**"--in which a new kind of life is achieved by "human effort", and "technical discovery" respectively (1985: 197). In the case of Looking Backward, however, the novel's prefatory portrayal of late-nineteenth century America with its conceit of society as a stagecoach is much more effective as a critique of stratified capitalist American society of Bellamy's day than the solutions that his America of the future finds. **Its** shortcomings **notwithstand-**

ing, in Bellamy's Looking Backward we can see emphatic beginnings of one **half** of SF's Utopian **preoccupation** with the future (i.e., the search for an ideal society), although the tale set in the future was a device used as long ago as 1644 as I.F. Clarke documents in his **comprehensive bibliographic** compilation, Tale of the Future (1978).

But the poetics of the genre of futuristic fiction was provided more than **half-a-century** before either Jefferies or Bellamy wrote their novels. As Paul Alkon (1987) reports,

In 1834, Felix Bodin's Le Roman de l'avenir provided the first literary criticism of works set in future time as well as the first--and arguably still the **best--poetics** of the genre. (22)

That Alkon does not exaggerate in describing Bodin's poetics as "arguably still the best" is evident from the following passage from Bodin.

For the moment the question is to know whether, after the grotesque and audacious fantasies of Rabelais, the amusing and satiric inventions of Cyrano and Swift, and the sparkling **philosophical** novels of Voltaire, it would be possible to find something new and at the same time analogous; something that would be neither a too licentious fantasy, nor of a purely critical intent, nor of that **philosophical** spirit which is an obstacle to interest and illusion by always substituting ideas for people, and by **subordinating** both action and characters to the thesis which it argues; something at once fantastic, novelistic, philosophic, and a little critical; a book where an imagination brilliant, rich and wandering can range at ease; and, **finally**, a book amusing without being futile. I believe such a book would be possible; but I am still perfectly convinced that it is not yet written. (Translated and cited by Alkon [1987: 26])

This **extraordinarily** prescient description may perhaps give us an idea of the traditions of prose narratives out of which modern adventure fiction, and **specifically**, SF, have emerged.

With Captain **Marrayat**, Wilkie Collins, Dickens, Charles

Kingsley, Lewis Carroll, **Surtees** and Thackeray as the English practitioners of valuable social criticism in the guise of adventure fiction, with the parallel of Washington Irving, Poe, Cooper, Hawthorne, Melville and Mark Twain in America, the mid- and late-nineteenth century was ripe for the confirmation of the seriousness of the adventure mode vis-a-vis the realistic mode. It is from the period, which commenced in the former half of the nineteenth century in England and America, that the work of "classic" adventure writers like Stevenson, Wells, Kipling, Jeffries and Conrad emerges. Indeed, it is also against this background that Stevenson takes issue with Wells on the Romance-Realism debate arguing in his "A Gossip on Romance" (1882) against a wearying realism, and for the "significant simplicity" of the adventure story and the fairy tale (see Allott 1965 for the exchange between Stevenson and Wells); and a year later, Stevenson observed presciently that realism was as much a matter of technique as the narrative strategies of any other genre (1883a).

This plea about the significant simplicity of the adventure tale is a bit disingenuous since Stevenson's stories were often anything but simple, as, for instance, our discussion of Dr. Jekyll and Mr. Hyde hopes to demonstrate. In nearly all of his later work, influenced among others by Dostoyevsky, Stevenson used the adventure mode for very serious purposes indeed in his explorations of the dark corners of the human psyche. What Stevenson was reacting to when he spoke of "significant **simplicity**" was the heavy moralizing of Victorian fiction on the one hand, for example in the adventures written by Marryat, with revealing titles like Peter Simple (1834) and Mr. Midshipman Easy (1836)

and the realism which was then veering towards naturalism, or as an end in itself. Such a **back-and-forth** or see-sawing tussle between moralizing and apparently **non-committal** writing characterizes **twentieth-century** SF also. In fact, moralizing adventure especially written for young readers was so plentiful then that in Treasure Island (1883b) Stevenson rebelled, writing a "clean, open-air **adventure**" unencumbered with "lessons" to learn. Kingsley, Stevenson (**notwithstanding** his protests to the contrary), Carroll, Jefferies and Kipling, all used juvenile adventure to reflect on adult society. Mark Twain was doing the **transatlantic** equivalent, for instance with the adventures of that white-trash orphan, Huckleberry Finn (and adding his own bit to "time-warp" narratives of other **child-characters**).

The **nineteenth-century** thus saw many notable genres of adventure fiction emerge: beginning our survey of this period with the remarkable Enlightenment-Gothic of Frankenstein, we have briefly traced variations of the Gothic that thrived on both sides of the Atlantic, mutating into crime and mystery fiction (Poe, Collins), tales of the occult and the supernatural (Hawthorne, Wilde, Stoker), and the "**inner-Gothic**" of (Stevenson, Conrad. Poe's dark obsessions, we saw, were combined with a passion for puzzles that critics have associated with an adolescent mentality. This, we saw, was a cultural association that was reinforced by the kinds of adventures that Lewis Carroll had Alice experience. The rise of children's fiction (as opposed to thinly or hardly disguised moral fable), which was primarily adventure fiction, was another striking feature of the last century's lit-

erary history, and occurred on both sides of the Atlantic (Marryat, Twain). Such fiction often made **sophisticated** use of history, as in Stevenson's writings, whose historical fiction, comprising what was written for children and adults, owed much to Scott, Stevenson's pioneering predecessor in the genre of historical fiction. As in the Utopian adventures of the eighteenth and nineteenth centuries, Scott's historical fiction effectively criticized his contemporary reality even as he told tales set in medieval England. Historical fiction, with its tremendous **action** and vividly active settings, continued themes and narrative techniques that had evolved through the epic, the Romance, the **picaresque**, and the **eighteenth-century** picaresque as well as Gothic novel. This was a continuity also evident in the colonial fiction of the nineteenth-century, in the intrepid traveller's tales of adventures in **strange** lands. Haggard's tales set in "**darkest** Africa" and Meadows Taylor's tales of the "dangerous Deccan", were two such products. Conrad and Kipling, on the other hand, used these by then thoroughly familiar settings to give far more intense and nuanced portrayals of the "Orient", while in fact conducting critical examination of the Europeans.

These multifarious **manifestations** of adventure writing, both naive and **sophisticated**, preceded and anticipated the further **proliferation** of genres of adventure writing in the twentieth century, extending and perfecting ever-new and necessary **techniques** or craft: westerns, whodunits, spy fiction, war novels, etc., and also SF. While the diversity of adventure fiction in the last century is striking, it is in the twentieth century that "adventure" as a noun is constantly modified: thus we have fiction and



non-fiction described as one or another kind of **adventure**: intellectual, scientific, moral, spiritual, and sexual. In so far as any of these employ the adventure mode they must overlap in theme and technique with much that has been described so far in this section.

It is to these recurrent themes and narrative techniques of adventure writing that we now turn in order to consolidate our findings regarding adventure writing and prepare the ground for the variations and innovations on these themes and narrative techniques that we will encounter in SF,

Overcoming or surviving a threatening "Other" is one of the most common themes of adventure fiction. Allegorical or symbolic literature portrays this overcoming as the result of a conflict between Good and Evil, with the conventional triumph of Good confirming the values which that civilization lives by. In much unreflective adventure fiction, and a good deal of SF is no exception, such a conflict is portrayed by just the same but by now hackneyed means, for in these instances, this conflict is often treated in crude, unresonant language (unlike, say in Spenser's allegory [1590]), while the sheer repetition of the conflict between Good and Evil invariably leads to the theme becoming overworked. However, a great bulk of adventure writing portrays an Evil that threatens, not so much the Good as the Innocent. The Hero who destroys the Evil, then, acts on behalf of an entire defenseless **civilization**: in Gothic Romances, the young hero who

destroys the evil necromancer makes the world safe for all maid-ens whose virtue is threatened, just as Nick Carter destroys Communist villains to make the world safe for "democracy". In these latter instances of adventure fiction, the hero in fact possesses many of the skills of the Ungodly, indeed, he (or sometimes, she) need not even be a paragon of virtue (witness the cynical "heroes" of much contemporary hard-boiled crime fiction or heroines if you like, as in the Modesty Blaise sequence of novels); it is enough that s/he is on the side of the angels, so to speak. In this limited sense, Odysseus and James Bond--both wily and swift--belong to the same class of heroes, as does many a space-operatic SF-hero. But of course the hero may not be pitted against either a personal or a societal foe, but rather an environment. "Real-life" as well as non-fiction adventure writings often depict the adventurer up against a natural barrier--a mountain, sea or desert. And adventure fiction often has hero(es) traversing a "landscape of difficulty" (Mary Shelley's Frankenstein [1818], Stevenson's Kidnapped [1886], or MacLean's Guns of Navarone [1957]). SF, too, is full of scenes of humans battling a hostile world, with the inhabitants of that world being only one among the numerous hostile elements. As we shall see in the next chapter, SF has a significant and nearly **species-specific** variation on this traditional theme of the hostile world: the hostile world that our hero battles is very often of humanity's making.

These skilful survivors may or may not reflect on their own lives and times, but the adventure's portrayal of the many evils that beset humanity is often a powerful critique of the writer's society (we can clearly see the ancestor of this pattern in Rob-

inson Crusoe and Gulliver's Travels): the satirical bite of many picaresque novels is a case in point. On the other hand, narratives which portray protagonists who have been changed by their adventures thereby highlight the **"significance"** of the adventure: Gulliver and Huck Finn are two examples. The fact that these two learn from their experience sets them apart from **"superheroes"** (Odysseus, Superman) who already possess powers and knowledge and therefore leave the learning to their audiences; it confirms them as "everyman" figures, partaking of the fallibility and the potential for growth or improvement of common humanity. Much significant SF, as we shall see, dwells on these themes of human fallibility and potential (Stapledon's and Clarke's SF, for instance). Moreover, especially in the stories of adolescent protagonists, the adventures function as a kind of "rites of passage", from which the young heroes emerge as adults whose understanding of themselves and their world is more complete and secure, and in which they can now take their rightful place (King Arthur and Kipling's Kim [1901], for example). This again is a very common theme in SF, a great deal of which has adolescent or even **grown-up** protagonists who actually grow further in the course of the adventures.

For all his "everyman" qualities, however, the hero of adventure fiction usually possesses or develops the skills required to survive and overcome **some** particular threat, whether to himself or to his society, in very specific worlds. Odysseus clearly possesses these skills, and although he is a reluctant adventurer who merely wants to get back home but is thwarted from doing so

by forces both **supernatural** and mundane, he copes very well in strange and dangerous situations. Similarly, Robinson Crusoe, shipwrecked and alone, comes to his island with a variety of survival skills already in place, although, in Crusoe's case, it does take the crisis of a shipwreck, as well as a great deal of usually forgotten adventure **apprenticeship** early in the novel, for his **handyman skills** to become survival skills. A crisis catalyzing an **everyman** figure into a hero is a common adventure fiction theme (in Desmond Bagley's The Tightrope Hen [1973], for **example**), and in so far as the hero acts on behalf of a society, adventure fiction is full of instances of the emergence of a leader in times of crisis (e.g., John Buchan's unlikely retired, shopowner hero in Huntingtower [1922]). Much **post-catastrophe** and dystopian SF also depicts the emergence of a hero during times of **civilizational** crises (Jefferies' Felix Aquila in After London [1885], or Wyndham's David in The Chrysalids [1955] are examples). Some **extraordinary** SF, like Herbert's Dune (1965), also examines the drastic price civilization pays for its heroes.

The formulaic nature of a great deal of adventure fiction ensures that the outcome of the crises that the hero faces is pretty much certain: the hero will triumph. In **this** sense, the outcome of crises is **unsurprising**, or expected. In the epics this **predictability** serves to emphasize the worth of the moral and ethical values a society valorizes via the hero; indeed, the **interpolations** of episodes and the **interpretative** baggage around the epic have been occasions for questioning, debating, and renegotiating the morals and ethics of contemporary society. In generic adventure writing too (Gothic, Westerns, SF), the crises

and their resolutions both betray the anxieties, and offer the hope (in unrewarding instances, lulling hope) of allaying those anxieties. Thus, whether explicitly or not, the crisis and its resolution in adventure writing reflect the times. As Alok Bhalla (1990, 1991) persuasively demonstrates, the Gothic is saturated with the social history of the period of its ~~composition--individual~~ and communal anxieties of identity and purpose haunt novel after novel. It is limiting, therefore, to read the Gothic solely as symbolic or metaphorical expressions of pathological psychosexuality, and not also as ~~literary-historical~~ records of otherwise unavailable reality. This argument extends to all adventure fiction, and we shall encounter many instances of the "now-and-here" in the "nowhere" worlds of SF.

While the crisis is often precipitated by a protagonist who deliberately seeks adventure (and we shall come to the figure of the ~~adventurer--as~~ opposed to a character that happens to be engulfed by adventure--presently), adventure fiction often portrays a crisis that arises in a humdrum, everyday world. Of course this world to which adventure "comes" may be humdrum and everyday only to its inhabitants, not necessarily so to the readers: to most of the boys who read Stevenson's Treasure Island, the settling of the pub to which Long John Silver comes is exotic and dangerous; it is "home" (and therefore familiar) only to the protagonist Jim Hawkins. But a great **deal** of modern supernatural fiction, ~~such-as~~ the novels of Stephen King, begins with a much **more** widely shared idea of a "normal" (non-exotic) locale--a white, ~~middle-class~~, American ~~neighbourhood~~ (presented, of cour-

se, mainly for white, middle-class, American readers); the terror of the supernatural that invades the lives of these "ordinary people" is then so much more effective. H.G. Wells, we shall see, is a master at portraying the ordinary quotidian existence which is then transformed by aliens ranging from invisible men to Martians, a technique that forms the cornerstone of Darko Suvin's theoretical discussions of SF (1979), which I believe is a most useful starting point for a thorough examination of the genre.

The hero, then, must prove himself in the face of a potentially threatening Unknown. He may have prepared all his life for just such a crisis, whether knowingly (Modesty Blaise), or unknowingly (Robinson Crusoe); or he may be a not-especially-gifted figure caught in a crisis during which his unsuspected survival skills and resourcefulness then surface (as in the Bagley novel mentioned above). In the latter case, especially, the crisis is usually the sort that overtakes a humdrum, everyday world: saving someone (or oneself) from near-death, etc.--the very stuff of journalism. There are, of course, "crisis-prone" areas such as an operation theatre (Cook's Coma [1977]), a crime-ridden "inner city" (Price's The Wanderers [1974]), or a pub in a port (Stevenson's Treasure Island [1883b]). But ingenious writers like Arthur Hailey have meticulously charted the development of a crisis in all sorts of institutions not normally credited with being adventurous locales: hotels (1965), airports (1968), the automobile industry (1971), etc. And other masters of the art of intensification or highlighting of affective powers of narration like Pope (1714), Sheridan (1777), Wilde (1895) and Wodehouse (1925) have long given us crises in drawing rooms, storms in a teacup. Thus,

to return to a point made at the beginning of our historical survey of adventure writing, any event can acquire the proportion of a crisis depending on how it is portrayed, and any resolution can be shown to be one of heroic adventure, if only to parody heroic conventions.

Stated thus, the overlaps between fiction and reportage become clear: adventure fiction clearly becomes a subset of adventure writing. That fiction and reportage are cognates becomes clear also as one thinks of the sources for themes and narrative techniques of a variety of writers of adventure fiction: Balzac's, Charles Reade's, and Zola's "scientific naturalism", and a whole host of twentieth-century writers from Hemingway, through Capote and Mailer's "faction", to much of the best-selling fiction of this century, such as Tom Wolfe's novels. Wolfe merits singling out because his fiction (e.g., The Bonfire of the Vanities C1990) exploits verisimilitudinal detail for satirical purposes, unlike the function which descriptive detail usually serves in most best-selling fiction of validating the authenticity of the setting, providing "local colour". As a genre that relies a great deal upon scientific and technological verisimilitude, and not infrequently also "local colour", SF overlaps extensively with such other genres as scientific papers, and more importantly, popular science reportage, and social and technological forecasting-such overlaps that we will examine in the next chapter. Thus, it is not surprising at all to find considerable similarity in theme and treatment between newsmagazine reports of air crashes, nuclear-plant leaks, and drug-running, and fictionalized

versions of those in adventure fiction, including SF (see, for instance, the blurb of William Clark's Cataclysm [1985], a novel of the near-future geo-politics that claims to be "up-to-the-minute"). For all these prose genres use the same narrative techniques of starting with either an everyday or exotic "locale", the creation of suspense, a crisis, and fast-paced action of one or a few "characters" ("not their real names", the newsmagazines significantly declare), and a resolution of the crisis with some "innocent victims" and the "shaken survivors" for whom "life will never be quite the same again". Indeed, the strong narrative bias of news-reporting compromises its claims to objectivity and truth, even in as reputed a newsmagazine as Time, as Gibson (1974) incisively shows.

The shared concerns of adventure fiction and non-fictional adventure writing become even sharper as one considers such genres as travel writing and tales of exploration. Literary voyages of adventure, of course, go far back--to the Odyssey, at least, in Western literature. Whether informed with a technological awareness or not, the voyage, as we saw earlier, was a classic device to take one away from one's society only to bring one back face-to-face with it more forcefully. Didactic adventures like the constructions of Utopias and the portrayals of dystopias used this technique often: this was More's device in Utopia (1516), Voltaire's in Candide (1759), and Swift's in Gulliver's Travels (1726). Bulwer-Lytton's The Coming Race (1871) has its protagonist stumble down a coal mine to the land of the Vril-ya, while Butler's hero crosses a mountain range to enter a machine-free utopia in Erewhon (1872). Less "sudden" shifts of locale, but as



effective a device of dislocation, were those experienced by Fielding's picaros, Joseph Andrews and Tom Jones, who undergo various adventures which teach them (and the reader) the ways of the world. The *bildungsroman*--the novel of the education of the protagonist--was as popular during the nineteenth century as in the preceding century. In America, Mark Twain's Huck Finn travels down the Mississippi and finds out a great deal about human nature. Ishmael learns of love and humanity amidst the often terrifying adventures aboard the "Pequod" that little island of humanity presided over by the "monomaniacal Ahab" in Melville's Moby-Dick (1851). The Victorian novel--the work of Dickens, Thackeray, George Eliot, for instance--is full of young protagonists undergoing adventures in unfamiliar settings. To reiterate our point about the relativity of the unfamiliar, it is instructive to note that Pip (in Dickens' Great Expectations [1860-1]) passes through several "environments" which are psychologically speaking fully as strange as the locations of Jim Hawkins' travels in Stevenson's Treasure Island (1883b).

Science Fiction, of course, uses the device of the journey extensively. But SF's most characteristic variation on the journey motif is time-travel: a displacement along the temporal axis, rather than the spatial axis. Wells' pioneering Time Machine (1895), which we will discuss in some detail in the next chapter, had two major predecessors, both American: Mark Twain's A Connecticut Yankee in King Arthur's Court (1889) and Bellamy's Looking Backward (1888). The latter had the quasi-scientific device of a hypnotic trance to send its protagonist to sleep to awake

into a **utopian** future of which he could proclaim, like Miranda in The Tempest, "**How** beauteous mankind is! O brave new world / That has such people in it" (V.i.183). Morris' News from Nowhere (1891), written in part as a response to Bellamy, had its protagonist simply fall asleep to awake into a **non-technological**, but equally "**beauteous**" communist yet **harking-backward**, rural **utopia**. Twain's book had nothing more than a blow on the head to send its nineteenth century protagonist thirteen centuries back in time. The simplicity of Twain's device is all the more striking since the rest of the novel consists of Twain's "practical" protagonist seeking to make **sixth-century** Britain into nineteenth-century America, both socially and **technologically**. The novel ends with its hero back in the nineteenth century having slept through the thirteen centuries in a hypnotic trance. Some sixty years before Bellamy and Twain, Irving's Rip van Winkle too had slept through twenty years but the agency there was a mildly supernatural one. Writing in the 1820s, Irving set his tale of "time **travel**" some forty years earlier, with Rip waking up soon after American Independence. By juxtaposing the worlds before and after Rip's slumber, Irving drives home the point of the mixed blessings of the vast changes a space of two decades had witnessed. Once again, the trip back in time serves to bring Rip and Irving's contemporary readers face to face with their times.

Thus, journey and exploration, whether in space or in time, form the very cornerstones of adventure: indeed, on the face of it adventure may **well** be synonymous with journey if it were not for the fact that the experience of adventure may result not from the **journey** per se but instead from an accompanying exploration

of the psyche. The frequency with which the device of the Journey is used may be gauged from a study such as P.B. Gove's The Imaginary Voyage in Prose Fiction (1941), which provides a check list of "215 Imaginary Voyages from 1700 to 1800". Given the intimate, inevitable connection between the explorer in reality and the hero of adventure fiction (indeed, the word "adventurer" covers both), it is entirely appropriate that the Antarctic explorer Ranulph Fiennes was short-listed to star as James Bond in Hollywood (Birnbaum 1993: 36).

Both Fiennes and Bond court adventure and danger. Like Captain Kirk and his crew in Star Trek, Fiennes and Bond "boldly go where no man has gone before". This desire to "go beyond"--as evident in titles like Time Machine (H.G. Wells), as in The Last Frontier (Alistair MacLean), and The Farthest Shore (Ursula LeGuin)--is a crucial source of the sense of adventure. This desire is usually imaged in a "going out", leaving the familiar "home and hearth"; it exploits the deeply ingrained (perhaps even biologically ingrained) opposition of the safe Home versus the Unknown (and therefore, *prima facie*) threatening Outside. The notion of the threatening Outside is of course a vastly varied one: one working woman's routine commuting by the city bus service, maybe another sheltered, middle-class woman's nightmare. That is, the working woman's idea of Home or Known includes the city and its bus services. It is this "safe" life that adventurers like the Norwegian explorer Kagge repudiate as they risk their life and sanity: because "excitement has disappeared from our lives, which are secure--too secure" (Birnbaum 1993: 35).

Seeking excitement is, however, but one of many possible motives to "go beyond". Frequently wedded to the desire for excitement is one for knowledge: to go beyond what one knows (or what one's society knows) in order to possess the hitherto Unknown. The Grand European Tour that "finished off" young and wealthy English men and women is a case in point. As the Australian poet A.D. Hope says sardonically of the policy of a "Continental Summer Graduate School" for young ladies: "Brief love-affairs with nice Italian boys / May well repay the trouble and expense / Since nothing broadens like experience" ("A Letter from Rome", 1986: 67). This pursuit of knowledge is itself almost a sub-species of the pursuit of treasure.

More serious motives drive other adventurers into uncharted territories. Shamans, we saw, enter strange "mindscapes" to battle monsters on behalf of their peoples, and the artist in modern times has often been imaged as a shamanistic transgressor: "a free-lance explorer of spiritual dangers" whose

principal means of fascinating is to advance one step further in the dialectic of outrage. He seeks to make his work repulsive, obscure, **inaccessible**; in short, to give what is, or seems to be, not wanted. But however fierce may be the outrages the artist perpetrates upon his audience, his credentials and spiritual authority ultimately depend on the audience's sense (whether something known or inferred) of the outrages he commits upon himself. The exemplary modern artist is a broker in madness. (Sontag 1967: 92)

However, many cultures in many times have acknowledged that "Great wits are sure to madness near allied, / And thin partitions do their bounds divide" (Dryden, Absalom and Achitophel, 1.156). It is not twentieth-century Western society alone that believes that the

discourse one might call the poetry of **transgression** is also knowledge. He who transgresses not only breaks a rule. He goes somewhere that others are not; and he knows something that others don't know. (Sontag 1967: 116)

Apart from the shamanism in many ancient societies, both Sufism and the Bhakti movement, for instance, are imbued with a sensibility that equates madness and wisdom.

Be that as it may, while the artist is one form which the figure of the transgressor-adventurer has taken, the scientist is another. The **quintessential modern scientist-transgressor** is, of course, Mary Shelley's Victor **Frankenstein**. Except that it is, in the context of contemporary ethos, an "unholy" quest to create life that he has undertaken, his labours are in every detail those of the Romantic genius, obsessed and solitary, working night and day on his "creation" (a particularly apt noun, that). The figure of the artist and scientist have coalesced here. The unholy quest itself has a history in myth, legend, and folktale, as does the practice of "black arts": Merlin, Faust and Frankenstein all belong to the same tradition. **Twentieth-century SF**, as we shall see later, engages with the theme of knowledge as transgression in a major way, admittedly, often reducing the theme to a **stereotypical cliché of the mad-scientist**, but infrequently also exploring the implications of such **transgressions** with startling, **thought-provoking** vividness and freshness.

As is evident from the foregoing discussion of exploration and **transgression**, a great deal of significant adventure fiction deals with an exploration that is not merely physical, but also psychical or intellectual (with differences of emphases between the latter two). **Shamanistic "mindscapes"**, we saw, figured among

the earliest **manifestations** of the adventure mode while medieval allegories, Romances, and the Pastoral were to be later landmarks in this "**internalization**" of the setting of adventure. A considerable amount of modern adventure fiction such as Conrad's and Kafka's, we saw, invites us to read its settings and action as **psychological** and symbolic, giving rise to situations in which, once again, entire **civilizations** may be criticized via the new mythologies embedded in the characters' reading of their "**place**". In Conrad's Heart of Darkness (1902), as in Robert Pirsig's philosophical adventure Zen and the Art of Motorcycle Maintenance (1974), the outward journey is both parallel to and a metaphor for an inner exploration. The best of SF also achieves similar **double power**.

In these genres, and the texts with which we have attempted to identify them, the emphasis is not necessarily on such aspects as **characterization** (Conrad's Kurtz is very complexly drawn and yet the Congo basin, or by symbolic extension the area of "**darkness**" at the "heart" of Western civilization, **still** occupies the centre of the stage of the conflict). In much formulaic adventure fiction too, the emphasis is often elsewhere. As Sontag insightfully points out:

The only sure truth about characters in prose fiction is that they are, in Henry James' phrase, "a **compositional** resource". The presence of human figures in literary art can serve many purposes. Dramatic tension or three-dimensionality in the rendering of personal and social relations is often not a writer's aim, in which case it doesn't **help** to insist on that as a generic standard. Exploring ideas is as authentic an aim of prose fiction, although by the standards of novelistic realism this aim severely limits the presentation of lifelike persons. The constructing or imaging of something inanimate, or of a portion of the world of nature, is also a valid

enterprise, and entails an appropriate rescaling of the human figure. (The form of the pastoral involves both these aims: the depiction of ideas and of nature. Persons are used only to the extent that they constitute a certain kind of landscape, which is partly a stylization of "real" nature and partly a neo-Platonic landscape of ideas.) (1967: 90)

It is true that self-asserted claims to special concerns (SF as a "literature of ideas", for instance) have led SF writers occasionally to declare that SF need not be governed by standards of value that might obtain in mainstream writing. Much significant SF, on the other hand, as we hope to show in our discussions in the next chapter, emerges as valuable no matter what standards of worth we wish to apply. And we can clearly maintain with considerable justice that the value with which it or its readership invests SF derives in great measure from its participation in the long and continuous history of the development of adventure. It remains now to see in which ways SF both aligns itself with or relies upon, and separates itself from the age-old adventure mode.

## Chapter II

### Metamorphoses of Adventure Fiction

In the course of the historical and thematic survey of the last chapter we identified a variety of themes and narrative **devices** that are **characteristic** of adventure writing: themes such as heroism, exploration of a new world, a critique of society; and narrative devices such as the creation of the hero and **language** suitable to his exploits, the journey, the creation of another world, and presentation of conflict. Further, the history of adventure writing sketched in the last chapter ended with the suggestion that we might do well to see Science Fiction as the introduction of a modern mutation of adventure writing. This chapter, therefore, will examine SF's **metamorphoses** of characteristic adventure themes and narrative techniques. Each of the texts that we have chosen for discussion "plays" some characteristic (SF) variations on the adventure mode; each text is a unique composition in a well-known (generic) raga. Inevitably, we will be able to focus on only a few SF texts and cite some others in passing. Lest our selection of texts be deemed random, **perhaps** it is best to say here that because our interest is in the meta-morphoses of adventure writing in SF, we do not discuss **the** following texts chronologically, although, for reasons explained below, we do begin with the works of Jules Verne, one of **the** early **practitioners** in the field. The texts we have chosen for discussion have this in common that all of them engage in significant ways with the adventure mode. They are otherwise rather disparate texts, from different periods of SF history, with the-



raatic concerns of that reflect various aspects of the social reality of the times they emerge from. We hope by the end of this chapter to place SF firmly in the history of adventure **writing**.

In considering SF's many **appropriations** and **modifications** of the adventure mode, it would be apposite to begin with that most striking of SF's features, the science fiction setting. **For**, as Krishnamoorthy rightly points out,

The most striking feature of science fiction is its presentation of a different setting or situation. The science fiction story **usually** takes place **in the** future, or in a present which has been in some way altered by a new factor into a different present, or in a past similarly altered. It may depict a different world, or our own world that has suffered a change through addition of a new circumstance or the removal of an existing one. Some science fiction writers portray an alternate world that has taken a turn different from our own at **some** significant period of history (a Jonbar Hinge) and has evolved differently; others present parallel worlds or universes where the laws of nature applicable to our universe are reversed or radically altered, still others introduce **para-dimensions** reaching beyond the three spatial dimensions ... and the **three** temporal ones.... (1983: 2)

This fairly exhaustive list of possible settings may give some indication of the variety of metamorphoses the adventure mode can undergo in SF just in terms of setting.

In beginning our discussion of the metamorphoses of adventure fiction by examining the SF setting, we can hardly do better than to start with the novels of Jules Verne. Verne's works are an excellent place to start our discussion of the SF setting because not **only** do they show a clear debt to such predecessors as the Romance and travel writing, but in them many of SF's characteristic variations on the adventure mode--the **"metamorphoses"** of our title--may be clearly discerned. Further, from the very

beginnings of the genre's publishing history, Verne's works have had the confirmed status of "science fiction", certainly fulfilling Hugo Gernsback's editorial policy stated in the first number of his Science Wonder Stories (July 1929):

It is the policy of Science Wonder Stories to publish only such stories that have their basis in scientific laws as we know them, or in the logical deduction of new laws from what we know. (Cited in Parrinder 1980: 13)

As Aldiss points out (1986: 204), three years earlier, Amazing Stories, which too had been launched by Gernsback, had featured in its first issue a reprint of a story by Verne. Moreover, many of Verne's themes find their way into later SF as well; in fact, as we shall see, he provides a point of departure for a great deal of subsequent SF. Verne's works are thus crucial evidence in the "self-conscious" history of the genre.

Beginning with Five Weeks in a Balloon (1863), Verne went on to write as many as sixty-four novels which are collectively called Les Voyages extraordinaires: a title in itself suggestive of adventure, given our discussion in the last chapter of the device of the voyage, as well as the experience of novelty. And voyages there are aplenty in Verne: characters take off in airships, travel by land to the poles, to underwater abysses, to the earth's interior; and, hydrosphere, lithosphere and atmosphere visited, they go to the moon, and jump on and off comets! During all of which the reader is lectured, virtually non-stop, on everything from astronomy to zoology with an occasional, now-debunked, "ology" from "Pluto's Republic" such as phrenology.<sup>1</sup> Verne's interest in voyages of adventure and discovery was such that he also wrote a popular history of exploration--thus confirming our

choice of his works as starting point-- from Phoenician times to the mid-nineteenth century: La Découverte de la terre (1878-80). His works were enormously popular during his lifetime both at home and abroad, and in spite of pedestrian translations, not to mention crude adaptations into comic-strip and film, several have been in print in English ever since. We will consider here aspects of the creation of the setting of only two of the most enduring novels from Verne's vast output: Journey to the Centre of the Earth (1864) and Twenty Thousand Leagues Under the Sea (1870).

As their titles indicate, the main fictional device in these novels is a journey. And although one is an adventure in the lithosphere and the other in the hydrosphere, there are many similarities between them. Both novels begin with a common science fictional device--indeed, a common adventure fiction device--the desire to solve a puzzle. (See Pierce [1983] for an account of convergences in theme and technique between SF, fantasy and mystery fiction. Indeed, Todorov [1973] argues that generic identity itself, i.e., how one decides which genre a text belongs to, depends on the terms of resolution of the puzzle in the story.) In Twenty Thousand Leagues Under the Sea the desire to discover the identity of the unknown beast that terrorizes international waterways fuels M. Arronax's joining the group aboard the "Abraham Lincoln". The beast, as it turns out, is the submarine captained by the mysterious Nemo (whose intentions and past then become the next puzzle). In Journey to the Centre of the Earth, Professor Lidenbrock's discovery of the parchment (a classic adventure device) that seems to give directions for a journey to

the earth's interior is incentive enough for him to **undertake the** trip, both in order to see whether such a journey is indeed possible, as well as to steal n march over his **fellow scientists**. **Thus are** individual characters' motives woven into **action** by both

## 2

kinds of narratives.

In both novels, the motives to undertake the **journey** have a long generic history, just as they have the conventional **function** of **quite** drastically reducing the size and complexity of the **"society"** directly examined by the **narrative**--not an unusual feature of adventure fiction as opposed to social **fiction**: the **micro-society** may be found typically in certain kind of murder mystery and in ship's tales (whether sea-going ships as in Conrad's Nigger of the "Narcissus" [1897], or spaceships as in Tom Godwin's "The Cold Equations" [1954]). The venture of **Arronax** and his comrades is cognate to that of the **dragon-slaying hero** of **myth and legend** (although Arronax can hardly be **described as** "heroic!"), while the parchment which sets off Lidenbrock on his adventures is an obvious variation on the map which, **when** rightly deciphered, leads the conventional hero to the treasure. The treasure-hunt, in turn, is a sub-type of the **general quest pattern** of adventure (cf. the medieval **Holy Grail** Romance; the **novels** of Rider Haggard).

These patterns of adventure, of course, have been ceaselessly mined in SF ever since Verne. For instance, a remarkable reworking of the Christian myth of the Quest for the Holy Grail is Samuel Delany's Nova (1968). Delany's **reworking**, however, is thoroughly science fictional, **indeed** space operatic. Nova, inci-

dentally, exploits several other stock conventions of adventure such as the story of a deadly feud between the scions of two (interstellar, industrial) empires, and such cultural anachronisms as a Gypsy who reads the Tarot pack, a scholar who wishes to compose an artistic piece in an "ancient" medium called the novel.... At stake in the feud is nothing less than the choice humankind must make between an arid but secure future, and a turbulent, insecure, but possibly creative future. Unlike the Verne novels under discussion, the adventures of Delany's characters are far from episodic. Every event is carefully patterned, fitting snugly into the general narrative framework and resonating at the many levels at which the novel operates.

In contrast, in both these novels of Verne, as in most of his fiction, once the characters get well started on their Journeys--for instance, Arronax, his servant Conseil, and Ned aboard the "Nautilus" in Twenty Thousand Leagues Under the Sea; Lidenbrock, his nephew Axel, and Hans in Journey to the Centre of the Earth--the narration becomes more or less episodic, each episode exploring a facet of their strange setting. Moreover, in both novels, between episodes of action, there are long "lectures"--by Lidenbrock in Journey to the Centre of the Earth, and Arronax and Nemo in Twenty Thousand Leagues Under the Sea--on the many "ologies" (as Axel calls them) that describe their environment.

Lectures on the environment are, of course, typify another major ancestor of SF, Utopian adventure. Utopia is another genre that creates a detailed setting. In a utopia, however, it is usually the social setting that receives attention, not the physical setting. This difference is accounted for in the very diffe-

rant purposes Utopian setting is put to when compared to such adventures as Verne's. The setting in Utopias, consisting largely of descriptions of social arrangements, is constantly contrasted (sometimes satirically, as in dystopias) with the author's contemporary reality; even when there are striking physical descriptions, such as those of the Lilliputans or the giants on Brobdingnag in Swift's Gulliver's Travels, the point of the description is elsewhere. The setting in Utopias constructs a counterfactual world to demonstrate explicitly what is wrong with the author's world.

Finally, after a climactic adventure, during which the protagonists become unconscious in both Verne-novels, the trios emerge into the everyday world unable to explain their safe arrival: Arronax says, "What passed during that night--how the boat escaped from the eddies of the maelstrom--how Ned Land, Conseil, and myself ever came out of the gulf, I cannot tell" (287). The striking thing about this inability is that it occurs in these two novels which are otherwise full of explanations. However, in Twenty Thousand Leagues Under the Sea, the narrative, in some sense, prepares us for the inability of Arronax and his companions to account in any detail for their escape from the "Nautilus". This preparation consists in the breakdown of what may be called the "cognitive mode" of the novel. The entire raison d'être of Nemo's wanderings is to wreak destruction, especially on that one vessel which was perhaps responsible for the death of his family (we, like Arronax, remain unsure if that was indeed so). Having achieved this, the journey loses its meaning. The

destruction of the vessel marks the "destruction" of the tale as well. The first narratorial signs of the "unravelling" of the tale are that Arronax no longer looks out of the porthole, as he was ceaselessly wont to do, observing, classifying new species of marine life to write his definitive study of the undersea world. There are no more taxonomic passages--paragraphs, indeed whole chapters, describing, comparing, classifying marine flora and fauna.

Next to go is Arronax's habitual spatio-temporal precision--for the first time he speaks of not knowing exactly what date it is, or how many days have passed, and not being able to specify longitude and latitude or the direction of the ship's motion: the submarine's longitude and latitude, so carefully charted throughout the novel, and so meticulously marked on captain Nemo's planisphere, are no longer available. For all Arronax knows, they could be going around in circles. And indeed, caught in a maelstrom off the coast of Norway, going round in circles is exactly what they do. Nemo remains confined to his quarters, the portholes to the sea outside remain shuttered, and the position of the "Nautilus" remains unknown--all the "scientific" or rational and practical modes of understanding the submarine's position, its environment, and its inhabitants become unavailable to character and reader alike. We are scarcely surprised then when Arronax reports that he does not know just how he managed to escape from the "Nautilus". For a writer long disparaged as producing boys' adventure fiction (and the lurid covers and blurbs of the poorly translated Masterpiece edition of his works that are widely available do not help matters any), Verne's novel shows a

surprisingly complex patterning of form and content.

Thus, Twenty Thousand Leagues Under the Sea is, for the most part, a travel adventure relating the excitement of exploration of an unknown domain and the discoveries consequent to the exploration and dangers attendant on the exploration. Most obviously, the undersea setting provides an "undersea-scape" of difficulty: storms on the surface, high pressure under water, and of course, "sea monsters" like sharks and octopuses. Neither storms (or other upheavals) nor monsters are new in literature and history of adventure: witness Odysseus' survival after a storm that smashes his ship to smithereens; and the persistence of the Loch Ness monster in our own days. Captain Nemo himself treats Professor Arronax to a history of the reputation of the Red Sea:

The Greek and Latin historians do not speak favourably of it, and Strabo says it is very dangerous during the Etesian winds, and in the rainy season. The Arabian Edrisi portrays it under the name of the Gulf of Colzoum, and relates that vessels perished there in great numbers on the sandbanks, and that no one would risk sailing in the night. It is, he pretends, a sea subject to fearful hurricanes, strewn with inhospitable islands, and 'which offers nothing good either on its surface or in its depths.' Such, too, is the opinion of Arrian, Agatharcides, and Artemidorus. (15B)

But of course navigating such a sea was an obviously daunting prospect only for the ancients. As Nemo suggests, we need a history from another perspective in the present context:

That which is no longer dangerous for a modern vessel, well rigged, strongly built, and master of its own course, thanks to obedient steam, offered all sorts of perils to the ships of the ancients. Picture to yourself those first navigators venturing in ships made of planks sewn with the cords of the palm-tree, saturated with the grease of the sea-dog, and covered with powdered resin! They had not even instruments wherewith to take their bearings, and they went by guess amongst currents of which they scarcely knew anything. Under such conditions



shipwrecks were, and must have been, numerous. But in our time, steamers running between Suez and the South Seas have nothing more to fear from the fury of this gulf, in spite of contrary trade-winds. The captain and passengers do not prepare for their departure by offering propitiatory sacrifices: and, on their return, they no longer go ornamented with wreaths and gilt fillets to thank the gods in the neighbouring temple. (159)

This vast difference between the experiences of this site of adventure of the ancients and the moderns has arisen because of all manner of technological progress the moderns have achieved. It is technological progress that makes possible the traversing of the Red Sea with impunity. Indeed, that epitome of technology, the "Nautilus", makes even undersea travel possible (before its time). Professor Arronax's adventure, then, is one whose technological basis and bias are strongly reiterated. (Notice the lack of such emphasis in The Song of Roland or Treasure Island.)

At least as marvellous as the submarine world is the submarine itself. Before their adventures aboard the "Nautilus" begin, when the "Nautilus" is still believed to be a living creature--a poignantly anticipatory conversion of the scaly and fire-breathing monster into this techno-"monster" of the deep--Arronax deduces the kind of physical structure it must have to withstand stupendous pressure:

At 32 feet beneath the surface of the sea you would undergo a pressure of 97,500 lbs.; at 320 feet, ten times that pressure; at 3200 feet, a hundred times that pressure; lastly, at 32,000 feet, a thousand times that pressure would be 97,500,000 lbs. . . . If some vertebrate, several hundred yards long, and large in proportion, can maintain itself in such depths--of whose surface is represented by millions of square inches, that is by tens of millions of pounds, we must estimate the pressure they undergo. Consider, then, what must be the resistance of their bony structure, and the strength of their organisation to withstand such pressure! (19)

Given a "technical" introduction such as this, it is only appro-

priate that experiences aboard the "Nautilus" be as much adventures of knowledge as physical adventures.

And indeed Verne's worlds are in tune with contemporary science, and constitute unmistakable SF environments because they are saturated with description that draws substantially and primarily upon information that was then emerging, for instance, about the earth and the solar system, in the fields of physics, chemistry, geology, astronomy, geography, oceanography, biology, linguistics, and anthropology. Thus Journey to the Centre of the Earth is saturated with geological information; Twenty Thousand Leagues Under the Sea is filled with biological, oceanographical and geographical information. The extensive use of physical and natural science taxonomies and theories serves many functions in the two novels.

Firstly, it serves as an effective substitute for the supernatural or fantastically "exotic" furniture of earlier tales of strange lands. We say effective because Verne populates his undersea world, for instance, with not only unfamiliar flora and fauna, but Arronax and his apprentice Conseil's Latin and Greek taxonomic nomenclature of plants and animals make the world doubly unfamiliar. The litany of terminology replaces the magic chants and runes of earlier fiction. In his perhaps pedestrian way Verne has paved the way for the emphatically rational tone of much later SF. The information Verne is drawing upon derives from the "authoritative" banks of contemporary scientific knowledge. It does not comprise just "traveller's tales": indeed Arronax warns his companions, "you know what to think of legends in the

matter of natural history" (256). This deprecation of legends, however, does not mean that Verne's narrators do not often quote legends and myths approvingly. We have already seen Nemo's account of the Red Sea. Nor does the deprecation of myths and legends mean that Verne's narrators consider modern (nineteenth century) "scientific" knowledge indisputable or perfect. Indeed, as Nemo says of his contemporaries,

In that respect moderns are not more advanced than the ancients. It required many ages to find out the mechanical power of steam. Who knows if, in another hundred years, we may not see a second "Nautilus"? Progress is slow, M. Arronax. (158)

The point about the imperfection of current knowledge brings us to the next function served by the scientific information in the novels. In the novels with professorial characters, such as Journey to the Centre of the Earth and Twenty Thousand Leagues Under the Sea, a great deal of the fictionally "new" information that the characters acquire during the course of their journey is constantly juxtaposed with and seen as an extension of what is already known. Professor Lidenbrock and Axel in Journey to the Centre of the Earth find the "whole history of the Carboniferous era" inscribed on the subterranean walls, and their progress in the vast underground cavern is a kind of spatialization of the evolutionary history of the planet: "Quantified time translated into quantified space," as Suvin puts it (1979: 149). Contemporary authorities are often invoked as in Nemo's "I agree with the learned Maury" (89), and Arronax's "I recognised the nine species that D'Orbigny classed for the Pacific" (92). In other words, the adventures of the novels generate fictional information which then is shown actively engaging with actual scientific, taxonomic

information. The narrators and characters thus do not just use scientific knowledge, they generate it as well, and actively intervene in debates of the times, for the first time creating a new sort of excitement, a species of intellectual adventure which is today used mainly by popularizers of science.

Now, this new aura or attitude does not merely decorate these tales; scientific disputes are not all that these voyages (seen to) resolve: as often as not, historical and legendary puzzles are also solved. In Twenty Thousand Leagues Under the Sea the "Nautilus" visits the scene of many shipwrecks which did "in fact" occur but whose exact locations were unknown, thereby confirming historical records of these shipwrecks and legends of their sites at the same time. On such occasions, Captain Nemo treats the narrator, Professor Arronax, to a brief history of the circumstances of each shipwreck, circumstances no doubt some of Verne's readers were aware of, thus making the account of the fictitious Journey of the "Nautilus" participate in historical events and exploration intended to bring about resolution of puzzles. (In our day and age, the Bermuda Triangle seems to sever a similar function.) Similarly, the "Nautilus" simultaneously "confirms" the legend of Atlantis even as it refutes several other legends; and Axel's journey to the centre of the earth confirms the legend of a race of humans who have made those depths their home. The voyages of adventure thus contribute to the completion of the archives of science, history and legend.

Nor is this the only kind of intervention in history that these novels of Verne make. As Huet (1989) insightfully argues, like many of Verne's novels, Twenty Thousand Leagues Under the Sea begins with an appeal to public memory: "The year 1866 was signalized by a remarkable incident, a mysterious and inexplicable phenomenon, which doubtless no one has yet forgotten\*\* (1). Such an appeal, of course, is yet another way the events of the novel have inserted themselves into a historical archive from the earliest roots of this genre, as we well know from Daniel Defoe's habitual practice of journalistic verisimilitude. Further, both in the case of employing a theory of the hollow earth, and in choosing "Nautilus" as the name for his submarine, Verne obtains a certain kind of verisimilitude. As Asimov points out (1981: 206-211), the hollow earth theory was given wide currency (against current scientific opinion) by John Cleves Symmes in 1818 and was still popular in 1864 when Verne wrote his book; "Nautilus" was a successful prototype submarine built by an American engineer some seventy years before Verne's novel, and in giving his submarine that name, Verne self-consciously claimed a continuity of Nemo's creation with earlier prototypes.

In invoking the name of a prototype submarine, Verne was also claiming technological verisimilitude (in addition to other kinds, such as realistic fiction also strives for), a feature of his fictions that he took much pride in. For all the variety of settings that Verne used, he was a rather careful extrapolator, always staying close to what was thought to be possible in his time (the phrase needs emphasis because like any other fiction, SF also "ages" or "dates" in this way as in thematic or social

specificity). Thus, although he ventured far on, into, and around the earth, he took pride in the fact that both his means of transportation and the adventures his characters had were technologically possible ones. Hence his disparagement of writers who ventured "too far". In Verne's opinion, H.G. Wells was one such:

I make use of physics. He invents. I go to the moon in a cannon-ball, discharged from a cannon. Here there is no invention. He goes to Mars in an airship, which he constructs of a material which does away with the law of gravitation.... But show me this metal. Let him produce it. (Cited in Parrinder 1980: 7)

In retrospect, of course, it is Verne's cannon-ball that seems ridiculous. Further, for all his "use of physics", Verne himself took as many liberties with what was even then known to be true as did any mere "inventor": the theory of a hollow earth that Verne uses in Journey to the Centre of the Earth, for all its popularity, had been proven to be untrue by 1800, given the density of the earth; similarly, the project of changing the earth's axis--by means of explosives, to melt the polar caps and thereby gain access to vast mineral wealth--that Verne's protagonists undertake in Purchase of the North Pole (1889), would result, as Verne was no doubt aware, in the destruction of coastal cities all around the world. As Scholes and Rabkin say: "Verne's work really supports the claim that much science fiction displays a heartily unscientific exuberance for apparently scientific adventure" (1977: 197). Indeed, as we see in Verne's Mysterious Island (1872), such exuberance also betrays a cynical, couldn't-care-less exploitativeness in thinking about other people and resources elsewhere. We shall return to such other aspects of Verne's "unscientific exuberance" later.

Yet another continuity evident in the choice of the name "Nautilus" is in the ancient Greek meaning of the word; "nautillus" is Greek for sailor, and evokes all the legends of heroic adventure of that sea-faring race. Further, the choice of a classical name for Nemo's submarine is in keeping with the Latin and Greek taxonomies that abound in this novel. In itself this last idea may not seem impressive. But recall, on the one hand, the runic value of nomenclature referred to earlier. And on the other hand the almost unfailing use of names for things, processes and people(s) with which SF regularly seeks to establish the veracity-in-strangeness of its new worlds.

In the creation of setting, then, the uses of history in this novel are manifold and complex. The details of the plot, as we have seen, claim *verisimilitude* by appealing to a fictive public-memory. Throughout the novel there is an attempt to describe this extraordinary, fictitious journey as a continuation of other great, historical voyages and genres of *voyage-narratives* along this route. Again and again Verne explicitly contrasts the technological possibilities of his times with the "imperfect" knowledge that according to him characterizes earlier eras. Detailed anecdotes of the circumstances of historical shipwrecks provide authenticity of setting to the novel's adventures. And more than once, Nemo's asides on the histories of oppressed peoples remind us of the strong undercurrents that fuel the captain's travels around the globe, namely, to fight for the political freedom of enslaved peoples everywhere (without, alas, any salubrious effect on Verne's own psyche). The adventures of Arronax

and his companions thus intervene in history by adding their adventures to the archives; they open those archives to specific technological comparison and comment, and reorganize those archives by deciding on the veracity or otherwise of specific historical events. Indeed, as we learn from The Mysterious Island, the very raison d'être of the "Nautilus" is to intervene in world history. It is true that Verne did not make much of this theme, but that Nemo should be obsessed with the fate of oppressed peoples at all, and that, further, he should turn out to be an Indian prince in exile is more than enough evidence to discredit assertions that Verne's novels participate in some simple way in the imperialist project in which so much adventure writing is often implicated in (we have already mentioned Martin Green's meticulous study [1979] on the subject; see also Edward Said's Culture & Imperialism [1993] for one assessment of much of the nineteenth-century adventure writing that we mentioned in the last chapter as feeding into and emerging out of the West's imperialist projects). As we shall see, in the matter of unreflective adventures, Verne has not set an example for subsequent SF. Much of the significant later SF that we will encounter in this chapter is explicitly anti-imperialist, and seeks to provide alternative "future-histories" for humankind by rejecting or modifying the destructive patterns of human history.

Complex engagements with the past, of course, are the staple of such genres of adventure writing as historical fiction, excellent examples being Scott's portrayal of medieval England, and Mary Renault's re-creation of Ancient Greece (see Lascelles C1980]; and Karthika [1992]). R.L. Stevenson, a writer of "pure"



adventure, also employed Scottish and English legend and history in complex ways in both his fiction meant for boys, such as The Black Arrow and Kidnapped, as well as his serious adult fiction such as Weir of Hermiston, as Faurot (1965) and Hart (1978) have shown.

SF's major innovation in adventure fiction's theme of engagement with the past was, of course, time-travel, perhaps the one "geography" or dimension unexplored by Verne. Ever since Wells' Time Traveller, SF has mined the possibilities of this narrative device. Indeed, the device has been used so often that John Varley, in his novel of time-travel Millenium (1983), heads practically every chapter of the novel with the title of a time-travel story, thereby acknowledging his debt to his predecessors in the field!

Wells' Time-Traveller, of course, goes into the future, not the past, even though he does speculate with his guests on the infinite possibilities of travel into the past. SF writers after Wells have often had their characters travel into the past for a variety of purposes. David Lowenthal in his magnificent, wide-ranging study on the uses of the past, The Past is a Foreign Country (1985), summarizes the purposes thus:

Five reasons for going or looking back dominate time-travel literature: explaining the past, searching for a golden age, enjoying the exotic, reaping the rewards of temporal displacement and foreknowledge, and refashioning [present] life by changing the past. (22)

One example of each kind must suffice here: In "Dead Past" (1957a) Isaac Asimov has a character invent a "chronoscope" to disprove the slander that the Carthaginians immolated children as

sacrificial victims; Philip José Farmer's time-travellers find a paradisiacal 15000 B.C.--"damned few humans, and an abundance of wild life;... this is the way a world should be" (1975: 79, 137); Alfred Bester's characters find that "through the vistas of the years every age but our own seems glamorous" (1958: 147-8); Mark Twain's Connecticut Yankee wakes up in medieval England and says that he expects to "boss the whole country inside of three months; for I judged I would have the start of the best-educated man in the kingdom by a matter of thirteen hundred years" (1889: 63-A); and Gerard Klein's "time engineers" modify the past or the future, "to assure the power, menaced by time, of the Federation, which had decided to abolish chance" (1967: 8). Thus, very different purposes fuel the adventures of these time-travellers.

Even without the device of time-travel, an older text such as Verne's Twenty Thousand Leagues Under the Sea, as we have seen, has a very complex relationship with the past. Further, given the sheer weight of scientific information which is both substantially as well as technically significant, confirmation and disconfirmation are processes that lend "prestige" of credibility to the discourses of history, pseudo-history, and legend. This is evident in the fact that both Arronax's discovery of Atlantis and Alex's discovery of the subterranean race come at the end of a series of scientific "discoveries" during the course of their respective adventures. The qualifying quotation marks are necessary since the scientific information in these novels of Verne has on the one hand a complex relation with the other discourses of history and myth, and on the other, Verne's "science" seeks to intervene in, and is of a piece with, the nineteenth

century's scientific projects.

The deluge of scientific information that characterizes the setting of Verne's adventures, and is in fact a species-specific character of SF, then, serves many functions. One function, which we have only so far hinted at, is that it makes the strange territory known by the magic of naming it and by the incantation of "names" and description of processes, objects and phenomena:

The division containing the zoophytes presented the most curious specimens of the two groups of polypi and echinodermes. In the first group, the tubipores, were gorgones arranged like a fan, soft sponges of Syria, ises of the Moluccas, pennatules, an admirable virgularia of the Norwegian seas, variegated umbellulairae, alcyonariae, a whole series of madrepores.... Of the echinodermes, remarkable for their coating of spines, asteri, sea-stars, pantacrinae, comatules, asterophons, echini, holothuri, etc. represented individually a complete collection of this group. (54-5)

To name is also in a measure to comprehend the thing named (at least for the good professor, if not necessarily for the reader!) and as the etymology of the verb "comprehend" suggests, it is also to "have a grasp of", to be able to control, the thing named. This ancient belief has roots in Western myth ("And Adas gave names to all cattle, and to the fowl of the air, and to every beast of the field" [Genesis 2:20]), and folktale (the story of Rumpelstiltskin, for instance), as well as non-Western cultures (the American Indian "Brave", with his "secret" name and his "public" name is an example; as is the Hindu practice of giving a secret name at a boy's "thread ceremony").

SF, like fantasy, characteristically evokes the power of naming. Ursula Le Guin uses the belief in her superb fantasy, Wizard of Earthsea (1968), the first book in her remarkable Ear-

thsea Trilogy (1979). The wizard-hero, Ged, must discover the name of the evil entity from another dimension that he has let loose to be able to command it to return whence it came. The brutally dominated women in Suzette Haden Elgin's Native Tongue (1984) literally bring into existence objects and experiences by giving names to them: "A word for a perception that had never had a word of its own before" (158). Indeed, the power of names is the ultimate power in Arthur C. Clarke's "The Nine Billion Names of God" (1953b) where the purpose of all Creation is to say all the names of the Creator; that done, the universe ceases to exist! Stanislaw Lem, in his Solaris (1961), gently mocks the human conceit of mastery by naming. He parodies it by having his protagonist, Kelvin, plough through the literature on a discipline of study which Lem names "Solaristics"--the body of scientific and mystical knowledge that has grown around the mysterious planet Solaris--in an attempt to understand the planet. The failure of "Solaristics" is the failure of our anthropomorphic cognitive frames: a point Lem makes in many of his writings. And in the failure of the "magical" power of naming, Lem's writings show one way in which significant SF goes beyond the evocation of a momentary sense of wonder: the unknowable illuminates the limits of our imperial cognitive ambitions, and thereby, the limits of our humanity.

The professorial heroes in Verne too harbour dreams of total understanding. Both Lidenbrock and Arronax want to consolidate all that is known about the lithosphere and hydrosphere, and resolve all controversy and write a definitive study of the matter. Having travelled seventeen of the twenty thousand leagues,

Arronax claims, "I had now the power to write the true book of the sea" (255), by which he means a rational or scientific and not a revelatory truth. Occasionally, however, their seeming cognitive-technological mastery over their environment is shown to be illusory, as in the battle the "Nautilus" wages against the giant cuttle-fish--a fabled 'sea-monster'. In a sense, we suspect the powerlessness of technology to deal with the monster in the very manner Arronax describes the cuttle-fish:

Before my eyes was a horrible monster, worthy to figure in the legends of the marvellous. It was an immense cuttle-fish, being eight yards long.... Its eight arms, or rather feet, fixed to its head, that have given the name of cephalopod to these animals, were twice as long as its body, and were twisted like the furies' hair. One could see the 250 air-holes on the inner side of the tentacles.... Its spindle-like body formed a fleshy mass that might weigh 4000 to 5000 lbs.; the varying colour changing with great rapidity, according to the irritation of the animal, passed successively from livid grey to reddish brown.... Yet, what monsters these poulps are! what vitality the Creator has given them! what vigour in their movements! and they possess three hearts! Chance had brought us in presence of this cuttle-fish, and I did not wish to lose the opportunity of carefully studying this specimen of cephalopods. I overcame the horror that inspired me; and, taking a pencil, began to draw it. (258-59)

Here, the experimentalist's clinical eye fails (and quails, too) before the sheer scale of the creature, and although Arronax tries time and again to regain his "scientific" composure (quantifying the air-holes), he slips into uncharacteristic exclamations, comically combining his pre-scientific wonder--"what monsters these poulps are!"--with scientific wonder--"and they possess three hearts!". After that cognitive failure, the entirely "pre-scientific" battle with the monster, with harpoons and hatchets, comes as no surprise.<sup>4</sup> The encounter of the "Nautilus"

with hostile Papuans, on the other hand, is entirely a technological one. Again, we have an inkling of the kind of clash that is about to take place in Arronax's confident statement of European superiority. Arronax waits for "real hostile demonstrations" before reacting, for, as he says, "Between Europeans and savages, it is proper for the Europeans to parry sharply, not to attack" (115). Once they are attacked, Nemo repulses them by the simple expedient of electrifying the railing of the "Nautilus". Thus technology, and Europe, triumph.

In the century and a quarter of SF that has followed Verne, hi-tech weaponry (therefore, hi-tech warfare) is one of the most familiar shapes of technological manifestations of human scientific ability, not to mention man's power-lust. Robert Heinlein's "technical" accounts are one trajectory which weapon-description in SF has taken:

\*I used,' Thorby stated, 'a Mark XIX one-stage target-seeker, made by Bethlem-Antares and armed with a 20 megaton plutonium warhead. I launched a timed shot on closing to beaming range on a collision-curve prediction.' (1957: 183)

E.E. Smith's novels, saturated with adjectives and adverbs, take another route as their language strains to describe the destructive power of the "Super-Ships";

Then in that tube of vacuum was waged a spectacular duel of ultra-weapons--weapons impotent in air, but deadly in empty space. Beams, rays, and rods of Titanic power smote crackingly against ultra-screens equally capable. Time after time each contestant ran the gamut of the spectrum with his every available ultra-force, only to find all channels closed. For minutes the terrible struggle went on....

The macro-beams! Prodigious streamers of bluish-green flame which tore savagely through course after course of Nevian screen! Malevolent fangs, driven with such power and velocity that they were biting into the very walls of the enemy vessel before the Amphibians

knew that their defensive shells of force had been punctured! (1948: 204)

Battles on the scale that Smith describes are a staple of the epics of many cultures (indeed, "epic battles" is a standard epithet in the blurb of many a war-novel), another late Manifestation of adventure writing. Quite apart from the scale of action, the Mahabharata, for instance, also features weapons of "magical" powers of destruction--the astras--and the epic gives each of these a special name and specific powers. Smith's "ultra-weapons" thus have a long history in adventure writing.

SF has long been enamoured of weapons of mass destruction--"Technoporn", as Arthur Clarke (1989) described such SF, because it lusts after "gleaming weapons and beautiful explosions". However, as we shall see later in the chapter, running parallel to this fascination for and celebration of the destructive power of human technology, SF has also had a continuous "doomsday" tradition of apocalyptic visions (in the careful, nuanced sense in which David Ketterer [1974] adumbrates this difficult concept) foretelling the course of human events if this destructive celebration continues. A great deal of SF reinforces this danger by setting the story in a vividly described post-catastrophe world. Post-catastrophe SF describes many futures of a humanity lurching "here and here", like the butterfly in Robert Graves' poem, "by guess / And God and hope and hopelessness" ("Flying Crooked"). But of course, Graves' butterfly is valued for this ability--it has "a just sense of how not to fly"--whereas one may imagine that survivors after a catastrophe hardly have a choice in the directions their lives will take. In contrast, much post-cata-

strophe SF shows that humanity has just such a choice of futures: as the protagonist in Carl Sagan's Contact (1986) says, "We had been given a glimpse ... and then were left to save ourselves. If we could" (125). That humanity will squander such an opportunity to make a fresh start, is also a possibility explored in some SF that we will be looking at in this chapter. With human nature unchanged, a rebuilding of civilization will result in the same aggressive demonstrations of technological prowess. The militaristic visions of E.E. Smith and Heinlein will not be denied. And Verne's SF, with its "exciting" adventures bespeaking the power of science and technology, has contributed much in setting SF on the road to E.E. Smith and Heinlein. The odd encounter with octopuses notwithstanding, Verne's fictions are paeans to human prowess.

Thus, the physical adventure in Twenty Thousand Leagues Under the Sea derives much of its excitement from an interweaving of the ancient and the modern: fabled sea monsters and electricity. And, for the most part, the latter triumphs over the former. However, Verne's achievement lies in a redescription, of traditional settings of adventure such as the sea, in scientific-technological terms. The human-scientific-technological encounter with the environment, thus, both defamiliarises a familiar world and at the same time provides new opportunities for adventure. And, as we have seen, the project of knowing the world blends indistinguishably into one of Battering the world, albeit occasionally with indifferent success. For the most part, however, the question "what is that?" is inextricably entwined with the question "what good is knowing what that is?" In Twenty Thousand



Leagues Under the Sea this utilitarian cast to knowledge is discerned most clearly--and an ecologically sensitized late-twentieth-century sensibility might add, discerned most unpalatably (if the pun may be pardoned)--in the food Nemo provides to Arronax and his companions.

For instance, when Arronax wonders aloud how they are able to have meat at the bottom of the sea, Nemo replies:

This, which you believe to be neat, Professor, is nothing else than fillet of turtle. Here are also some dolphin's livers, which you take to be ragout of pork. My cook is a clever fellow, who excels in dressing these various products of the ocean. Taste all these dishes. Here is a preserve of holothuria, which a Malay would declare to be unrivalled in the world; here is a cream, of which the milk has been furnished by the cetacea, and the sugar by the great fucus of the North Sea; and lastly, permit me to offer you some preserve of anemones, which is equal to that of the most delicious fruits.  
(50)

This first meal sets the culinary tone of their voyage. Every meal is a banquet and is proof of the fertility of both the sea and the human imagination. Still, in Twenty Thousand Leagues Under the Sea no more than what is needed for a gourmet's meal is taken from the sea. Not so in Verne's The Mysterious Island (1874).

The Mysterious Island is the story of the transformation of an uninhabited Pacific island by the "engineer" Cyrus Harding and his companions who are stranded there. It is "mysterious" because at numerous crucial (even dangerous) Moments they are helped out by an unknown person. Nemo turns out to be the benign "mystery man". For the most part, however, Harding and his men require

little help. Indeed as "practical" men, their ability to make their island livable is enough to merit even Nemo's admiration, and he himself is the new Robinson Crusoe of the fiction of the technological age--lone inventor and fabricator par excellence.

Robinson Crusoe, we saw in the last chapter, set the tone for one kind of encounter with the world around. Robinson's attitude towards the world as a place full of usable things is echoed even more strongly in the Verne novel. Robinson's justification, at least, was based on survival: with little more than his mechanical ingenuity and "remembered", rudimentary technology, he devised means of surviving in a harsh environment outside civilization (which, by definition, is the repository of all knowledge and craft that humanity has acquired). His comforts were few. Not so with Cyrus Harding and his companions. Extravagance in exploitation of resources is the tone of their existence--if Robinson is literally a manufacturer, Harding is a near-God in his capacity to solve any technological problem, with a predictably condescending tone of speech with which his wise hostiles full of knowledge and competence are delivered. Such all powerful "technological" characters are also encountered in subsequent SF--a feature only to be expected in a genre which in its formative magazines celebrated, both in its fiction and non-fiction, the figure of the (boy-)engineer. Harding and his companions exploit the island for all it is worth, taking at any one time much more than they need. This extravagance is evident most of all in their slaughter of the fowl on the island. Every meal is a feast. Evidently, conservation of any sort, or concern of any kind for the resources in their world, figures nowhere even in the "enlighten-

ed engineer" Cyrus Harding's thoughts about this environment in which they find themselves. This "couldn't-care-lessness" is serious not just in itself, but also because for a long time, the island is the "world" of these people: their behaviour, therefore, has global implications by extension and extrapolation. As Harding says, "Everything, my friends, everything can serve us in the condition in which we are. Do not forget that, I beg of you" (130). As we shall see, a good deal of later SF examines what man has "made" of his world. (And for the most part, it is the male whose crafting is described, a fact entirely in keeping with the tradition of almost exclusively male heroes in adventure fiction; a fact also that recent, self-conscious feminist Utopias, such as Joanna Russ' "female" world, *Whileaway*--in her novel The Female Han [1975]--sensitize us to.) In this we find the pioneering Verne quite unconcerned or even amoral. This difference is a major evolutionary one in the history of SF. Indeed, the island's plenitude, which Verne's characters ruthlessly exploit, merits the descriptive term "overplus" in Harding's repeated reference to it--an abundance that, they believe, absolves them of any obligation to restrain themselves.

By the time they are through with playing God on that island, Harding and his companions have remade the island in civilization's image. However, their image is a fanciful, unrealistic one, which leaves the island at the end of their labours as virginally undespoiled and pastoral as they had found it. The novel is full of "realistic" detail about the technological possibilities inherent in everything they find on the island--descriptions

of raw materials, processes and artifacts abound. However, here we find no comparable realism in describing the price the island pays to provide for its inhabitants every civilized amenity; in a similar manner, in his Purchase of the North Pole (1889), Verne had his amateur scientists tilt the earth's axis to get at the vast mineral wealth at the poles, and "consequences be damned" (Scholes and Rabkin 1977: 197).

Verne's attitude is a modern, Western one (i.e., post-Renaissance, post-Enlightenment) that accompanied considerable scientific and technological increase in human capability which in turn made it relatively easy to treat the world around as available for the taking and presumptuous modification. Distress about such an attitude is by no means a late twentieth century one alone: "In Victorian Britain ... pride in material progress mingled with dismay at its brutal, ugly, and materialist consequences" (Lowenthal: xxi). We have already alluded to the savage criticism of the utilitarian outlook that Carlyle and Dickens launched. The attitude is also evident in Thomas Love Peacock's sardonic characterization of modern (nineteenth century) civilization in his last novel, Gryll Grange (1861), as "your steam-nursed, steam-borne, steam-killed / And gas-enlightened race" (quoted in Aldiss 1986: 93). And some thirty years before Verne, James Fenimore Cooper had raged against the white man's rape of the American wilderness. To Cooper, the destruction of the forests, its wildlife and the native human population were all aspects of the same callous and ungriving attitude of seeing the land as something from which all that can be, is to be taken. With no end in sight to this rape of the land by the "civilized" whites, nearly 150

years ago, ironically from within the "New World", Cooper wrote a Utopia, The Crater (1848). That the utopia ends in failure is perhaps adequate comment on Cooper's thoughts about the irreversibility of the damage already caused, about the human propensity to neglect husbandry, care of the environment.

Cooper's book in fact shows another difference between Utopian (technological) adventure and non-utopian technological adventure--despite even heavy presence of technology, Cooper's narrative firmly focusses on the nature of human society, while Verne rarely achieves any sense of human society in his novels. Subsequent SF has often divided itself into distinct halves along this difference, so that a serious SF work like Walter Miller's A Canticle for Leibowitz (1959) actually underplays the usual "sensational" elements of post-catastrophe SF such as a devastated landscape filled with Wells' Morlock-like savage and cannibalistic mutants. Instead, it , utilizes the available narrative to provoke readers to examine the nature of human existence in its environment. A similar emphasis is found in other non-frivolous SF works: for instance, John Wyndham's The Chrysalids (1955).

Such a refusal to use the more "formulaic" elements of its subject matter and technique constitutes perhaps one characteristic of "serious" adventure fiction in any genre. Jack Schaefer's classic Western, Shane (1949), although flawed and full of missed opportunities, is significant because it does not Bilk the customary gunfight for all that it is worth; instead the novel saves this trite generic feature for one explosive exchange at the very end; for the most part, in its portrayal of the relationship

between the gunfighter Shane and the boy-narrator, the novel reflects upon the mystique of the gunfighter; two recent Westerns--one a book and the other a film--go well beyond Schaefer's attempt: Larry McMurtry's Anything for Billy (1988) is a satirical-tragic reworking of the life of the notorious gunslinger Billy the Kid, and Clint Eastwood's recent film, The Unforgiven (1993), systematically demystifies the heroism of the frontier to expose its physical and moral squalor. Similarly, John Le Carre's super-spy Smiley, short, bald and middle-aged, is very far from Ian Fleming's James Bond; and Le Carre's, or Len Deighton's shadowy world of spying with all its ambiguities and ambivalences, of moral choices confronting representative as opposed to unique and elevated heroes, is a very different world from the black-and-white and, essentially, socially unconcerned world of Nick Carter thrillers. However, it is by no means the case that serious SF always avoids "sensational" elements of the genre. From Mary Shelley's thoroughly gothic Frankenstein (1818) through Alfred Bester's space operatic Tiger! Tiger! (1955), to John Brunner's thoroughly technological The Shockwave Rider (1975), SF has, in fact, successfully used well-worn genre elements also to examine human dilemmas. Indeed, at its best, serious SF, like any serious genre fiction, while refusing to tread some well-worn paths, creatively exploits familiar genre elements to illuminate hitherto unexplored paths, which the genre can now take.<sup>5</sup>

As grim a warning as Cooper's about the consequences of living the way we do, as spoilers, came from Richard Jefferies. In his essays as in his fiction, he was sharply critical of technological change because of the devastation that seemed to follow

in its wake: one of his diary entries (quoted in John Fowles' introduction to After London [1885]) notes the state of some twenty London parishes which had no provision for sewage. However, his criticism by no means implies that he was in favour of some anti-technological rural utopia (like Butler's Erewhon [1872]). Far from it; Jefferies was acutely aware of the hardships of rural life in nineteenth-century England as, to cite just one example, his Toilers of the Field (1892) amply document!. This awareness did not prevent him from detailing the environmental degradation of his town, Swindon, following the introduction of the Railways. His most powerful description of environmental pollution, emphatically representing moral and spiritual degradation of the human race, however, is to be encountered in his novel After London. There he portrays an England of the future, deprived of all Enlightenment and nineteenth-century advances in technology, thrown back upon & feudal medievalism after an environmental disaster whose reminder and remnant is a ghastly, chemically polluted lake, "the very essence of corruption" (206) at the place where London once was. The protagonist, Felix Aquila, is not a typical adventure/SF overachiever; Jefferies emphasizes this fact by contrasting Felix with his flamboyant, achieving brother. Felix, a misfit among the now feudal nobility, driven by a desire to recover the glory-that-once-was, enters the dead (and deadly) city of London:

The "deserted and utterly extinct city of London was under his feet. He had penetrated into the midst of that dreadful place, of which he had heard many a tradition; how the earth was poison, the water poison, the air poison, the very light of heaven, falling through such an atmosphere, poison. There was said to be places where

the earth was on fire and belched forth sulphurous fumes, supposed to be from the combustion of the enormous stores of strange and unknown chemicals collected by the wonderful people of those times. Upon the surface of the water there was a greenish-yellow oil, to touch which was death to any creature; it was the very essence of corruption. (206)

Into this Hades (for clearly, the phrase "wonderful people" is drastically undercut by repeatedly calling this unearthly reminder of their habitat "poison") Jefferies' Odysseus enters and returns to tell the tale. His feat inspires awe among warring tribes and he begins the process of building a semblance of a civilization once more. But the polluted lake constantly haunts this Utopian scheme of rebuilding in the manner of "the wonderful people of those times". The narrator of the tale, himself from Felix's society, describes the human exacerbation of the natural disaster that has destroyed civilization-as-Jefferies'-readers-knew-it. Of the Thames, we are told, "the river had become partially choked from the cloacae of the ancient city which poured into it through enormous subterranean aqueducts and drains" (36). The resultant swamp is described very vividly, enough to send a chill down the spine of any urbanite a century later. The essential condemnation of man's manner of living is beyond question in this novel:

There exhales from this oozy mass so fatal a vapour that no animal can endure it. The black water bears a greenish-brown floating scum, which for ever bubbles up from the putrid mud of the bottom. When the wind collects the miasma, and, as it were, presses it together, it becomes visible as a low cloud which hangs over the place.... There are no fishes, neither can eels exist in the mud, nor even newts. It is dead.... All the rottenness of a thousand years of many hundred millions of human beings is there festering under the stagnant water, which has sunk down into and penetrated the earth, and floated up to the surface the contents of the buried cloacae. (37-38)



Indeed, while we need not set up SF as "prophetic" as some critics do, the expensive and urgent scheme of the last couple of decades to "clean up" the Thames gives a disturbingly realistic habitation to what Jefferies imaginatively named. The man-made wasteland was to become a staple of SF setting; and in this sense an examination of humanity's responsibility for its won condition has marked a good deal of later SF. A city comparably ravaged by plague had prefigured in Daniel Defoe's Journal of the Plague Year (1722a) and a world devastated by plague by Mary Shelley in her The Last Man (1826), her immediate context being the rapidly spreading plague then raging across Europe. While neither can be called SF on any count, certainly the scale of the affliction--in the Christian tradition, reaching back to the Flood in the Book of Genesis (6-9), and the plagues in Revelation (9:3-20)--became a familiar part of SF. Indeed, so often does SF become a "literature of last things" (to use the subtitle of Ugar's study [1982]), that James Gunn could incorporate this feature in his definition of SF as a "branch of literature ... [that] usually involves matters whose importance is greater than the individual or the community; often civilization itself is in danger" (1977: 1). These "terminal visions" (the title of Wagar's study) of SF provide Ketterer the evidence to speak of "'the space opera' of E.E. 'Doc' Smith and Milton's Paradise Lost in the same breath" (1974: 332). From Defoe to the late twentieth-century SF, the implicit global or universal dimensions of "spoiling" human behaviour presented to us in fictionalized experiences can hardly be ignored.

Like the man-made wasteland, the SF tale set in the far future, in whose dim past a catastrophe had occurred, has also remained a recurrent motif in SF from Jefferies' time. Huxley's dimly remembered *Nine Days' War* in his Brave New World (1932) is an instance. James Kahn's World Enough. And Time (1980), is another such SF novel. Its story set in a world of zany inhabitants--centaurs and vampires--presents a fantasy adventure with a strong science fictional element in that it invokes genetic engineering (in the taleworld, a virtually mystical branch of knowledge), and "Gene Wars" to account for the creatures of the taleworld's present. Gene Wolfe's erudite series, *The "Book of the New Sun"* (beginning with The Shadow of the Torturer [1980]), again set in "centuries of futurity", and translated into English from a "tongue that has not yet achieved existence" (Wolfe 1980: 261), also mentions ancient catastrophes.

Only fifteen years after Verne's blithe unconcern for the environment (in The Mysterious Island) came Jefferies' stark depiction of man-made ecological degradation. In the century since Verne and Jefferies, an Earth wounded by human violence has become a familiar SF setting. Further, as human ability to destroy has increased, SF writers have depicted more spectacular catastrophes and post-catastrophe worlds. Indeed, in a recent speculation on the definitive traits of humanity, Jared Diamond specifically identifies genocide and environmental depredation (1990). The brooding, deadly lake in Jefferies becomes a violent, pyrotechnical sky in a more recent SF novel, Roger Zelazny's

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Unlike After London, here, the hero is a very reluctant and unpleasant agent of salvation to begin with. Tanner, the 25-year-old protagonist of Damnation Alley is an ex-"Angel": he once led a bike-gang in the "nation" of California and has a long criminal record. His first name, appropriately, is Hell. He is offered a pardon if he agrees to deliver a cargo of plague anti-serum from California to Boston, where a plague is raging. The catch is that this is a post-nuclear-holocaust America, with air travel impossible due to violent storms; only surface transport is available, taking one across nuclear-ravaged America. With his pardon in his pocket Tanner sets out in a heavily armoured vehicle, with two other vehicles behind him to make sure he does not just skip.

This novel is an ironic reversal of the triumphant and romanticized westward passage of the inhabitants of the once "New" world. The story alternates between the suiting and encounters of

Tanner's odyssey eastwards and scenes from a dying Boston. The action, like its prose vehicle, is spare and brutal. The two armoured cars accompanying Tanner are destroyed by the time the convoy is a third of the way through the journey: one is destroyed by bombardment of rocks in a storm, while the other disappears in a hellish post-nuclear-disaster tornado. Such tornadoes turn out to be the explanation for the "garbage" that keeps falling from the sky. The sky in fact receives some of the most spectacular descriptions in the novel: its colours range across the spectrum, with violent storms wracking it all the time. The quality of the descriptions gives us some indication of Zelazny's power and his concern:

By the time they reached Los Angeles, the blue aurora filled half the sky, and it was tinged with pink and shot through with smoky, yellow streaks that reached like spider legs into the south. The roar was a deafening, physical thing that beat upon their eardrums and caused their skin to tingle. As they left the car and crossed the parking lot, heading toward the big, pillar-ed building with the frieze across its forehead, they had to shout at one another in order to be heard. (7)

Notice the appropriate combination of a weird description and the mundane action of crossing the parking lot in the sane paragraph. Such descriptions of the setting of the action, from Jefferies to Zelazny, have made SF a repository to rival medieval Purgatorios. In accomplished (and at least in this regard serious) SF, these descriptions possess the power to caution all of us who believe we must watch our "progressive" steps. The beauty of the following description, for instance, only enhances the gruesomeness of the human condition:

The sun rose up like molten silver to his right, and a third of the sky grew amber and was laced with fine

lines like cobwebs. The desert was topaz beneath it, and the brown curtain of dust that hung continuously at his back, pierced only by the eight shafts of the other cars' lights, took on a pinkish tone as the sun grew a bright red corona and the shadows fled into the west. He dimmed his lights as he passed an orange cactus shaped like a toadstool and perhaps fifty feet in diameter.

Giant bats fled south, and far ahead he saw a wide waterfall descending from the heavens. It was gone by the time he reached the damp sand of that place, but a dead shark lay to his left, and there was seaweed, seaweed, seaweed, fishes, driftwood all about. (30)

Here is a scale of nature to inspire awe--cacti fifty feet in diameter, and giant bats--and a scale of incongruity in nature to instill fear--waterfall descending from the sky, and a dead shark in the desert: truly an example of the Burkean sublime. And yet, how does our hero react to these? He merely dims his lights as he passes an orange cactus fifty feet in diameter! The sky certainly does not inspire the kind of fear and awe in this protagonist, that the lake does in After London. And this difference need not surprise us for we have already encountered the mundaneness of the action accompanying the first description of the sky in Damnation Alley. Tanner's matter-of-fact attitude to this environment owes much to the tradition of the hard-boiled, man-of-the-world hero of much genre writing such as detective and spy or war fiction, and the Western. But the sky in Damnation Alley is not just a spectacular element of this grim post-catastrophe world. Clear skies are one of the abiding hopes of the surviving humanity. Tanner's girlfriend asks him wistfully if he has ever seen a cloud; the twelve-year old Jerry at one of Tanner's stopovers says he wants to be a pilot when he is older--an ordinary boy's desire (even trite, in our age), but poignant in this context. Further, the sky is the centrepiece of the extended narra-

torial monologue towards the end of the novel.

As Tanner traverses what were once called Nevada, Kansas, Indiana, etc., he finds the devastated landscape populated by monstrously mutated shrub, cacti, spiders and bats. However, he meets no mutated humans. This is really surprising given the generic conventions of post-catastrophe SF. Moreover, surprisingly little time is spent dwelling on the horrors that he does encounter. We will return to these "generically familiar" elements later. For now, it is enough to note that they retard Tanner's (and the narrative's) progress but little, and we are not allowed to forget the humanitarian mission on which this "Hellish" hero has embarked.

A large part of the novel dwells on Tanner himself. The novel opens with him speculating on the possibility of organizing and heading another gang, and his regretfully abandoning the idea--all this while evading parole. Captured and offered the deal, he accepts, but only because he has no real choice. It is clear that he undertakes the Damnation Alley run for the pardon alone--he couldn't care less what happened to Boston. On the journey, his partner Greg keeps on trying to figure Tanner out, to little avail. He cannot make sense of someone who recognizes no social obligations whatsoever: "I sometimes wonder how people like you happen", he says (40). The laconic Tanner is not of such help in analysing his own motives. But the reader is more fortunate because this novel does work at several levels and self-assessment by revealed irony is used very effectively by the author.

The tough, cynical hero-image, so common in American genre fiction--a hero of the Philip Marlowe school that Raymond Chandl-

er excelled in (see, for instance, Chandler's The Long Goodbye [1953])--is carefully adhered to in Tanner's portrayal. A roan who always knows the winning game in town, he plays it to the hilt, even as he expresses contempt for it. At their refuelling stop at Salt Lake City, Tanner is at his phoney best with the equally phoney President:

I have a small ranch now and only a few servants, and I spend most of my time listening to classical music and reading philosophy. Sometimes I write poetry. When I heard about this thing, though, I knew that I owed it to humanity and to the nation of California to volunteer. After all, they've been pretty good to me. (59)

The President leaves, impressed, and laughing contemptuously, Tanner tells Greg about his own value system:

He wants everything to be nice. So I told him nice things, and he believed them.... Dumb bastard actually believed somebody'd volunteer for this!... See how he sucked up to me after I talked to him about humanity? I hate guys like that. They're all phonies". (60-1)

And, in the tradition of the rogues and criminals in adventure fiction (even picaresque in this case) who are essentially good humans within, Tanner soon shows his angelic side, as, of course, one genrically expects him to. At the stopover at Salt Lake City, he is alone for a few minutes and becomes reflective:

He missed his love, the one-eyed beacon of his life, his hog, with her four-speed Harley Davidson transmission and stock clutch, two big H-D carburetors, and her thrbbing, shuddering, exploding power between his thighs, bars in his hands and hellsmell of burned rubber and exhaust fumes peppering his nose around the smoke of his cigar. Gone. Forever. Impounded and sold to pay fines and costs. The way of all steel. (68)

This reflectiveness leads him to tell Greg a little later:

I've been thinking.... Those folks in Boston ... Maybe it is worth it. I don't know. They never did anything for me. But hell, I like action, and I'd hate to see the whole world get dead.... It's just that I don't like the

idea of everything being like the Alley here--all burned out and screwed up and full of crap. (76)

At this semi-articulate reflection, an amused Greg says, "I never suspected you contained such philosophic depths" (76). Of course he does, but by no means as "given" as in merely conventional narrative. All of Tanner's encounters with human beings are significant, they exploit the conventions of the hard-boiled hero, and of parodic variations in the context of an SF scenario of urgency. A rather effective narrative results. For instance, at their next stopover, he meets twelve-year-old Jerry Potter. To him he reveals how he wanted to mind the Big Machine that ran the world. He had, he tells Jerry, taken literally a comparison his school-teacher had made of the world to a big machine and had for long dreamed of himself as the sole minder of the machine.

These unexpected aspects of Tanner's character notwithstanding, our "Angel" does not become one. He delivers his cargo to Boston, and the spring after, when a statue of our hero is unveiled, obscene remarks are discovered etched on the pedestal and Hell Tanner is found to have disappeared, leaving a trail of stolen cars. But before this prank confirms him as a lovable villain, he has suffered. And it is not just a change of heart that Tanner has suffered, though that too. Having loved and lost, he is distinctly much more than merely "biologically human" as the administrator Denton describes him. The girl he comes to love, Corny--"short for Cornelia"--in the space of three days was with a bike gang, much like Tanner's own, which he decimates. He picks her up from the carnage because she is "a chick". She throws in her lot with him. As she says (unwittingly describing her



"function" in the narrative), "I got nothing else to do" (153), since she sees herself also as a "chick". A couple of days later, another bike gang kills her and Tanner buries her with this epitaph: "Her name was Cornelia and I don't know how old she was where she came from or what her last name was but she was Hell Tanner's girl and I love her" (174). Ungrammatical, but tough and touching. And that is how he stays.

The changes in Tanner along the way are, of course, the familiar pattern of the hero who grows emotionally and becomes a better human being at the end of his odyssey. But this Hell's Angel's transformation is more than the reformation of an anti-hero. As in serious Romance, here the redemption of the hero marks the redemption of a civilization. Tanner is most human and vulnerable when his "girl" dies a violent death. Significantly, this depiction of the violence human beings do to each other is also the point at which the novel, so to speak, changes gears. A narratorial monologue follows. The very beginning of the monologue marks it off from the rest of the novel:

Setting without plot or characters. Put a frame around it if you would, and call it what you would, if you would: Chaos, Creation, Nightmare of the Periodic Table or \_\_\_\_\_ [fill in your own]. (174)

Then comes a sentence two pages long, a veritable deluge, on the violence done to Nature: the human breach of a holy pact between the elements—the "Nightmare of the Periodic Table" mentioned above. An excerpt:

.... if you're there to see, and may you never, how the sky takes up within itself the land and the water, separated since the days of creation, turns them to plasma ... dropping ... rains, of stone, wood, the dead of the sea and the land, masonry, metal, sand, fire, glass, coral, and water sometimes, too, as it disciplines the

earth and the seas which perhaps abused it too much, too long, by bringing forth those who respected no pacts between the basic elements, who smudged the heavens with a million pollutants and fear, filling the bottle above the air with the radioactivity of five hundred prematurely detonated warheads, aborted by a radiation level already raised to the point where it broke them apart with spontaneous chain reactions, troubling its still blue on those three days when the pacts were broken.... (175-76)

At the end of that marathon sentence, the narrator says, "It is this, more than anything else in the entire world, that demands regard. A setting, nothing more--no plot, no characters" (177). However, by this explicit statement of what "demands regard", Hell Tanner's odyssey and transformation do not lose their meaning. Quite the contrary, in its spectacular descriptions of the setting, and the depiction of Tanner's transformation, the novel's SF-adventure narrative becomes the vehicle and occasion for a much larger statement on the late-twentieth century, industrialized, militarized West. In that one tirade of words, Damnation Alley is transformed from a tale of hard-boiled adventures of a couldn't-care-less hero into an ecological fable, because the story contained the substance of this statement from the start. At opposite ends of descriptiveness (Jefferies' lush "Wild England" opening, and Zelazny's blighted earth), they are essentially SF works of special significance.

In the century since Richard Jefferies, we said, SF writers have given many spectacular descriptions of the breaking of the "holy pacts" between humans and their environment. Harlan Ellison's short story "Bleeding Stones" echoes Zelazny, but in a very different tone:

Alchemy high above the crowds.

Over one hundred years of the Industrial Revolution

tion had spewed chemical magic into the air. The aerosols known as smog. Coal and petroleum fractions containing sulfur, their combustion producing sulfur dioxide, oxidized by atmospheric oxygen to form sulfur trioxide, hydrated by water vapor in the air to sulfuric acid. Alchemical magic that weathers limestone.... The magic of ultraviolet radiation, photochemical reactions, photochemical smog: it magically cracks rubber. Unsaturated hydrocarbons, ozone, nitrogen dioxide, formaldehyde, acetone. Magic. Carbon monoxide, carcinogenic hydrocarbons.... Carbon particles, metallic dusts, silicates, fluorides, resins, tars, pollen, fungi, solid oxides, aromatics, even the smells of magic. (194)

Ellison's excoriation of technological devastation is as savage as Zelazny's. However, his sardonic wonder--"it magically cracks rubber"--is particularly good, playing, as it does, upon the wide-eyed "gosh-wow" of socially naive SF like Verne's The Mysterious Island, simultaneously revealing to us the development SF has undergone since the very palpably naive early narratives. It reveals in unmistakable terms the particularity, even self-parodic specificity, of setting in late SF. Further, Ellison's litany of pollutants, like Zelazny's "masonry, metal, sand, fire, glass, coral, and water" (176), is an ironic version of the lists of exotica that SF writers are particularly fond of. These lists have their generic origins in listings characteristic of epics as well as in the descriptions by travel writings that tell of strange lands and people. Arronax's taxonomic lists of the flora and fauna of the undersea in Verne's Twenty Thousand Leagues Under the Sea are one instance we have adduced, and indeed an adventure in any sub-genre is inconceivable without formulaic or integrated specificity of setting.

Even without their Greek and Latin names, the visual potential of Verne's submarine life is striking, as is evident in the Walt Disney film version (1954) of the novel. Indeed, SF film has

often relied on the more "spectacular" aspects of the texts' settings, sometimes able to suggest a great deal even when some fairly primitive special effects are used, as in Andrei Tarkovsky's Solaris (1971), but more often, allowing the exotic to be an end in itself, as in George Lucas's slick Star Wars (1977). SF novels, of course, offer plenty of instances of both kinds of uses of setting, as significant site for struggle or as mere visual-tactile-auditory "furniture" of a place. Stanislaw Lem's Solaris is an example of a significant use of a spectacular setting (as, indeed, are many of the novels we discuss below in this chapter), while the crowded bar-room in Star Wars, a triumph of rubber-masks and body-suits, figures in many a racy SF adventure:

The barroom was swirling with crosscurrents. Vampires, Satyrs, Humans, Harpies, Furies, Devils, Gargoyles, and mixed breeds of every genotype drank, gamed, and conspired from floor to loft. (Kahn, World Enough and Time [1980: 227])

Verne's Twenty Thousand Leagues Under the Sea starts out as a technological adventure, its lineaments clear from its very beginning, and describes an undersea adventure very successfully, weaving the science and technology in surprisingly complex ways into the debates of the day. If it fails, it does so because of its naive conception of human experience in general. Zelazny, however, does quite different things, and in less space, with genuine narrative economy--this is a point worth making, that as with other sub-genres of adventure fiction, in SF too the conquest of setting by economical and essential integration into the narrative fabric marks the more significant and provocative works. Formula adventures in SF, in contrast, also suffer from the

setting's inability to interact with character and conflict, with complexity of motivation and aspiration, where they do not weaken from having nothing new to say about human experience.

While the landscape in Zelazny's novel is no less strange than Verne's waterscape, Damnation Alley does not undertake an exhaustive description of the setting in the vocabulary of science. This is because of the different generic sub-traditions within which Verne and Zelazny wrote. Verne partakes very consciously of fictional travel writing. That makes his novel lean one way--the setting described with geographical verisimilitude, not infrequently as seen by an observer rather than by an involved and interested participant. He is at the same time exploring the possibilities of a scientific vocabulary, and various technologies. A scientific vocabulary allows Verne to not only describe a new setting (the undersea), but also to describe anew already familiar settings such as the surface of the sea; Verne's technologies and terminology also allow him to fill his tale of travel with apparently "new" adventures which serve only discursive or digressive functions--again whether they are apparently "familiar" encounters with "monsters" or "natives", or the truly wondrous exploration of the workings of the "Nautilus", and life aboard and around it in the till-then unfamiliar element. Zelazny's Hell Tanner, being no M. Arronax, describes the world around as a non-specialist would, leading the reader not so much into distant wonder as into felt experience:

Bats as big as this kitchen--some of them even bigger.... Gila Monsters. Big, Technicolor lizards--the size of a barn. Dust Devils--big circling winds that sucked up one car. Fire-topped Mountains. Real big thorn bushes that we had to burn.... Drove over places where the

ground was like glass. Drove along where the ground was shaking. Drove around big craters, all radioactive. (124)

Tanner's description shows that the rhetorical quality of an accomplished SF narrative does not really derive from technical or jargon-bound description. In this the development of SF parallels the growth of other cousins in the adventure family such as Historical fiction or Detective fiction, since the description matters because of who the character is and why he is where he is. Coming from Tanner, the description may even sound poetic, but certainly not scientific. To the genre reader, familiar with post-catastrophe SF, this makes perfectly good sense. While Verne was inaugurating a particular discursive blend--of fictional travel writing in a scientific and technological vocabulary for practically triumphant or celebratory early SF--in 1969, Zelazny is writing a post-catastrophe novel well after other landmarks in the genre such as Walter Miller's A Canticle for Leibowitz (1959), and John Wyndham's The Chrysalids (1955), not to mention Aldous Huxley's Ape and Essence (1948), or the more popular On the Beach (1957) by Nevil Shute, some of which we will discuss presently. Many of the elements of post-catastrophe SF are already well known to Zelazny's readers of 1969. This is another explanation for the very little time Zelazny needs to spend in introducing to us the inhabitants of Tanner's world, why his adventure can commence in media res; hence a passing reference to the giant Gila Monster on page twenty-five is all that is required to cue the reader to the mutant denizens of this world. Hence too the surprise with which one notices the absence of any human mutants: one almost expects to encounter the "Deviations" and

"Obscenities" of Wyndham's Chrysalids. For the same reason, Zelazny's genre reader is hardly surprised by the announcement of the mad botanist, Kanis, "I'm not a scientist" (101). As he explains to Tanner who asks him what happened:

War, that's all.... The survivors visited the remaining universities that I knew of and killed the remaining professors--English, sociology, physics, it didn't matter what they taught--because the professors had obviously been responsible, because they had been professors. (103-4)

Slaughtering and torturing of intellectuals is of course tragically only too familiar in the barbarism perpetrated by the State in our century, whether they are the Purges in Nazi Germany, Communist Soviet Union, Eastern Europe, or Bangladesh. While a great deal of mainstream fiction has addressed this theme (Solzhenitsyn's The Gulag Archipelago [1973-75] being one prominent instance), the bizarrely systematic threat of purging has actually called up the allegorical Animal Farm (1945). SF readers have encountered the theme, for instance, in Walter Miller's A Canticle for Leibowitz (1959), which we will discuss later in the chapter:

So it was that, after the Deluge, the Fallout, the plagues, the madness, the confusion of tongues, the rage, there began the bloodletting of the Simplification, when remnants of mankind had torn other remnants limb from limb, killing rulers, scientists, leaders, technicians, teachers, and whatever persons the leaders of the saddened nobles said deserved death for having helped to make the Earth what it had become. Nothing had been so hateful in the sight of these mobs as the man of learning, at first because they had served the princes, but then later because they refused to join in the bloodletting and, tried to oppose the nobles, calling the crowds "blood-thirsty simpletons". (67)

There are, then, numerous generic coordinates in Damnation Alley, allowing Zelazny to write a crisp, quick-moving adventure

novel, with minimum time spent in filling in the background. This possibility of effective narrative economy exists because of the readers' familiarity with the conventions of the sub-genre of post-catastrophe SF.

Quite apart from the familiarity with which readers of SF orient themselves within a text such as Damnation Alley, there is a cultural aspect to our familiarity with post-nuclear-catastrophe scenarios in at least one society which is a major producer of SF. Seven years before Zelazny wrote his novel, Herman Kahn had coined that notorious "realpolitik" phrase, "thinking about the unthinkable"--the subtitle of his On Thermonuclear War (1962), thus making the possibility of nuclear war and survival thereafter part of the American public discursive space. Kahn's work emerged out of studies undertaken by his "Think Tank", the Hudson Institute and commissioned by the American military establishment to paint post-nuclear-war "scenarios". This thematic overlap between fiction and fact--SF and futurology--became congruence in the next decade in the Office for Technology Assessment's report on the effects of a limited nuclear conflict on the economy and the surviving population, The Effects of Nuclear War (1978), which included as part of the report Nan Randall's account of post-holocaust life in Charlottesville, Virginia (cited in Andrew Ross [1991]). As Ross rightly observes,

In the late seventies, such a commission (combining military "scenario" with an SF alternate world) was a simple piece of genre hackwork, after decades of near-future fiction in love with post-apocalyptic scenarios where survivors either start again ex nihilo, or else reconstruct communitarian life under conditions of technological de-evolution.... The fact that the military chose to commission such a work was official recognition



of SF's proven capacity to produce survivalist handbooks that fed into familiar North American value systems of self-reliance, pioneering, and pragmatic savoir faire. (1991: 142)

Needless to say, actual continuing reporting on nuclear testing, accidents at power plants, occasional military disasters, films, visual SF experience (e.g., nuclear fall-out shelter signs at even small town Greyhound bus depots), and pictorial accounts in illustrated magazines, etc., were only some of the genres of public communication involved in the nuclear disaster imaging and imagining in the United States. Other countries at least shadow-boxed in this regard (e.g., the NATO allies of the U.S.). With so much interpenetration of genres, it is reasonable to expect that most of the readership of Zelazny's Damnation Alley, whether regular genre-readers or not, would be far more thoroughly "trained" into "reading" the text than the readership of many other genres.

This economy of reading is an aspect of what Thomas Roberts calls "thick reading" in his wide-ranging and insightful study (1990) of what he terms "Junk Fiction". "Thick reading" is that act or process of intertextuality in reading work; it is a genre in which themes and narrative devices of a given text evoke similar themes and narrative devices from other predecessors within the genre. While adventure writing does not exclusively promote "thickening" devices of writing-reading (e.g., see John Galsworthy's The Forsyte Saga (1922), which is thick reading material without being adventure in our sense), certainly heroes of accomplishment narratives often give rise to either sequences of tales around the same character, or a dynasty of characters in related texts.

This kind of reading is only to be expected, for instance, in novels which trace successively the adventures of the same set of characters, as do, for example, adventures from *Morte d'Arthur* and Shakespeare's history plays, through the Sherlock Holmes saga, to Peter O'Donnell's "Modesty Blaise" novels (1966 and 1976, for instance). Shared themes and narrative techniques are also to be expected in texts linked in other ways as well, for instance, in the no less than eighteen ways in which SF texts may refer to each other, which Gary Westfahl lists in his hilarious "Bestiary of Replication" (ranging alphabetically from "biquel" to "weakquel"; a "Modesty Blaise" novel would be a "chroniquel"-- "one work in a theoretically endless series of adventures involving the same characters or situations" [Westfahl 1991: 18]).

The evocations of earlier SF in Damnation Alley are at the levels of word ("muties" for mutants), event (killing professors), and expectations (radioactivity and social chaos) which are fulfilled; and human mutants (an expectation which is thwarted). Into this genrically embedded (or "thick") novel Zelazny introduces the theme of the human violation of the pact between the elements. This theme introduces unexpected resonances into an otherwise straightforward SF-post-catastrophe "odyssey" (as the blurb claims). Hell Tanner's adventure is also an adventure towards the possibility that life on the planet might again be livable: as Corny says of the sky, "Then we might be able to see it the way it used to look--blue all the time, and with clouds" (151). But the "hoped-for posterity" is still some way away, for

"after such knowledge" Nature does not forgive easily. As the Narrator tells us at the end of the novel, "the heavens still throw garbage" (193).

While the actual specific disaster in After London had remained unspecified, the chemically polluted lake did provide unmistakable evidence of the environmental catastrophe that must have befallen the England of the narrative (and presumably the whole world). Damnation Alley, on the other hand, describes quite explicitly the environmental consequences of war. The pursuit of profit and unquestioned "progress" without regard for the price the environment pays in the one case, and the pursuit of power without regard for the consequences on the planet, in the other, both lead to disaster, which then forms the backdrop for quest or mission in such novels.

Harry Harrison's Deathworld (1960) addresses a third recipe for disaster, namely, an active hostility towards the environment. From the point of view of the human inhabitants of the planet Pyrrus, of course, it is the environment that is hostile; and they are fighting a losing battle against the flora and fauna of Pyrrus. When the gambler-hero Jason din Alt first comes to Pyrrus, he has to undergo training in a series of survival chambers which are simulacra of the outside world. He learns that all flora and fauna on Pyrrus are deadly to humans; that their elaborate armoury to kill is not used for killing each other, only the Homo sapiens; and that, constantly, ever deadlier species keep coming at the Pyrrans. This seems so illogical to him that he decides to find out why this strange hostility should exist, and what might have started it. This, then, is a curious but

unmistakable case of a hero who seeks adventure with not so much an ethical as a constructive motivation.

He finds that the human part of Pyrrus consists of just one city--a large part of which is in ruins--which protects itself from the Outside by a Perimeter (capital 'O' and 'P'). Jason discovers the log that the captain of the ship of the original settlers had maintained. This proves his surmise that the population of Pyrrus is indeed dwindling and, more importantly, that at one time the flora and fauna of Pyrrus had lived in harmony with the original human settlers.

A little later he finds out that in fact there is another tribe of humans whom the Pyrrans derogatorily call "grubbers" and who safely live Outside; they farm and exchange their produce for low-level technology from the city-dwellers. Jason illicitly leaves the city, meets the leader of the "grubbers" who tells him that they are a group that split off early from the main body of the original settlers. The Pyrrans do not know this, having refused to refer to historical records, for they deem historical records of no use in their daily battle for survival. (In fact, Jason also recovers the original settlers' log from a trunk in the "store-room" of the library, where all "non-technical" books are kept, predictably almost all ruined by rats.) Jason finds the "grubbers" living in harmony with the life on the planet. He discovers that Pyrran life-forms are psi-sensitive, i.e., telepathic in some measure, and therefore their hostility is a response to felt human antipathy. All the pieces of the Pyrran puzzle are now with Jason. But it takes a massive earthquake to make

the pieces fall together. Fleeing from the earthquake, Jason notices that in the face of a natural disaster, all life is united. Even animals which prey on each other flee together. This observation gives Jason the solution to both his problems: how the city Pyrrans--"junkmen" to the "grubbers"--might live in harmony with their environment, and how they could live in peace with the rural Pyrrans, if they wished.

He brings the two kinds of Pyrrans together by having the "grubbers" engineer an attack on the city. Finally, having the ear of the two warring parties, he explains to the city Pyrrans how they are responsible for the hostility of all life on Pyrrus:

Pyrran life [is] telepathic.... At one time ... they cooperated in wiping out the last survivors of the non-psi strains. Cooperation is the key word here. Because while they still competed against each other under normal conditions, they worked together against anything that threatened them as a whole.... [And] they treat you all as another natural disaster! (148-49)

When the first settlers, in panic, shot creatures fleeing from a forest fire (Jason finds this out too from the log), "they classified themselves as a natural disaster" in the "minds" of those creatures (149). As Jason tells the city Pyrrans: "You city people, their descendants, are heirs to this heritage of hatred.... How can you possibly win against the biological reserves of a planet that can re-create itself each time to meet any new attack?" (149). He tells the rural Pyrrans that they were not attacked by the Pyrran creatures because they "don't identify themselves as a natural disaster":

Animals can live on the slopes of a dormant volcano, fighting and dying in natural competition. But they'll flee together when the volcano erupts. That eruption is what makes the mountain a natural disaster. In the case of human beings, it is their thoughts that identify them

as life form or disaster. Mountain or volcano. In the city everyone radiates suspicion and death. They enjoy killing, thinking about killing, and planning for killing. This is natural selection too, you realize. These are the survival traits that work best in the city. Outside the city, men think differently. If they are threatened individually, they fight, as will any other creature. Under more general survival threats, they cooperate completely with the rules for universal survival that the city people break. (150)

This little neo-Darwinian parable has a thematic ancestor in Olaf Stapledon's Star Maker (1937), which we will discuss in some detail a little later. In Star Maker, the narrator visits several biologically disparate species, all approximately at the level of evolution of Homo sapiens, and finds in all of them a tendency to achieve a state of technological complexity without a concomitant evolution in what he calls the "spirit". This backwardness results in an inability to resolve differences non-violently. And as the narrator joins telepathically with other alien minds--also on some such quest--he begins to see in species after species of sentient life the futility and self-destructiveness of conflict, that all victories are pyrrhic, and that harmony is absolutely necessary if a civilization is to evolve at all. Jason din Alt

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tries to get the same message across to the Pyrrans,

Harrison achieves this thematic aim in Deathworld by giving a new twist to an old adventure narrative device of a landscape of difficulty which the hero must traverse: the Siren-ridden sea of the Odyssey, the deadly jungle in the "Tarzan" novels of E.R. Burroughs (Tarzan of the Apes [1814]), the cliff in Alistair MacLean's Guns of Navarone (1957), or the icy wastes Genly Ai crosses in Ursula Le Guin's Left Hand of Darkness (1969). In Deathworld, as in the novels above, characters require what we may

characterize the Crusoe factor: extraordinary skills and a large dose of luck; in short, they need to be "heroes" to survive their passage through hostile environment, a qualification Deathworld announces in naming its hero "Jason". However, in Harrison's novel, the characters themselves are responsible for creating the hostility in their environment: beginning with the earliest settlers, the Pyrrans and the life on the planet are caught in a mutually-reinforcing feedback loop. Recognizing this as their predicament is the first necessary step to ending their "heritage of hatred". Harrison clearly adds a social sense, a perspicacity to the mixture of qualities in his protagonist.

Thus, unlike the setting in the other novels mentioned above—a setting which is not of their own making and which the characters have to survive, overcome or conquer—"deathworld" is the world the Pyrrans must "unmake". What they need to overcome is not their environment, but themselves: to accept the aggression within themselves as responsible for the hostility they find all around them. But understanding that this is so is one thing; trying to believe as harmless what one has all along regarded as deadly is quite another. Jason d'n Alt's solution of fitting out an expeditionary force of Pyrrans to "go into the business of opening up new worlds" (156), neatly avoids the disbelief the Pyrrans might experience if as a community they were asked to change; he also avoids disbelief that a sudden change of heart might induce in the skeptical reader. At the same time, the solution provides Harrison with the ideal justification for writing further "chroniquels": and sure enough, two chroniquels did emerge. Moreover, the 1963 Penguin edition of Deathworld (which we

refer to throughout here) becomes Deathworld 1--"Also by Harry Harrison"--on the page opposite the title page in the 1973 Sphere edition of the sequel Deathworld 3 (1969).

The blatant, gluttonous view of the environment at "overplus" in Verne's Twenty Thousand Leagues Under the Sea and The Mysterious Island presupposed as total an alienation between human beings and their environment as the city-Pyrrans' "gladiatorial" view of theaselves and their world as antagonists. Captain Nemo and Cyrus Harding's highly instrumental view of science and technology, as something to be used on tht environment around--an "Us" changing irreversibly and exploiting ruthlessly an Outside "It"--is shared totally by the city-Pyrrans. The difference is that Verne wrote with a complete absence of reflection about the consequences of the human rape of the "overplus" of Nature, while Harrison's novel is permeated with the understanding of the necessity for human harmony with humanity itself and with its environment. Between Verne and Harrison is an increasing self-awareness in people and a long tradition of SF exploring various possibilities of identity and difference between an "us", a "them", and an "it". As we saw in our historical sketch of adventure fiction in the last chapter, encounter with an alien species or culture is an oft-employed narrative device, in texts and genres as varied as Swift's Gulliver's Travels and Le Carré's Smiley's People, to address themes of identity and difference. We will discuss a little later some significant instances of SF that depict the "alien" to raise questions of identity and difference.

The intellectual project of Verne's Twenty Thousand Leagues



Under the Sea is one of insisting upon the human ability to "carve out" its environment with its various "ologies". The physical analogue of that project is Cyrus Harding's "remaking" of the island by amoral exploitation of the "overplus" in The Mysterious Island. The medievalism of Jefferies' After London, especially the first section of the book, "Wild England", shows, so to speak, the island returning to its earlier state after the race of Cyrus Hardings are almost all long gone. This return to "the way things were at the beginning" is a recurrent motif in SF, as in adventure fiction. Towards the end of our discussion of Jefferies' After London, we mentioned that adventure writers have long shown the world regressing to an earlier state after some catastrophe.

SF's particular variation on the theme of the world returning to its past lies in the ascription of responsibility for the catastrophe to human action and attitude. Daniel Defoe and Mary Shelley's limited plagues, thus, become an unstoppable, incurable global virus in George Stewart's Earth Abides (1950). The protagonist, Isherwood Williams ("modelled on an Amerind legend, Ish", as Aldiss says [1986: 467, n.30]), up in the mountains, survives, as do a handful of human beings here and there. And, in one of the lowest keyed SF adventures, the novel traces the efforts of these remnants of the species to survive and consolidate their existence, and in a narratorial intertext interspersed through its progress, the gradual slipping of the world to a primeval or "as-it-was stage "in the beginning":

A fence was a fact, and a fence was also a symbol. Between the herds and the crops, the fence stood as a fact, but between the rye and the oats, it was only a symbol,

for the rye and the oats did not mingle of themselves. Because of the fence the land was cut into chunks and blocks. The pasture changed to the ploughed land sharply at the fence.... Once the fences are broken both in fact and in symbol, then there are no more blocks and chunks of land and sharp changes, but all is hazy and wavy, and fades from one into the other, as it was in the beginning. (75)

The "hazy and wavy" landscape is reflected in changing human perceptions of space:

But boundaries fade even faster than fences. Imaginary lines need no rust to efface them. Then there will be no quick shifts, and adjustments, and perhaps it will be easier on the mind. They will say [when locating a place] as in the beginning: 'About where the oak start to get thin, and the pines take over.' They will say; 'Over across there--can't tell exactly--in the foothills where it gets drier and you start seeing sage-brush.' (226)

And perception of time changes too, not just time as measured with reference to one or more characters' individual lives but on another scale altogether:

Thus from the very beginning it came about that they called each year not so often by its number as by a name based on something that happened during that time. (142)

As in the matter of global civilizational changes, time scales in SF too are often vast. The most mind-stretching examples continue to be Stapledon's SF. His Last and First Men (1930) has five diagrams of time scales, the first ranging from "2000 years ago to 2000 years hence", while the fifth ranges from "10<sup>12</sup> years ago to 5 x 10<sup>12</sup> years hence"! The three diagrams in between are each "one hundred times the preceding scale" and, as he modestly disclaims, "doubtless extremely inaccurate" (249) in the events they tell and foretell.

Stewart's Earth Abides does not seek to engage with such vast time scales, indeed it is unusual in hardly stretching time except in vague notions of a future, reestablished human race.

However, its portrayal of an earth gradually returning to its "beginnings" does deal with a time scale larger than the usual non-SF tales of adventure, which take place in a far briefer span of time. The "hazy and wavy" landscapes and the assimilation of time into the scheme of human events are followed in Earth Abides by a blurring of boundaries between humanity and the world it shares with all Creation. The now ancient Ish, half-divine patriarch of The Tribe he has fathered, speculates on the attitude of the young men (his great-grandsons) towards the mountain-lion they have Just encountered:

the men had lost that old dominance and the arrogance with which they had once viewed the animals, and were now acting more or less as equals with them. He felt that this was too bad, and yet the young men were going along Just as unconcerned as ever, cracking their little jokes and not feeling that they had been at all humiliated by having to detour the lion, any more than if they had had to detour around a fallen tree-trunk or a ruined building. (359)

But even as humanity becomes a part of the world it inhabits, the narrator sees a cyclical destiny:

In the distant years after these first years, the tribes will grow more numerous and come together, and cross-fertilize in body and in mind. Then, doubtless, blindly and of no one's planning, will come new civilizations and the new wars. (350).

Soon after the catastrophe, Ish browses through the Bible, and finds that most of its teachings have been rendered irrelevant. The exception is Ecclesiastes (from ch. 1, verse 4 of which the novel takes its title), which Ish reads through "marvelling at the clear-eyed, naturalistic acceptance of the universe" (110). In the intertext quoted above, the narrator too echoes just such an acceptance of an eternal recurrence.

Both Stewart and Jefferies would agree with Peter Redgrove's comment that now "there is no continuum between ourselves and nature" (Roberts 1987: 5), though neither even attempts contemplation of the venture of re-establishing the continuum. They mourn the loss of that continuity in the present age, that "the pacts" are "broken" (Zelazny 1969: 176). But in the breaking of the covenant between humanity and nature, they also see the possibility of the (re-)establishment of a new harmony. Indeed, their novels, like a great deal of the post-catastrophic, apocalyptic SF that followed, took for its subject "the great romantic quest" that Redgrove speaks of, "that a continuum between nature and mankind should be proved" (Roberts 1987: 5). This quest is perhaps part of what Aldiss means when he describes SF as "the search for a definition of mankind and his status in the universe" (Aldiss 1986: 25).

However, in order that a "new harmony" come about, the old must yield. And this yielding, as we have seen in Jefferies and Stewart, consists in the planet healing itself by reclaiming its own from what humans have carved and taken from it. The adventurous process of reclaiming has messages of its own to offer, quite apart from offering a setting, a landscape of difficulty for the "survival adventures" of characters hanging on as "Earth's civilization is going to hell in a bucket" (Aldiss 1986: 387). John Wyndham's The Day of the Triffids (1951) is at once an evocative and powerful exploration of the moral significance of such a breakdown of boundaries and a genuine adventure story also.

Indeed, much like Stewart's in Earth Abides, one of Wyndham's recurrent motifs is the breakdown of boundaries, which creates (as in other adventures, but here on a much more unsettling, global scale) the situation of "novelty" that gives rise to the action of the narrative. The questions these novels raise are, however, far different from any asked in mundane or non-SF adventures. In The Day of the Triffids (1951), as in his Chrysalids (1955), distinctions between human and non-human, the civilized and the wild, order and chaos are no longer sustainable in the face of the catastrophe. The Day of the Triffids opens with its narrator-protagonist, William Masen, waking up on the last day of his stay at a hospital where he had gone for an eye-operation. Masen wakes up to find that everyone has gone blind. The cause, he speculates, must be a much-publicised meteorite-shower that everyone who could have watched. Masen is in hospital to be treated for the deadly sting of a triffid: a mobile, carnivorous, economically valuable plant, the result of a genetic misadventure behind the Iron Curtain.

With most of humanity blind, a virtually total collapse of social order follows. As Masen says to a man who is working by candlelight, "this is the future as well as the past" (171). This post-catastrophe devolution (or collapse in both senses of the word) is, of course, one we have encountered from Jefferies' After London onwards. The future as the past is also an understandably immediate theme to a survivor of the barbarism of the recent World War--the novel was first serialised in Collier's soon after World War II and appeared in hard-cover in England in 1951 and thus belongs to a pretty creditable early crop of catastrophe-SF

which immediately followed the War to end all wars (what a conceit!)--and wholesale blindness is a most effective metaphor for Europe's state of mind during the War. Wyndham shows how mankind diabolically prepared very nearly to destroy itself and yet how unprepared it was to deal with catastrophe when it did come. It is only towards the end of his narrative that Masen speculates that the blinding of humanity was probably caused, not by the comet-shower as everybody had all along thought, but by the malfunctioning of one of the military satellites orbiting the earth with a cargo of deadly chemicals. (This anticipation--one hopes not a prophecy--is not so much uncanny as sobering, and yet three decades later Reaganomics in fact did shamelessly indulge in creation of the "Star Wars" scenario.) But the helplessness of a blind humanity is evident right from the start, as is its genesis in man's own folly.

A blind humanity soon reverts to barbarism and/or dies. Where starvation and disease do not do the job, triffids do. They attack humans, kill them, and feed on the carcasses. The university community that Masen finally joins has the best chance of survival against triffids, other tribes, and savagery since it conserves skills and knowledge and seeks a future which does not have place in it for the mistakes of the past. But, of course, as Masen says of posterity,

Once they've beaten the triffids and pulled themselves out of this mess they'll have plenty of scope for making brand-new mistakes of their very own. (248; emphasis added)

As we have seen already, consideration of skills of survival and growth are de rigueur requirements of a survival adventure.

Quite interestingly, in Stewart's Earth Abides, the hero consciously as well as unconsciously rejects such a repository of skills. He settles down and creates a tribe to regenerate human society after the catastrophe. He returns to his native university town, is a research scholar himself, and feels very poignantly the responsibility resting on his shoulders to get humanity on the road to regeneration. And yet, finally, he settles for just one craft, just one artefact, and that too as a symbol of the capability of human beings to recreate a civilization. The bows and arrows that his grandsons make and use are allowed to remain the only symbol he sees of hope. What a terrific adventure it is, even in the imagination, to have to decide such questions for the whole race to come, when one cannot even guess at what advantages may lie along "the road not taken"!

In The Day of the Triffids, among the most obvious mistakes of the past that the university community needs to rectify and avoid are, of course, the triffids. The triffids stand for many things. They are grotesques, initially inspiring interest (for their economic value and their motility), then disgust (on their being found to be carnivores), and finally fear (when they turn on humans). They are, in the tradition of Frankenstein's Monster, creations of human genius that then turn on their creators. Cultivated for short-term gain, they eventually become an evolutionary threat to humankind. To a blind humanity they pose the greatest danger. To the few sighted persons, they make all outdoors unsafe. The triffids are an example of another feature of traditional adventure fiction creatively metamorphosed by SF--in place

of the "monsters" of fantasy are now used monstrosities of scientific imagination. As in other adventure fiction, their use can be glib and facile, without deeper significance in purely sensational SF as well. But, indeed, that contrast between the safe indoors and the threatening outdoors is one of the recurrent motifs of Wyndham's book, and in their impact or provocative value it is as significant as anything encountered in adventure fiction.

In the hospital where Masen wakes up, every other room but his seems to have dead people in it. However, this "dead" hospital is preferable to the inexplicable cries and strange noises coming from the street outside. When he discovers the chaos in the street, taking on the city becomes an even more daunting (though necessary) proposition. But even with disease and death, the city is still a source of water and food (if only temporarily); the countryside offers no such assurance. Finally, the "safe" Earth, threatened by numerous artificial satellites orbiting around it, carrying all manner of death in them, is only a metonym for one's own "safe" country threatened by "foreigners", a threat that makes the satellites necessary in the first place. While in Deathworld, as we saw, a cast of mind had converted an environment into a hostility, here the hostile environment is indeed a human creation. The question of our own responsibility is, thus, a most crucial question in all SF, even though it may not appear with such provocative force in all novels.

Thus, not only does the blindness foreground oppositions between indoors and outdoors at the level of the house, street, city and country; the blindness in fact turns out to be a consequ-



uence of other larger oppositions which define a person merely as threatened by "others". The result: blindness due to blindness. Vision (or absence of vision) is a metaphor in other contexts in the novel too. There is a contrast between the shortsightedness of staying to help the sightless, and the farsightedness of starting a healthy, viable community. At the end of the book occurs also the contrast between those who seek, shortsightedly, to recreate a feudal Britain, and those who see the folly of repeating old mistakes. But the break with the past that is required so that the survivors can begin anew, is not to be a clean one at all. It is six years before Masen can leave Shirning Farm. And in the meanwhile he must see the last of his pre-catastrophe world crumble.

For the new order to become possible, the old order must yield. And between the old and the new must exist a period when the distinctions that made the old order possible break down. Thus, Stewart writing in 1950, and Wyndham writing in 1951 echo each other and Jefferies. This blurring of boundaries in Wyndham's novel is effectively captured in the triffid. It is a plant that moves. It is a vegetable that eats meat. A plant that responds to its environment much faster than any plant has any business to. And finally, it is a plant that is actively lethal to humans. The advent of the triffid and the catastrophe thereafter signal other breakdowns as well. For a while, the environment indoors offers protection against the outdoors--in the cities against the rioting outside, and in the country against the lethal triffids. But with plague striking, there is not much to choo-

se between death outdoors and death indoors. Soon, with civilization having broken down, the city can no longer retain its identity apart from the country; the country reclaims the city, effectively pointing out the tenuousness of humanity's control over its environment.

In Jefferies' After London, and Stewart's Earth Abides too, the city yields to the country. The sense of human activity as somehow "unnatural", and the eagerness of the earth to reclaim her own, runs through these three novels (as well as some of the other novels we will encounter below). This attitude is, in one sense, in marked contrast to the view of the environment as infinitely usable that comes to us through Defoe's Robinson Crusoe (and the numerous progeny of that novel of marooning that depicted the predicament of Crusoe-figures as a challenge only to human ingenuity, not to human existence itself) and Verne's Mysterious Island. This view derives ultimately from Enlightenment assumptions of the enormous, transformative powers of the human intellect. However, nature triumphing over the artefacts of human reason was a particularly familiar theme in that genre of the anti-Enlightenment, the Gothic. And the ruins of classical Rome etched by the eighteenth century architect Piranesi have proved immensely suggestive to intellects as varied as Walpole in England and Beckford in Venice in the eighteenth century, Coleridge and De Quincey among the English Romantics, Gautier and Hugo in nineteenth century France, and Aldous Huxley in the twentieth century. Huxley likened Piranesi to Kafka; to him, Piranesi spoke of "obscure and terrible states of spiritual confusion and *acedia*" (cited in Oxford Companion, 768). Ruins, thus, at "man-made"

sites of adventure, are a physical and moral prefigurement of the devastated landscapes of post-nuclear-catastrophe fiction. Of course, other pre-modern or contemporary "landscapes of difficulty" such as mountains and forests, continue to be extensively used in contemporary adventure fiction, including SF such as Michael Crichton's Congo, a tale of high-tech exploration of central Africa. Importantly, these fictions carry on the "marooning" scenario in a new way--they invert the pattern in that their humanity is besieged by a hostile or a natural environment that hems them in. They are imprisoned by their own creations. Caliban rules Prospero's island.

In The Day of the Triffids, with civilization fallen, old codes of conduct, old mores, no longer apply. Indeed, the community which eventually settles on the Isle of Wight consciously seeks to avoid re-creating the past (compare Ish's decision to reject all books, all temptation to impart to the new generation the "library" of past civilizational strategies and tactics); it accepts the necessity for action that would have been termed thieving some time ago and behaviour that would have been immoral by earlier standards (in its decision to promote polygamy, for instance). The new must emerge from a flux, we understand. More importantly, such a scenario also succeeds in making a most persuasive historical argument as well, regarding morality, that it is at least fundamentally (if not essentially) determined by world-view, which is itself contingent upon circumstances. But, in The Day of the Triffids, equally probable is the alternative posed by Torrence, from a community at Brighton, who pronounces

himself the "Chief Executive Officer of the Emergency Council for the South-Eastern Region of Britain". His threat to take over the farm unless Masen submits to the demands of the Council decides the matter for the inhabitants of Shirning Farm. They leave that night for the Isle of Wight where a much more hopeful future awaits them. In a leadership void, it is easy for power-hungry men to appoint themselves saviours of humankind, and demand feudal loyalty on peril of punishment. Evidently, even the second time around, humanity has not learnt its lesson. In other words, here is as good a place as any to highlight a perennial potential of adventure fiction of any kind--the ability to bring into question fundamental issues about morality (not just this or that moral convention). In adventure fiction, heightened conflict, even sensational conflict, often creates the possibilities of dramatic creation. It is worth reiterating, then, that busy action is hardly the only way in which adventure fiction achieves dramatic effects. The possibility of moral upheaval, either symbolically in individual problems or by involving the whole human race in that critique.

Peter George's Commander-1 (1965) too reiterates this message. The novel details meticulously how a nuclear war between the superpowers could come about, and the frightening fate with which the survivors could become the subjects of a totalitarian state. For instance, the white American submarine captain who pronounces himself the ruler of humanity says of the communities that might have survived,

It's very likely in the isolated communities I have mentioned there'll be men and women of different colour and blood from us. So they have to be exterminated.

We've had this racial problem once before in the world, but this time we can make sure we don't have it again. (220)

A new beginning with a vengeance, indeed. Just such a grim possibility prompts a character in Wyndham's post-catastrophe novel, The Chrysalids (1957), to ask:

Tribulation has made the world a different place; can we, therefore, ever hope to build in it the kind of world the Old People lost? Should we try to? What would be gained if we were to build it up again so exactly that it culminated in another Tribulation? (79)

These writers' pessimistic conclusions are ones which the Aldous Huxley of Ape and Essence (1949), and the William Golding of Lord of the Flies (1954) would agree with: the unregenerate bestiality in human beings (usually men), is kept barely in check by civilizational forces.

Indeed, in novel after novel, significant SF raises on a higher scale of consideration a perennial subject of adventure narrative from the earliest times--the rise of a "leader" who will match, or face changed circumstances. SF poses the problem of leadership more sharply than other kinds of adventure writing because not only are the changed circumstances portrayed in SF more radically different than what preceded them ("the day after" a nuclear catastrophe, for instance), but also because the scale of change in SF is much vaster. The ambivalences of leadership occupy much of the thematic space in Frank Herbert's Dune (1965), a novel we will discuss later.

While Earth Abides vaticinates on the return of "the new civilizations and the new wars" (350), the other post-catastrophe SF novels that we have discussed, for instance, After London, Damnation Alley, and The Day of the Triffids, all describe, albe-

cautiously, and very differently, adventures of hope. Walter Miller's A Canticle for Leibowitz (1959) combines, extraordinarily in a narrative of many resonances and several endings, pictures of hope and despair. Miller's contribution is particularly meaningful because, as a rule, adventure fiction tends to the comic or happy-ending tendency so ably identified by Northrop Frye's "archetypes". As a mode which specifically relies on central figures, adventure narratives go in for the hero's eventual triumph. Once again, ironic, parodic, subversive possibilities have also been exploited by adventure writers.

Miller's A Canticle for Leibowitz describes (in three parts covering six hundred years each) our world after a twentieth century atomic war. Once again the surviving people have been thrown back to a version of the Middle Ages: the first part, "Fiat Homo", depicts such knowledge of the "ancients" as survives, being assiduously (and comically) preserved in incomprehension at a monastery founded by a twentieth century engineer, Leibowitz; the second part, "Fiat Lux", describes the rise of nation-states, and a renaissance of discoveries in the physical sciences, culminating in the re-discovery of electricity; and the third part, "Fiat Voluntas Tua", is, so to speak, a fulfilment of the prophecy in Earth Abides of the rise of new civilizations and new wars. Through these three parts, the novel tracks the canonization of Leibowitz, and ends with the "new-old" nation states once again preparing for a cataclysmic atomic war. There are differences of course in the civilization that re-emerges, primarily in that the taleworld has a flourishing mutant population

that has evolved from the catastrophe. For, indeed, catastrophe SF invariably questions the very notion of "norm" or "normalcy", whereas all but parodic, satirical or otherwise subversive adventure fiction only explores its temporary, setting-aside. Further, this time, a small group of humans leave Earth in a spaceship for Alpha Centauri just as the new atomic wars begin. Humanity thus makes yet another start.

In Miller's alternate "twentieth century", as the wars begin afresh, history repeats itself, as the narrator tells us ironically:

There were spaceships again in that century.... It was inevitable, it was manifest destiny, they felt (and not for the first time) that such a race go forth to conquer stars. To conquer them several times, if need be, and certainly to make speeches about the conquest. But, too, it was inevitable that the race succumb again to the old maladies on new worlds, even as on Earth before. (235; emphases underlined)

The same lies and evasions resurface (intertextually) from "behind a dike of official secrecy":

There were several holes in the dike, but the holes were fearlessly plugged by bureaucratic Dutch boys whose forefingers became exceedingly swollen while they dodged verbal spitballs fired by the press. (237; emphasis added)

The logic of a politics of fear and suspicion makes the "new" world rehearse the falsehoods of the "old":

Lady Reporter: Is it true that a nuclear explosion occurred recently somewhere across the Pacific?

Defense Minister: As Madam well knows, the testing of atomic weapons of any kind is a high crime and an act of war under present international law. We are not at war. Does that answer your question?

Lady Reporter: No, Your Lordship, it does not. I did not ask if a test had occurred. I asked whether an explosion had occurred.

Defense Minister: We set off no such explosion. If they set one off, does Madam suppose that this government would be informed of it by them? (237)

It is no wonder that this reincarnation of the Cold War and the "double-speak" of the mid-twentieth century arouses despair. As the Abbot Zerchi says,

Maniacs! The world's been in a habitual state of crisis for fifty years. Fifty? What am I saying? It's been in a habitual state of crisis since the beginning--but for half century now, almost unbearable. And why, for the love of God? What is the fundamental irritant, the essence of the tension? Political philosophies? Economics? Population pressure? Disparity of culture and cried? Ask a dozen experts, get a dozen answers. Now Lucifer again. Is the species congenitally insane, Brother? If we're born mad, where's the hope of Heaven? Through Faith alone? Or isn't there any? God forgive me, I don't mean that. (250)

There are no answers to these questions, of course. With "Lucifer fallen"--a nuclear strike--the Church responds to the consequent madness by sending a small part of its flock to Alpha Centauri. Humankind will probably survive, but not on Earth. The "canticle" for the engineer-saint Leibowitz is a terrible song of death and destruction. It is also a song of a tenuous kind of hope.

Thematically, the hope is not just in the adventure of human life beginning elsewhere, though it is that as well. There is hope in the possibility of the survival, and rebirth of learning, both in spite of all that is done to ensure that it dies out, and in spite of the manifestly disastrous consequences of that learning. There is, after the holocaust in this "Canticle", the "Simplification" that we spoke of in our discussion of Damnation Alley:

Let us stone and disembowel and burn the onts who did this thing. Let us make a holocaust of those who wrought this crime, together with their hirelings and their wise men; burning, let them perish, and all their works, their names, and even their memories. Let us destroy them all, and teach our children that the world is new, that they may know nothing of the deed that went before.



Let us make a great simplification, and then the world shall begin again. (52)

The ambivalence of the learning of the wise men, indeed, the great power of good in that learning, is underlined in the preservation without comprehension of that learning in the House of God. That an Order of the Church has been established explicitly to preserve what can be saved of that learning, and that such an Order should be founded by a scientist, Leibowitz, further emphasizes the ambivalence of science. That Leibowitz should be canonized only blurs some more the distinction between sacred and secular knowledge that the novel constantly counterpoints. Both kinds of knowledge go to make the "wise fool", the "lover of jest" that Leibowitz literally means.

Technically, too, such narratives are exciting, satisfying. For the variety of narrative techniques, experimentation, combination of devices which this novel successfully achieves is definitely reminiscent of the best ever written in mainstream fiction and better than a good deal of palpably sensational adventure fiction. In addition to the structural and stylistic properties of A Canticle for Leibowitz which have already been illustrated, through the three parts of the novel recurs a figure of the Wandering Jew: wizened and ancient, wrapped in a burlap loin-cloth, he appears periodically in his quest for the New Adam, and goes away disappointed, "It's still not Him" (208). For humanity's redemption, this time round, lies not on Earth, but, perhaps, on Alpha Centauri. That much is clear from the Babel of Tongues in the last section:

Hut two threep foa!  
Left!

Left!

Left!

Left!

Left!

Right!

Left!

Wir, as they say in the old country, marschieren weiter wenn alles in Scherben fällt.

We have your eoliths and your mesoliths and your neoliths. We have your Babylons and your Pompeiis, your Caesars and your chromium-plated (vital-ingredient-impregnated) artifacts.

We have your bloody hatchets and your Hiroshima\*. We inarch in spite of Hell, we do--

Atrophy, Entropy, and prottus vulgaris, telling bawdy jokes about a farm girl name of Eve and a travelling salesman called Lucifer.

We bury your dead and their reputations.

We bury you. We are the centuries. (235-6)

Miller definitely achieves a poetic quality in this novel linguistically as well as structurally, thematically as well as symbolically. Nor does the cast global "Overwhelming Question" which Miller raises allow us to lose sight of it any time. The novel shocks the reader repeatedly at the criticism of our civilization even as its action pursues its own brand of at-a-venture happenings. A devastated world ending in a Babel of Tongues is, of course, the subject of the catastrophe poem of the century, T.S. Eliot's The Wasteland (1922); the narrator-denizen of that "unreal city" walking through the moral and physical chaos of London, collecting banal, meaningless pieces of language, can only say this at the end that "These fragments I have shored up against my ruin" ("What the Thunder said", V.430), much like the babble "shored up against ruins" in Miller's novel. Indeed, in A Canticle for Leibowitz, even Dom Zerchi's wordprocessor keeps writing in "doudoubleble sylsyllabablesles" (240). Surely no salvation is possible amidst this chaos on Earth. But the destruction

of these "cities of the plains" makes possible life elsewhere. Not only does a part of the flock go to look for a New Jerusalem--"a new Exodus from Egypt under the auspices of a God who must surely be very weary of the race of Man" (278)--that this flock will find the Promised Land is also indicated in the figure of the mutant two-headed Mrs. Grales, whose hitherto dormant second head, which she calls Rachel, is animated by the explosion, just as another explosion eighteen hundred years ago had originally mutated her. Mrs. Grales had constantly sought Dom Zerchi's blessing for Rachel, but Zerchi had refused, unsure about Rachel's humanity. Now, half-crushed under the rubble of the "nuclear rains", Zerchi sees Rachel wake:

She watched him with cool green eyes and smiled innocently. The eyes were alert with wonder, curiosity, and--perhaps something else--but she could apparently not see that he was in pain.... then he noticed that the head of Mrs. Grales slept soundly on the other shoulder while Rachel smiled. (315)

Rachel's birth is the birth of a blessed innocence, unaware of pain, whose birth, moreover, does not condemn Mrs. Grales to death, but only to sleep.

The final image of the novel, the third of its multiple "endings" that Sholes and Rabkin note (1977: 224), concerns neither the humans bound for the stars, nor Rachel's birth; it is a "terminal beach" image that recurs often in post-catastrophe SF, ever since its first appearance in Wells' Time Machine (1895). Miller's A Canticle for Leibowitz ends with the following description, effectively phrased in simplicity--the last sentence of it is a great understatement:

A wind came across the ocean, sweeping with it a pall of fine white ash. The ash fell into the sea and into the

breakers. The breakers washed dead shrimp ashore with the driftwood. Then they washed up the whiting. The shark swam out to his deepest waters end brooded in the cold clean currents. He was very hungry that season. (320)

As with the various tensions in the novel, there is only a SUGGESTION here of a resolution. A bleak picture of a hungry predator is mitigated by the fact that the shark's hunger is only for "that season". For, with the humans gone, the planet is already beginning to heal itself, the wind blowing away human detritus into the all-absorbing sea with its "cold clean currents". In his Fictions of Nuclear Disaster (1987), David Dowling sums up the complex endings of A Canticle for Leibowitz as follows:

The terminal visions of Wells, Ballard, Bunch and many others are epitomised here. The great chain of being has been severed and the enigmatic shark has a tenuous future, for all his deadly power. Meanwhile Miller's exodus is heavily qualified by this final image and by the reference to a weary God. The debate is unresolved. Just as the Don's debate about whether radiation victims should be allowed to take their own lives remains unresolved and epitomises the conflict between religious humility and secular compassion.

The greatest success of this memorable novel is the way these themes and debates are held in suspension in every line. Every event and thought, directly or indirectly feeds the debate. (200)

A Canticle for Leibowitz gives up hope for humanity on this Earth. At least for the present, the novel seems to say, such future as there can be for humankind can only be elsewhere. In this we may see an SF metamorphosis of the happy-triumphant ending of the adventure tale. John Varley's Hillinium (1983) reiterates this judgement even more strongly. Here, humans of the far future, doomed as a species by the violence their ancestors (among them, us) have perpetrated on themselves and their environ-

roent, leave this reality altogether to reappear in another "sequence". ("Sequence" is the term the "Intellect" which created this "carbon based life form" uses to describe world-lines.) The judgement on the human race which this departure implies on is spelled out by the female protagonist Louise Baltimore of the far future says to Bill Smith of the late twentieth-century:

Did you really think there'd never be a nuclear war? There have been nineteen of them. Did you think nerve gases were going to just sit there, that nobody would ever use them?... CBN, you called it. Chemical, Biological, Nuclear. You made plans just as if the world could survive it, just like it was another war you could win. Well, goddam it, we held out a long time, but this is what we came to.

The plagues were the really cute part. Add laboratory-bred microbes to a high level of background radiation, and what you get is germs that mutate a hell of lot faster than we can. We've done our best, we've fought them with everything we have. But your great-grandchildren came up with genetic warfare. So now the plagues are locked up right in our genes. No matter how hard we fight them, they change. (238)

Their solution is to return to times past, to **disaster-sites**, and transport to their time the bodies that were going to perish anyway so that they have a supply of usable bodies. A 1976 "snatch" from a plane-crash goes awry, and the disaster-analyst that the airline commissions, the novel's contemporary protagonist Bill Smith, stumbles upon the mission of his descendants from the far future. Louise Baltimore Smith from that far future is assigned the task of retrieving the stun-gun left behind, and controlling the damage that the anachronistic object might already have caused. Louise and Bill alternate in narrating the events of this suspenseful story.

Louise succeeds in containing the damage to the "time-line", and takes back to the future with her Bill and the old physicist

into whose hands the stun-gun had fallen. Neither of these 1976 non have anything to live for in their world, anyway. But after the human ravages of the planet for millenia, Louise's world it not a viable one any more. The "Big Computer" that governs their lives, in reality the Creator, decides to begin afresh by transporting all surviving humans to a "new, changed reality" (245), where they will be met by the android "Sherman", a Christ-figure whom the Creator calls "My only begotten Son" (245), who will "keep the thousand elements of the polyglot Noah's Ark from destroying themselves as soon as they disembark" (246). The adventure of humanity will begin anew. Here in so many words is the recommencement myth of much SF identified as "Noah's Ark".

In our section on Verne's Twenty Thousand Leagues Under the Sea, while discussing SF's complex engagements with the past, we said that SF has had so many time-travel stories that Varley could title practically every chapter of Millenium with a time-travel story! Indeed, many common SF time-travel themes occur in Varley's novel, perhaps Inevitably so. For example, the stun-gun is a technological anachronism in 1976; it poses a threat to Louise's world because the gun might change the world of 1976, if ever so slightly, and set off a cascade of events resulting in Louise's present not coming about at all. The theme of returning to the past to remove a possible threat to one's present is one earlier SF has often used. For instance, Asimov's Time Travellers in The End of Eternity (1959) are specialists in tinkering with the past so that their future comes about while all alternate lines of developnent are aborted; and Ray Bradbury's characters in "The Sound of Thunder" (1953) travel to the past to hunt only

. those dinosaurs that are about to die of natural causes anyway, but one of the hunters accidentally crushes a butterfly and they return to a profoundly changed world."

Both Miller's A Canticle for Leibowitz and Varley's Millennium offer ways of "thinking about the unthinkable" (the subtitle of Herman Kahn's notorious study [1962] on surviving a thermonuclear war). In fact, both suggest that there is no way for humanity to survive on such an Earth. Both place their faith in the possibility that humanity will do better elsewhere. A quarter-of-a-century before Kahn, the British SF writer Olaf Stapledon made an extraordinary attempt at engaging with the then imminent Second World War that made Kahn's phrase all too horrifically real.

With the War to end all wars around the corner, Stapledon wrote Star Maker in 1937. In the preface, he defended his "fantasy" against the charge of "escapism" in the face of the urgent task before writers of defending civilization against the forces of barbarism and fascism. He argues that the travels of his narrator-protagonist in Star Maker allow for the possibility of a "disembodied point-of-view", a "critical distance" sorely needed in these violent times; here a theory of fiction collaborates with an essential of excitement in such works:

And perhaps the attempt to see our turbulent world against a background of stars may, after all, increase, not lessen, the significance of the present human crisis. It may also strengthen our charity towards one another. (8)

The narrator's "attempt" takes the form of an "amazing voyage" among the stars, which he clearly sees, **himself**, as an adventure; Verne's strain did not exist in vain but has begun to **transform** itself here, as have the other kinds of fictional predecessors of

strange encounters:

Not that my longing for the familiar human world could for a moment be counterbalanced by the mere craving for adventure.... But timidity was overcome by a sense of the opportunity that fate was giving me, not only to explore the depths of the physical universe, but to discover what part life and mind were actually playing among the stars. A keen hunger now took possession of me, a hunger not for adventure but for insight into the significance of man, or of any manlike beings in the cosmos. This homely treasure of ours, this frank and spring-making daisy beside the arid track of modern life, impelled me to accept gladly my strange adventure; for might I not discover that the whole universe was no mere place of dust and ashes with here and there a stunted life, but actually, beyond the parched terrestrial waste land, a world of flowers? (23)

In the event, what he does discover is neither a "waste land" nor a "world of flowers", but civilization after amazing civilization on each of which he dwells in some detail; just one example of Stapledon's biological inventiveness will suffice. Early in his travels, the narrator comes across the Nautiloid: a "mollusc-like creature":

The hull was a rigid, stream-lined vessel, shaped much as the nineteenth-century clipper in her prime, and larger than our largest whale. At the rear a tentacle or fin developed into a rudder, which was sometimes used also as a propeller, like a fish's tail. But though all these species could navigate under their own power to some extent, their normal means of long-distance locomotion was their great spread of sail. The simple membranes of the ancestral type had become a system of parchment-like sails and bony masts and spars, under voluntary muscular control. Similarity to a ship was increased by the downward-looking eyes, one on each side of the prow. The mainmast-head also bore eyes, for searching the horizon. An organ of magnetic sensitivity in the brain afforded a reliable means of orientation. At the fore end of the vessel were two long manipulatory tentacles, which during locomotion were folded snugly to the flanks. In use they formed a very serviceable pair of arms....

The sense of hearing was wonderfully developed, for the movements of fish at great distances could be detected by the underwater ears. A line of taste-organs along either bilge responded to the ever-changing compositions of the water, and enabled the hunter to track



his prey. Delicacy of hearing and of taste combined with omnivorous habits, and with great diversity of behaviour and strong sociality, to favour the growth of intelligence.

Speech, that essential medium of the developed mentality, had two distinct modes in this world. For short-range communication, rhythmic underwater emissions of gas from a vent in the rear of the organism were heard and analysed by means of underwater ears. Long-distance communication was carried on by means of semaphore signals from a rapidly agitating tentacle at the mast head. (90-91)

The strangeness of the Nautiloids is, of course, as superficial as ridiculous (**communication** by gas from the rear?). Not only do the comparisons with ships mitigate a great deal of the strangeness, the account of their habits and social relations that follows makes their society positively human:

Sometimes we saw two of the living ships fighting, tearing at one another's sails with snake-like tentacles, stabbing at one another's soft '**decks**' with metal knives, or at a distance firing at one another with cannon. (92)

The destruction of the civilization of the Nautiloids comes **from** their discovery that the differences between their master caste and worker caste were differences of nurture not nature:

With the advance of industrialism ... the spread of scientific ideas and the weakening of religion, came the shocking discovery that ... children ... if brought up as workers, became physically and mentally indistinguishable from workers.... Presently certain misguided scientists made the even **more** subversive discovery that ... children brought up as masters developed the fine lines, the great sails, the delicate **constitution**, the aristocratic mentality of the master caste. An attempt was made by the masters to prevent this knowledge from spreading to the workers, but certain **sentimentalists** of their own caste bruited it abroad, and preached a **new-fangled** and inflammatory doctrine of social equality. (94-95)

The parallels to human civilization are not allowed to remain merely implicit. A little later in the narrative, reappears (not for the first time in SF) the **interventionist** role we first

saw in Gulliver's encounters. The narrator describes how he and his companions (he has encountered and teamed up with others on a similar quest) defuse a war on another planet. "Taking up positions In 'key' minds on each side of the conflict, we patiently induced in our hosts some insight Into the mentality of the enemy" (120). Reflecting on their success, the narrator muses:

With sadness I realized that on the Earth, though all civilized beings belong to one and the same biological species, such a happy issue of strife is impossible, simply because the capacity for community in the individual mind is still too weak. (121)

Indeed, all the accounts of vastly different species on vastly differing worlds may be summed up in one phrase: "Different and yet the same" (115). This anthropomorphism is carried into the narrator's descriptions of the enormously greater scales of existence of the stars themselves. However, the anthropomorphism here is of a self-conscious kind:

From the psychological relations of star with star sprang a whole world of social experiences which were so alien to the minded worlds that almost nothing can be said of them.... Certainly the relation between stars is perfectly social. It reminded me of the relation between the performers in an orchestra, but an orchestra composed of persons wholly intent on the common task.... It would, however, be unwise to attribute affection and comradeship to the stars in any human sense. The most that can safely be said is that it would probably be more false to deny them affection for one another than to assert that they were, indeed, capable of love. Telepathic research suggested that the experience of the stars was through and through of a different texture from that of the minded worlds. Even to attribute to them thought or desire of any kind is probably grossly anthropomorphic, but it is impossible to speak of their experience in any other terms. (198)

This inability to speak of another's experience in terms other than of one's own experience is the great confessed theme of *Star Maker*, as it in fact is, of a great deal of SF.<sup>9</sup> From the

Earth that the narrator leaves, through the Society of Worlds he visits, to the sentient stars he encounters, the narrator describes again and again the devastation and suffering that attend on "othering", the insistence on seeing difference and not identity.

Less often, the narrator recounts occasional success on various worlds at learning to live together--harmony there may be once in a while, but the price to achieve it is disastrously high:

Each individual spirit, in nearly all these worlds, attained at some point in life some lowly climax of awareness and spiritual integrity, only to sink slowly or catastrophically back into nothingness.... Like us, they had reached that stage when the spirit, half awakened from brutishness and very far from maturity, can suffer most desperately and behave most cruelly.... [The spirits] were agonised by the inability of their minds to keep pace with changing circumstances. Like us, they were constantly tortured by their hunger for a degree of community.... But in their tribes and nations they conceived all too easily the sham community of the pack, baying in unison of fear and hate....

Those who thought they believed in gentleness built up armaments for their tribes against those foreign tribes whom they accused of believing in violence.... Few could understand that their world must be saved, not by violence in the short run, but by gentleness in the long run. A still fewer could see that, to be effective, gentleness must be a religion; and that lasting peace can never come till the many have wakened to the lucidity of consciousness which, in all these worlds, only the few could as yet attain. (77-78)

Thus does Stapledon spin a profoundly human metaphysical fable for his times by having his narrator travel almost unimaginable distances to vastly varied worlds: these, incidentally, are staples of both adventure fiction and SF, with distinctions between nodes of travel and scales of variation in the new worlds that are encountered. Whether such a narrative clearly signifies a major advance on H.G. Wells' The Time Machine or not, it at

least reaffirms the very serious desire of Sf writers to seek means other than those evident in realistic mainstream fiction to conduct a critique of our own present civilization. And after the narrator as the "cosmical mind" approaches "the eternal moment", the "bitter beatitude" (223) of perceiving the Star Maker, the consciousness of whose creativity the cosmos is the expression, he is able only to "stammer out" the vision that he has seen:

Here was no pity, no proffer of salvation, no kindly aid. Or here were all pity and all love, but mastered by a frosty ecstasy.... sympathy was not ultimate in the temper of the eternal spirit; contemplation was. Love was not absolute; contemplation was. And though there was love, there was also hate comprised within the spirit's temper, for there was cruel delight in the contemplation of every horror, and glee in the downfall of the virtuous. All passions, it seemed, were comprised within the spirit's temper; but mastered, icily gripped within the cold, clear, crystal ecstasy of contemplation.

That this should be the upshot of all our lives, this scientist's, no, artist's, keen appraisal! And yet I worshipped! (256)

What the narrator's critical distance, his "disembodied point-of-view", achieves is simultaneously a tragic vision beyond "science", of all civilizational efforts failing utterly, and a transcendental vision of the evolution of consciousness which can only be rendered, however, in anthropomorphic terms. Once again, we see, how the vision on such a scale makes it possible to revive the epic possibilities into supraglobal ventures.

The narrator's "strange adventure" (23) leads him to the extraordinary possibility of the consciousnesses of various races linking up to form "gestalt" entities, which are greater than the sum of their parts; but the narrator also concludes, sadly, that the human race is unable to even begin the process, mired as it is in its inability to overcome its own differences that are

trivial, considering the potential of the race. In Varley's Millenium, a "paternal" Creator takes matters into his hands and organizes another chance for humanity. Stapledon's Star Maker offers no such solution. But then, the humans of Millenium do not undergo any transcendence, they merely arrive at the Promised Land. Certainly there are novels which aim to contemplate a positive or flattering possibility for our race. The Overmind in Arthur C. Clarke's Childhood's End (1953), on the other hand, presides over humanity's transcendence. But the price humanity pays for that "privilege" is both its tragedy and its glory.

While Stapledon's book addresses metaphorically a crisis in human affairs entirely within his own lifetime, in Childhood's End, Clarke envisages humanity's whole existence in terminal crisis within the space of a few life-times. An alien race comes to the Earth of the twenty-first century--the people of Earth call them the Overlords--and creates a "Golden Age":

By the standards of all earlier ages, it was Utopia. Ignorance, disease, poverty, and fear had virtually ceased to exist. The memory of war was fading into the past as a nightmare vanishes with the dawn; soon it would lie outside the experience of all living men.

With the energies of mankind directed into constructive channels, the face of the world had been remade. It was, almost literally, a new world.... Men worked for the sake of the luxuries they desired: or they did not work at all.... It was One World.... Crime had practically vanished.... One of the most noticeable changes had been a slowing down of the mad tempo that had so characterized the twentieth century.... [Life] had less zest for the few, but more tranquility for the many.... Education was now much more thorough.... The patterns of sexual mores ... had altered radically....

Profounder things had also passed. It was a completely secular age.... Though few realized it as yet, the fall of religion had been paralleled by a decline in science. There were plenty of technologists, but few original workers extending the frontiers of human knowledge.... It seemed futile to spend a lifetime searching for secrets that the Overlords had probably uncovered

ages before.... The end of strife had also meant the virtual end of creative art.... No one worried except a few philosophers.... Utopia was here at last: its novelty had not yet been assailed by the supreme enemy of all Utopias--boredom. (71-5)

Clarke does not only subscribe here to a recurring pattern of exciting, uncertain, often dangerous confrontation between "superior" beings and humans, a pattern seen in epics and colonizing adventures of all kinds. Such is Clarke's great faith in the transformative powers of reason, that it also takes but half a century to achieve Utopia even though it is an "ultimate" venture, a grand finale:

Fifty years is ample time in which to change a world and its people almost beyond recognition. All that is required for the task are a sound knowledge of social engineering, a clear sight of the intended goal--and power. These things the Overlords possessed. (69)

Moreover, Clarke's belief in the power of technocracy to give us Utopia places him plumb in the middle of the tradition of such utopian writers from Verne, through Bellamy and Wells, down to Heinlein (referred to in Note 4 above). This belief is reflected in practically every novel of Clarke's from Childhood's End through 2001: A Space Odyssey (1968) and its sequel 2010: Odyssey Two (1982), Rendezvous with Rama (1973), Imperial Earth (1975), Fountains of Paradise (1979), to his recent The Garden of Rama (1991). In all these novels too may be found a transcendental vision of the future of humanity. As Aldiss says:

More than any other SF author, Clarke has been faithful to a boyhood vision of science as saviour of mankind, and of mankind as a race of potential gods destined for the stars. If Stapledon has successors, Clarke is the foremost. (1986: 249)

It turns out that humanity's Golden Age is tragically short-liv-

ed: one generation of Utopia is all humanity has time for. The children of this Utopian Earth are not Homo sapiens at all. They have evolved into something far beyond humanity, far beyond the Overlords themselves:

Like an epidemic spreading swiftly from land to land, the metamorphosis infected the entire human race. It touched practically no one above the age of ten, and practically no one below that age escaped.

It was the end of civilization, the end of all that men had striven for since the beginning of time. In the space of a few days, humanity had lost its future, for the heart of any race is destroyed, and its will to survive is utterly destroyed, when its children are taken from it. (179)

The Overlord Karelian offers humanity the one consolation possible:

It is my hope that humanity will go to its rest in peace, knowing that it has not lived in vain. For what you will have brought into the world may be utterly alien, it may share none of your desires or hopes, it may look upon your greatest achievements as childish toys--yet it is something wonderful, and you will have created it. When our race is forgotten, part of yours will still exist. Do not, therefore, condemn us for what we were compelled to do. And remember this--we shall always envy you. (185)

Small consolation; there are "no children to replace those who had gone. Homo sapiens was extinct" (208). The "Last Man", Jan, describes the fate of the human race, of the "degenerate survivors":

Those who had not destroyed themselves had sought oblivion in ever more feverish activities, in fierce and suicidal sports that were often indistinguishable from minor wars. As the population had swiftly fallen, the aging survivors had clustered together, a defeated army closing its ranks as it made its last retreat.<sup>10</sup> (208)

The tremendous drama of Man is not yet over. In the last act, the children-of-men-who-are-not-men become part of an Over-Blind which is as far beyond the ken of the Overlords as they are

beyond human understanding. And as the species that engendered them had transformed its world, so too these Children of the Overmind transform theirs. Gathered on an uninhabited continent, they test their powers:

It happened with a swiftness that dazzled the eye and stunned the brain. At one moment Jan was looking down upon a beautiful, fertile country with nothing strange about it save the countless small statues scattered--yet not randomly--over its length and breadth. And then in an instant all the trees and grass, all the living creatures that had inhabited this land, flickered out of existence and were gone. There were left only the still lakes, the winding rivers, the rolling brown hills, now stripped of their green carpet--and the silent, indifferent figures who had wrought all this destruction. (204)

"Perhaps the presence of other minds disturbed them--even the rudimentary minds of plants and animals. One day ... they may find the material world equally distracting", Karellan guesses (204). Sure enough, one day soon, they emerge "from their long trance. As a waking child may stretch its arms to greet the day, they too were flexing their muscles and playing with their new-found powers" (211). In their transcendence, they depart from Earth leaving the Solar System with one planet less:

In a soundless concussion of light, Earth's core gave up its hoarded energies. For a little while the gravitational waves crossed and re-crossed the Solar System, disturbing ever so slightly the orbits of the planets. Then the Sun's remaining children pursued their ancient paths once more, as corks floating on a placid lake ride out the tiny ripples set in motion by a falling stone.

There was nothing left of the Earth: They had leached away the last atoms of its substance. It had nourished them, through the fierce moments of their inconceivable metamorphosis, as the food stored in a grain of wheat feeds the infant plant while it climbs towards the Sun. (217)

The infancy of the race is over.

Not too many Science Fictions, however, contemplate such a



desolate final act to their adventure. Stapledon's "Last Men" in his Last and First Men (1930) are recognizably human in form: "Where gravity is not insurmountable, the erect biped form is bound to be most serviceable to intelligent land animals; and so, after long wanderings, man has returned to his old shape" (250).

Not so Clarke's Children of the Overmind:

Then Jan saw their faces.... They were emptier than the faces of the dead, for even a corpse has some record carved by time's chisel upon its features, to speak when the lips themselves are dumb. There was no more emotion or feeling here than in the face of a snake or an insect. The Overlords themselves were more human than this.

"You are searching for something that is no longer there," said Karellan. "Remember--they have no more identity than the cells in your own body. But linked together, they are something much greater than you." (203)

As Malmgren observes towards the end of his fine study on the depiction of "self and other" in SF,

the Overmind in Clarke's Childhood's End works a terrible metamorphosis upon the children of humanity, converting them into something extrahuman and incomprehensible, a strange transindividual being that reshapes continents and makes rivers flow uphill. Clarke's novel foregrounds an essential aspect of the encounter with speculative Otherness, the possibility of transcendence, of passing beyond the merely human. (1993: 29-30)

This "gestalt" entity is one that we have encountered before in Stapledon's Star Maker. But the notion of the whole greater than the sum of its parts is a older one, occurring in such varied areas as Herbert Spencer's extrapolations of biological descriptions to society, late-nineteenth century theories of perception, the pointillistic movement in art, Petr Kropotkin's theories of survival strategies of cooperation among organisms, and in recent times, theories of cellular automata, and the phenomenon of the emergence of complex behaviour from simple systems.

Jules Verne's unbridled, **insensitive optimism** (really, a "couldn't-care-less-ness" about consequences) is certainly nowhere to be found in the subsequent fiction which we have discussed above. Yet the adventure even in the early SF novels by Jefferies, Stewart, Stapledon (not to mention H.G. Wells) and the later SF of Miller, and Varley does not consist in a celebration of humankind's technological prowess (as pulp SF often did), although in Varley's future in Millenium, it is technology which keeps alive what remains of humankind, and Miller's tale of "future history", A Canticle for Leibowitz, does celebrate human intellectual prowess in its portrayal of the re-discovery of science as the novel traces a small part of what Jacob Bronowski calls the "Ascent of Man" (1981). These novels place their faith--such faith as there can be--in the human will to survive, and in human **adaptability**, on "improvement" even. The merely panacea-hunting, sensational, even heroic **encounters of adventure** in SF have metamorphosed into some of the most concerned, even philosophical assessments of human history in contrast to the future "imagined worlds" which form the matrix of narratives.

But the hope **held** out in much SF may not be for humanity at all, or at least not for humanity as we know it now. In Palmer's Emergence (1984), for instance, the gifted ("**200-plus IQ**") teenage heroine **Candidia**, survives a **bacteriological** war in a fallout shelter, and discovers that she is in fact a genetically superior species of the genus Homo, called Homo post homines, among whose **characteristics** is total immunity to "the **full spectrum** of **human** disease" (39). She sets out across a devastated **America** to find

the other "AA" strains of humans who she knows must have survived.

However, very little of the landscape that she traverses figures in her telegraphic transcription of a diary in shorthand that she keeps. For the most part, the novel details Candidia's ingenuity in solving various problems. Along the way she acquires a male companion called Adam. There is obvious irony here in that even a post-human race must begin with an Adam (but no Eve; "Adam and no Eve", incidentally, is the title of an Alfred Bester poet-catastrophe story [1957]). However, Emergence does not exploit any of the possible irony. For one thing, the parallel between the Christian myth and this situation does not quite work since a whole community of post-humans has survived the catastrophe. For another thing, the novel makes nothing at all of a possible parallelism (except a few feeble jokes Adam cracks to persuade Candida to regard him as a possible mate); instead the novel confines itself to detailing the ingenuity of our young super-heroes in problem-solving. Adam sums up their attitudes:

You can fix anything--if you want to badly enough. Sometimes what it takes is knowing where to find special tools and parts; sometimes it takes being able to figure out how to make special tools and parts.... Sometimes all it takes is a bigger hammer--you'd be surprised what you can accomplish with naked force. (127)

And indeed, by the end of the novel Candidia, using all of the above, has saved the Hominems (as they call themselves) from the Iron-Bamboo Curtain fanatics who engineered the devastation of the human race in the first place. The novel ends, telegraphically, with the future in mind:

Hominems have predecessors' mistakes clearly in mind; intend no repetition. Planning to restore, preserve

planet; concentrate upon research, education, individual development, etc. (290)

Emergence is a straightforward post-catastrophe SF adventure. But the triumph over adversity that the adventure describes is not a human triumph. The novel's message is one we have come across before: that humans as humans can no longer inherit the Earth. Stapledon's Last and First Men (1930) is perhaps the locus classicus here. (We have referred to the vast time scales of the work in our discussion of Stewart's Earth Abides.) In his "Preface" to the novel Stapledon describes this "story of the near and far future" (the subtitle of the novel), as "an essay in myth" (vi):

We must achieve neither mere history, nor mere fiction, but myth. A true myth is one which, within the universe of a certain culture (living or dead), expresses richly, and often perhaps tragically, the highest admirations possible within that culture. A false myth is one which either violently transgresses the limits of credibility set by its own cultural matrix, or expresses admirations less developed than those of its culture's best vision. This book can no more claim to be true myth than true prophecy. But it is an essay in myth creation. (v-vi)

And to be true to "the very diverse and often tragic possibilities that confront us", while "romancing of the future" (v), Stapledon says,

let us find room in our minds and in our hearts for the thought that the whole enterprise of our race may be after all but a minor and unsuccessful episode in a vaster drama, which also perhaps may be tragic. (vii)

Such "dramatic" visions are age-old anyhow, witness the idea as the foundation of the Indian epics--that the Gods wished for a "play" and so created this universe. Unlike mundane adventure or SF adventure of the "popular" kind, serious adventure fiction often cuts our race down to size.

Stapledon's "essay in myth creation" of "the long drama of Man" begins by positing "for aesthetic purposes that our race will destroy itself" (vii)--a proposition that was only too close to being true just seven years later as he wrote Star Maker. But that destruction is a necessary prerequisite to the transcendence of humanity that follows, albeit only at an evolutionary and cosmic pace:

It was some ten million years after the Patagonian disaster that the first elements of a new human species appeared, in an epidemic of biological variations, many of which were extremely valuable. (113)

And at some time one-and-a-half billion years hence, the "Last Men" appear:

If one of the First Men could enter the world of the Last Men, he would find many things familiar and much that would seem distorted and perverse. But nearly everything that is most distinctive of the last human species would escape him. Unless he were to be told that behind all the social organization and personal intercourse of a great community, lay a whole other world of spiritual culture, round about him, yet beyond his ken, he would no more suspect its existence than a oat in London suspects the existence of finance or literature. (248)

Not all SF writers, of course, posit anything like Stapledon's vast time (and world) scales in their "essays in myth". Palmer's Emergence, like many catastrophe fictions, confines itself to the few months after a catastrophe and merely relates (unusually, in its telegraphese) the physical, sensational adventures of young super-heroes. The enormous moral significance of the catastrophe itself, for example, is left entirely unexplored, except the brief resolution: "intend no repetition" (290). This is a pity, because such global catastrophes involving every member of our race--and not just a **representative** tragic hero as in

classical literature--is one of the more successful and sobering metamorphoses which SF has conjured out of adventure fiction.

John Wyndham's The Chrysalids (1955), on the other hand, takes for its theme just such an exploration, and what is more, examines the moral significance of the catastrophe in a fast-moving adventure tale. As in Jefferies' After London, here too, civilization reverts to what we may call medievalism. In The Chrysalids, a nuclear devastation of the distant "past" (presumably, sometime in the twentieth century) causes many mutations in the (future-) present of the taleworld, a device common in SF, as we have seen, ever since Jefferies' After London. The inhabitants of this Earth know this catastrophe of the past as the "Tribulation", thereby calling to mind in both character and reader, the "Great Tribulation" of the Bible (Revelation 7:14). Among the mutations of this world is the development of telepathy among the protagonist David's generation. David, in true adventure fiction manner, is an outsider within his society who must survive a harsh, hostile world which, in this case, has a whole demonology of "Deviations", "Obscenities", "Offences", and "Blasphemies"; it is a world in which the stock of humanity and all the "creatures of God" are preserved in their "True Image"--the image of the times before the Tribulation--by a systematic re-reading of the Christian scripture. For

only Nicholson's Repentances had come out of the wilderness of barbarism [after the Tribulation], and that only because it had lain for, perhaps, several centuries sealed in a stone coffer before it was discovered. And only the Bible had survived from the time of the Old People themselves. (39)

From these scriptures (i.e., re-inscriptions, really) humanity has fashioned dicta as it will from any "given" and sacred text, be they the Vedas or Marx's writings, for exercise of power over "other" people. In passing we may again notice here the ability of such "re"-constructions to recall the ugliest and pervasive phenomena from our real-history. For instance,

Only the Image of God is Man.... Keep Pure the Stock of the Lord.... Blessed is the Norm.... In Purity our Salvation.... Watch Thou for the Mutant!... The Norm is the Will of God.... Reproduction is the Only Holy Production.... The Devil is the Father of Deviation. (18)

This perversion of the scriptures, strongly reminiscent of similar instances in earlier adventure fiction as Wells' The Island of Dr. Moreau. and Orwell's Animal Farm, sanctions practices ranging from amputation to execution depending on the severity of the mutant's departure from the "Norm".

David's community at Waknuk is an agrarian one, surviving, on the one hand, well away from the "decadent" urban East (of the U.S.), and, on the other, just before the "Fringes" begin--places where radioactivity is low enough for life to survive, mutant life, with high mortality rates and physical form forever in flux. (A decadent East is, of course, a cliché of that other genre of frontier life, the Western where it has been used often to suggest a Golden Age quality in frontier life. SF often plays on such stereotypes. For instance, Samuel Delany plays on the colonial stereotype of "the inscrutable East" in his Nova [1968], when he tells us that Katz was educated on Earth at that center for learning in the "inscrutable West": Harvard.) Beyond the Fringes are the Badlands which support no life. The Fringes are, conceptually, in terms of setting, and in terms of discrimination

between humans, a powerful narrative device. David's introduction to the notion of the arbitrariness of his culture's definitions of what constitutes human and normal, and what does not, begins with conversations with his uncle Axel, an ex-sailor, about the Fringes and Badlands in other regions of the earth. Axel quotes a traveller:

Just as Wild Country becomes tractable, and Badlands country slowly gives way to habitable Fringes country, so, it would seem, are the Blacklands [radioactive stretches] contracting within the Badlands. Observations ... indicate consistently that living forms are in the process, although in the most profane shapes, of encroaching upon this fearsome desolation. (61)

Traveller's tales, belonging to that classic adventure genre, destabilize all of David's definitions:

The lands down there aren't civilized.... A lot of them aren't ashamed of Mutants; it doesn't seem to worry them when children turn out wrong, provided they're right enough to live and to learn to look after themselves. Other places, though, you'll find Deviations who think they are normal. There's one tribe where both the men and women are hairless, and they think that hair is the devil's mark; and there's another where they all have white hair and pink eyes. In one place they don't think you're properly human unless you have webbed fingers and toes; in another, they don't allow any woman who is not multi-breasted to have children. (62)

All these different "peoples" variously reinscribe the "scriptures" but have the same legends of the Old People--"how they could fly, how they used to build cities that floated on the sea, how any one of them could speak to any other, even hundreds of miles away, and so on" (62). But, Axel says,

what's more worrying is that most of them ... think that their type is the true pattern of the Old People, and anything else is a Deviation.... You start asking yourself: well, what real evidence have we got about the true image?... I'm telling you ... that a lot of people saying that a thing is so, doesn't prove It is so. I'm telling you that nobody, nobody really knows what is the



true image. They all think they know--just as we think we know, but, for all we can prove, the Old People themselves may not have? been the true image. (63-4)

David soon begins to see the arbitrariness of many of the boundaries he has been taught to believe as natural and eternal. He encounters a mutant who, shockingly, resembles his father (later, he does turn out to be a Deviant elder brother of his father's who was not killed, but was left in the Fringes by his loving mother to survive as best as he could). Then, David's friend Sophia and her family have to go into exile into the Fringes because Sophia has an extra toe--a "Deviation". The injustice of this "punishment" starts David on the road to skepticism and rebellion, in terms of the character's motivation, a well-justified turn of plot both in fiction and in real-life. He soon discovers in the Fringes an entirely human (and occasionally, humane) world independent of the physical form it takes. Neither the setting nor its inhabitants seem to be what they were supposed to be. The isomorphism in the novel between setting and character is made quite neatly as David talks to a denizen of the Fringes: "He waved his hand at the deviational landscape about us, and I suddenly noticed his own irregularity: the right hand lacked the first three fingers" (154). Finally, when he and his telepathic comrades are themselves on the run from the posse which David's father is leading against them, he **sees** both the completely intolerant world he has come from, as well as just how great a threat he and his kind represent to the "norm" supporting powerful "establishment" in his own society.

For this novel, in true adventure fiction manner, provides the "education" of David in adverse and dangerous circumstances,

in threat and escape, in flight and pursuit, and in existence in unfamiliar circumstances. He realizes that in a reality which is constantly changing, his community has tried to sustain arbitrary and cruel boundaries, preaching a fundamentalist intolerance. David and his band of telepaths get in touch with telepaths from New Zealand who, in isolation, have survived the Tribulation, and have rebuilt civilization more quickly since the damage there was less. Their leader identifies herself to David and reveals her race's plans (making the New Zealand contact a woman is a nice touch of Wyndham's, foregrounding as it does, the male-centredness of most adventure writing):

Ue are the New People--your kind of people- The people who can think-together.... we can make a better world than the Old People did. They were only ingenious half-humans, little better than savages; all living shut off from one another, with only clumsy words to link them.... They had no means of consensus. They learnt to co-operate constructively only in small units; but only destructively in large units.... They could never have succeeded. If they had not brought down Tribulation which all but destroyed them; then they would have bred with the carelessness of animals until they had reduced themselves to poverty and misery, and ultimately to starvation and barbarism. One way or another they were foredoomed because they were an inadequate species. (156-7)

Thus, once again, humanity is judged by means of fantasy and utopia and by the rites of passage of a hero and found wanting. And once again there is the awareness of being only at the threshold of a world of new possibilities, the Chrysalids ready to metamorphose:

Ue are able to think-together and understand one another as they never could; we are beginning to understand how to assemble and apply the composite team-Bind to a problem--and where may that not take us one day? (196)

This is optimism, yes. But an inhabitant of the Fringes

tells David, "Tribulation was a shake-up to give ur a new start" (154), but the start is not for humans. The American title of the novel was Re-Birth, but the rebirth here is more in the nature of a "next birth" in the Hindu sense, than a reincarnation as of Christ. The New Zealander makes the difference between the two "births" quite clear. Lecturing once again, the New Zealander tells David and the others:

you have not been able to stand off and, knowing what you are, see what a difference in kind must mean. Your minds are confused by your ties and your upbringing: you are still half-thinking of them as the same kind as yourselves.... And that is why they have you at a disadvantage, for they are not confused. They are alert, corporately aware of danger to their species. They can see quite well that if it is to survive they have not only to preserve it from deterioration, but they must protect it from the even more serious threat of the superior variant. (196)

The Chrysalids is a novel with constantly shifting definitions of humanness and normalcy, with the geographies of civilization and savagery forever shifting, the territories of the "godless" Fringes and Badlands never quite matching the "maps" that civilization draws of them. In its examination of religious bigotry and intolerance representative of all kinds, the novel uses the setting very effectively to thematize the blurring and instability of socially constructed boundaries. Damon Knight's criticised the novel as follows:

The sixth toe was immensely believable, and sufficient: but Wyndham has dragged in a telepathic mutation on top of it; has made David himself one of the nine child telepaths, and hauled the whole plot away from his carefully built background, into just one more damned chase with a rousing cliché at the end of it. (Quoted in Silverberg 1987: 25)

It would have been a quite different novel had Wyndham chosen to

develop the entire story at Waknuk, with David's moral world-view destabilized by, perhaps a series of sixth toes! However, the shift of the action to the Fringes, what Knight calls a "damned chase", achieves a dramatization of the entirely needless misery and squalor that Waknuk's religion forces other humans to live in. And without "dragging in" telepathy the novel could not possibly show the promise of a dramatic improvement in "human" condition that it now does, nor is this sort of detail out of synchronization with the development of SF in this century. In favour of this device may say that brute, heroic qualities tend to simple-minded fictions; serious fictions invariably go beyond to whatever they consider to be (likely) human qualities of character and society. Indeed, Wyndham's "deviations" also are, we believe, far more credible in our own age (1955) than were the creations of Wells' "Beast People" in The Island of Dr. Moreau in its age (1896). Indeed, the novel could not have been called Chrysalids in the first place! In fact, the elements of adventure in the novel, the perpetual danger of discovery of the telepathic children, a ruthless and violent Church, the escape into the little known Fringes, a place of proverbial dangers, and the rescue by the New Zealand telepaths that makes possible the rise of a new order, all contribute much to the significance of the novel as post-catastrophe SF. Contrary to the view expressed by critics like Damon Knight, The Chrysalids is one of the most successful, economical and moving adventure narratives, perhaps comparable to Conrad's Heart of Darkness in its range of meaning and implication.

A similarly extensive thematizing of action and reference, if not really of character, through setting had been achieved much earlier by Wyndham's master, H.G. Wells, in The Time Machine (1895). Wells' "Time Traveller" goes to the year A.D. 802,701 and finds out there, though only gradually, that the "race had lost its manliness" (27), that the human race had degenerated into the effete Eloi and the sinister Morlocks. The Time Traveller then spends the next eight days--"such eight days as no human being ever lived before!" (22)--finding out about the world of the year 802,701. The promise implied in that aside, complete with the excited exclamation mark, is but one traditional adventure device among the many that the novel employs. Indeed, the tale that the Time Traveller tells on his return is very much the strange "traveller's tale". Further, quite appropriately, the "Editor" of The Time Machine begins by telling us: "The Time Traveller (for so it will be convenient to speak of him) was expounding a recondite matter to us" (9). He is known by no other name than that mysterious sobriquet throughout The Time Machine, and the mystery of his identity is retained for unexplained reasons of "convenience". Moreover, as we shall see, the Time Traveller's identity is a crucial theme in the novel; this initial mystery thus is entirely of a piece with the larger theme of the book. The ambience for the "recondite" exposition as well as the Time Traveller's "animated" (22) tale of his travels is a cosy after-dinner one: very much an "amazing" adventure told by the fireside, even though the means of achieving the experience (the machine itself) is archetypal SF. Indeed, this "frame", of a group of friends at a fireside narrative, greatly extends the capability of the dev-

ice. For surely The Time Machine is one of the most ambitious of the very early SF **explorations**. So much, then for the **frame**, which unmistakably identifies various **characteristics** of the adventure mode, creating a primitive or archetypal epoch-making yet non-global SF adventure.

The Time Traveller's adventure **is** presented in the form of a series of **reconstructions** of the past, again, **archetypally** anticipating later SF: for it is one of those SF patterns in which past and future combine dramatically to signify the present in some way. As Huntington (1982) points out,

because the **Time** Traveller arrives in 802,701, not by a process of incremental **progressions**, but by a single leap ... like evolutionary biologists, [the Time Traveller and the reader] must first understand what distinguishes two species and then they must reconstruct the evolutionary sequence that links them; the difference between Eohippus and the **modern** horse is like that between the modern human and the **Eloi** or the **Morlocks....** [However,] the **mental** act of **reconstructing** the evolutionary connection involves **more** than Just **taxonomic** description; It is not **simply** a perceiving of a pure two-world system; it entails examining a whole series of ambiguous moral conflicts. (42-43)

The Time Traveller proposes hypothesis after hypothesis to account for this world--for instance, "'Communism,' I said to myself" (33)--only to have it proved partially to utterly wrong. The revision of his hypotheses takes place in the light of new data that he acquires about the world, a process rather like scientific research, at least as later positivist accounts were to describe scientific research (see Medawar 1984, for example). While this is an accurate description of the progress of the Time Traveller's understanding of the world, as a description it is not complete because it does not take into account the reasons

for his constant revision. The Time Traveller has to revise his hypotheses because of his increasingly intimate (if involuntary) encounters with the Morlocks which force him to contrast his experience here with his own present world on earth.

In the retrospective narration of his story to his friends, at the end of each surmise about the future world the Time Traveller repeatedly comments on how utterly wrong he was. Indeed, in classic suspense-arousing, adventure-fiction manner, his narration is full of anticipations--including the anticipated reaction of his listeners to the tale the narrator is about to tell: "Much of it will sound like lying" (22). There are portents of events to come: "Happily then, when it was not too late, I thought of a danger I had hitherto forgotten..." (28). And, even more explicitly: "It was here that I was destined, at a later date, to have a very strange experience--the first intimation of a still stranger discovery--but of that I will speak in its proper place" (33). And then his anticipations about the inaccuracy or incompleteness of his current hypothesis: "This, I must remind you, was my speculation at the time. Later, I was to appreciate how far it fell short of the reality" (34). "Afterwards I found I had got only a half-truth--or only a glimpse of one facet of the truth" (35). Sometimes, indeed, it is puzzling to gather from criticism that Wells does not have a genuinely great reputation--for in each of his SF novels and stories, he reveals his masterly touch of achieving multiple levels of signification. In fact it is not easy to find many other authors who so consistently narrate at so many levels in one and the same text. Even towards the very end of his stay in the world of 802,701 the Time Traveller

professes "radical uncertainty":

So I say I saw it in my last view of the world.... It may be as wrong an explanation as mortal wit could invent. It is how the thing shaped itself to me, and as that I give it to you. (79)

The Time Traveller's proposed readings of the worlds he visits and his **uncertainties** of course spring from his **incomprehension** of the relationship between the Eloi and the **Morlocks**, etc. in particular, and generally from the vast expansion of narrative scale of his adventure. But more than that, it is an uncertainty that permeates the narration and culminates in unsettling his identity vis-a-vis the two **rac**es/**species**.

The Time Traveller's rain-blurred vision of the future as he **materializes** in **it** is only one signal of the ambiguities around. The first thing he perceives in this world of the far future is an artefact from his mythic past: the Sphinx. But through the "hazy **curtain**" everything about the sphinx appears uncertain:

A colossal figure, carved apparently in some white stone, loomed indistinctly.... It was of white **marble**, in shape something like a winged sphinx, but the wings...seemed to hover. The pedestal, it appeared to me, was of bronze.... The sightless eyes seemed to watch me; there was the faint shadow of a smile on the lips. It was greatly **weather-worn**, and that imparted an unpleasant suggestion of a disease. I stood looking at it for a little space--half a minute, perhaps, or **half** an hour. It seemed to advance and to recede **as** the **hail** drove before it denser or thinner. (26; **emphases** added)

Wells uses very effectively that classic Gothic device, obscurity (see Burke [1757: 583 on the contribution of obscurity to the evocation of the Sublime), to create an air of **unspecifiable** menace. But .. these perceptual **uncertainties** are soon shelved, first in his excited hypothesizing about the Eloi (33-37), and later in his **"raving to and fro"** at the loss of his Time Machine



(AQ). The perceptual (even cognitive, not just physical) uncertainty returns with his first glimpse of the Morlocks:

And up the hill I thought I could see ghosts.... Twice I fancied I saw a solitary white, ape-like creature.... It seemed they vanished among the bushes. The dawn was still indistinct, you must understand.... I doubted my eyes. (48)

Travel (even with anticipations), displacement, disorientation and doubt, all aggravate the adventure here. All these experiences enter the encounter with other worlds in **mundane** as in SF narratives.

The Time Traveller's descent to the subterranean home of the Morlocks, in another retracing of the visit to the Hades pattern, offers the first instance of the blurring of the **Eloi/Morlock** identities. There is a parallel here to many adventures of fictional characters (and presumably real-life persons, as well), with Gulliver's waking up on a beach in Lilliput with people crawling **all over him**. All such adventures **seem** to confront human beings with what Eliot has called "the problem of **differences**" (1926), a theme we will return to later. His reaction of intense disgust at the Morlocks' touch is striking, all the more for its similarity to the Eloi's touch: "Then I felt other soft little tentacles upon my back and shoulders" (28). Compare this with: "I felt the box of matches in my hand being gently disengaged, and other hands behind me plucking at my clothing" (58). Interestingly, the former describes the Eloi and the latter the Morlocks: the Morlocks are "gentle", while the Eloi have "tentacles". The Time Traveller seems to realize the apparent menace in this **action** of the Eloi, for he immediately assures his **listeners**: "Th-

ere was nothing in this at all alarming" (28). But, his reassurance also stems from the Eloi's physical harmlessness: "And besides, they looked so frail that I could fancy myself flinging the whole dozen of them about like nine-pins" (28). What he had only "fancied" he could do with the Eloi, he of course does with the Morlocks. This anticipation of his encounter with the Morlocks not only identifies the two races/species, but the violence of this imaginary encounter with the Eloi identifies to some degree the Time Traveller with the Morlocks.

The sloping floor of the Palace of Green Porcelain provides the next instance of a blurring of boundaries. The palace is a museum housing the technological artifacts of a civilization long gone. The museum is an anachronism in the world of the Eloi: a reminder of a world long forgotten. Given that what technology there is is controlled by the Morlocks, the museum would have been more appropriate underground. But then, the Morlocks are inheritors of the builders of the museum only in name. They are themselves capable of no such feat as building the museum. They merely tend those "dark satanic mills" underground. The museum, then, belongs to neither race. Its dilapidated state is testimony enough to that fact. However, as the Time Traveller explores the museum he finds himself at the entrance to a passage leading into the world of the Morlocks. The floor of the museum evidently slopes downward and one world imperceptibly yields to another.

It is also in the museum that a clearer affinity between the Time Traveller and the Morlocks emerges. He lingers among "the huge bulks of big machines" because, as he says:

I have a certain weakness for mechanism, and I was in-

clined to **linger** among these; the more so as for the most part they had the interest of puzzles, and I could **make** only the vaguest guesses at what they were for. I fancied that **if** I could solve their puzzles I should find **myself** in possession of powers that might be of use against the Morlocks. (68)

Later, when he recovers his Time Machine in the White Sphinx, he says, --

I was surprised to find [the Time Machine] had been **carefully** oiled and cleaned. I have suspected since that the Morlocks had even partially taken it to pieces while trying in their dim way to grasp its purpose. (80)

**Technologically**, then, he is to the builders of the machines in the museum what the Morlocks are to him. **In** fact, such scaled down/up equations allow us to apprehend the strange worlds of SF. There is more need for SF to preserve the human perspective than for other forms of adventure narratives. The next episode we look at should clarify this idea.

But it is in the forest **fire--a** "natural" crisis in an otherwise strange **setting--in** which he nearly perishes (and **In** which **Weena**, like dozens of Morlocks, does perish) that he comes closest to identifying with the Morlocks. The forest fire comes as a culmination to the series of nocturnal and diurnal adventures, oppositions that mark the Time Traveller's stay in that hazardous future. While his earlier descent into the world of the Morlocks during **daytime** had converted day into night, the fire accomplishes the reverse. But that is not the only reversal the fire achieves. The Time Traveller and the Morlocks are both one in their desire to flee from the fire: "I followed in the Morlocks' path" (76), he says. The Time Traveller's feelings for these creatures of the dark undergo a **transformation** from unmitigated horror to something akin to sympathy during the forest fire:

But when I had watched the gestures of one of them groping under the hawthorn against the red sky, and heard their **moans**, I was assured of **their absolute helplessness** and misery in the glare, and I struck no more of them.... Thrice I saw **Morlocks** put their heads down in a kind of agony and rush into the flames. (76-77)

The **Morlocks'** misery and despair reflect some of his own, for among the perished is his **Weena** as well, sympathy with whom constitutes the supreme instance of affective experience in the Time Traveller's odyssey--indeed, this is as close as **Wells** ever approaches **"romantic"** interest in his better known SF novels.

Nor is that loss the only **identification** with the Morlocks the Time Traveller evidences. Just before the fire, as he is fighting the Morlocks for his and **Weena's** life, he describes **"the strange exultation** that so often seems to accompany hard fighting" (75):

I was overpowered, and went down. I felt little teeth nipping at my neck. I rolled over, and as I did so **my** hand came against my iron lever. It gave me strength. I struggled up, shaking the human rats from me, and, holding the bar, short, I thrust where I judged their faces might be. I could feel the succulent giving of flesh and bone under my blows, and for a moment I was **free**.... I knew that both I and Weena were lost, but I **determined** to make the Morlocks pay for their meat. (75)

He counters with "succulent" blows the **"human rats"** feeding on him. As violent as his attacker\*, **Wells'** hero nearly perishes with **them** in the fire. **Appropriately**, like the Morlocks, he spends the next day sleeping, rising only at sunset. Seeing the open pedestal of the White Sphinx, in which he can see his Time Machine which the Morlocks have secreted there and have now opened to lure him in, he says, "For once, at least, I grasped the mental operations of the Morlocks" (80).

This **complex** statement of the now-merging, **now-diverging**

identities of the Eloi, the **Morlocks**, and the Time Traveller has several **implications** which have to be teased out. In terms of the Time Traveller's narrative itself, perhaps the most striking effect of the unsettling of identities of the inhabitants of 802,701 and the Time Traveller, is the contrast this collective human identity then provides to the **"monsters"** he sees in his travels further into the earth's future, not to mention the inevitable comparisons forced upon us by the **"real time"** reference and frame of The Time Machine. The Eloi and the Morlocks, alien as they are, are thoroughly familiar in comparison to the creatures on that desolate beach in the far future: "a thing like a huge white butterfly," and a "reddish mass of rock" that turns out to be "a monstrous crab-like creature" (82-83). Menaced by another **"monster-crab,"** with its "evil eyes" and mouth "all **alive** with **appetite,**" the Time Traveller escapes further into the farther future in a series of time sweeps and strange encounters, **"stopping** ever and again, in great strides of a thousand years or more, drawn by the mystery of the earth's fate" (84).

Finally, thirty million years hence, he arrives at the "eternal sunset" of the earth. Here, at first, there are not even **crabs--only** "livid green liverworts and lichens" (84). Then he "fancies" having seen some "black object flopping about" but judges himself "deceived" (84). But of course, his eye was not "deceived". Just as he had earlier "fancied" seeing "a solitary white, ape-like **creature,**" (48) which **became** clearer, paradoxically, only in the night, so too here it is only during the eclipse that follows that he once again sees the world of the future for

what it **really** is:

The sky was absolutely black. A horror of this great darkness came on me.... I shivered, and a deadly nausea seized me.... As I stood sick and confused I saw again the **moving** thing upon the shoal--there was no mistake now that it was a moving **thing**--against the red water of the sea. It was a round **thing**, the size of a football perhaps, or, it may be, **bigger**, and tentacles trailed down from it; it **seemed** black against the weltering blood-red **water**, and it was hopping fitfully about. (85)

The image of the "terminal **beach**" was to become a familiar one: Miller's A Canticle for Leibowitz, we recall, ended, not in space, but on a beach. Wells' awe- and **terror-inspiring** description of an absolutely black sky and a red sea on the one hand harks back to all those descriptions **from** Homer that "Longinus" quotes as examples of the Sublime, and on the other hand, Wells' descriptions tally with the best scientific speculations of his time on the physical state of the planet thirty **million** years hence. This latter overlap between "**science**" and "fiction" is so characteristic of SF that it has been the basic for many definitions of SF, as we saw in the last chapter.

The **Life forms**: The Time Traveller **encounters** a\* **he** goes **progressively** into the earth's future form an increasingly simplified evolutionary series. As Suvin shows so ably (1979), Wells took the orthodox Darwinist and **Huxleyan** canonic series descending from Man versus **Nonhuman** Primates down to Existence versus Nonexistence as his starting point. Later within the novel, Wells **modified** this interest into a series descending from Upper Class versus Lower Class to Existence versus Eclipse. Despite major **innovations**, that is to say, even SF does clearly **reflect** its own times and society. Further, as Suvin perceptively points out, the pace of narration also increases rapidly with "two **sociobiologic-**

, levels envisioned for 107 **pages**" (58 pages, in our edition), then continues with "one biological level (mammal versus "amphibian") for five **pages**" (3 in our edition), and ends with

four existential levels (land versus sea animal; animal versus **plant--lowest** plant forms at that; organic existence versus sand, snow, rocks, and sea; and existence of Earth versus eclipse) all present pell-mell, outside of their proper **taxonomic** order, within about three [2] pages. **This** telescoping and **foreshortening** powerfully contributes to and indeed shapes the effect of the logical or biological series. (Suvin 1979: 223-233)

Suvin's ingenious observation does not of course exclude the constraints that the form of the **novella** places on detail in development: The Time Machine, after all, is only some ninety pages of ordinary typography. Moreover, the narrative derives force from the increase in the pace of narration after **Wells** has developed in complex detail the world of the Eloi and the **Morlocks**. In fact, in dwelling on the world of 802,701 in some detail, and quickly sketching other (future) times and places, Wells faithfully adheres to his manifesto for "**scientific romances**"; he avoids all danger of the "extra fantasy outside the cardinal assumption" that would give "a touch of **irresponsible** silliness to the whole **invention**" (quoted in Parrinder [1980: 12]).

The Time Machine gives us a picture of the **future** of humanity as a **recapitulation** of both its social as well as evolutionary **past**. This is reminiscent of Haeckel's Law which describes the **recapitulation** of the history of the race in the growth of the embryo of a member of that race: Ontogeny **recapitulates** Phyl-ogeny. Wells, however, plays **ironically**, and at several levels, on Haeckel's Law making future **representatives** of **humanity--the** Eloi and the **Morlocks--both** primitive and child-like, i.e., both

biologically and socially, infants of the race. Wells gives a further twist to the biological law by linking it causally to the class divisions of his times--deriving the Eloi and Morlocks from the aristocracy/capitalist and commoner/worker of Victorian England. As the chief labour spokesman in his The Soul of a Bishop (1917) says:

There's an incurable **misunderstanding** between the modern **employer** and the modern employed.... Disraeli called **them** the Two Nations, but that was long ago. Now it's a case of two species. Machinery has made **them** into different species.... We're the Morlocks. Coming up. (Cited in Aldiss 1986: 119)

This engagement with social issues arising **from** scientific and **technological possibilities** is where Wells differs most markedly from Verne and where he prefigures so **many** of later **SF's** directions. As, of course, **Wells** knew. For, as Suvin remarks,

**Wells** could much later even the score [with Jules Verne; see Parrinder 1980: 7] by talking about "**the** anticipatory inventions of the great **Frenchman**" who "told that this and that thing **could** be done, which was not at that time done"--in fact, by defining Verne as a short-term technological popularizer. (1979: 210-211)

However, there is another advance on previous adventure fiction that needs to be highlighted here, though we have noticed it in our discussion of catastrophe fictions--a larger scale of concern, about the fate of whole **civilizations**. Wells' attitude to civilization was by no means that of the Time Traveller who "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\*\* (91), an attitude that many later SF writers concur with, Stapledon and Miller among them. Indeed, rather than the **Time** Traveller-



er's, Wells' view seems more in consonance with that of the Narrator of The Time Machine: "But to me the future is still black and blank--is a vast ignorance, lit at a few casual places by the memory of his story" (91). This is an image Wells had used at the end of his "The Rediscovery of the Unique" (1891):

Science is a match that man has just got alight. He thought he was in a room--in moments of devotion, a temple--and that his light would be reflected from and display walls inscribed with wonderful secrets and pillars carved with philosophical systems wrought into harmony. It is a curious sensation, now that the preliminary splutter is over and the flame burns up clear, to see his hands lit and just a glimpse of himself and the patch he stands on visible, and around him, in place of all that human comfort and beauty he anticipated--darkness still. (Cited in Huntington 1982: 3)

Just such an uncertain knowledge, "a match lit in the dark", had prompted Victor Frankenstein's dangerous researches, and even that little light tells Victor that there are no "pillars carved with philosophical systems wrought into harmony". There is only horror there, and incomprehension, misery, cruelty and death. While science and technology make the Time Traveller's adventure possible, what he finds in the far future is precisely the disastrous consequences of our society's inability to use its knowledge to eradicate inequality. Mary Shelley, too, like Wells and much later SF, shows starkly a society unable to come to terms, socially and morally, with what its science and technology make possible, a message a very great deal of SF ever since Mary Shelley's Frankenstein (1818) has reiterated. Yet Wells' statement quoted above provides us with a possibility of dividing SF adventures with a large scientific or technological content into two basic types according to attitudes explored--as we have seen before, in simplistic terms, the two types are optimistic and

pessimistic adventures according to whether the author/narrator/character believes in or doubts the ability of science to conquer human failings.

Another pre-modern novel presents us with just as many opportunities as The Time Machine to explore the adventure mode's metamorphoses. That is Mary Shelley's Frankenstein (1818). While The Time Machine portrayed a complex relationship between character, theme and setting, a relationship that was echoed in such SF as Wyndham's The Chrysalids, the exploration of the uncertain boundaries between the human and the non-human has been a recurring theme of popular as well as serious SF adventure and romance ever since Mary Shelley's Frankenstein (1818). A vast body of work on Frankenstein exists now which teases out the very complex interplay of the identities of the Monster, his creator, and the-ir creator, the author--not to mention the fourth factor or screen in this highly complex novel, the outer frame narrator, whose ordinary life of adventure as a sailor leads him to this, one of the most extraordinary of adventures in the history of the novel and in the history of the human imagination. We can recommend no better guide to the trajectories various discussions of the text have taken than Brian Aldiss. "On the Origin of Species: Mary Shelley" is the title of the first chapter of his remarkable survey of SF, Trillion Year Spree (1986), in which, in the space of twenty-seven pages, Aldiss weaves together many interpretative strands of the novel, concluding that "The last word on Frankenstein will never be said. It contains too many seemingly confli-

cting elements for that" (50).

Aldiss summarizes some of these elements after his close reading and wide-ranging discussion of the text:

The Outwardness of science and society is balanced in the novel by an Inwardness which Mary's dream helped her to accommodate.... Love, fear, the cruelty of parents and lovers--such familiar acquaintances are stirred up by the introduction of the central novelty.... Victor's lowly creature, outcast from human kind, takes a lofty view of itself.... [Miltonically, it speaks] of itself ... as "the fallen angel becomes a malignant devil".... Two aspects of the struggle which are subordinate to the eschatological theme [of the novel are] man's confrontation with himself, which the power of creation necessarily entails ... [and] the disintegration of society which follows man's abrogation of power. One perversion of the natural order leads to another.... The rejection of a just Heavenly Father, the concern with suffering, the sexual obsessions, have helped preserve Frankenstein's topicality. Not only does it foreshadow our fears about the two-edged triumphs of scientific progress; it is also the first novel to be powered by the evolutionary idea.... The use of this modernized Faust theme is particularly suited to the first real novel of science fiction.... His great discovery apart, Frankenstein is an over-reacher and victim, staggering through a world where virtues are few.... Instead of hope and forgiveness, there remain only the misunderstandings of men and the noxious half life of the monster. Knowledge brings no guarantee of happiness. (50-1)

Indeed, neither Victor Frankenstein nor the Monster fits comfortably into the role of God, Adam or Satan. AE Paul Cantor observes, the motives of neither creator nor creature are unmixed:

Frankenstein does God's work, creating a man, but he has the devil's motives: pride and the will to power.... [Similarly,] although the monster has something of Adam's innocence, he is also impelled to his rebellion by Satan's motives: envy and the thirst for revenge. The monster carries his tempting serpent within his own breast. Instead of being passively seduced into rebellion like Adam, he actively pursues rebellion like Satan. (1984: 105-6)

As we shall see, a large part of the force of Frankenstein derives precisely from these unstable identities.

The novel that is **familiar** from the numerous adaptations for stage, film and television, gives no hint of **these complexities**: "Victor Frankenstein assembles a body from various parts of fresh corpses and then endows it with life. He quickly rejects the new **being**, which disappears and becomes a threat to him and **others**" (Aldiss 1986: 39). Such a plot **summary** as the one above gives no hint of either the richness of adventure in this novel or of its complex narrative structure. For, excluding the author's preface and **introduction**, the **novel** has no less than three narrators--**Captain** Robert Walton, Victor Frankenstein, and the Monster. And each of their narratives is embedded in the one before, Just as all are embedded in the **"frame"** narrative. Immediately after Mary Shelley's preface and introduction comes the epistolary narrative of the **Captain--four** letters to his sister back home in England. Robert Walton rescues Victor, near death from exhaustion, who tells his story in the next ten chapters. Chapters eleven to seventeen **comprise** the Monster's tale as narrated to Victor. These chapters, which tell of the education of the Monster, contain as their centre-piece the story of the fortunes of the De Lacey family, whose life the Monster has eavesdropped on. Then, chapters eighteen to twenty-four continue Victor's tale: of his destruction of the Monster's mate (which he **half-creates**, before being overcome by the horror of his action), and the Monster's subsequent revenge and retribution. In chapter twenty-four, with **Victor's** death, we come to the end of his narrative. Walton continues his letter to his sister with an account of his conversation with the Monster, and the book ends with the Monster's **depa-**

ture into the icy arctic wastes to destroy **itself**. Walton does not reappear (to conclude his letter to his sister, for instance).

The confusion or at least a shading over of identities both between characters, and between characters and author, we said was an aspect of this novel that has received much **comment**. Walton and Victor, both explorers, although of different "territories", recognize their affinities early. As Walton declares to his sister:

For **my** part, I begin to love him as a brother.... I said ... that I should find no friend on the wide ocean; yet I have found a roan who, before his spirit had been broken by misery, I should have been happy to have possessed as the brother of my heart. (27)

Not just Walton and Victor, but the Monster also is a passionate seeker. He seeks knowledge of who he is, what he is, and where he comes **from**. The account of his enormous labour to understand **himself** and the world around him that forms the bulk of his narrative to Victor, bespeaks an intellectual and physical effort and endurance quite equal to those of the two "**explorers**". (And, as AldisE points out, "The constant litigation which takes place in the background represents another kind of quest for knowledge, often erroneous or perverted" [1986: 39]).

In their violent, intense encounters the Creator and the Creature in turn become the Pursuer and Pursued. First, Victor flees the "**demoniacal corps**" to which he has given life on a "**dreary** night in **November**" (57), the Monster searches him out and they meet **among** the glaciers of the Alps (97); after Victor breaks his promise to create a mate for the Monster, the Monster promises that he would be with Victor "on his **wedding-night**"

(166), and he once again follows Victor, wreaking destruction along the way, till he kills Victor's betrothed. Then, Victor pursues him "amidst the wilds of Tartary and Russia" (200) while the Monster leads him on, leaving, as Victor tells Walton,

marks in writing ~~and~~ on the barks of the trees, or cut in stone, that guided me and instigated my fury. "My reign is not yet over (these words were legible in one of these inscriptions); "you live and my power is complete. Follow me; I seek the everlasting ices of the north, where you will feel the misery of cold and frost.... You will find near this place ... a dead hare; eat and be refreshed. Come on, my enemy; we have yet to wrestle for our lives; but many hard and miserable hours must you endure until that period shall arrive." (200)

In a terrific re-run of the same adventure in the same landscape of difficulty, the "cold, want and fatigue" Victor endures (200) are privations the wretched Monster has already suffered when he first achieved consciousness: "I was a poor, helpless, miserable wretch; I knew, and could distinguish, nothing; but feeling pain invade me on all sides, I sat down and wept" (102). Their fates inextricably tangled together, each has tortured the other, tried to destroy the other. "Two I have already destroyed; other victims await their destiny" (174); "I am the assassin of those most innocent creatures; they died by my machinations" (183). We might like it to have been the Monster speaking, but it is Victor who says these words. In more ways than may be acknowledged by readers, this novel is a repository of adventure techniques from older forms such as the Gothic and the Romance, while it emphatically inaugurates a whole new (SF) continent of narrative possibilities to be explored.

Victor Frankenstein "infuses a spark" into his "lifeless" doppelgänger (56); but his other double, Walton, has already

prefigured this action in ironic reversal: as he writes to his sister, "we ... restored [the half-dead Victor] to animation blankets" (25). Describing the circumstances of the origin of the tale, in the Introduction Mary Shelley describes the nightmare-vision that formed the nucleus of the story: "I saw the hideous phantasm of a man stretched out, and then, on the working of some powerful engine, show signs of life, and stir with an uneasy, half vital motion" (12):

Mary's dream of a hideous phantasm stirring to life has the emotional coloration of a nightmare recorded in her journal a year earlier. In February 1815, she lost her first baby, born prematurely. On the fifteenth of March, she wrote: "Dream that my little baby came to life again; that it had only been cold, and that we rubbed it before the fire and it had lived." (Aldiss 1986: 43)

And in her novel, the Monster had "stirred", and Victor had been "restored to animation".

The Monster's existential angst--"Who was I? What was I? Whence did I come?" (126)--the "muddying of generations and generation reflects the confusion Mary Shelley felt regarding her own involved family situation, surrounded by the half-sisters of both her mother's earlier and her father's later liaisons" (Aldiss 1986: 43). Nor is this all. Mary, eloping with Shelley, had had to give birth alone, away from her family. The fear and anxiety which often attend childbirth were particularly acute in her case. The baby died. Her nightmare, which became Frankenstein, she describes as "my hideous progeny" (14), and declares, "I certainly did not owe the suggestion of one incident, nor scarcely of one train of feeling, to my husband, and yet but for his incitement, it would never have taken the form in which it was

presented to the world" (14). Victor, too, must give birth to his creature by himself, in the dead of night, in his "workshop of filthy creations". This creation too has a background of "incitement" from various teachers, but "the days and nights of incredible labour and fatigue" (51) are entirely his. Aldiss observes yet another blurring of identities.

Algolagnia was certainly not absent from Mary's make-up. She wrote Frankenstein with her baby son William by her side; yet she makes the monster's first victim a little boy called William, Victor's younger brother. (1986: 45)

The Monster describes William's murder as follows: "I grasped his throat to silence him, and in a moment he lay dead at my feet. I gazed on my victim, and my heart swelled with exultation and hellish triumph" (141). As Aldiss astutely asks, "Which William was this, her father or her son? Her little William (**"Willmouse"**) died in the summer of **1819"** (1986: 45).

The plot, of course, is not in the least hindered amidst all these ambiguities.<sup>11</sup> It remains a fast-paced "tale of flight and pursuit, punctuated by death and retribution, with everyone's hand turned against the wretched monster.... A story of implacable lay [i.e., not **supernatural**] revenge, hatred, judicial blunder, pistols fired from open windows, a thwarted voyage of discovery, [and] exhausting journeys without map or compass" (Aldiss 1986: 41-2). It is a tale of Faustian ambition, but Victor **makes** no pacts with the devil. Quite the contrary, Frankenstein is a **"rewriting"** of that earlier **almost-SF** legendary text. Victor succeeds in his vast ambitions only when he discards the alchemical masters and **makes** an anticipatory pact with a "modern system of science ... which possessed much greater powers than the anci-



ent, because the powers of the latter were chimerical, while those of the former were real and practical" (39). He must reject "the ancient teachers ... [who] promised impossibilities, and performed nothing" (47). Instead, he must cast his lot with

the modern masters [who] promise very little; they know that metals cannot be transmuted, and that the elixir of life is a chimera. But these philosophers, whose hands seem only made to dabble in dirt, and their eyes to pore over the microscope or crucible, have indeed performed miracles. They penetrate into the recesses of nature, and show how she works in her hiding places. they ascend into the heavens: they have discovered how the blood circulates, and the nature of the air we breathe. They have acquired new and almost unlimited powers; they can command the thunders of heaven, mimic the earthquake, and even mock the invisible world with its own shadows. (47)

Here is an emphatic conversion from old science to new Science Fiction. In an exciting recovery of even the history of science, in the novel Victor must then put away the ancient books, his Cornelius Agrippa, Albertus Magnus, and Paracelsus--"the lords of my imagination" (41)--and "dabble in dirt", and "pore over the microscope or crucible". Thus the castle of the gothic alchemist-wizard becomes the modern laboratory, what Donna Haraway has called "the material and mythic space of modern science" (1989: 368). Notwithstanding the fact that the source of the tale was a nightmare, the numerous references to the science of the day make this tale a very different one than, say, that gothic ancestor of such nightmares, Walpole's Castle of Otranto (1764). The first defence Mary Shelley offers for the story that she is about to tell is that Erasmus Darwin "and some of the physiological writers of Germany"--not one of the "lords" of Victor's imagination--have deemed the "event on which this fiction is

founded ... as not of impossible occurrence" (7). That an authority to argue for plausibility should be invoked at all, and that it should be this authority, mark this novel as a departure from the gothic fiction that preceded it. The anxieties of identity that the story then explores make Frankenstein very much a fable for our times because it is not merely read as a document from another time but remains, thematically, "readable" in our terms. That Shelley should give us a myth for our times by significant variations on themes and genres already available, makes for a particularly, historically rich and rewarding text. Truly, Frankenstein is an achievement of a fine balance of "Outwardness and Inwardness": Its tale of "exterior adventure and misfortune" is accompanied by--encompassed by--psychological depth" (Aldiss 1986: 50; emphasis added).

The ambiguities, arbitrariness and tensions of human identity that Frankenstein sets up, and the adventure it forces by means of the logic of this tension, results in an early tendency in SF to include humanity's responsibility for its acts in its repertoire of themes. These tendencies echo down to the late twentieth century, the immediacy of those themes in the interim, if anything, having become greater. One particularly resonant text, we saw, was Wyndham's The Chrysalids, coming, as it did, within a decade of a war which saw a barbaric "purging" of "Outsiders". Just in the same way Stapledon was Clarke's precursor in exploring one set of themes about human identity and human potential, Wells prefigured Wyndham in exploring other (related) themes. This much seems clear enough--that the history of SF cannot be completely understood without comprehension of its development

(abundantly inscribed in Frankenstein) from adventure fiction; and, in a complementary sense, this history cannot become meaningful without an intertextual reconstruction of SF within the mode. Wells' The Island of Dr. Moreau (1896), as we shall see, becomes for these reasons a crucial text here as a novel which is in its science as naive as Frankenstein and in its other aspects as richly compact as any accomplished modern novellas.

Victor Frankenstein creates but one Monster; Moreau peoples his island with Monsters. In this context, "peoples" is a curiously appropriate verb. Victor pauses in his labours of creating a mate for the Monster--"it was indeed a filthy process in which I was engaged", he says (162)--horrified that "a race of devils would be propogated upon the earth" (163). As Aldiss perceptively observes at that point, the novel echoes Caliban's snarl to Prospero in The Tempest--"I had peopled else the isle with Calibans!" Victor's fears also prefigure Moreau's creation of the Beast-People: the Hyena-Swine, the Leopard Man, the Satyr, the Wolf Bear, the Swine Woman, and the faithful Dog Man.

Once again, we have a scientist "under the overmastering spell of research" (49)--the word comes easily to Wells, for The Island of Dr. Moreau is published some eight decades after Frankenstein, and of course, Wells is far more familiar than Mary Shelley was with the world of scientific research. And again characteristically in his writing, our introduction to the tale is through narrative "filters", themselves partaking of the still

adventurous experiences of hazardous sea-voyage. Edward Prendick, believed lost at sea, turns up eleven months later with a "wild" tale. His "strange account" is presented to us by his nephew, who introduces the "following narrative found ... among his papers" (7). In the Introduction the "editor" specifically raises the issue of veracity by refusing to judge the veracity of Prendick's "strange account", or of the species his "narrative" belongs to. After his Introduction, during the course of Prendick's narrative the editor appears just once, in a footnote, to corroborate that Prendick's description of the island "corresponds in every respect to Noble's Isle" (117). As in Frankenstein,

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the narrator does not appear for an Afterword.

The editor's Introduction begins with a "solidity of specification" (Forster 1927) worthy of Verne: "On February the 1st, 1887, the Lady Vain was lost by collision with a derelict when about the latitude 1° S. and longitude 107° W" (7). Even that slight uncertainty, "about", appropriate to the context of a shipwreck, does not relate to the location where Prendick was picked up:

On January the 5th, 1888--that is, eleven months and four days after--my uncle, Edward Prendick, a private gentleman, who certainly went aboard the Lady Vain at Callao ... was picked up in latitude 5° 3' S. and longitude 101° W (7)

The journalistic tone is adopted in Prendick's narrative itself which begins with another device reminiscent of Verne, namely, that of reminding the readers of the discussions of the events of the story in the public press:

I do not propose to add anything to what has already been written concerning the loss of the Lady Vain. As everyone knows, she collided with a derelict.... I have

now, however, to add to the published story of the Lady Vain another as horrible, and certainly far stranger.... In the first place, I must state that there never were four men in the dinghy; the number was three. Constans, who was "seen by the captain to jump into the gig" (Daily News, 17 March 1887) ... did not reach us. (9)

Appending his narrative to the published one, promising to enrich the published story, and "setting the record straight" are all intentions evident right at the beginning of Prendick's "narrative", just as they are processes surrounding all reports of adventure in both history and fiction. At any rate, along with serious technical effort at veracity in narrative detail, Wells invokes another staple device of adventure fiction, a shipwreck and the story of a survivor. Like Gulliver and Crusoe's stories, this story begins with a shipwreck, and again like both it too goes well beyond a mere Swiss Family Robinson type of unimaginative sequel to the shipwreck device. And like Gulliver after his stay among the Yahoos, Prendick, on his return to England, fees Beast Folk everywhere on the streets of London:

I could not persuade myself that the men and women I met were not also another, still passably human, Beast People, animals half-wrought into the outward image of human souls, and that they would presently begin to revert, to show first this bestial mark and then that. (189)

A confusion no doubt at the back of Orwell's mind as he wrote the last pages of his political allegory of Stalinism, Animal Farm (1945). Yet it is a confusion Wells has exploited far more explicitly than Orwell in that his Beast Folk have all the trappings of a civilization. If there is an allegory in Wells, it too is, thus, far more specifically enforced.

Once again, just as the Faustian legend has roots in antiquity and folk tales, stories of Beast People are ancient, and may

be found in cultures across the globe. Wells, however,

revived the old tradition, gaining additional power because he and his audience were aware of evolutionary theory. They are the first generation to understand that it is no mere fancy as hitherto to regard man as animal} it was the simple betraying truth, and formalized religion<sup>13</sup> began to decay more rapidly from that time onwards. (Aldiss 1986: 126)

Therefore, much more so than in Frankenstein, the creation myth in Wells' novel is definitely modern, even without the "science" of vivisection being modern. Prendick begins by seeing the Beast People as humans who have been bestialized: man become animal-- "Could it be possible, I thought, that such a thing as the vivisection of men was possible?" (73). He runs away from his shack when, on opening the door to Moreau's laboratory, he sees "something bound painfully upon a framework, scarred, red, and bandaged" (73). (Is this, perhaps, another "hideous phantasm of a man stretched out"? [Frankenstein 13; introduction]) Escaping into the forest, he meets the Sayers of the Law, and hears their terrible liturgy:

"His is the House of Pain."

"His is the Hand that makes."

"His is Hand that wounds."

"His is the Hand that heals." (85)

And the chant of the Sayer of the Law, "Are we not Men?" This experience of the "civilization" of the reverted Beast People is surely modern in its anticipations--for the cries of "Kill, Kill" in Golding's The Lord of the Flies, the "Ape" in Huxley's Ape and Essence, and the "Examination at the Womb Door" of the Crow in Ted Hughes' poetry echo the horrible litanical dimensions and force of human moral and ethical principles and dicta (as we saw was the case with Wyndham's The Chrysalids as well).

Still Prendick does not suspect the truth. For despite its journalistic protest in favour of verisimilitude, the narrative presents an astoundingly successful story of suspense-filled adventure in which Prendick (and not Moreau) is the principal protagonist. As the novel takes for its subject both forbidden vivisection at one end of the scale and anthropological study of civilization at the other, this poignant story of one man's horror becomes just as effective a moral exploration as Frankenstein before it. Finally, he forces the Doctor to explain, and as Dr. Moreau lectures, Prendick realizes that "The creatures I had seen were not men, had never been men. They were animals--humanized animals--triumphs of vivisection" (101). Triumphs, indeed! They are triumphs in the sense Verne's "Mysterious Island" is a triumph: Moreau's biology and Harding's engineering both revel in the power of mind over matter, except that Moreau's acts are "forbidden" by both the medical code of ethics and the Christian injunction that only God has the right to create life. (One consequence of the transgressive nature of Moreau's work is that his intellectual adventure is of a very different kind from Prendick's.) But, as was impossible for Verne's art to achieve, Prendick's horror, shared by us, creates grave ironic undertones in Wells' novel. And as in Jefferies and Stewart, the "success" of the violence which humans perpetrate on Nature, though great, is temporary. Nature operates on scales larger than humans', and as in Goscinny and Uderzo's "Asterix" comic-book Mansion of the Gods, and Harry Harrison's Deathworld (1960), the jungle is quick to reclaim its own.

Moreau, too, fails in his attempt at "humanizing" any of the

Beast "People" to any permanent degree:

The intelligence is often oddly low, with unaccountable blank ends, unexpected gaps. And least satisfactory of all is something that I cannot touch, somewhere--I cannot determine where--in the seat of the emotions. Cravings, instincts, desires that harm humanity.... And they revert. As soon as my hand is taken from them the beast begins to creep back, begins to assert itself again.... (112-3)

The "People" become Beasts, once again. But not flulste. "I turn them out when I begin to feel the beast in them", Moreau says, and they go into the jungle:

There is a kind of travesty of humanity over there.... they ... have a kind of mockery of a rational life--poor beasts! There's something they call the Law. Sing hymns about "all thine". They build themselves their dens, gather fruit, and pull herbs--marry even. But I can see through it all \_\_\_\_\_ (113)

They are neither Beast nor Man, both and neither: ~~Prendick~~ \* s confusion increases. However, he becomes "habituated" to the Beast People: "A thousand things that had seemed unnatural and repulsive speedily became natural and ordinary to me" (121). His explanation for the "habituation" is particularly interesting:

I suppose everything in existence takes its colour from the average hue of our surroundings: Montgomery and Moreau were too peculiar and individual to keep my general impressions of humanity well defined. I would see one of the clumsy bovine creatures who worked the launch treading heavily through the undergrowth, and find myself asking, trying hard to recall, how he differed from some really human yokel trudging home from his mechanical labours; or I would meet the Fox-Bear Woman's vulpine, shifty face, strangely human in its speculative cunning, and even imagine I had met it before in some city by-way. (121)

From Man made Beast, through "humanized animals" to men as beasts swings the pendulum of this horror story (the dimension of horror added to our generic development even more emphatically here than in Frankenstein); nor does Prendick's perceptual pendulum stop



swinging there. As Aldiss (1986: 124) observes, at their most human, the Beast People reveal the animal; at their most animal, the human. Hunting the Leopard-Man, for he has killed and eaten a rabbit ("Not to eat Flesh or Fish; that is the Law"), Prendick finds himself face to face with the beast:

Then suddenly, through a polygon of green, in the half-darkness under the luxuriant growth, I saw the creature we were hunting. I halted. He was crouched together into the smallest possible compass, his luminous green eyes turned over his shoulder regarding me.

It may seem a strange contradiction in me--I cannot explain the fact--but now, seeing the creature there in a perfectly animal attitude, with the light gleaming in its eyes, and its imperfectly human face distorted with terror, I realized again the fact of its humanity.... Abruptly I slipped out my revolver, aimed between its terror-struck eyes, and fired. (136)

With the killing of the Leopard-Man, Prendick loses "every feeling but dislike and abhorrence for these infamous experiments of Moreau's" (140):

My one idea was to get away from these horrible caricatures of my Maker's image, back to the sweet and wholesome intercourse of men. My fellow-creatures, from whom I was thus separated, began to assume idyllic virtue and beauty in my memory. (140)

But of course, as we have noted, on his return to London, instead of "idyllic virtue and beauty" he sees Beast People everywhere. The island has become the world. Thus is another significant SF venture brought home to roost by one of the most socially conscious writers in the history of fiction. Wells' novel is surely a descendant of the adventures of Lemuel Gulliver without the latter's obvious and embittered satire, or a terrifyingly modernized metamorphosis of it.

Indeed, after the killing of the Leopard-Man. Prendick Buses as much:

A strange persuasion came upon me that, save for the grossness of the line, the grotesqueness of the forms, I had here before me the whole balance of human life in miniature, the whole interplay of instinct, reason, and fate, in its simplest form. The Leopard Man had happened to go under. That was all the difference. (C138)

"The whole balance of human life in miniature": as a definition of art, this statement can hardly be bettered. As for "the whole balance ... in its simplest form", a more concise definition of allegory is also perhaps difficult to find. Other authors have used the technique with telling effect in other settings which make such "miniature" portraits possible. The sea is one such setting, and Melville in Billy Budd (1891), like Conrad in his writings, shows the whole balance in its "simplest forms", though, of course, as in Wells, it is only the form that is staple, not its representation or implication. And William Golding's island in Lord of the Flies (1954) is another setting where one may see the whole balance of human life just as horrifyingly, but in miniature--literally, since the characters are all children!

Wells, we have noted, had "peopled" his island with Calibans. Their "hideous progeny"<sup>1</sup> (as Mary Shelley call\* the monster of her nightmare-vision) in twentieth-century SF was to be numerous and varied. As Victor's Monster had prefigured Moreau's Beast People, so Wells' creatures provide the genric ancestry to many visions of this century. For instance, Cordwainer Smith's Underpeople (1966, 1975a, 19775b, 1979), are a servant class of "humans" genetically engineered from animal stock, C'Mell, D'Joan, T'ruth, respectively, from cat, dog, and turtle stock. The Underpeople play a major role in the evolution and (future) history of humankind, a future fully as strange and wonderful as any Staple-

don had imagined, and as far from any "benign" re-creation of domestication of beasts such as Kipling's "The Cat that Walked by Himself" in Just So Stories (1902).

As Gary K. Wolfe (1979) quite rightly notes, the two great icons in SF which are the "Other" to humanity are robots and monsters, and they have provided both early and late, both frivolous and serious confrontations and adventures full of thrill, suspense and rollicking action. "The monstrous legions of robots which ... tramp across the pages of the twentieth-century world" that Aldiss speaks of (1986: 41) had their beginnings long before the word "robot" was coined by Karel Capek in his 1921 play, R.U.R. In 1868, Edward S. Ellis published The Huge Hunter: or, The Steam Man of the Prairies as a "dime novel"; imitating Ellis came The Steam Man of the Plains, a series of dime novels starring Frank Reade that appeared from 1876 to 1898. All but the first four titles were written pseudonymously by Luis Philip Senarens. In all these novels,

the steam man ... steams across the land, fighting off Indians and bad men, an inhuman hero of the frontier. Mechanization fights the vicious primitive without th© law, and wins.... Transportation was a prominent theme in the Senarens series, as it was in Verne's concurrently unfolding novels. (Aldiss 1986: 136)

As Clareson in his study of the emergence of American SF (1985) has noted, the settings of the Frank Reade stories became steadily more international, rather than just the West, even as the motive power changed from steam to electricity. These stories, however, were meant largely for a juvenile readership (Ellis'

'Huge Hunter', for instance, is the invention of a hunch-backed boy).

A far more serious treatment of "mechanical men" was Karel Capek's 1921 play, R.U.R. which portrayed his

fears that increasing automation and regimentation will dehumanize mankind. Old Rossum of Rossum's Universal Robots of the title] has invented a formula whereby artificial people can be made in a factory. His robots are simplified versions of human beings.... In the end, the robots take over and wipe out humanity. They cannot breed, but two aberrant robots, a male and a female, are left to start again. (Aldiss 1986: 178)

The theme of robots as the inheritors of Earth has a direct ancestry in Frankenstein. Robots have often been depicted as the "superior variant" (The Chrysalids 196) that will replace humanity. Asimov calls the fears that this prospect engenders, the "Frankenstein Complex" in his numerous robot stories.

In The Island of Dr. Moreau, Montgomery explains to Prendick that their comparative safety from the Beast People was due to

certain Fixed Ideas implanted by Moreau in their minds, which absolutely bounded their imaginations. They were really hypnotized, had been told certain things were impossible, and certain things were not to be done, and these prohibitions were woven into the texture of their minds beyond any possibility of disobedience or dispute. (116)

These "Fixed Ideas" in Wells became, in The Island of Dr. Moreau, the cultural-spiritual-scriptural Law. It is not difficult to see why or how Asimov's famous "Three Laws of Robotics", too well known to need quotation, and the "texture of their [robots'] minds" became "positronic pathways", both of which ensured that robots just could not harm humans. However, in both of Asimov's detective (murder-mystery)/SF novels The Caves of Steel (1954) and The Naked Sun (1957b), starring the human police detective

Elijah Bailey and his humanoid robot partner R. Daneel Olivaw, the explanation of the murders involves robots misused by humans! Similarly, around the possible ambiguities in these Laws of Robotics, Asimov constructs stories which offer the protagonist and reader a puzzle, usually about of a robot which has apparently violated one of the Three Laws. The explanation usually involves human carelessness (see, for instance, his classic early robot stories, collected as I, Robot [1950]).

The robots make a significant addition to adventure fiction's vast "horror chamber", to the mythology that represents human progress in reality and in human aspiration and imagination. Here is something (like space travel and far-future scenarios) that is SF's very own contribution to the adventure mode. It is a genuine advance technically also as it makes available another way of distancing our reality from us enabling us to examine and evaluate ourselves--our society, norms, identities and differences. Even when the Laws work well, and there is a benevolent race of robots to take care of every human need, SF writers have depicted other frightening scenarios. In Jack Williamson's The Humanoids (1949), a novel-length sequel to his short story "With Folded Hands", robots whose directive is "To Serve and Obey, and Guard Men from Harm", succeed so well that humans are rendered utterly powerless. Just such a benevolent yet disabling dystopia occurs among the Patagonians in Stapledon's Last and First Men. The "mental difference" between the governors and the proletariat increased so such that

the proletarians were treated rather as infants than as adolescents, rather as well-cared-for domestic animals than as human beings. Their lives became more and more

minutely, though benevolently, systematized for them.... Though their material condition was better than ever before ... they became listless, discontented, mischievous, ungrateful to their superiors. (101)

The origins of Stapledon's theme of classes becoming races is of course presaged in Wells' The Time Machine (1895) where too the Morlocks tend the Eloi as humans would tend cattle. Aspects of Stapledon and Williamson's portrayal of dystopian benevolence may be seen in the "Golden Age" ushered in by the Overlords in Clarke's Childhood's End (1953a) which results in "a decline in science ... [and] the virtual end of creative art" (75), and eventually of the human race itself. SF has thus created a whole mythology of doomsday possibilities.

Benevolent, "humane" robots In Asimov's "That Thou art Mindful of Him" (1974) conclude that not only do they fulfil all reasonable criteria for being considered human (and should therefore be regarded as such), but since they constitute the "superior variant", "those that followed in their shape and kind must dominate" (634). Other robots at other times have "thought" as much. And rebelled. In Rudy Rucker's "Software" (1981), robots on Luna protect their "carefully evolved intelligence" from humans, for, as Ralph Numbers, the leader of the robot revolt, says,

The mass of humans were born ~~slavedrivers~~. Just look at the Asimov priorities: Protect humans, obey humans, protect yourself. Humans first and robots last? ~~Forget it! No way!~~ (263)

In other stories too Asimov examines some serious questions of human identity. His "Bicentennial Man" (1976), for instance, revolves around a household robot, Andrew, who is discovered to have an "artistic gift"; he (significantly, Asimov uses the masculine pronoun throughout) is allowed to make money for himself.

Eventually he uses the money to buy his freedom. The judge and the World Court rule that "There is no right to deny freedom to any object with a mind advanced enough to grasp the concept and desire the state" (646). He contributes significantly to human knowledge in his quest to "become" human; indeed, he goes so far as to replace his efficient inorganic parts with more "human" (if inefficient) organs. Andrew's quest for "human" status continues to evade him until he commits suicide: now that he can die, humanity confers on the robot the status of "human". (Incidentally, this is too poignantly significant, relates too close to the bone of our own ways of treating other humans whom we oppress, whom we refuse in reality to grant human status.) As Asimov points out, the deepest ambiguity in the question of robot-human relations, is the definition of "human" (cited in James 1990: 43). The definition of humanity has always been problematic since Frankenstein, as we have seen in the constant slippages in the creator and creature's identities. The problems of definition become more acute in later robot-SF when humanity begins to be depicted making creatures more and more difficult to distinguish from humans; and we can see how the fiction of the developing figure of the robot indeed retraces in meaningful ways the history of what we are pleased to call "human progress down the ages":

android: ... 1. Early version utilized for work too boring, dangerous or unpleasant for humans. 2. Second generation **bio-engineered** Electronic relay units and **positronic** brains. Used in space to explore inhospitable environments. 3. Third generation synthogenetic. See **REPLICANT**.

REPLICANT: ... Humanoid automaton constructed of skin/flesh culture. Selected for **enogenic** transfer conversion. Capable of **self-perpetuating** thought. Paraphysical abilities. Developed for emigration program.

WEBSTER'S DICTIONARY, New International (2012). Blade Runner (1982: 3)

The above (fictitious) definitions preface the Marvel Comics Illustrated Version of Blade Runner, a sophisticated graphic novelization of the 1982 SF film by Ridley Scott, which in turn was based on Philip K. Dick's novel Do Androids Dream of Electric Sheep? (1968). The protagonist, Rick Deckard, is a retired "Blade Runner", a bounty hunter of "skin jobs" like replicants. As the police captain tells Deckard, murderous replicants, called Nexus Six, who are loose in the city, copy

human beings almost perfectly ... inside and out. After a few years, the designers figure they may even develop their own emotional response. Hate. Love. Anger. Fear. So they built in a fail safe device ... The Nexus Six has only four years to live.(26)

The replicants do develop "emotional responses" and sooner than the designers bargained for; they come to demand longer life, are ready to kill if thwarted. Deckard must stop them. Aldiss excoriates the film as

a heavy-handed adventure-packed and sensationalized robot yarn with a tough-guy hero [Harrison Ford, occasionally even recognizable in the graphic novel] from the school of Marlowe, who wins through and even gets the girl (admittedly artificial--but with all important distinctions ironed out) at the end. (1986: 335)

But Aldiss adds, "Even so, the film serves to illustrate the richness of Dick's original". Being text-based, the graphic novel perhaps conveys the flavour of Dick's novel rather better than the film. Deckard, killing the four replicants he was commissioned to, flees to the icy wastes of the north with Rachel, the replicant woman he loves:

I headed North. She'd never seen the great outdoors. I thought she might like snow. She was curious and full of questions. Of course, there were subjects we couldn't



discuss an' words we couldn't say. Like death. Like future. But for all that ... Rachel was more alive than anyone I'd ever known. (158)

Obviously, not all the "important distinctions" have been "ironed out"! In principle, this possibility is as awesome as that created by the Monster's demand that Frankenstein create a mate for him.

The portrayal of creatures who are discriminated against on grounds of "essential" difference has, of course, echoes in other domains of life, most clearly, in critiques of racism. As critics like Portelli (1980) have pointed out, Asimov's robots often function as the equivalent of blacks. Asimov's The Caves of Steel (1954), perhaps his finest novel, begins with the protagonist, Plainclothesman Elijah Bailey, musing bitterly on the fate of the office boy who has been dismissed and replaced by a humanoid robot, a robot who has a "cheerfully slurring voice" and a "foolishly fixed" smile on his face, in clear parody, says Portelli (151), of the stereotypical black "boy". However, while the issues at stake in Asimov's stories may also be seen to bear on issues of race relations, the human-machine divide engages Asimov deeply and any significance of these adventures for our understanding of "this-worldly" problems of "difference" must be extrapolated from such narratives. What we are suggesting here, however, is the tremendous "reading" potential of SF whenever it goes creatively beyond mere facsimile of adventure fictions' stock devices and conventions. R. Daneel Olivaw, Bailey's robot partner, responding to Bailey's insistence that Daneel consider himself a robot and nothing more, says, "The division between human and robot is perhaps not as significant as that between

intelligence and nonintelligence" (37).<sup>14</sup>

Other writers like Robert Heinlein, however, do explicitly address questions of race relations in their writings. Multiracial space cadets in Space Cadet (1948), irrational hostility towards an alien race in The Star Beast (1954), a City Manager who is not only black but female in Tunnel in the Sky (1955), a black who is the model of humanity in Time for the Stars (1956), and in Double Star (1956) the transformation of a bigot into a man who realizes the importance of tolerance--all reiterate the same message that "if a society is to endure ... it must look to what a person is and can do rather than to that person's color or sex" (Erisman 1988: 219). SF's engagement with issues of race and racism has been extensive, as Edward James has so ably shown in his essay on the race question in American SF (1990). After a comparison across different decades of robot and alien stories, he concludes that

inherent in most of the stories from 1960 is the message that humanity is one race, which has emerged from an unhappy past of racial misunderstandings and conflicts. That message came across clear in the American science fiction of the 1950s; it seems much less regarded in 1990. We may trust that this is a hopeful sign. (47)

Octavia Butler, however, continues to explore and unsettle categories of race, kin, gender and species. A black, American, woman writer, Butler finds the worlds of SF particularly rich metaphors for her themes. The themes that recur through her fictions (1976, 1978, 1979, 1980, 1984, 1987) are--perhaps by now it is needless to say--the adventure ones of catastrophe, survival and metamorphoses. In Clay's Ark (1984), the first human starship to return from outer space brings with its humans a deadly micro-

organism lodged in their cells, deadly for the race, since those who survive the initial infection are no longer human. In Kindred (1979), Dana must survive a very violent age as she is mysteriously transported from the late twentieth century to the early nineteenth every time her white ancestor Rufus is near death; in Dawn (1987), an alien species rescues some humans from a post-nuclear Earth and makes them the carriers of a race of complex genetic interdigitations of humans and aliens. The historian of science, Donna Haraway, in her Primate Visions (1989), an extraordinary primatological study of the West's social and scientific construction of human and non-human nature and culture, finds the themes of Butler's fiction especially rewarding:

Octavia Butler's speculative/science fiction is preoccupied with forced reproduction, unequal power, the ownership of self by another, the siblingship of humans with aliens, and the failure of siblingship within species. Butler's is a fiction predicated on the natural status of adoption and the unnatural violence of kin.... She interrogates kind, genre and gender in a post-nuclear, post-slavery survival literature. (378)

By the nature of its generic coordinates, Butler's "interrogation" owes much to both SF and black writing: in Wild Seed (1980), for instance, the device of a psionically gifted race was staple Campbellian SF, and Doro and Anyanwu's passage to America inevitably evokes the terrible tales of the mid-Atlantic passage of slaves. The fusion of these two generic themes has indeed been fruitful in Butler's fiction, because in such works SF reveals its openness to influences from and engagement with ~~real-life~~ or factual history.

With the advent of an Information Age (the phrase has its origins in the mid-century with cognate phrases like Information

Retrieval and Information Theory [1950], and Information Science [1960] [Webster's]), SF stories of reality represented and manipulated as data proliferate. Some of the most intriguing, exciting, and profound literary explorations of the thin line between representation and reality, map and territory, word and world are found in the writings of the Argentinian writer Jorge Luis Borges (Labyrinths [1962], for instance), and the Polish writer Stanislaw Lem (The Cyberiad [1974], for example). Philip K. Dick's fiction (1959, 1962, 1969, 1984, for instance), as it traverses much the same territory as Borges and Lem, has a much more hallucinatory rather than fabulatory quality, while writers of the eighties and nineties like Rudy Rucker (1981), William Gibson (1984, 1987) and Pat Cadigan (1987), explore these themes in "thickly described" tales, which combine hi-tech with a social bleakness that is very powerful:

The boxes are filled with carefully sorted gomi: lithium batteries, tantalum capacitors, RF connectors, breadboards, barrier strips, ferroresonant transformers, spools of bus bar wire.... (Gibson 1987: 588)

Trash fires gutter in steel canisters around the Market. The snow still falls and kids huddle over the flames }life arthritic crows, hopping from foot to foot, wind whipping their dark coats. (Gibson 1987: 590)

This combination of the drearily familiar and the hi-tech exotic is characteristic of Gibson's worlds; his Neuromancer (1984) (itself ironically reminiscent of Romance and Gothic fictions) opens with the following memorable description: "The sky above the port was the color of television, tuned to a dead channel" (3). The story which Neuromancer then proceeds to tell is

full of exotica like Artificial Intelligences conspiring to free themselves from electronic shackles that a fearful humanity has put around it (shades of Asimov's "Frankenstein Complex" here), and such bleak, grim lives as those of prostitutes who have a "chip" inserted in their brains to allow them to retain no conscious memory of their often bizarre sexual encounters.

Representation, consideration, even prefiguring of enormous technological advances which only worsen conditions for the vast mass of humanity are, of course, not new at all in SF. The society dehumanized by technology of Huxley's Brave New World, the tyrannical state which ensures control technologically in Zamyatin's We, Orwell's 1984, and dozens of other (more or less) technological dystopias, the technological society where differences between the rich and the poor have increased vastly, with transnational corporations controlling wealth and access to information, as in Neuromancer, Paul Theroux's extrapolation of the worst elements of Reaganite America in O-Zone, are all examples of technological nightmares.

While writers like Gibson portray a chilling future, they do so without any explicit moral comment. Not so the British SF writer, John Brunner. His Stand on Zanzibar (1968) is a novel about an over-populated Earth; a greatly polluted Earth forms the backdrop for The Sheep Look Up (1972); and The Shockwave Rider (1975) is a grim fictionalization of Alvin Toffler's Future Shock (1970) and is a remarkable attempt to depict and diagnose the socially catastrophic consequences of an information revolution which, instead of liberating people, breeds paranoia in them. In all three novels, Brunner clearly shows himself to be a moralist.

It is therefore probably correct for us to remind ourselves that moralizing or message-making for the "improvement" of human behaviour and attitude has been a rather obvious concern of adventure writing.

Brunner is a writer of "thick descriptions"; we had mentioned the stylistic innovations of his Stand on Zanzibar earlier (Note 3 above). Appropriately, then, the taleworld ("the realm of events, populated by individuals who regard it as the real world", Young 1987) of The Shockwave Rider comes to us through several "discursive" strategies. There are apparently casually used words in the course of the action (e.g., "sanded") explained later in another context (a verb created out of the abbreviation "S&D"--"Search and Destroy"). There are short commentaries on the present of the taleworld following kind:

This is the third stage of human social evolution. First we had the legs race. Then we had the arms race. Now we're going to have the brain race. And, if we're lucky, the final stage will be the human race. (27)

Conversations form yet another cue-in to the taleworld. The protagonist overhears the following at a party:

wouldn't take on a secondhand home. Too big a clog, reprogramming the automatics. Short end to a friendship, inviting someone over and having him webbed solid to the driveway because the moronic machinery misunderstood you. (72)

The constant shifts between these discursive modes gives the sense of a richly realized world. The taleworld is thus mediated severally to us just as it perhaps is for the inhabitants themselves. Indeed, what strikes the reader as a confusing, multifarious, complex reality is precisely the impression, the story tells us, most of the taleworld's inhabitants have of the society

they live in. There is thus a correspondence on the one hand between the multifarious form and complex content, and on the other hand between the experience of the reader and that of the character of the taleworld.

Inspired by Toffler, Brunner draws upon a wealth of cultural material to create a "dense description" of the taleworld (an already technology-dominated America with such high-stress lifestyles that the even the change of a house requires tranquilizers) whose variety is simply quite amazing. For instance, within the first thirty pages or so, there are constant references to extrapolations of current (1975, of course) geo-political trends (references to China, Russia, etc.) The title itself draws on Toffler's Future Shock as do many of the socio-economic details of the novel (think-tanks, futurology, social engineering, Job-jumping, computerization, urban violence, medical advances, orbital factories, public opinion polls, stressful lifestyles, drug use/abuse, etc.). Indeed, quite appropriately, the protagonist, Nick Halflinger's interrogation is described as a "fleshback"--a fleshing out of the immediate past of the taleworld.

Brunner, however, goes beyond his inheritance of themes and contours from Toffler. An episodic tale of adventure set in such a richly realized world would have been quite interesting in itself. (Compare, for instance, Heinlein's Friday [1982] which is for the most part an episodic spy-story set in a technologically and politically detailed future.) But Brunner (perhaps inspired by the last section of Toffler's study) introduces into this data-fuelled, rational world a non-rational entity--wisdom. Wis-

dom is defined in the novel as the ability to make the right decision in an unprecedented situation. And the race in this twenty-first century world is the "brain race" to discover wisdom. For this world realizes that wisdom is the one thing both the affluent and the poor societies desperately need: the former to handle the mind-wracking pace of change in lifestyle, and the latter to handle all the numerous problems attendant on poverty and underdevelopment. Thus the conventional "race" familiar to us in adventure writing--race to get to the "treasure" first, whatever that treasure may be--is given a new twist in Brunner's novel.

In keeping with its technocratic ideology, the government in The Shockwave Rider seeks to "breed" wisdom. While Nick concurs about the need for wisdom, America's methods for "breeding" wisdom are completely abhorrent to him. He believes that the government think-tank, Tarnover, is caught in the trap of considering wisdom another marketable commodity, and as long as that is so, its chances of understanding what wisdom involves are virtually nil. Indeed, Tarnover's approach of a Utilitarian "moral calculus" is so overriding that it is completely willing to allow hapless experimental subjects to undergo physical suffering if that promises any hope of finding solutions.

Thus, much larger questions are implicated in the quest in this adventure because the object of the quest in this novel is so intangible an entity as wisdom. Not only does Nick argue convincingly that mainstream thinking about wisdom is dangerously flawed, he also asserts that his society's conventional solutions (and the twentieth-century West's solutions, by implication),



such as allowing a "free-market" to decide what is best, on the grounds that whatever evolves or survives must be the best, is both disingenuous and disastrous, a particularly timely reminder in this last decade of the twentieth century when the free-market myth of "radical free choice" threatens to reign supreme, especially in the developing world, which is in a hundred different way unprepared for this venture. Nick's example is the received faith that new technology is invariably liberating (in that the technology offers an option that did not exist before). Such faith is totally misplaced, he says, because for one thing, technology does not carry with it any way of telling whether it is a valuable, desirable option or not; the option is offered because corporate profits ensue, not because it serves the community or enhances creative autonomy. As the Narrator says, in one of the taleworld's "background-fillers":

By 2010, in the wealthiest countries, a classic category of mental patient was composed of boys and girls in their late teens who had come back for a first vacation from college to discover that "home" was unrecognizable, either because the parents had moved into \* new framework, changed jobs and cities, or simply because—as they'd done a dozen times before—they had refurnished and redecorated. (124-5)

A second, more important critique in The Shockwave Rider of the "free-market" approach to new technologies is that access to technology is not uniform. Social relations having continued to remain what they have been, "it was still true that if you were rich enough or had the ear of the proper person, you could avoid and evade" (65). As Nick tells his interrogator Freeman,

Theoretically any one of us has access to more information than ever in history, and any phone booth is a gate to it. But suppose you live next door to a poker who's

suddenly elected to the state congress, and six weeks later he's had a hundred-thousand-dollar face-lift for his house. Try to find out how he came by the money; you get nowhere. Or try confirming that the company you work for is going to be sold and you're apt to be tossed on the street with no job, three kids and a mortgage. Other people seem to have the information.... For all the claims one hears about the liberating impact of the data-net, the truth is that it's wished on most of us a brand-new reason for paranoia. (163-4)

And it is this insight, more than any other, that prompts Freeman to cast his lot with Nick. Freeman had always believed that "maximizing information flow is objectively good" (211). But here is proof that

in this age of unprecedented information flow, people are haunted by the belief they're actually ignorant. The stock excuse is that this is because there's too much to be known.... [And] another factor that does far more damage ... is that] we daily grow more aware that data exist which we're not allowed to get at. (212-3).

All these debates of course address the actual anxieties of a late-twentieth century. Debates between countries of the South and the North Blocks of world politics about the New World Information Order are precisely about the politics of access to information, since information is the key to "progress". Brunner's awareness that he is addressing his contemporaries (i.e., us) is evident in a comment like the one quoted above: "it was still true that if you were rich enough or had the ear of the proper person, you could avoid and evade" (65; emphasis added). A few pages later, we find an explicit comment on the disappointment of the taleworld's promise of a technological utopia:

When he pondered the subject, he always found himself flitting back and forth between present and past tense; there was that sensitive a balance between what had been expected, indeed hoped for, and what had eventuated. It seemed that some of the crucial decisions were still being made although generations had elapsed since they were formulated. (100)

In both cases the taleworld speaks to the storyrealm (to adapt Young's terms [1987]), underlining thereby the socio-political stakes involved in the action of the novel. Perhaps this crossing of frames is only to be expected in a novel whose major theme and narrative device is social forecasting.

These themes of great contemporary relevance are embedded in a fast-paced narrative of a single heroic individual against a corrupt, powerful system: the pattern of many an adventure tale. Indeed, The Shockwave Rider insists on its genric genealogy in several ways. The title itself is one such pointer, invoking at the same time medieval romance and its modern mutation, the Western. As the "Shockwave Rider", Nick "rides" with ease a surf that drags most people under. The "gift" that allows him to ride the surf is that of programming: "It's a talent, like a musician's, or a poet's. I can play a computer read-in literally for hours at a time and not hit a wrong note" (253). Because of this talent Nick acquires a "magic" weapon, a "4GH" code, which allows him to "automatically and consistently" delete all record of a previous persona from the data-net whenever he creates and keys-in a new persona.

This was the most precious of all freedoms, the plug-in life-style raised to the nth power: freedom to become the person you chose to be instead of the person remembered by the computers.... It was the enchanted sword, the invulnerable shield, the winged boots, the cloak of invisibility. It was the ultimate defense [against a government that hopes to control individual lives in all important ways]. (66)

These genric echoes become allusions when he describes himself as a "freelance computer sabotage consultant" to Kate's mother, and

Echoes underlying "freelance" resounded in her head: the

lone knight riding out to champion his lady fair and Christian **justice**, the King's Messenger, the secret agent, the merchant venturer.... (34)

In the space of an aside the whole heroic tradition to which Nick Halflinger belongs is evoked.

As in many an **adventure** tale, here too the hero is to be the agent of change. Again, as in adventure fiction generally, intertwined with the issue of the community's survival (here, America's survival) is the hero's survival. And Nick is, if anything, a survivor. Brought up by a series of "**surrogate parents**", he has survived a variety of lifestyles and preferences. He has survived a violent, dangerous school.-<sup>u</sup> Both his first and last names stress his character. Nick is short for Nicholas, the patron saint of thieves, and Nick thieves data from secret, restricted codes: "**my** newest [tapeworm] wears a ... priority code that I stole from [the "**hypercorp**"] G2S" (250), he says. Indeed, he **must** thief to survive; his very identity code is a 4GH stolen from the government. The thieving in both cases is from a powerful system which can easily crush **him**. If it can get him first. Staying one step ahead of the law In a **technological** society which monitors its citizens all the time is the achievement of many an SF hero. In Harry Harrison's The Stainless Steel Rat (1961), the **conman** James Bolivar diGriz, the "rat" of the title, is a criminal in a virtually crime-free society. He describes the likes of himself as

the rats in the wainscoting of society—we operate outside of their barriers and outside of their rules. Society had **more** rats when the rules were looser, just as the old wooden buildings had more rats than the concrete buildings that **came** later. But they still had rats. Now that society is all **ferroconcrete** and stainless steel there are fewer gaps between the joints, and it **takes a**

smart rat to find them. A stainless steel rat is right at home in the environment. (14)

The rat, of course, has to be careful not to show itself, or the exterminators will be called in. Then the pursuit starts. To continue one's activities below the threshold of official attention is the ideal. In Gibson's Neuromancer (1984), the protagonist, Case, is a "Cyberspace Cowboy", a data-thief who is a literary descendant of Nick Halflinger's, some generations down the technological road. As he knows, "stop hustling and you sank without a trace, but move a little too swiftly and you'd break the fragile surface tension of the black market" (7). Nick is discovered and captured when he appears on a nationally televised wrestling match--he breaks the "fragile surface tension".

To return to The Shockwave Rider from all this glimpse of the "romantic-heroic-transgressor" figures we have cited, Nick's surname maintains a different kind of tension. "Halflinger" is quite appropriate, living as Nick does for six long years a fully-fleshed yet shadowy life. Indeed his dislike for the name and his dropping it are both ironic for he begins living up to his name from the moment he drops it: what he drops by way of name he dons as lifestyle. He begins using the name once the need for the lifestyle it implies no longer exists. Similarly, his interrogator, Freeman, has a rather ironically suggestive name. As an orphan who pulled himself out of an emotionally unstable childhood to finally work for the establishment, he is in some sense what Nick might have been. Freeman's motives for doing the job he does revolve around the same axes of unmasking criminals to find out the truth, and performing a service to society. He believes

in the empowering, liberating potential of information: he is the dark force of the technosocial utopia that Tarnover subscribes to, that Nick is trying so hard to battle. Not for nothing is Freeman described repeatedly as a "death's head". (Compare him to the "Watchers" in Scott Card's "Unaccompanied Sonata" [1983]). His conversion to Nick's view is not only a pivot in the plot. While it is a defeat for the establishment arguments he subscribes to, for Freeman himself it is a self-overcoming. It is a forswearing of the seductive arguments he has lived by all his life. Indeed he becomes a "freeman" only on recognizing the lack of freedom in twenty-first century America. Thus, Nick and Freeman suggest, if ever so faintly, types. Both these paradoxically appropriate names, while not in themselves enough to signal a generic shift, certainly do suggest an unsettling of any reading of the novel as merely "realistic". Indeed, these names and other descriptions such as "cowboy" and "watcher"--not to mention the wealth of detail in such novels of the oppressive or bizarre possibilities of future states for our civilization--do quite unambiguously convey SF's desire to exploit standard adventure forms and capabilities for social criticism. The proportion of highly readable SF novels which use such devices (hallowed in the Romance, for instance, even in the "modern" English of Spenser's Faerie Queene), which use stereotypes of character, situation and language for severe criticism of trends in our society suggests that SF has consistently participated in the "reform" function of adventure consciously and deliberately.

Nick's quest for wisdom is yet another generic debt the novel owes, and the quest for an "abstract" entity such as wisdom, only

underlines further the "non-realistic" (allegorical would perhaps be too strong a description) aspects of the text. Nick's quest for his vision of wisdom (as opposed to Tarnover's technocratic, behaviourist solutions) is fulfilled when he saves Precipice--that island of sanity in a mad world of skewered priorities--from a nuclear attack. The world redeemed by the fulfilment of the hero's quest is, of course, a familiar Romance theme, one that we have witnessed in such examples of SF as Zelazny's Damnation Alley, in the reluctant quasi-anti-hero, Hell Tanner, getting to Boston to deliver a plague anti-serum.

Willing and unwilling heroes, unspectacular or outlandish settings, objectives that resemble individual aspirations in other adventure fiction, and global aims that dwarf even epic heroes' tasks, stock situations from theft and murder to mass extinctions, re-enactments of archetypal patterns such as the exodus, battles and global wars, journeys to dwarf all journeys, pursuit, chase, stand-up fights, ambushes, maroonings ..., in short the entire gamut of adventure fiction's devices and conventions have been essential part of SF since its inception. And while "junk" or "trash" SF is as commonly produced as similar products in other adventure genres like detective fiction, murder mystery, war fiction, cowboy and other sub-genres of the Western and so on, SF has as regularly produced works of startling effect and potential for promoting "wisdom" as any (sub-)genre in mundane, mainstream fiction. In any of these aspects of fiction (and their transformations such as parody) we may be able to perceive the inherent strengths of SF. We chose, however, to focus on one

particular aspect of fictional craft, setting, as an indicator of these strengths, partly because SF does encourage such a study as it presents us with ever new settings, and partly because the location of a story invariably affords us opportunities to enter consideration of other fictional elements as well.

As the bewildering list of SF settings quoted from Krishnamoorthy at the beginning of this chapter indicates, one of its achievements is the creation of special worlds, not just the mini-domains of a detective's beat, or the London of Dickens' novels, for instance, but new worlds in intellectual, moral and physical terms. While many are quite close in resemblance to "our" world of here and now, SF's very own contribution to fiction is the new kind of realism needed to evoke these new worlds, feelingly and disturbingly presented in language and by techniques which comprise many discoveries. SF revels in the creation of worlds. However, apart from the world of Harrison's Deathworld, all the SF texts that we have discussed in this chapter have been set on "Earth": the quotations indicate that it is an Earth as it might be in a future. Even within such a restriction, we have seen, SF yields a very great deal as metamorphoses of adventure fiction.

But SF also has such magnificent creations as David Lindsay's "Tormance", where the protagonists undergo a wierd, visionary adventure and which present as many interesting possibilities as problems of representation; C.S. Lewis' "Perelandra", his name for a delightfully portrayed Venus, where the Christian myth is



re-enacted; those meticulously described giant, alien artefacts, Larry Niven's "Ringworld" and Arthur C. Clarke's "Rama", which challenge character and reader alike to puzzle out their mysterious structure, function and significance; and Ursula Le Guin's intensely cold planet, "Gethen", richly realized by being "multiply" described in the protagonist's official reports, his and another character's diaries, conversations between characters, and myth, religion, legend and folktale of the planet. Even as cursory a description as the one given above indicates the variety and potential of SF settings. We shall end this chapter with a brief discussion of the metamorphoses of adventure writing in one SF novel set in an extraordinary "non-terran" setting: Frank Herbert's Dune.

As Spinrad points out, in bare outline, Pune has a classic adventure plot: A young duke is forced to flee into the desert because of treachery. There he organizes a powerful guerrilla force and storms back to power. Herbert fills out this plot with an extraordinary set of characters, complex motivation, Mythic resonances, large thematic concerns, and most of all, a marvellously detailed setting: the desert world of Arrakis.

The novel begins with the Duke of the House of Atreides, Leto, his concubine Jessica, and their son, Paul, ready to move from their home world to the desert world of Arrakis. It is, the narrator tells us, "the time of change" (A). The very opening sentence of the novel hints to us of the Unknown ahead: "In the week before their departure to Arrakis, when all the final scurrying about had reached a nearly unbearable frenzy, an old crone came to visit the mother of the boy, Paul" (3). Thus is Paul, the

herro, identified as the focus of the story to come. For Paul, as for the reader, the unknowns multiply rapidly: the old woman, "a witch shadow" is addressed as "Your Reverence" by Paul's mother; the crone wonders whether Paul is "really the Kwisatz Haderach"; ominously she tells Paul, "Sleep well.... Tomorrow you'll need all your faculties to meet my gom jabbar". And "Paul lay awake wondering: What's a gom jabbar? (3-4; one need not particularly enforce the parallel here with the devices which flesh out Carroll's Alice adventures).

These new mysteries for Paul come in the wake of all the mystery that surrounds the planet they are going to. "Arrakis would be a place so different from Caladan that Paul's mind whirled with the new knowledge. Arrakis--Dune--Desert Planet." "Is a gom jabbar something of Arrakis I must know before we go there? he wondered" (4). For the reader, there are other "mysteries". The epigraph to the chapter apparently describes Paul: "Do not be deceived X>y the fact that he was born on Caladan and lived his first fifteen years there. Arrakis, the planet known as Dune, is forever his place" (3). Yet, the epigraph, mysteriously, calls him "Muad'Dib": "And take the most special care that you locate Muad'Dib in his place" (3). Paul's bedroom has a "suspensor lamp, dimmed and hanging near the floor", and the crone's voice "wheezed and twanged like an untuned baliset" (3). The Harkonnens had held a "quasi-fief" on Arrakis "to nine the geriatric spice melange. Dr. Yeuh, Paul's teacher (recalling even historical cases such as Aristotle teaching Alexander and Chanakya's role in Indian history), "had hinted that the faufreluches class system

was not rigidly guarded on Arrakis". Arrakis, we are told, "sheltered people who lived at the desert edge without caid or bashar to command them" (A; emphases added). There is unexplained "mag-ic" here too, in the first two pages:

Paul fell asleep to dream of an Arrakeen cavern, silent people all around him moving in the dim light of glow-globes. It was solemn there and like a cathedral as he listened to a faint sound--the drip-drip-drip of water. Even while he remained in the dream, Paul knew he would remember it upon awakening. He always remembered the dreams that were predictions. (4; emphasis added)

These "mysteries" for the reader, however, are embedded in a background that is a thoroughly familiar one to the reader of historical fiction: the medieval feudal world. The epigraph begins this process of "generic location" by urging the reader to keep in mind that the events of the story took place in the "57th year of the Padishah Emperor, Shaddam IV" (3). Then, on that page, there is mention of the "Castle Caladan", "the pile of stone that had served the Atreides family as home for twenty-six generations". With time and place thus specified, we are not surprised when the old woman says of Paul who is listening to her conversation: "Sly little rascal.... But royalty has need of slyness" (3). All further identities are of a part: Paul's mother Jessica is "a Bene Gesserit Lady, a duke's concubine and mother of the ducal heir"; Thufir Hawat is his "father's Master of Assassins"; and the Harkonnens are the Atreides' "mortal enemies" (A).

Within the first two pages, thus, we are provided enough clues about the kind of adventure that this novel is going to be, yet many "mysteries" remain which the story promises to clear up. And the novel does clear it up in as thorough a fashion as one

could wish for. Dune has as many as four appendices (recalling travel writing's dual concern with experience and recording and study) detailing "The Ecology of Dune", "The Religion of Dune", a "Report on Bene Gesserit Motives and Purposes", and a kind of "Burke's Peerage" of the "Noble Houses" of the taleworld. The report on the Bene Gesserit, we are told in a prefatory note, has been "prepared by her own agents at the request of the Lady Jessica immediately after the Arrakis affair. The candor of this report amplifies its value far beyond the ordinary" (508). Further, there is a glossary, "Terminology of the Imperium", which is prefaced with the following note:

which produced Muad'Dib, many unfamiliar terms occur. To increase understanding is a laudable goal, hence the definitions and explanations given below. (513)

The scaffolding of the adventure tale is completed by a map of Arrakis prefaced with "Cartographic Notes".

This whole "editorial" apparatus is given to us as a part of the novel (and not, for instance, as the annotations of a "critical edition"). While the author of these appendices and glossary is not specified, we are urged to believe from the tone of the prefaces quoted above that it is the Princess Irulan, Paul's consort, and commentator on his life; excerpts from her writings form the epigraph to each chapter. All this information about the taleworld that forms a part of the novel itself, was an appropriate precursor as Aldiss points out, to the flood of information that Dune and its sequels generated in the genre:

With the arrival of David Lynch's movie version of Dune, the saga became not so much an epic as a marketing phenomenon. 1984 saw the Dune books riding high on the best-seller lists. Guides, film books and an Encyclopedia all

surfaced. (1986: 400)

Dune is dedicated to "the dry-land ecologists", "to the people whose labors go beyond ideas into the realm of 'real materials'\*<sup>1</sup>. To these people, "wherever they may be, in whatever time they work", Herbert dedicates "this effort at prediction" (copyright page). In calling his creation an "effort at prediction", Herbert makes a claim that explicitly distinguishes his SF setting from other kinds of settings that might bear other relationships to what Petzold (1986) has called the "primary world", the empirical reality of the writer, the "world-that-is-the-case". Herbert asks himself, how might life be lived on a planet on which everything depends on the scarcity of water: the answer is the planet Arrakis, also called Dune.

On such a planet, there are many expected features: a blazing sun, dunes and dust storms, hardy and desert-wise plants and animals, and a tough race of humans. But there is a vast increase in scale in various aspects of the desert, a characteristic of SF, as we have seen throughout this chapter. The storms, for instance,

build up across six or seven thousand kilometers of flatlands, feed on anything that give [sic] them a push--coriolis force, other storms, anything that has an ounce of energy in it. They can blow up to seven hundred kilometers an hour, loaded with everything loose that's in their way--sand, dust, everything. They can eat flesh off bones and etch the bones to slivers. (29)

"Familiar" aspects of a desert world thus have that touch of strangeness that make Dune something other than a relocated Earth-desert. Desert activities on Dune include mining for melange, the geriatric spice. A variety of words are associated with this activity: carryall, dune sen, gridex plane, harvester, sandcrawl-

er, and sandmaster. Part of the strangeness, of course, comes from such strange, exotic names (that SF so clearly recognizes the narrative value of) given to plants and animals: muad'dib and cielago, for instance, are the Fremen names for the kangaroo mouse and the desert bat. But strange creatures inhabit the desert too, the most striking of which is the sandworm, the Shai-Hulud, the "Old Man of the Desert":

sandworms grow to enormous size (specimens longer than 400 metres have been seen in the deep desert) and live to great age unless slain by one of their fellows or drowned in water which is poisonous to them. (529)

The desert-dwellers of Dune, the Fremen, ride these monsters and the novel gives us a variety of words associated with sandworms and sandriders:: ach, crysknife, derch, geyrat, little maker, maker hooks, and pre-spice mass.

However, it is in the description of the Fremen--"the free tribes of Arrakis, dwellers in the desert, remnants of Zensunni Wanderers ("Sand Pirates" according to the Imperial Dictionary) (518)--that Herbert excels. The Fremen, clearly modelled on the Arabs, are presented to the reader as an entire culture, complete with language and customs. Their harsh water-scarce life in the desert leads to many "new" devices and cultural arrangements, and, of course, "new" words, actions and thought patterns to go with them: water burden, watercounters, water discipline, waterman, water of life, watertube, to quote only a few entries beginning with "U" from the glossary. Their dream of transforming Dune into a land of "open water and tall green plants and people walking freely without stillsuits" (291), introduces a whole new set of ecology-related terms: dew precipitators, dew gatherers, dwarf

tamarisk, qanat, sand terrapin, windtrap all of which would be faintly **familiar** to those who are conscious of our own age's efforts to conserve our precious **environment**.

But, of course, the **Fremen** are not the only people that Dune depicts: the Atrpides, after all, are **off-worlders**: hence Paul is Lisan **al-Gaib**, "The Voice from the Outer World", an off-world prophet (522). And they bring with them the terminology of the **Imperium**:

Pausing in the doorway to inspect the arrangements, the Duke thought about the poison-snooper and what it signified in his society.

Al! of a pattern, he **thought**. you can plumb us by our **language--the** precise and delicate delineations for ways to administer treacherous death. **Will** someone try **chaumurky** tonight--poison in the drink? Or will it be **chaumas--poison** in the food? (127)

But the **most** exotic and extensive of the off-world terminology which finds its way into the novel is the Bene Gesserit jargon, and in such cases of success in narration, it converts the act of reading itself into an extended cognitive adventure: adab, bindu, canto and respondu, dark things, **gom jabbar**, **kwisatz haderach**, mating index, **missionaria protectiva**, panoplia **propheticus**, **prana**, proctor superior, reverend mother, truthsayer, uroshnor, voice. The Bene Gesserit training impresses us constantly with the "**sense** of barely revealed subtleties: nuances of face, body, voice tone and inflection which can be read only by those trained in their intricate language" (Aldiss 1986: 398).

Paul's introduction to the world of Dune is also the reader's introduction to the world, a **characteristic** device of the adventure mode, whether **travel-writing** or fiction. With Paul we learn of aba, bakka, chakobsa, drum sand, **el-sayal**, **fai**, ghanina,

harj, ijaz, jihad, kindjal, liban, mahdi, naib, pan, qirtaiba, razzia, sadus, taqwa, usul, wali and yali. Truly, Dune is a text in which a large part of the reader's pleasure lies in the activity of puzzling out the meaning and function of the various words of the taleworld--a pleasure one characteristically encounters in SF; an activity that Angenot describes as the "progressive reconstruction" of the "missing paradigm" that the SF setting suggests (1979: 16). The Atreides' introduction to the customs of the Fremmen is also ours. When the Duke offers his friendship to Stilgar, the leader of a Fremmen tribe,

The Fremmen stared at the Duke, then slowly pulled aside his veil, revealing a thin nose and full-lipped mouth in a glistening black beard. Deliberately he bent over the end of the table, spat on its polished surface. (93)

As the Duke's men start to rise angrily, the Duke's lieutenant, Duncan Idaho, who has lived with the Fremmen, barks,

"Hold!"

Into the sudden charged stillness, Idaho said: "We thank you, Stilgar, for the gift of your body's moisture. We accept it in the spirit with which it is given." And Idaho spat on the table in front of the Duke.

Aside to the Duke, he said: "Remember how precious water is here, Sire. That was a token of respect." (93)

In another instance, with great reluctance, Paul kills a man who challenges him to a duel unto death. Here we find illustrated as well as anywhere one of the liberating "constraint" of SF narration--the need to anthropomorphize all strangenesses. It is here that we see Romance, fantasy, erudition, poetic creativity all "recalled" to their central task of establishing SF's relevance for us, in our world. This phenomenon might even be SF's own way of "holding a mirror up to Nature" in a perfectly contemporary way. Thus, in the funeral ceremony that follows the killing,



Paul, called Usul by the tribe, speaks:

"I was a friend of Jamis," Paul whispered.  
 He felt tears burning his eyes, forced more volume into his voice. "Jamis taught me ... that ... when you kill ... you pay for it. I wish I'd known Jamis better."  
 Blindly, he groped his way back to his place in the circle, sank to the rock floor.  
 A voice hissed: "He sheds tears!"  
 It was taken up around the ring: "Usul gives moisture to the dead!" (31A; ellipses in original)

The narrator's description of Jessica's reaction to that last sentence might well describe the reader's:

Nothing on this planet had so forcefully hammered into her the ultimate value of water. Not the water-sellers, not the dried skins of the natives, not still-suits or the rules of water discipline. Here there was a substance more precious than all others--it was life itself and entwined all around with symbolism and ritual.

Water. (31A)

As in much SF that we have seen in this chapter, here too, taken-for-granted aspects of our world are thrown into high relief as contingent facts about our here-and-now: spit and tears are both moisture, after all, and it is mere custom that we consider them the way we do. But the most significant aspect of our here-and-now that the saga of Dune constantly returns to by such means is that of the myth of the hero.

From that first visit of the old crone onwards, Paul is constantly "buffeted" by a sense of "terrible purpose" (27). All the three words in quotation marks are significant. The "purpose" is the "Kwisatz Haderach": which, the Glossary informs us, is "the Shortening of the Way", "a male Bene Gesserit whose organic mental powers would bridge space and time" (522). This purpose that Paul feels himself being prepared for and drawn into is

"terrible" because of the civilizational chaos, the "Jihad" that Paul's messianic "destiny" would require. Paul knowt this because of his prophetic powers, his "powers of prescience, seeing himself infected by the wild race consciousness that was moving the human universe toward chaos" (219-20). His awareness of this power awakening within him is

as though his mind dipped into some timeless stratum and sampled the winds of the future.... He remembered once seeing a gauze kerchief blowing in the wind and now he sensed the future as though it twisted across some surface as undulant and impermanent as that of the wind-blown kerchief. (193)

This then is the feeling of being "buffeted" that Paul describes:

The thing was a spectrum of possibilities from the most remote past to the most remote future--from the most probable to the most improbable. He saw his own death in countless ways. He saw new planets, new cultures. (193-4)

From his sense of prescience (not for nothing is he recognizably called Paul, amid the jumble of strange names) also arises his bitterness at being at the mercy of the conditioning imposed by larger manipulative forces. In the sequel to Pune, titled Dune Messiah (1969), Duncan Idaho sums up the early lives of Paul and his sister, Alia, to the latter:

"Both of you were taught to govern," he said. "You were conditioned to an overweening thirst for power. You were imbued with a shrewd grasp of politics and a deep understanding for the uses of war and ritual." (102-3)

Paul knows this, for he sees that his every action in the present is one for which he has been prepared by his Bother; indeed, his very genetic line is a consequence of millenia of selection by the Bene Gesserit thus the "purpose" becomes more significant or burdensome all the time:

"Did you know what you were doing when you trained

me?" he asked.

... "I hoped the thing any parent hopes--that you'd be ... superior, different."

"Different?"

She heard the bitterness in his tone, said: "Paul, I--"

"You didn't want a son!" he said. "You wanted a Kwisatz Haderach! You wanted a male Bene Gesserit!" (195)

The distinction between time past, time present and time future is not the only one that is blurred because of his gift. When Paul refers to the Harkonnens as "twisted humans", his mother admonishes him about his ascription of the status of "humans" to the Harkonnens.

"Don't be so sure you know where to draw the line," he said. "We carry our past with us. And, mother mine, there's a thing you don't know and should--we are Harkonnens."

"... take my word for it. I've walked the future, I've looked at a record, I've seen a place, I have all the data. We're Harkonnens."

"A ... renegade branch of the family," she said. "That's it, isn't it? Some Harkonnen cousin who--"

"You're the Baron's own daughter," he said, and watched the way she pressed her hands to her mouth. "The Baron sampled many pleasures in his youth, and once permitted himself to be seduced. But it was for the genetic purposes of the Bene Gesserit, by one of you."

The way he said you struck her like a slap. (198)

And yet, paradoxically, Paul's gift of prescience is not an unconstrained one. The Princess Irulan, in an epigraph, describes it thus:

Muad'Dib could indeed, see the Future, but you must understand the limits of this power. Think of sight. You have eyes, yet cannot see without light. If you are on the floor of a valley, you cannot see beyond your valley. Just so, Muad'Dib could not always choose to look across the mysterious terrain. He tells us that a single obscure decision of prophecy, perhaps the choice of one word over another, could change the entire aspect of the future. (218)

Once again, we have the theme of the weight of consequence, responsibility, of the contingent present that runs throughout this

novel, through a great deal of modern *SF*, indeed through much of modern science itself. And in Paul's awareness of this contingency is also his salvation. For, among the numerous futures he sees, he occasionally finds

an illumination that incorporated the limits of what it revealed--at once a source of accuracy and meaningful error.... a time nexus.... a boiling of possibilities ... wherein the most minute action--the wink of an eye, a careless word, a misplaced grain of sand--moved a gigantic lever across the known universe. (296)

The duel with Jamis is one such occasion: "His new understanding told him there were too many swiftly compressed decisions in this fight for any channel ahead to show itself" (304). Soon after his victory, he is accepted into the tribe, given the "troop name" of Usul, and asked what name he chooses as his public name. He asks to be named Muad'Dib:

Paul swallowed. He felt that he played a part already played over countless times in his mind ... yet ... there were differences.... [And said,] "It's not right that I give up entirely the name my father gave me. Could I be known among you as Paul-Muad'Dib?"

"You are Paul-Muad'Dib," Stilgar said.

And Paul thought: That was in no vision of mine. I did a different thing. (307)

That moment of the "unconstrained" present, a future he has not "walked", where anything might happen, is the slight but significant space left for individual action, for free will (recall the awesome parallel to the same play of given and free-will that Milton presents to Adam in *Paradise Lost*). It is that moment which reasserts the distinctions between past, present and future that prescience blurs. Similarly, the criss-crossing of genetic lines which makes Paul a grandson of their enemies, the Harkonnens, renders nonsensical any genetic claim to goodness or hero-

ism. In any case, these claims are compromised, as we have seen, by Paul's prescient apprehensions of the price his civilization will pay to make a prophet of him. But Paul Muad'Dib's generic claim to goodness and heroism is one that is repeatedly affirmed.

He survives the gom jabbar's pain at the beginning of the novel:

"Enough," the old woman muttered. "Kull wahad! No woman child ever withstood that much. I must've wanted you to fail." (10)

Soon after, he fights a practice duel with his teacher Gurney Halleck in which he nearly wins by his quickness. His father, speaking to him immediately after, is impressed at Paul's mental quickness:

The Duke permitted himself a moment of grim satisfaction, looking at his son and thinking how penetrating, how truly educated that observation had been. (43)

As the boy becomes a man, these and other qualities continue to be constantly tested, in true adventure fiction fashion. Paul's physical and intellectual prowess is tested and confirmed repeatedly: in the duel with the Fremmen challenger, Jamis, mentioned above; when he rescues his mother and their precious baggage from the sandslide; in his riding the sandworm; and in the final duel with Feyd-Rautha, the nephew of Baron Harkonnen. This is a physical skill he gets both from his trainers like Halleck, as well as from his mother's mystical Bene Gesserit training. Like his father, he is a leader of men. When Duncan Idaho offers him his "body shield" since Paul doesn't have one, he says,

"Keep your shield, Duncan. Your right arm is shield enough for me."

Jessica saw the way the praise took effect, how Idaho moved closer to Paul, and she thought: Such a sure hand my son has with his people. (220)

For the support of the planetologist, Kynes, a powerful roan among the Fremmen, Paul says,

"I believe I've the coin you'll accept. For your loyalty I offer my loyalty to you ... totally."

My son has has the Atriedes sincerity, Jessica thought. He has that tremendous, almost naive honour--and what a powerful force that truly is.

... "This is nonsense," Kynes said. "You're Just a boy and--"

... "When I say totally," Paul said, "I mean without reservation. I would give my life for you."

"Sire!" Kynes said, and the word was torn from him, but Jessica saw that he was not now speaking to a boy of fifteen, but to a man, to a superior....

In this moment he'd give his life for Paul, she thought. How do the Atreides accomplish this thing so quickly, so easily? (224-5)

With this ease of leadership, however, also goes an almost ruthless manipulative understanding of human nature. The Duke gives a lesson to his son on how the Fremmen's loyalty may be won:

There are proven ways: play on the certain knowledge of their superiority, the mystique of secret covenant, the esprit of shared suffering. It can be done. It has been done on many worlds in many times. (45)

Here too, Jessica's training, full of Bene Gesserit trickery, plays its part, evident in Paul's bitterness about the training his mother gave him, and Idaho's assessment of Paul and his sister's upbringing, both quoted above. As Jessica says of the Fremmen leader Stilgar, "[i]f only he knew the tricks we use!" (284). Gurney Halleck, reunited with Paul in a skirmish with smugglers, sees a smile touch Paul's mouth,

but there was a hardness in the expression that reminded Gurney of the Old Duke, Paul's grandfather. Gurney saw then the sinewy harshness in Paul that had never before been seen in an Atreides--a leathery look to the skin, a squint to the eyes and calculation in the glance that seemed to weigh everything in sight. (412)

When Paul regrets not being able to save the "carryall"--the

aerial workhorse of Arrakis" (515)--in the battle,

Gurney glanced at him, ... felt a sudden pang for the men lost there--his men, and said: "Your father would've been more concerned for the men he couldn't save."

Paul shot a hard stare at him, lowered his gaze.  
(414)

And later, after the final battle with the Emperor's forces, Paul asks Gurney the extent of the damage caused by the storm under the cover of which they had attacked. Gurney replies,

"As much from battle as the storm."

"Nothing money won't repair, I presume," Paul said.

"Except for the lives, m'Lord," Gurney said, and there was a tone of reproach in his voice as though to say: "Uhen did an Atreides worry first about things whan people were at stake?" (467)

Paul's sense of realpolitik that Idaho refers to, and the "calculation in the glance" that Gurney notices all make the negotiations for dowry with the emperor at the end of the novel unsurprising:

Jessica sensed the harsh calculation in her son, put down a shudder. "What are your instructions?" she asked.

"The Emperor's entire CHOAM Company holdings as dowry," he said.

"Entire?" She was shocked almost speechless. (489)

These examples of manipulation and accounting might indicate a lack of any substantial difference between Harkonnen and Atreides practices. But Paul's concerns are much greater ones, with the fate of an entire civilization hanging in balance on his actions. He struggles constantly against a vision of chaos and destruction that his prescience presents to him. His heroism is not just of the kind that is so common in adventure fiction--that of overcoming the forces of evil in token, almost caricaturist battles (witness the rendering of that type in newspaper comic

strips of adventure fiction). His heroism also consists in fighting to retain a place for individual action that is not already determined in a seemingly deterministic universe. His mother realizes this:

"Paul," she said, "there are other awakenings in this universe. I suddenly see how I've used you and twisted you and manipulated you to set you on a course of my choosing ... a course I had to choose--if that's any excuse--because of my own training." She swallowed past a lump in her throat, looked up into her son's eyes. "Paul ... I want you to do something for me: choose the course of happiness. Your desert woman, marry her if that's your wish. Defy everyone and everything to do this. But choose your own course." (433; ellipses in original)

Later, face-to-face once again with the old woman who had tested him long ago with the gom jabbar, he mocks her:

Paul raised his voice: "Observe her, comrades! This is a Bene Gesserit Reverend Mother, patient in a patient cause. She could wait with her sisters--ninety generations for the proper combination of genes and environment to produce the one person their schemes required. Observe her! She knows now that the ninety generations have produced that person. Here I stand ... but ... I ... will ... never ... do ... her ... bidding!" (477; ellipses in original)

His greatness is, predictably, a lonely thing for it necessarily involves the diminishing of others. Paul saw

how Stilgar had been transformed from the Fremen naib to a creature of the Lisan al-Gaib, a receptacle for awe and obedience. It was a lessening of the man, and Paul felt the ghost-wind of the jihad in it.

I have seen a friend become a worshipper, he thought. (469)

His own struggle to avoid becoming a victim of his greatness is captured most effectively in an excerpt from "Collected Sayings of Muad'Dib" compiled by the Princess Irulan, which forms the epigraph to a chapter:

Greatness is a transitory experience. It is never consistent. It depends in part upon the myth-making imagin-



ation of humankind. The person who experiences greatness must have a feeling for the myth he is in. He must reflect what is projected upon him. And he must have a strong sense of the sardonic. This is what uncouples him from belief in his own pretensions. The sardonic is all that permits him to move within himself. Without this quality, even occasional greatness will destroy a man. (126)

Dune, then, is an SF novel about many things. Its portrayal of the paradox of heroism is its most significant feature: a hero is becomes necessary to combat evil, but, paradoxically, a hero's rise to power can cause much chaos and destruction. The enlightened hero then must know the consequences of his actions and must act only as much as he absolutely must. Here the ecological and political concerns of the novel converge: "the highest function of ecology", the father of the planetologist Kynes, says, "is the understanding of consequences" (498; see a non-fictional, seriously scientific parallel to this notion in the argument of the biologist, Jared Diamond's, The Rise and Fall of the Third Chimpanzee [1991]). And the dying, hallucinating Kynes knows well that there is no greater threat to his dreams of making Dune anew than drastically changed political circumstances which will disrupt the "raw, physical force" that he has set into motion by mobilizing the Fremen: "'No more terrible disaster could befall your people than for them to fall into the hands of a Hero,' his father said" (276). However, even with an enlightened hero such as Paul Muad'Dib, there is much grief his heroism will cause in his world, and personally, his status as hero will lean much loneliness for him: for, precisely what sets him above the rest of humanity also sets him apart from humanity. From hero to representative, from this world to another world that signifies ours,

from physical action to moral action we can see in such a novel at one place the poetic and chillingly prophetic adventure of our race's future. The "Dune" desert setting, thus, allows us to appreciate how far and in how varied a set of narrative strategies and styles SF has elaborated and extended the possibilities of its parent adventure mode.

### Chapter III

#### Some Conclusions

Frank Herbert's Dune makes extensive use of the adventure mode to tell a story of epic proportions. Herbert creates a setting of breathtaking detail and vividness for an adventure which evokes a sense of wonder both in the scale of the setting as well as of the action as in its narrative ingenuity and poetic quality. Those in themselves would have made Dune a fine SF novel. But the novel goes well beyond, engaging with complex issues of action and consequence, freedom and determinism. All the novels we have discussed in the last chapter have this feature of combined effectiveness in common; all of them are saturated with adventure, and all of them engage with themes that bear a profound significance for our times. Similarly, they avoid triteness, cliché and stereotype for mere convenience. They adopt, adapt and enrich the long and varied historical given of adventure writing, even when some SF novels do not quite succeed in entirely transcending the limitations of their own time.

For instance, Verne's exuberant explorations of the lithosphere, hydrosphere and atmosphere in a language of "ologies" seem at first glance both simple and frivolous. We have seen how neither evaluation applies. The complex relationship that the science and technology of Verne's novels bear to discourses of myth, legend and history refute any evaluation of the adventures of Verne's novels as altogether simple. The ideology of "over-plus" in his novels, adventures emphasizing the usability of the environment with complete indifference to the price the environ-

ment pays for these demonstrations of human "ingenuity", make Verne's novels anything but frivolous in their (unintended) import for the twentieth century. However, this latter assessment regarding frivolity is our assessment, the reader's retrospective assessment; for Verne himself, the island (in The Mysterious Island) is an occasion to demonstrate what a latter-day, "technological" Robinson Crusoe can achieve. In this, Verne's island is a "landscape of difficulty", which the hero must conquer, much like a desert, mountain, or sea might be in any non-SF adventure.

Further, in much of the SF we have discussed in the last chapter, adventure fiction's "landscapes of difficulty" undergo a crucial metamorphosis. In post-catastrophe SF especially, the setting for the survival-adventure is one that humans have made for themselves, out of hate, folly, blindness, greed: indeed every vice that one can think of. The settings in Jefferies and Zelazny depict two different kinds of worlds humans have wrought, two different "un-natural" environmental disasters--pollution and war--while Harrison's Deathworld shows the vicious feedback loop of human hostility towards the environment, depicting the classic adventure environment of danger and death that, in this case, human beings literally create for themselves. After London portrays a technologically devolved far future after a catastrophe (a setting for many later SF survival adventures) and describes the rise of civilization out of a barbaric, feudal England with a vast polluted lake as an ever-present reminder of what civilization has once perpetrated. The growth and self-discovery of Felix Aquila into a hero, another common adventure theme, also has a

twist to it that is familiar in (but not restricted to) SF, namely, the redemption, or possibility of redemption, of an entire civilization in the hero's survival of a deadly ordeal. In this, SF repeats a theme common in medieval Romance yet with frighteningly contemporary relevance.

Hell Tanner's survival through "Damnation Alley" in Zelazny's novel of that name, too, signals the hope that there might still be hope for humanity in spite of its foolhardiness. Thus, while Tanner's characterization is very much a part of a tradition of "lovable rogues" in both non-SF and SF adventure writing (Charteris' "Saint" and Harrison's Bolivar diGriz are just two twentieth-century instances), his survival signifies much more than a non-SF hero's usually would. Tanner traverses a world ravaged by war, a world wounded by the human inability to live peacefully with its own kind. Much SF portrays a world which results from such an inability. And much SF also portrays humankind's inability to learn from the consequences of intolerance. Contrary to expectation, perhaps, such SF explorations do not provide or pretend to provide unrealistically rosy prognoses for what we can now call "the condition of the human race" which is SF's chosen subject matter.

Indeed, Wyndham's The Day of the Trlfflds and The Chrysalids are examples of either kind of SF. Like Damnation Alley, Wyndham's The Day of the Trlfflds traces the immediate aftermath of a human-engineered disaster. It depicts a crumbling world with boundaries between civilization and wilderness breaking down (as in the first part of Jefferies' After London. "Wild England") and a band of sane survivors forming a community to carry the "flame

of civilization". The Chrysalids, too, portrays a breakdown of boundaries, but here the boundaries are socially constructed ones between "True Images" and blasphemous mutations in a far-future post-catastrophe world. The novel traces the education of David to an awareness of the injustices of the society he lives in, the theme of many an adventure story (Lee's To Kill a Mockingbird, for example). But making David and his comrades telepathic allows Wyndham to not just critique the society he depicts, but to explore the possibility of change, a new beginning for the race, if only through its evolutionary descendants.

Wyndham's critique of an intolerant humanity unwilling to learn the lessons of history parallels the assessments of many SF other SF writers. Stewart's Earth Abides, apparently starting out as another survival fiction, becomes a parable of the return of human existence to "as it was in the beginning" even as the physical contours of the world revert to their pre-human state and even as Stewart skilfully eschews any glorification of the "Golden Age" type. In this, the novel echoes The Day of the Triffids. Like The Chrysalids, Earth Abides portrays a humanity that does not profit from history, or at any rate it also succeeds in dismantling stock notions of "history's lessons"; it fortells (in calm, prophetic tones) a cyclical destiny of the rise of civilization and inevitable wars once again with power to destroy it. Cataclysmic change, the theme of much SF, then, belongs to the perennial stuff of adventure, namely change. It is then merely a moment in the vast cycles that human life on Earth describes, yet it also individualizes the entire drama in ways comparable to

Huck Finn's tangle with "civilization". Miller's A Canticle for Leibowitz also foresees just such a cyclical destiny, with the possibility of breaking the cycle only in humanity leaving Earth altogether to begin anew elsewhere. A beginning elsewhere (and "elsewhen") is also the theme of Varley's Hillenum, again set on an Earth wounded by wars. These works illustrate what SF has been able to do with the legacy of Utopian literature.

Stewart, Miller, and Varley's vast time-scales depict a "destiny" of the race, a destiny, moreover, that takes as its point of departure some very real possibilities inherent in the present of the writers. Stapledon and Clarke too begin with "the fever and the fret" of the present in their portrayals of adventures of human transcendence. Writing on the eve of the Second World War, Stapledon describes the tragic fate of a number of civilizations among the stars that too, like humans, do not see that they are all "different, yet the same" (thus showing us how SF can be a meaningful exploration of the much-debated particular versus the universal scales of perception and evaluation). He then dwells on the human ability, indeed destiny, to perceive both the grandeur of the universe, and, perhaps paradoxically, the "tragic ecstasy" in perceiving the "creative intellect", the "Star Maker", to whom human misery and joy are, alike, inconsequential. Clarke, on the other hand, describes the tragedy and the glory of "childhood's end"; of the human race engendering an entirely different race whose concerns are completely alien to the parent race, a race of children who are, moreover, far greater than their parents: a poignant catastrophe very different from the kinds of disaster portrayed by the other writers. The adven-

ture of human life as tragically limited if it confines itself to its petty quarrels and concerns here on Earth, and the transcendental destiny that awaits humanity among the stars, are the magnificent themes of both Stapledon and Clarke's novels. SF thus carries on the exploration of the struggle of Prometheus bound and unbound.

The continuation of the adventure of sentient life in the universe, the grand theme of Stapledon and Clarke's works for instance, recurs on a muted scale in the work of writers who portray an Earth that a race of "post-humans" inherit. Palmer's Emergence, Butler's Clay's Ark, and The Chrysalids, all portray such worlds. Palmer describes a race of super-hero descendants of Homo sapiens who "intend no repetition" of their predecessor's errors. Even in such a novel where the setting is for all practical purposes a "geography" to show off, as it were, the protagonists' superhuman skills, the fact that this adventure takes place in a world which has just witnessed a catastrophe, implies a critique, however oblique, of the author's own real world. The novels of Butler and Wyndham, in contrast, describe the violent, tragic time of the transition between a parent race and an alien race that it has engendered. Thematically, the novels wrestle with the notions of sameness and difference, by **destabilizing** physical as well as cognitive boundaries, depicting taleworlds which try to violently assert the existence and assure the continuity of **some** arbitrary, imaginary True Image. The seemingly remote settings of these novels explore themes that are all too immediate in a world torn by ethnic conflict. This, we have att-



empted to suggest, constitutes a significant contribution in literature's task of distancing so as to discover our own predicaments.

The theme of unstable identities in a world in which culture (science) makes possible the creation of nature (life) is one Mary Shelley explores in the inaugural moments of the genre, borrowing much from earlier genres like the Gothic, only to transmute her inheritance. The young wizard who casts a spell whose effects he then cannot undo, becomes, in Frankenstein, the young scientist whose talents lack an ethical ability to deal with the consequences of his actions. This metamorphosis of an adventure stereotype has generated for the twentieth-century a "new" Faust-us, a type of irresponsible scientist. The injustice of not granting the status of humanity to a creature that is human in every culturally definable sense, is a powerful and profoundly relevant theme that Shelley explores.<sup>1</sup> Frankenstein, in its complex interplay of the identities of the Creature, Creator and author, introduces themes which echo down through SF to, prominently, Wells' The Island of Dr. Moreau. Wells, like Shelley, dwells on the terrible price creatures have to pay for the creator's abrogation of ethics and responsibility. Indeed, throughout his writings, from The Time Machine to The Camford Visitation, Wells stresses the urgent necessity for a rational, equitable world, now that science and technology not only make the achievement of such a world possible, but the same science and technology also make the consequences of not achieving a Just world order much more disastrous. Therefore, it has been suggested earlier that good SF neither signifies glib confidence nor glorifies science as such.

The entire SF enterprise could, instead, be seen as the contextualization of science.

The necessity for humanity to take responsibility for its creations is also the theme of much other SF, for instance novels that depict robots and androids. By making robots partners or adversaries in adventure narratives, SF writers inevitably introduce uncertainties in definitions of what counts as human and what does not. Often, by projecting race relations onto human-robot relationships, and involving situations of (mis-)perception, prejudice, confrontation, even attempted annihilation, SF writers, for example Asimov, make trenchant criticism of a racist society.

The vastly increased ability in the Information Age to manipulate "reality" as "data" has further complicated an already difficult border between reality and representation, a complication that writers ranging from Borges to Gibson have been quick to seize, and spin tales of the cognitive fictions of human perception. Borges' philosophical puzzles, and Gibson's bleak, amoral, hi-tech worlds are two different directions "postmodern" SF adventures have taken. Brunner, however, in his SF examines the political aspects and implications of a MacLuhanian present: The traumatic and dystopian potential of a data-saturated world, such as the one we currently inhabit and can only get more and more mired in, is the theme of The Shockwave Rider. Presentation of a predicament via "data" thus allows us to see SF's characteristic challenges and representational successes.

The "displaced engagement" of these very different SF texts

with the present has involved various modifications of the adventure mode; following Suvin (1979), we have called these modifications "metamorphoses", since morphologically (so to speak) SF is a different "wordbeast" than the modes of adventure writing from which it has metamorphosed, although its genetic antecedents in the epic, folktale, medieval Romance, travel writing, picaresque adventure, the novel, and the Gothic remain clear, as we have often had occasion to note. While our first chapter described briefly the various larvae (to continue the entomological analogy), the different genres in which the adventure mode has been shaped in its process of descent, the second chapter of this study examined a few SF texts in some detail (only a few, as any study of an entire genre must), to highlight some important kinds of metamorphoses SF has wrought on the characteristic themes and narrative devices and objectives of the adventure mode. Like any "serious" adventure writing (by which we do not mean humourless writing, of course, because self-deprecation in parody is as much a part of SF as the rest of the mode), serious SF too, even in its more exuberant instances, images the socio-historical moment it emerges in. Since many of the anxieties as well as hopes of our times arise from our present science and technology, a genre which engages with these aspects of our existence is necessarily a significant genre.

Much of the impulse for the finest work in science comes from a cognitive imperative, a delight in knowing, in proving the identity between creating and knowing: what we have called a "sense of wonder" (see Gardner's superb collection of "great essays in science". The Sacred Beetle [1984], for example after

example of this truth). However, the finest work in science "goes beyond" this sense of wonder, seeks to endow itself with larger significations and implications of the answers, explanations and understanding that the original cognitive impulse provides (once again, the essays in Gardner's collection are recommended; for example, Gould's "Nonmoral Nature" [1982]). Significant SF, too, we have tried to show, achieves a similarly expanding "sense of wonder", a modern way of "going beyond". Poul Anderson and Hal Clement take some thirty-eight pages between them to describe "The Creation of Imaginary Worlds" and "The Creation of Imaginary Beings", drawing upon contemporary (1974) astrophysics and biology to suggest some verisimilitudinal possibilities inherent in this "inifinitely marvellous and beautiful universe which we are privileged to inhabit" (Anderson 1974: 235); but it is what a "Hard SF" writer like Robert Forward, himself an astronomer, mak-  
es of these details that promotes his Dragon's Egg (1980), a "First Contact" SF novel, to the category of thought-provoking SF. As the physicist Freeman Dyson comments in the blurb:

Forward tells a good story and asks a profound question. If we run into a race of creatures who live a hundred years while we live an hour, what can they say to us or we to them? (Forward 1980)

Examining SF for the possibilities it suggests of "going beyond" a simple-minded, merely formulaic evocation of a "sense of wonder", thus demonstrates that significant SF parallels processes in domains such as scientific and philosophical writing.

As must be evident from the theses of the SF texts that we have discussed and, perhaps the notes to the last chapter as well, by science we mean the vast range of post-Enlightenment

socially constructed knowledge, from particle physics to managerial sciences, and by technology we mean the artefacts that this knowledge produces, ranging from nuclear weapons to Five Year  
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Plans. A genre which engages with such a range of discursive and social practices can, in the space of a single study, only be represented partially. Thus, while we have not found ourselves short of bleak visions of humanity's future (really, bleak evaluations of its present), we have not examined science fictional dystopias in any detail, nor suggested that they alone chiefly represent SF: only brief references have been possible to patterns of adventure and social evaluation in various dystopias that have emerged during the course of discussion of other texts. Other important ways of reviewing the history of SF make themselves available, we hope, once a study like the present one is made. Related to the need for a study of dystopian adventures, for instance, is the large gap in SF studies of SF adventures as imperialist adventures--in effect, doing for SF what Martin Green (1979) has done for adventure fiction of other kinds of the last three centuries.

Further, SF writers' meticulous creation of such settings as are not post-catastrophe worlds--C.S. Lewis' "Perelandra", Lindsay's Arcturus, Niven's "Ringworld" and Clarke's "Rama", to name but four--while fascinating, require a separate study in themselves, perhaps along the lines Manlove (1980) so ably explores. The metamorphoses of adventure writing that such SF would inevitably involve, can only glimpsed in the present study in our discussions of such texts as Harrison's "Deathworld", and certainly

in our discussion of Frank Herbert's Dune.

In any event, examining SF as a genre that both continues and elaborates patterns inherent in the adventure mode offers the singular advantage of a generic and modal context or of a history within which SF may be read, with the possibility of the (occasional, unexpected, creative) insight into the meaning-making power of SF: an insight into how the word both fashions and is fashioned by the world. Clearly, much remains to be done. But even a preliminary exploration such as ours into the genres, themes, craft and intention of SF in general shows both the extent to which SF employs the adventure mode, as well as SF's species-specific extensions of the adventure mode in order to examine such basic questions as who we are, and how we relate to one another and the world around us. If in this process some means have come to light to tell serious SF apart from mere "pop" SF; if in suggesting a genealogy as well as vibrant history for a genre that has clearly come to stay; if in highlighting potentially valuable aspects of mainstream writing by relating the socially aware and responsible virtues of SF to their literary and real-world contexts, the present study has succeeded to some extent, its principal objective will have been achieved. If it has succeeded in suggesting the contribution SF has made to our artistic, intellectual, social, even political awareness by combining various tendencies and discoveries of sister or cousin genres within the long and continuous history of adventure fiction, then several possible directions for future study of SF will also have emerged. In paying special attention to this aspect of SF It is hoped to suggest that several other useful kinds

of histories of SF do already exist. Indeed, it is seriously hoped that the elaborate notes to various points in the argument will play an active role in clarifying and extending such assumptions and intentions. In the same spirit, it is hoped that the necessarily pick-and-choose treatment of the extensive adventure mode will have fulfilled a need in the criticism of this kind of writing, to identify it more specifically, sharply and to obtain advantages for the general (mode) by paying attention to the particular (the SF novel as a subsumed genre). In limiting the essential argument of the chapters above to such a task of historicization, it is hoped in fact, that the present study will have filled a useful niche in SF-criticism specifically and literary-cultural criticism generally.

## Notes

### Chapter I: "Looking Backward": The Adventure Mode

<sup>1</sup> A recent carefully argued piece on SF as children's literature is Disch (1992). While it makes a convincing case for science fiction's increasing juvenility (mainly due to media such as television and cinema, and the publishing industry's fiats), this does not detract from the genuinely worthwhile achievements of the genre as they already stand, and neither does it deny the possibilities of new voices which might make themselves heard. Though Disch grants the latter he sees science fiction's claims to the former self-deluding. <sup>Self-</sup> <sup>attitude</sup> The gratulatory of the whole profession, not just of a few books, may promote such a view also. This thesis hopes to suggest some significant ways of recognizing good SF from such run-of-the-mill bulk. Moreover, is there any genre about which such a value judgement cannot be made in general? As the SF writer Theodore Sturgeon once said, "Ninety percent of SF is crud. But ninety percent of anything is crud" (see Parrinder 1980: 38).

As for ascriptions of "respectable" genealogies to SF, it is instructive to note the following from Ruthven's introductory study of feminism (1984). Ruthven describes lucidly the two ways "historians of continuity" have taken in arguing that "there has always been a feminism".

One is to "modernise" early feminisms by means of anachronistic readings which are produced by retrojecting current preoccupations on to texts which up till recently were thought innocent of them.... The other tactic available to historians of continuity who wish to avoid constructing earlier feminisms on our terms is to operate with a "weak" (or generalized) definition of femin-



ism, such that vague similarities to a current concern can be construed as prefigurative instances of it, promulgated by people who are then given the status of "forerunners" or proto-feminists". (16-7)

2

The deliberate nature of literary creation, the fact that literature is narrative representation, and therefore artifice, is of course a truism of literary criticism today. However, over a century ago, while defending Romance against the charge of artificiality, R.L. Stevenson pointed out the just-as-artificial creation of verisimilitude and the effect of the real in realistic fiction (1883a), thus anticipating, among others, E.M. Forster (1927) and Roland Barthes (1968). And some thirty years before Stevenson (indeed, in the year that Stevenson was born--1850), Tennyson had spoken movingly of language as artifice that organizes, distances, and so falsifies experience:

I sometimes hold it half a sin  
     To put in words the grief I feel;  
     For words, like Nature, half reveal  
 And half conceal the Soul within.

(In Memoriam, V.109-12)

But, of course, the study of Rhetoric has always acknowledged the power of language to manipulate "reality", a truth the teller of the tale of adventure has always drawn upon to self-consciously heighten experience. Here we must reiterate the point to establish the fundamental distinction between (real-life) adventure and literary-adventure, the latter being characterized by narrative process and narrative device, as it is by narrative convention ~~and~~ narrative innovation. Real-life adventure is simply is. Its telling, even self-narration in the bind of the experimenter, begins the process of interpretation, selection, suppression, intensification and reorganization by mediation through

language. This fact enables us to see with renewed emphasis the actual nature of adventure narration as a mode.

In fact, it is only in the mid-twentieth century that Gothic fiction began to be seen by literary historians as something other than and perhaps better than an aberrant episode in the history of western literature (see Phelps 1982). The revaluation of Gothic fiction is still under way--now increasingly from a feminist perspective--as the discussion and bibliography in Mudge (1992) indicate. For Coleridge's distaste of the Gothic see his "Critique of Betram" [Coleridge 1983]. In "On the English Novelists" (1819), Hazlitt is more favourably disposed, speaking of Mrs. Radcliffe as having mastered "the art of freezing the blood...harrowing up the soul with imaginary horrors, and making the flesh creep and the nerves thrill" (vol. 6: 126).

#### 4

Carroll's book offers a vast potential especially in terms of its themes and narrative technique for intellectual re-interpretation of parameters of the human universe--aspects which Douglas Hofstadter has used to fascinating effect in his Godel, Escher, Bach (1980), a ludic study of models of artificial and human intelligence. Indeed, considering the extensive use Hofstadter makes of Alice in Wonderland in the course of his heady intellectual adventure, he should perhaps have included Carroll in the title of his book!

## Chapter II: Metamorphoses of Adventure Fiction

<sup>1</sup> "Pluto's Republic" is Peter Medawar's phrase (1984) for the "underworld of science"--the variety of discourses ranging from palmistry and astrology to psychoanalysis and structuralist anthropology, that seek to acquire "scientificity" through what

Medawar sees as various spurious rhetorical devices. Medawar deems the logic of these discourses incompatible with the logic of scientific discovery. In our terminology, Pluto's Republic offers many instances of scientific discourse heading "mode-war-ds", for the inhabitants of this "Republic" are forever donning the clothes of another country to achieve "respectability". However, as many recent writers have shown, the distinction between what counts as science, and what does not, is no simple matter. By focussing on the institutional aspects of scientific activity--funding, public announcements, media hypes, etc.--writers like Stephen Jay Gould (1981, 1991, 1993), Donna Haraway (1989, 1991), and Andrew Ross (1991), have repeatedly unmasked what may be called the "cultural politics" of science. In Foucault's Pendulum (1988), Umberto Eco's remarkable novel of science, mysticism, design and chance, the protagonist remarks,

It was becoming harder for me to keep apart the world of magic and what today we call the world of facts. Men I had studied in school as bearers of mathematical and physical enlightenment now, turned up amid the muck of superstition, for I discovered they had worked with one foot in cabala and the other in the laboratory. Or was I rereading all history through the eyes of our Diabolicals? But then I would find texts above all suspicion that told me how in the time of positivism physicists barely out of the university dabbled in seances and astrological cénacles, and how Newton had arrived at the law of gravity because he believed in the existence of occult forces, which recalled his investigations into Rosicrucian cosmology.

I had always thought that doubting was a scientific duty, but now I came to distrust the very masters who had taught me to doubt. (299-300)

## 2

Professor Lidenbrock's twin motives of scientific curiosity and professional aggrandizement have, of course, a long history in life and art. Adam Smith, in his The Theory of Moral Sentiments (1759), compared men of letters and men of science, and

contrasted sharply the bickerings of the former with the calm deliberations of the mathematicians, although the dust had barely settled from the celebrated quarrel half a century earlier between Newton and Leibniz over who had invented infinitesimal calculus first.

Modern institutional arrangements of science make claims of primacy of discovery and invention ever more important, with peer recognition, media fame, awards, professional advancement, and patent rights all contributing to the urgency. In such a climate of fierce competition, all manner of plagiarism and fraud become common. A recent fictional account of these anxieties may be found in the Nobel chemist Carl Djerassi's fine novel Cantor's Dilemma (1989). Non-fictional accounts of these "shady" adventures of science--what one might, Ironically echoing Medawar's phrase, also describe as the other "Pluto's Republic"--include the evolutionary biologist Stephen Jay Gould's history of intelligence-testing, The Mismeasure of Man (1981). The intellectual adventure of doing science, today, is perhaps not so much a matter of "absorbing interest in the particular heroic incidents" that Whitehead so brilliantly sketches in his Science and the Modern World (1925: 11). An analogy more apposite than the one of Greek drama that Whitehead draws upon would be that of the adventure of reaching the North Pole first; the stakes, both public and private, the fierce competition, the privation and tragedy that such an adventure historically involved. Of course, we are here speaking of those rarefied summits of scientific activity called, entirely appropriately, "frontier research"--high-energy

particle physics, the human **genome** project, for **instance**--where individual scientists, labs, institutions and **governments** stake out claims and acquire huge funding. **In** its quotidian **manifestations**, science is as enmeshed in its **institutional** arrangements and social practices as any other organized activity.

Such isomorphism of form and content is to be found in much later SF too. For instance, "**Baby is Three**" (1952), which formed the first part of Theodore Sturgeon's More Than Human (1953), portrays the world in **stylistically** brilliant prose through the eyes of an idiot savant, one of the six, **psi-gifted**, outcast characters in the novel who combine later to form a **Gestalt** entity. (**Incidentally**, the idea of a gestalt entity recurs often in SF. The notion that the significance of human existence may transcend [with all the **mystical** connotations that verb implies] the **usm** of individual lives finds expression in writers as varied as Stapledon [1937] and Clarke [1953a], Sturgeon [1953], Wyndham [1955], and Varley [1978].)

Alfred Bester's The Demolished Man (1953) seeks to convey by **typographical** patterning the simultaneity of **conversations** of telepaths. In Daniel Keyes's "**Flowers for Algernon**" (1959), the meteoric rise of Charley, a retarded janitor, from **moron** to genius and his regression to **moronity** is recorded in the syntax **and** vocabulary of the diary he keeps. John Brunner's Stand on Zanzibar (1968), an overpopulation **novel**, depicts a crowded 2010 **world** through **conversations**, jokes, newspaper cuttings, "close-ups" and "**Contexts**"--bulletins on the state of the world. The rapid cutting between these stylistic nodes gives a sense of "**thick** description" (see the anthropologist Clifford **Geertz's** work [1971,

1984] for an account of thick descriptions).

The failure of Arronax's "scientific" language before the octopus is a rare example in Verne of the impotence of science's power of naming and comprehension that we noted earlier, and that we shall encounter when we discuss P.D. James' recent science fictional novel, The Children of Men (1992). None of Arronax's "ologies" can combat the monster. A great deal of late-twentieth-century writing in various genres has addressed the inadequacy of formal "ologies" to capture "monstrous" substance. For instance, Borges (1961), Lyotard (1979), Hayles (1990), and Dasgupta (1993b) have all described, in very different ways, how substance escapes form.

Arronax's speechlessness before the octopus notwithstanding, Verne's relentless desire to quantify and name "exactly"--Phineas Fogg lives by the watch and seeks to lead as exact a life in "Around the World in Eighty Days" (1873)--implies an attitude to life that had been decried and effectively derided even in the nineteenth century. Carlyle in "Signs of the Times" (1829), and Dickens in Hard Times (1854) give two accounts, in different genres and in vastly different styles, of strong objections to Utilitarianism, to what Charles Taylor has described as "instrumental reason" (1992).

Being genealogically related to the Enlightenment, SF has invariably been caught up in devising calculi of happiness, proposing technocratic Utopias from Verne's The Mysterious Island (1872) and Bellamy's Looking Backward (1888) in the nineteenth century on different continents, to Clarke's Childhood's End

(1953a) and Heinlein's The Moon is a Harsh Mistress (1966) on either side of the Atlantic in the twentieth century. The tragic history of technocratic eschatologies in *this century* from Nazi Germany to various State-sponsored projects in the name of Progress and Development, however, has resulted in a thorough suspicion and rejection of schemes of "improvement". The panoptic State of Orwell's 1984 (1949) (see Foucault [1979] for one exploration of the origin and ramifications of the panoptic State), the monstrous social engineering in Huxley's Brave New World (1934) ("social engineering" is a phrase that gained currency with the work of the behavioural psychologist Skinner [19783], and an information revolution that terrorizes instead of liberating humanity in Brunner's The Shockwave Rider (1975), (McLuhan [1964] was largely responsible for popularizing the phrase "information revolution"), are all expressions of the sane suspicion. Mainstream writers like Lessing have found SF a very useful metaphor to explore these issues. The third novel in her series Canopus in Argos: Archives (1979-1983), called The Sirian Experiments (1981),

reveals something of the plans of Canopus to raise the backward Sirian Empire to its own high spiritual level. And, of course, we would be slow not to recognize that it is our own arrogance as a **species**--our own erroneous belief in the advanced, sophisticated and civilized nature of contemporary humanity--in progress--that **is** the real target for Lessing's space fiction. (Aldiss 1986: 434)

The sciences and pseudo-sciences that Verne's characters profess imply a certain view of rationality that later SF has repeatedly engaged with: occasionally accepting it, but often profoundly disagreeing with it.

Speaking of the sensational and the formulaic in SF, Brian Aldiss' outline of a typical "Gernsbackian" story is too delightful to let pass unquoted:

A typical story might relate how a scientist experimenting in his private laboratory found a new way to break up atoms so as to release their explosive power. In so doing, he sets up a self-perpetuating vortex of energy which kills either the scientist or his assistant, or else threatens the career of his beautiful daughter, before the vortex rolls out of the window and creates great havoc against which the local fire brigade is powerless. The vortex grows bigger and more erratic all the while. Soon it is destroying New York (or Berlin or London or Moscow) and causing great panic. Tens of thousands of lunatics roam the open countryside, destroying everything in their path. The CID (or the militia or the Grenadier Guards or the Red Army) is helpless.

Fortunately, the scientist's favourite assistant, or the reporter on the local paper, or the boyfriend of the beautiful daughter, has a great idea, which is immediately taken up by the President (or the Chancellor or the King or Stalin). Huge tractors with gigantic electromagnets are built in every country, and these move in on the vortex, which is now very large indeed, having just consumed San Francisco Bridge (or Krupp's works or Buckingham Palace or the Kremlin). Either everything goes well, with the hero and the beautiful daughter riding on the footplate of one of the giant machines as the energy vortex is repulsed into space--or else things go wrong at the last minute, until a volcanic eruption of unprecedented violence takes place, and shoots the energy vortex into space.

The hero and the beautiful daughter get engaged (or receive medals or bury Daddy or are purged) by the light of a beautiful new moon. (1986: 205)

The typical elements of the Romance adventure are all there: an everyday world threatened by a crisis, a hero who rises to the occasion, a beautiful "princess" who is the "reward", a vast scale of action, evil defeated, and the hero duly rewarded. Aldiss emphasizes the formulaic nature of such a story by offering alternative narrative elements of occupation of hero, locale, and ending. The substitutability of narrative elements in folktales and other oral narratives has been discussed by Propp in his



formalist analysis in Morphology of the Folktale (1927). The elements in the story that Aldiss sketches are ones that we will encounter repeatedly in the SF novels discussed below. It is, of course, what individual writers do with these genre elements that they inherit that makes the adventures "serious", and repays attention.

6 The narrative of conflict as the cornerstone of biological evolution is one we have inherited from Malthus, Wallace, Darwin, Huxley and later Darwinians. As Stephen Jay Gould (1991) points out, Malthus' predictions about a population that would soon outstrip food supply and therefore compete for scarce resources were particularly well received in a densely populated industrial society. Darwin wished his phrase "struggle for existence" to be regarded as a metaphor for the various modes organisms employed to ensure reproductive success. (And indeed, it was regarded as such by many nineteenth-century writers, as Gillian Beer [1983] has ably and insightfully shown.) That fact that Darwin and Wallace studied organisms in a tropics teeming with life only strengthened an emphasis on struggle for existence as the basis for biological evolution. It was a short step then to move from treating the phrase as a metaphor, to concretizing it into a "gladiatorial" view of evolution as Thomas Huxley termed it even as he made that move. And Tennyson's overquoted "nature red in tooth and claw" (1850) came to be the image of biological evolution.

That a vigorous tradition of critique of this view existed in Russia was for a long time only hinted at in the English writings of the Russian anarchist Petr Kropotkin. His Mutual Aid (1902) was for the most part dismissed as wishful thinking. In

Siberia, where his views were formed, as indeed were the views of the Russian critics of Darwin, the struggle for existence was between **organism and environment**, and not organism and organism as in **Darwin's** tropics. In Siberia, therefore, strategies of **cooperation--"mutual aid"--succeeded and proliferated**. The Narrator's views in Stapledon's work and Harrison's rascalion hero Jason din Alt's views on the possibility of harmony, then, have some sanction in a little-known alternative to the **Darwinian** view.

<sup>7</sup> Whether it is by a version of the nineteen nuclear wars of John Varley's Millenium (1983), or by an amoral overkill of the **"overplus"** of the environment of the kind we saw in The Mysterious Island, disastrous depredation of the environment has emerged as a major anxiety of the **late-twentieth** century. Concerned groups of people, ranging from the Nature Club of the University of Hyderabad to the Club of Rome have **all** been engaged in analogous tasks of **understanding human-environment interdependence**. Books with such urgent titles as The Limits to Growth (1972) and Food First (1980) deal with these themes while crusading environmentalists such as the Australian Bill **Mollison** urge rational use of resources in a world of maximization strategies both **in** agriculture as in other domains of life. Joe **Bailey's** Pessimism (1988) examines insightfully many of the assumptions about the present and the future in these studies. Andrew Ross (1991) has demonstrated the ambivalences of many of these **futurological** exercises, their structural complicity (**in** funding, **staffing**, etc.) in **military-industrial** interests, and their often unstated

technocratic biases (the Third World is not "efficient enough", etc. ).

As one may see in Ramachandra Gandhi's Sita's Kitchen (1992), a philosophy such as Advaita finds it thematically rewarding to address our collective awareness of how inextricably we are wedded to the state of our planet. The sacredness of the covenant between humans and their environment, and the perils of violating that necessary bond, form the centrepiece of Sita's Kitchen. Gandhi rereads the episode of the Ramayana where Rama and Lakshmana pursue a golden deer after a repast of venison, as violating the agreement of taking from the Forest only that which is required, and reads the subsequent parting of Sita and Rama as punishment and penance for this lapse.

Thus, writers and activists in a wide variety of domains address what Bailey calls "a new sense of danger" (1988: 1).

### 9

Gould (1991) has refuted the assumption in Bradbury's story that an event such as the death of a single caterpillar could change the course of biological evolution, and consequently, human history as well. But Bradbury's story continues to intrigue readers because it offers such a neat, logical, linear and unicausal chain of explanation for the evolution of a certain present. The single, decisive fact, factor, or event which completely explains a phenomenon is, of course, the activity of science at its most dramatic, the "concentration of interest on the crucial experiments" as Whitehead describes it (1925: 11). In fiction it is typified in such tales as Conan Doyle's Sherlock Holmes mysteries, where his assistant Watson enters to find Holmes in the midst of a decisive experiment, the change in colour of

a liquid in a test tube determining whether a man shall live or die.

Interestingly, Bradbury's "A Sound of Thunder" offers yet another powerful metaphor, this time for the behaviour of complex systems. Recent writings in a wide variety of areas, for instance, demography, epidemiology, astrophysics, fractal geometry, hydrodynamics, organic chemistry, etc., have all focussed on the sensitive, non-linear nature of various complex systems (see Prigogine and Stengers [1984], Gleick [1987], and Hayles [1990] for overviews and discussions). Specifically, these studies describe the extraordinary sensitivity of complex systems to very small fluctuations, and the macro-level manifestations that result, such as turbulence (in hydrodynamic systems), or short-lived symmetries called "dissipative structures" (in organic synthesis). The dead butterfly in Bradbury's story is an excellent analogy for the sensitivity of a complex system like biological evolution to an apparently miniscule change in "initial conditions".

<sup>9</sup> And of course, the unacknowledged, often unconscious, biases involved in speaking of another person or peoples' experiences--the politics of representation--form the subject matter of the whole area of study that has emerged in the last decade or so through such seminal writings as Kate Millet's Sexual Pplitics (1972), and Edward Said's Orientalism (1978). Like most others who write on the subject, Millet and Said are concerned with unpacking the complicity of such representations in a politics of domination and subjection. And a significant part of their strat-

egy to counter essentialist "Othering" is to show difference and heterogeneity in both that which is representing and that which is represented. However, writing, as it were, on the eve of the Second World War, Stapledon portrays difference after difference only to stress the urgent necessity to perceive identity in difference: a message which has not lost any of its urgency in the six decades since Stapledon's book.

10 The parallels between Clarke's descriptions of a childless, last generation of humans with P.D. James' recent novel The Children of Men (1992) are very striking. James too depicts a near future in which no more children are born, with consequences much like the ones Clarke describes. As one of the members of the Council that governs England after this catastrophe tells the protagonist, the Oxford historian Theodore Faron,

You are a historian. You know what evils have been perpetrated through the ages to ensure the survival of nations, sects, religions, even of individual families. Whatever man has done for good or ill has been done in the knowledge that he has been formed by history, that his lifespan is brief, uncertain, insubstantial, but that there will be a future, for the nation, for the race, for the tribe. That hope has finally gone except in the minds of fools and fanatics. Man is diminished if he lives without knowledge of his past; without hope of a future he becomes a beast. We see in every country in the world the loss of that hope, the end of science and invention, except for discoveries which may extend life or add to its comfort and pleasure, the end of our care for the physical world and our planet. What does it matter what turds we leave behind as legacies of our brief disruptive tenancy? The mass emigrations, the great internal tumults, the religious and tribal wars of the 1990s have given way to a universal anomie which leaves crops unsown and unharvested, animals neglected, starvation, civil war, the grabbing from the weak by the strong. We see reversions to old myths, old superstitions, even to human sacrifice, sometimes on a massive scale. (96-7)

The slide into barbarism is a common post-catastrophe SF theme, as we have seen. What makes James' novel ambiguously science fictional is the complete inability of contemporary science to account for this universal human sterility. As Theo says,

We are outraged and demoralized less by the impending end of our species, less even by our inability to prevent it, than by our failure to discover the cause. Western science and Western medicine haven't prepared us for the magnitude and humiliation of this ultimate failure. There have been many diseases which have been difficult to diagnose or cure and one which almost depopulated two continents before it spent itself. But we have always in the end been able to explain why. We have given names to the viruses and germs which, even today take possession of us, much to our chagrin since it seems a personal affront that they should still assail us, like old enemies who keep up the skirmish and bring down the occasional victim when their victory is assured. Western science has been our god. In the variety of its power it has preserved, comforted, healed, warmed, fed and entertained us and we have felt free to criticize and occasionally reject it as men have always rejected their gods, but in the knowledge that despite our apostasy, this deity, our creature and our slave, would still provide for us; the anaesthetic for the pain, the spare heart, the new lung, the antibiotic, the moving wheels and the moving pictures. The light will always come on when we press the switch and if it doesn't we can find out why.... I share the universal disillusionment of those whose god has died.... Like a lecherous stud suddenly stricken with impotence, we are humiliated at the very heart of our faith in ourselves. For all our knowledge, our intelligence, our power, we can no longer do what the animals do without thought. No wonder we both worship and resent them. (5-6)

We have seen this attitude to science as saviour reflected in much SF all through, with Verne perhaps being its first and lost enthusiastic supporter. In James' novel science's power of naming fails humanity, a power which science shares with other kinds of knowledge, as we saw in our discussion of Verne's Twenty Thousand Leagues Under the Sea.

While Theo, like the rest of humanity, remains in the dark about the "why" of the sterility, as a historian he believes

knows the cultural "when" of the disaster:

Much of this I can trace to the early 1990s: the search for alternative medicine, the perfumed oils, the massage, the stroking and anointing, the crystal-holding, the non-penetrative sex. Pornography and sexual violence on film, on television, in books, in life, had increased and became more explicit but less and less in the West we made love and bred children. It seemed at the time a welcome development in a world grossly polluted by overpopulation. As a historian I see it as the beginning of the end. (7)

But knowing some of the historical forces that went into making the present moment hardly helps, for, "History, which interprets the past to understand the present and confront the future, is the least rewarding discipline for a dying species" (11).

Not all humans despair, however:

The university colleague who takes Omega [the year the last human was born] with total calmness is Daniel Hurstfield, but then, as professor of statistical palaeontology, his mind ranges over a different dimension of time. Like the God of the old hymn, a thousand ages in his sight are like an evening gone, sitting beside me at a College feast ... he said ... "I can't think why you all seem so surprised at Omega. After all, of the four billion life forms which have existed on this planet, three billion, nine hundred and sixty million are now extinct. We don't know why. Some by wanton extinction, some through natural catastrophe, some destroyed by meteorites and asteroids. In the light of these mass extinctions it really does seem unreasonable to suppose that Homo sapiens should be exempt. Our species will have been one of the shortest lived of all, a mere blink, you may say, in the eye of time. Omega apart, there may well be an asteroid of sufficient size to destroy this planet on its way to us now." And he bit into his grouse as if the prospect afforded him the greatest satisfaction. (11-2)

This kind of perspectivism too is a characteristic SF device. Both Wells (in The Time Machine) and Stapledon (in Last and First Men). for instance, depict vastnesses of space and time which scale down human concerns a great deal. Just such a humbling perspective may be seen in an evaluation such as the follow-

ing by the exobiologist Carl Sagan:

Each of us is a tiny being, permitted to ride on the outermost skin of one of the smaller planets for a few dozen trips around the local star. (Sagan and Druyan 1992: 30)

This is of course not to say that Wells, Stapledon or Sagan...do not celebrate life. Quite the contrary: throughout their writings they emphasize the miracle of consciousness, for it is this miracle that, among other things, enlarges human cognitive horizons enabling us to perceive ourselves against a cosmic background.

But in the "lonesome, latter years" (to borrow Poe's phrase) that James depicts, the Hurstfields are rare. For the most part, the struggle to come to terms of the disaster takes such pathetic forms as phantom pregnancies bringing forth nothing but "wind and anguish", the rise of the art and craft of doll-making to new heights, and the christening of kittens. In a world that has given up hope, apathy reigns and issues like political reform find little support among an aging population. Theo is drawn into one such group of "dissidents" reluctantly because of his "only claim to notice [which] is that he is cousin to Xan Lyppiat, the dictator and Warden of England" (3-4). But when one of the dissidents is discovered to be pregnant, mother and unborn child become invaluable, and Theo does all he can to keep the dissidents from falling into the hands of the State Security Police. The boy-child is born under pre-technological conditions, amidst the deaths Xan orders, in a shed away from human habitation. Theo christens "the Christ-infant:

The towel between her [the mother's] legs was heavily stained. He removed it without revulsion, almost without thought and, folding another, put it in place. There was



very little water left in the bottle, but he hardly needed it. His tears were falling now over the child's forehead. From some far childhood memory he recalled the rite. The water had to flow, there were words to be said. It was with a thumb wet with his own tears and stained with her blood that he made on the child's forehead the sign of the cross. (239)

Clarke's and James' visions of the possible end of humanity embody two very different extrapolations of the same basic idea of what would happen if humans did not have any more children. Both depict spells of destruction born of despair, and the retreat of the aging survivors into lives of grey despair. Clarke's last humans are asked to take consolation from the more-than-human entity that they have engendered. James's novel ends with a new beginning: a child is born, a Christ-child, to redeem humanity. While Clarke's novel is indubitably SF, James' is more ambiguously so. The novel's account of the frantic efforts humanity makes to find a scientific cause and solution to its sterility, describes the concerted action of scientists and governments that much SF depicts as occurring in the face of a common crisis. But the complete failure of the "god" of Western science to account for the sterility is a departure from genre tradition. Even more significantly, science has nothing at all to do with the return of fertility in the human race either. James' understated treatment of a science fictional theme in distinctly non-genre ways only enriches this theme with some very fine writing.

<sup>11</sup> Nor is our retailing of the ambiguities of the text over. The most famous (or notorious, depending upon one's point of view) confusion of identities about Frankenstein is the identity of Frankenstein. In the popular imagination, the Creature has usurped the name of its Creator. Proof (and consequence) of that

is In our constant reference to the creator by his first name, Victor. (Much the same happened to Mary Shelley; hence Aldiss' comment: "As P.B. Shelley has pre-empted Shelley, his second wife is here Mary" [1986: 447; n. 24]. Though, of course, the relationship here is not that of creator and creature!) Thus, not only has Victor Frankenstein become the symbol of the irresponsible scientist (which is a broadening of cultural signification), but ever since 1931, the Monster has multiplied too:

[Since] James Whale's Universal picture Frankenstein, in which Boris Karloff played the monster ... the dials in the castle laboratory have hardly stopped flickering.... The monster has spawned Sons, Daughters, Ghosts, and Houses; has taken on Brides and created Woman; has perforce shackled up with Dracula and Wolf Man; has enjoyed Evil, Horror, and Revenge, and has even had the Curse; on various occasions, it has met Abbott and Costello, the Space Monster, and the Monster from Hell. (Aldiss 1986: 45)

Apparently, the multiplication of identities, a characteristic of modernity, extends to modernity's monsters as well!

12

In Frankenstein, the Captain, Robert Walton, does not complete the outer-most narrative "frame" by reappearing to conclude his letter to his sister after the Monster disappears. Perhaps, the incomplete frame is the narrative equivalent of the abandoned voyage. As we have seen, in The Island of Dr. Moreau, Prendick's nephew prefixes his uncle's narrative with an Introduction. Had he then not reappeared, it would be easy to see the book as two narratives, the first a carefully "neutral" Introduction by the nephew, and the second, a "wild tale" by the uncle. But Prendick's nephew does intrude into the "strange account" to assure us of the veracity of at least the one verifiable part of the narrative--the description of the island. The illusion of an

"unmediated" narrative is broken at this point, and the tale unmistakably becomes one that an editor is "overseeing", but for all that, the power of Prendick's sombre ending does not diminish in the least.

The strategy of embedded narratives is used in a rather more complex fashion in Robert Louis Stevenson's The Strange Case of Dr. Jekyll and Mr. Hyde (1886). Another tale of an experiment gone wrong (which was to become a staple of SF), Jekyll and Hyde, like Shelley and Wells' novels, also has "objective", "men-of-science" narrators through whose eyes the action is seen, once again, a point-of-view commonly adopted in SF. As in The Island of Dr. Moreau, here too the truth of the matter emerges in pieces, a narrative device which was characteristic of the genres of mystery and detective fiction then emerging--Wilkie Collins' The Moonstone. "the prototype for the full-length detective novel" ("Detective Fiction", Oxford Companion), had appeared in 1868.

The systematic distancing in Jekyll and Hyde is quite striking. Our first glimpse of Jekyll is through an action of Hyde's, reported by Enfield to the lawyer Utterson, whose point of view, further, comes to us through a Narrator. The first narrator of the events of the tale, Enfield, is a stranger to both Jekyll and Hyde. The second narrator, Doctor Lanyon, knows Jekyll well and Hyde not at all. Jekyll himself is the third narrator. This steady movement towards knowing Jekyll/Hyde culminates in "Henry Jekyll's Full Statement of the Case", but not before a series of analogous attempts by various characters at reaching the core of things: the action takes place in the heart of London; to know

**Jekyll/Hyde**, letters must be taken out **from** the "inmost corner of a private safe" (43); only to find enclosures within enclosures, all to be read only if certain conditions are fulfilled; to find **Jekyll/Hyde**, several doors must be opened and **dark** corridors negotiated before encountering a last physical barrier, the locked door of the doctor's **laboratory**--a door that appears again In **Wells'** The Island of Dr. Moreau and recur often in SF, as a final barrier to "**forbidden** knowledge".

Little does the reader suspect when **Utterson** opens the letters left behind by Lanyon and **Jekyll**, "in which this mystery was now to be explained" (54), that neither Utterson nor the Narrator is to appear again. In fact, until the end of the last chapter, a diagram of the structure of the narrative would look something like **following**:

{ < > { ( ) [ ]

where, { indicates events as seen by Utterson, and  
conveyed to us through the Narrator;  
< > indicates Enfield's narrative;  
( ) indicates **Lanyon's** narrative;  
and t 3 indicates **Jekyll's** narrative.

In other words, the reader **still** does not know that neither Utterson nor the Narrator **will** appear again. Given Utterson and the Narrator's reappearance after **Enfield's** narrative, one expects at least a brief appearance by either, after **Jekyll's** narrative. **Only** on finishing the book does the reader realize that Utterson and the Narrator's roles ended with **Jekyll/Hyde's** death. **The** diagram, in fact, should be:

where **all** the symbols are as above.

That is, Lanyon and **Jekyll's** narratives now lie outside the

embedded narrative. They are, indeed, "appendices" to this "strange case". That Jekyll and Hyde are the same man becomes clear enough to Utterson and us when Utterson breaks open the doctor's laboratory door and discovers the dead Hyde in clothes several sizes too large for him. The "what" or "who" of the mystery is solved before Utterson opens the letters by Lanyon and Jekyll. Only the "how" and "why" remain to be answered.

Framing plays an important part in a very different domain as well. In his ludic study of the phenomenon of human and machine intelligence Gödel, Escher, Bach (1981: 103-26), Douglas Hofstadter constructs a narrative of tales within tales, taking the reader (and the characters) down four levels. He then brings the reader and character back only three levels, and wonders if the reader noticed his still-embedded state. Some readers do, while others do not, he comments (129), but does not make anything of this difference. To my mind, in Frankenstein, The Island of Dr. Moreau, and The Strange Case of Dr. Jekyll and Mr. Hyde, the ambiguities of the stories are only enriched by these incomplete frames when they are noticed at all. Some of the most fascinating, and stimulating visual representations of frame-crossing and "tangled heirarchies" (Hofstadter 1981: 10 et passim), are to be found in the paintings by René Magritte and the woodcuts of M.C. Escher, both of whose works are often reproduced in Hofstadter's book.

For an account of narrative "frames" and "realms" especially in oral literature, see Young's Taleworlds and Storyrealms (1987) which draws upon the work of the sociologist, Erving Goffman.

Framing devices in literary texts are examined for different purposes by Caws (1985), and Reid (1989). A study of the creation and interpenetration of "frames" in tableaux In theatre may be found in Bharathi and Rao (1992).

13

As Freud (1917) described it, Darwin had struck the "second blow" to man's narcissism, unseating man from the pinnacle of Creation. The other two "blows" were those dealt by Copernicus, who unseated "Man-home" (Cordwainer Smith's phrase for Earth in his SF [1966, 1975a, 1975b, 1979]) from the centre of the Universe, and the blow Freud himself dealt, when he unseated the Ego as the "master of his own house". See Gillian Beer's Darwin's Plots (1983) for a nuanced study of the metaphors Darwin used, and their use, in turn, by others. Philip Appleman's anthology, Darwin (1979), contains many treatments of Darwinian evolutionary theory as analogy and metaphor: from Herbert Spencer to Teilhard de Chardin. As we have tried to show in this chapter, SF has long been trying to come to terms with the "blows" that Freud described. In many of its significant instances, the genre has engaged in a "search for a definition of mankind and his status in the universe" (Aldiss 1986: 25).

14

Indeed, the issue has engaged many scientists and philosophers. Asimov's acquaintance with the well-known expert in Artificial Intelligence Marvin Minsky (whom Asimov acknowledges as one of the two people brighter than he is! [Asimov 1980: 302]), is one obvious connection between the two fields. As a tribute to Minsky, the robopsychologist in "The Bicentennial Man" is called Merton Mansky.

The question of machine intelligence has generated much

debate ever since the mathematician Alan Turing wrote his famous paper (1950) on devising a test to determine when a machine may be deemed intelligent. Accessible (i.e., non-specialist) accounts of the history of this field, its major figures and debates, the pros and cons of the two schools of AI that have emerged, the so-called "strong AI", and "weak AI", may be found in the work of Hofstadter (1979), Hofstadter and Dennett (1981), Dennett (1988), and Penrose (1989). It is hardly surprising that Penrose should begin his study of "computers, minds and the laws of physics"--the subtitle of his book--with an SF-like parable; artificial intelligences of all manner of description are one of the commonest elements in SF. Apart from Asimov's robots the genre has provided a vast variety of both frivolous and thought-provoking artificial intelligences ranging from the peurile C3PO in Star Wars (1979), through the pathological android in Alfred Bester's "Fondly Fahrenheit" (1954), to the "Paranoid Android", Marvin, in Douglas Adams' The Hitch Hiker's Guide to the Galaxy (1979).

15 Indeed, as Haraway says,

Throughout, Primate Visions, science fiction has provided one of the lenses for reading primatological texts. Mixing, juxtaposing, and reversing reading conventions appropriate to each genre can yield fruitful ways of understanding the productions of origin narratives in a society that privileges science and technology in its constructions of what may count as nature and technology in its construction of what may count as nature and for regulating the traffic between what it divides as nature and culture. (370)

The first chapter of Primate Visions takes its title from John Varley's brilliant and haunting short story, "The Persistence of Vision", while her last chapter is titled, "Reprise: Science Fiction, Fictions of Science and Primatology". Her highly imagin-

ativp reading of the discipline of primatology encompasses both its social practices and its discursive practices--primatology as politics, economics, narrative and myth. This project (as elsewhere in Haraway; see Haraway [1991a], and Penley and Ross [1991]) finds much to commend in the work of Octavia Butler. Thus, Haraway, for one, would not agree at all with Aldiss' assessment: "[i]n too many places Butler's scheme relates to nothing in the human condition" (1986: 428).

# 16

Incidentally, surviving a childhood whose greatest uncertainties lie in school is a common adventure-fiction theme. In the case of adventure fiction written for schoolchildren, as in many of P.G. Wodehouse's early novels like The Pothunters (1902) and The Prefect's Uncle (1903) strange, mysterious happenings in what is, to most of the novels' readers, a thoroughly familiar setting adds an extra dimension to the experience of the adventure. In such novels, adventure is a case of novelty "coming" to a familiar setting, and as often as not, utterly transforming the quotidian reality. However, Wodehouse's adventures, for all their wonderful, characteristic style, leave his characters at the end of the tale more or less untouched. Other writers have addressed contemporary anxieties in their "tales out of school. Thomas Hughes' Tom Brown's Schooldays (1857), one of the earliest in the sub-genre, condemns, in the tyrannical Flashman, the bullying prevalent in public schools of the day. (Of course, Flashman went on to become the delightful, amoral, rascalion protagonist in a series of historical novels by George MacDonald Fraser [1969], but that's another matter!) E.R. Braithwaite's justly famous To.



Sir With Love (1954), has, for its protagonist not a student but a teacher, and the novel tells the story of the transformation wrought by this black, West Indian teacher on a class of English working-class students. L.P. Hartley's The Shrimp and the Anemone (1944), the first volume of his "Eustace and Hilda" trilogy, while not set in a school, is an extraordinarily complex and nuanced account of the growing up of an imaginative, sensitive boy.

### Chapter III: Some Conclusions

<sup>1</sup> "A Search for Who We Are" is the subtitle of Sagan and Druyan's recent book, Shadows of Forgotten Ancestors (1992), a magnificent, wide-ranging study that brings together vast amounts of reading to address precisely the issue that Frankenstein so poignantly raises of what it means to be human. Sagan and Druyan conclude that

Since the progress of human technology is a continuum, to pick a particular milestone--the domestication of fire, say, or the invention of the bow and arrow, agriculture, canals, metallurgy, cities, books, steam, electricity, nuclear weapons, or spaceflight--as the criterion of our humanity would be not just arbitrary, but would exclude from humanity every one of our ancestors who lived before the selected invention or discovery was made. There is no particular technology that makes us human; at best it could only be technology in general, or a propensity for technology. But that we share with others. (398)

Sagan and Druyan argue persuasively that we regard human existence in the universe as a contingent continuum, i.e., we should begin to take seriously the fact that it is purely contingent that we evolved the way we did in this universe rather than in

some other, and that human life on the planet lies on a continuum of life on the planet, and any barriers that we erect to distinguish us essentially from other life-forms on earth are both arbitrary and dangerous for the future of life on the planet. We have seen during the course of our discussions that much SF concurs.

2

This **comprehensive** understanding of science and technology is shared by other writers as well. In a study of idioms in Esperanto, Probal Dasgupta describes "scientific **writings**" as not only papers reporting research findings but also **advertisements** describing the technical capabilities of devices and systems as well as **semijournalistic** reports covering scientific conferences and written for scientist readers. (1993a: 368)

In noting the "**scientificity**" of **advertisements**, Dasgupta reinforces a point we made earlier (in note 1 to the second chapter) about scientific writing as a mode rather than a genre.

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