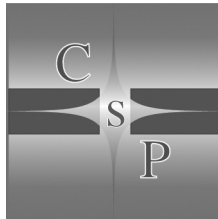


Anatomy of Science Fiction

Anatomy of Science Fiction

Edited by

Donald E. Morse



CAMBRIDGE SCHOLARS PRESS

Anatomy of Science Fiction, edited by Donald E. Morse

This book first published 2006 by

Cambridge Scholars Press

15 Angerton Gardens, Newcastle, NE5 2JA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Copyright © 2006 by Donald E. Morse and contributors

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN 1-84718-018-3

For Brian Aldiss

Science-Fiction Writer, Story-Teller, Scholar

TABLE OF CONTENTS

Copyright Acknowledgements	x
Preface	xii
Introduction	
The Science Fictional World	
Donald E. Morse	1
Notes	8
Works Cited	8
Chapter One	
Episteme-ology of Science Fiction	
Kevin Alexander Boon	10
Notes	22
Works Cited	24
Chapter Two	
“The Shock of Dysrecognition”: Narrative Estrangement, Science Fiction, and Utopia in H.G. Wells’ <i>A Modern Utopia</i>	
Károly Pintér	26
Notes	43
Works Cited	46
Chapter Three	
Leakings: Reappropriating Science Fiction—the Case of Kurt Vonnegut	
Tamás Bényei	48
Interfaces	51
Vonnegut’s Interfaces	55
Science Fiction as Poetics: <i>Breakfast of Champions</i>	60
Notes	67
Works Cited	68
Chapter Four	
Cultural Negotiation in Science-Fiction Literature and Film	
Brian Attebery	70
Works Cited	81

Chapter Five**Sterile Men and Nuclear-Powered Vacuum Cleaners: The Atomic Bomb and Atomic Energy in 1950s American Science Fiction**

Donald E. Morse	83
Notes	91
Works Cited	93

Chapter Six**Octavia Butler's Maternal Cyborgs: The Black Female World of the Xenogenesis Trilogy**

Éva Federmayer	95
The Alternative Vision of Octavia Butler's Xenogenesis	96
Black Woman and Cyborg Existence.....	99
Notes	106
Works Cited	107

Chapter Seven**The Search for a Quantum Ethics**

Nicholas Ruddick	109
Notes	122
Works Cited	123

Chapter Eight**Virtual Poltergeists and Memory: The Question of Ahistoricism in William Gibson's *Neuromancer***

Amy Novak	125
The Spectral Fragments of Popular Culture	126
The semiotic ghosts of <i>Neuromancer's</i> Cyberspace	128
A Double Haunting: The Permeable Border between the Real and the Virtual	132
Haunting the Present: Ghostly Narrative Disruptions	136
Conjuring the Past in the Realm of the Spectacle	140
Notes	141
Works Cited	144

Chapter Nine**Banishing the Machine from the Garden: Ecology and Evolution in Dan Simmons's *Hyperion Cantos***

Kálmán Matolcsy	146
Notes	160

Works Cited	162
Chapter Ten	
Orchids in a Cage: Political Myths and Social Reality in East German Science Fiction (1949-1989)	
Usch Kiausch	165
The 1950s: Agents, Aliens, and Astronauts	167
The 1960s: Sputniks, Scientific Optimism, and Space.....	169
The 1970s: Dystopias and Anarchic Dreams	171
The 1980s: Post-Utopian Diversity and the Decline of Party Omnipotence	176
Notes	180
Works Cited	181
Chapter 11	
When the Hungarian Literary Theorist György Lukács Met American Science-Fiction Writer, Wayne Mark Chapman	
Donald E. Morse	186
Notes	190
Works Cited	191
Notes on Contributors	192
Index	195

COPYRIGHT ACKNOWLEDGEMENTS

Chapter 1 “Episteme-ology of Science Fiction” by Kevin Alexander Boon Copyright 2000 by the *Hungarian Journal of English and American Studies* (HJEAS) and used by permission of the editors.

Chapter 2 “‘The Shock of Dysrecognition’: Narrative Estrangement, Science Fiction, and Utopia in H.G. Wells *A Modern Utopia*” by Karoly Pintér appeared originally in *The Undying Fire: The Official Journal of the H. G. Wells Society* Copyright 2006 by K. Pintér and used by permission of the author and *The Undying Fire: The Official Journal of the H. G. Wells Society* and the editor, Eric Cash.

Chapter 3: “Leakings: Re-appropriating Science Fiction: The Case of Kurt Vonnegut” by Tamás Béneyei Copyright 2000 by HJEAS and used by permission of the editors.

Chapter 4 “Cultural Negotiation in Science Fiction Literature and Film” Brian Attebery Copyright 2000 by HJEAS and used by permission of the editors.

Chapter 5 “The Search for a Quantum Ethics” by Nicholas Ruddick Copyright 2000 by HJEAS and used by permission of the editors.

Chapter 6 “Octavia Butler’s Maternal Cyborgs: The Black Female World of the Xenogenesis Trilogy” by Éva Federmayer Copyright 2000 by HJEAS and used by permission of the editors.

An earlier version of Chapter 7, “Sterile Men and Nuclear-Powered Vacuum Cleaners: The Atomic Bomb and Atomic Energy in American Post-War Science Fiction” was presented as a plenary lecture at the 2003 Biennial Conference of the Hungarian Association of American Studies in March 2003 in Budapest and was published as part of the conference proceedings, *The 1950s* edited by Enikő Bollobás and Szylvia Nagy, published by the Department of American Studies, Eötvös Loránd University, Budapest, 2005. Copyright 2005 by HAAS and used by permission of the editors and HAAS.

An earlier version of Chapter 8, “Virtual Poltergeists and Memory: the Question of Ahistoricism in William Gibson’s *Neuromancer*” by Amy Novak Copyright 2000 by HJEAS and used by permission of the editors.

Chapter 9 “Banishing the Machine from the Garden: Ecology and Evolution in Dan Simmons Hyperion Cantos” by Kálmán Matolcsy Copyright 2006 by HJEAS and used by permission of the editors.

Chapter 10 “Orchids in a Cage: Political Myths and Social Reality in East German Science Fiction (1949-1989)” by Usch Kiausch Copyright 2000 by HJEAS and used by permission of the editors.

Chapter 11 An earlier and briefer version of “When the Hungarian Literary Theorist, György Lukács Met the American Science-Fiction Writer, Wayne Mark Chapman” by Donald E. Morse appeared in *The Hungarian Journal of English and American Studies* Copyright 2000 by HJEAS and used by permission of the editors.

Every reasonable effort has been made to trace the owners of copyright materials in this book, but in some instances this has proven impossible. The editor and publisher will be glad to receive information leading to more complete acknowledgments in subsequent printings of the book and in the meantime extend their apologies for any omissions.

PREFACE

Anatomy of Science Fiction concentrates on American science fiction with a complementary examination of British science plays, East German subversive science fiction, and Hungarian pseudotranslation. The theoretical essays range from postulating three ages of science fiction and its changing nature to the difficulty in writing a utopian work in the twentieth century and from drawing a distinction between pulp and elite science fiction to the implications inherent in the mode's expanding into television, film, games, comic books and so forth, along with the need for discussion of ethical issues and questions. Other studies of individual science-fiction writers concentrate on how they treat major issues, such as gender, the environment, ethics, memory, and religion, while predominantly historical essays illustrate how science fiction, as all fiction and art, reflects the time and place in which it is written—whether that era is the United States immediately after World War II, East Germany under forty years of communism, or Hungary after the liberation from communism. Each of these stimulating essays illustrates what the late palaeontologist Stephen Jay Gould meant when he avowed that “science fiction has always been among the most intellectual of our literatures” (“Afterword: The Truth of Fiction: An Exegesis of G. G. Simpson’s *Dinosaur Fantasy*.” George Gaylord Simpson, *The Dechronization of Sam Magruder*. New York: St. Martin’s, 1996. 105).

With one exception, all of the essays in this volume were originally published in Hungary and, of those, all but one in the *Hungarian Journal of English and American Studies* (HJEAS) edited by Professor Zoltán Abádi-Nagy. Some simultaneously appeared in the United States in *JFA: the Journal of the Fantastic in the Arts*, W. A. Senior, editor. An essay has also been collected from a volume published by the Hungarian Association of American Studies edited by Enikő Bolábás, while another is republished from *The Undying Fire: The Official Journal of the H. G. Wells Society* edited by Eric Cash. I am most grateful to these editors and to Cambridge Scholars Press for making these essays published in Hungary available in the rest of Europe and elsewhere.

Anatomy of Science Fiction is dedicated to Brian Aldiss, the eminent English writer whose own novels, short stories, poetry, and plays, together with his extensive scholarship, speaking, and writing on the role and nature of science fiction and its place in literary history, has enlivened debate and sparked ideas among readers, writers, and scholars for several decades.

INTRODUCTION

THE SCIENCE FICTIONAL WORLD

DONALD E. MORSE

It has become a common place today to speak of our contemporary world—at least in the United States—as science fictional. The designation devolves from the technological explosion of the past 150 years and the incredible and unbelievable discoveries of twentieth-century and twenty-first-century science. Our universe has proven stranger than we could ever have imagined. With the dawning of this sense of strangeness has come the increasing popularity and ubiquity of science fiction. Larry McCaffery, writing in the authoritative *Columbia Literary History of the United States* published by Columbia University, argues that “the most significant new directions in recent American fiction . . . include: the emergence of science fiction (and its various hybrid forms) as a major literary genre that has produced a body of work probably unrivalled in stylistic versatility and thematic relevance” (1162). Kevin Alexander Boon in his chapter, “Episteme-ology of Science Fiction” supports an even stronger contention: that the rise of science fiction as a metaphor for the world parallels the rise of science as a way of knowing. Boon argues that “[a]s we move deeper into the twentieth century, we find a heightened focus on science, scientists, and scientific innovation as the potential source of humanity’s salvation.” This focus has important implications generally for the future of human beings as well as more specifically for how we think about human life on this planet Earth. Mary Lazar argues that “[i]f the Western world has a common denominator it translates as a belief in science,” (238). Boon agrees with Lazar but is quick to qualify the place science occupied in the last century. He contends that

the faith that had formerly been reserved for God was transferred to science, and science quickly became, for the populace, a mysterious, transcendent force that promised to eventually guide the world to paradise. Science assumed the space of the Other previously occupied by God. This new configuration coupled with increased literacy throughout the western world provided the foundation for science fiction’s modern age.

There are exceptions to this transfer, of course: writers such as Kurt Vonnegut and Octavia Butler in novel after novel refuse to accept science as salvation and continually call into question any such notion of progressive knowledge.

Octavia Butler, the first African-American woman to make a career writing science fiction in her “award-winning *Bloodchild* (1984) presents a fictional defamiliarisation of human reproduction that is as chilling in its own way as is Mary Shelley’s depiction of the creation of artificial life,” argues Veronica Hollinger (129). Like Shelley before her, Butler raises questions about exactly what it means to be human. Eva Federmayer in her chapter on “Octavia Butler’s Maternal Cyborgs: The Black Female World of the Xenogenesis Trilogy” argues that “Butler’s trilogy offers a powerful feminist revision of the science fiction that is inspired by communications technology and biotechnology. *Dawn* (1987), *Adulthood Rites* (1988), and *Imago* (1989) are Butler’s fictional response to militant Reaganite politics and are a black female fantasy of cyborg alternatives.” Butler, like Vonnegut, is “not pessimistic [but] hopeful” (Interview 21) and, I would add, realistic. Not for her are the utopian visions of the nineteenth century that eventually numbered more than sixteen hundred.¹ H. G. Wells, the most prominent nineteenth-century utopian writer took the form and lifted it bodily into the twentieth century in *A Modern Utopia*. Karoly Pintér in chapter two points out how the popular utopia of the nineteenth century became impossible for Wells and other writers at the end of the century. Utilising a science-fiction framework, Wells propelled his thought experiment out into the galaxy much as he had propelled the Time Traveller out into the far future. The result is a most complicated experimental novel—one that both accepts and repudiates the utopian impulse. Octavia Butler, equally devoted to thought experiments steadfastly ignores any such utopian explorations. Like Ralph Waldo Emerson, who believed strongly that “[s]ociety never advances” (“Self-Reliance” 279), Butler contends that “we human beings make a lot of the same mistakes over and over again. It doesn’t seem to help. I’m alarmed at how easy it is, for instance, to railroad people into acting against their own best interests” (Interview 21). Her work reflects this belief in its grim and dangerous future peopled with often extraordinary but flawed characters.

Extrapolation has long been a staple of science fiction. Perhaps the most famous and by now overly-familiar instance of the prophet writer at the end of the twentieth century was William Gibson’s predicting the establishment of the World Wide Web. In chapter eight, “Virtual Poltergeists and Memory: The Question of Ahistoricism in William Gibson’s *Neuromancer*,” Amy Novak goes far beyond pedestrian issues to discuss how “William Gibson’s ‘cyberpunk’ novel *Neuromancer* assists in providing a greater understanding of the concept of memory and illuminates its disruptive potential.” Novak gives a fresh reading

of Gibson's well-known novel through analysing how he explores "the disorder created within present 'reality' by the virtual haunting of cyberspace." *Neuromancer*, she concludes "articulates the tensions that arise as technology begins to record and absorb people's memories"—an issue of immediate relevance in the twenty-first century.

Also of immediate relevance is the issue of ethics and how to deal with scientific theories and discoveries. Nicholas Ruddick in his chapter, "The Search for a Quantum Ethics" audaciously advances the thesis that "science fiction, which owes its descent and much of its literary credibility to Wellsian scientific romance, ought to have as one of its primary functions the engagement through metaphor of a scientifically-determined worldview with the intention of humanising, or at least struggling to make humanly comprehensible, a universe that might otherwise seem bewilderingly indifferent to human concerns." As Ruddick illustrates, this problem is often left in abeyance—at least where ethical issues are concerned.

Dan Simmons' epic *Hyperion Cantos* illustrates Brian Aldiss's contention that science fiction is "an ideal negotiator between the two hemispheres of the brain, the rational cognitive—i.e., 'scientific'-left and the intuitive, i.e., 'literary-artistic' right" (1-2). The breadth of the *Cantos* caused John Clute to describe them as "cosmogony operas . . . [because] they undertake to shape *everything* into one baroque entelechy" (77). This series of novels deals extensively with ethical questions while focusing on environmental, aesthetic, and religious issues. Farah Mendlesohn might have been speaking of the *Hyperion Cantos* when she observed in the *Cambridge Companion to Science Fiction* that "theological discourse comes naturally . . . [to science fiction] a genre predicated on the thought experiment" (275). Perhaps this is another reason for the huge popularity of such works for, as the distinguished critic and historian Edward James observes, "the unasked but essential question . . . 'What is the meaning of life?' or 'what is the destiny of man?'—is a question raised by almost no one these days apart from theologians and sf writers. It is the ultimate unanswerable question" (228). True, and Kálmán Matolcsy explores this question extensively through Simmons' fiction demonstrating at length in "Banishing the Machine from the Garden: Ecology and Evolution in Dan Simmons *Hyperion Cantos*" that just because a question remains unanswerable does not mean that it is not worth asking. Ethical problems and unanswerable questions have urgency in the post-atomic, quantum mechanical world. Such topics, like the ultimate question, do not merely recede and disappear into the background as technological innovation increasingly dominates our world, but need to be recognized and debated in terms cogent for today. As Henry David Thoreau observed in *Walden*: "The same questions that disturb and puzzle and confuse us have in turn occurred to all the wise men; not one has been omitted; and each has

answered them, according to his ability, by his words and his life” (74-75). In attempting to raise the “ultimate unanswerable question” along with a host of other sometimes-answerable questions, science fiction performs a valuable service. Emerson might well have been speaking of science fiction in the twenty-first century when he argued in “The American Scholar” that “each age . . . must write its own books; or rather, each generation for the next succeeding. The books of an older period will not fit this” (57). Clearly science fiction comprises the books for our time and for the time of the next succeeding generation as well.

McCaffery claims that “scientific research and technological progress have had a significant impact on our daily lives for at least two hundred years; and concurrently writers—chiefly science-fiction writers—have been speculating on what forms this impact is taking and where it is likely to lead” (1166). If so then writers such as Gibson, Vonnegut, Butler, and Simmons reflect this “impact, especially in their novels and stories that focus on information and memory. In the late twentieth- and early twenty-first centuries information has become central to areas as disparate as medicine and roadmaps, treaty negotiations and super markets shelves, rescue operations and weather forecasting, airlines schedules and just-in-time part suppliers. But, as McCaffery argues, “despite the production of what is arguably the most significant body of work in contemporary fiction, the accomplishments of science fiction have continued to remain relatively overlooked by the literary establishment in the United States” (1167). This wilful ignorance occurs often “despite the fact that science fiction is now regularly taught in our universities and has established its own literary journals . . . and a scholarly society.” He concludes that the fault lies in the origins of American science fiction that “emerged in the United States from the pulp magazines” (1167). (McCaffery 1167)

It might, therefore, be well to recall that science fiction also appeared frequently not just in the pulps, but also in the more respectable slick magazines.² Kurt Vonnegut is, perhaps, the most prominent example of a writer who began his professional writing career publishing science-fiction stories in the slicks and, more importantly, on the basis of his success quit his “day job” at General Electric Research Laboratory in New York, moved his family to a more congenial setting on Cape Cod, Massachusetts and committed himself to a full-time writing career.³ Unfortunately, timing is everything and Vonnegut’s could not have been worse. Because of the advent and rapid spread of television, within months of his move those slick magazines would stop buying almost all fiction including his science fiction and several of them would simply cease to exist forcing Vonnegut to write for the—definitely not respectable—paperback market—a market known intimately by his alter ego, Kilgore Trout. “For years Vonnegut had told interviewers that Kilgore Trout was an image of which he

himself feared he might become: a cranky, unread, and alarmingly idiosyncratic science-fiction writer, whose works are no sooner composed than they are consigned to the trash heap” (Klinkowitz 155).

Building on this image of Trout, Tamás Bényei in chapter three, “Leakings: Re-appropriating Science Fiction—the Case of Kurt Vonnegut” discusses the poetics of science fiction through the work and career of the twentieth century’s most famous fictional science-fiction writer. Trout “incarnates two models,” contends Bényei. “He starts out as a nondescript pulp science-fiction writer, at least in the sense that he does not really want to say (communicate) anything in his works.” Much later, “he comes to assume a radically different position, the position that is so often the guarantee of the possible redemption of science fiction and its elevation into high culture . . . the science-fiction writer is redeemable inasmuch as he is a prophet writer.” Trout thus comes to exemplify a whole generation of science-fiction writers who became highly esteemed, especially as prophets of the atomic age. Foremost among them was Isaac Asimov who once lamented the high price paid for this process of legitimisation:

For the first time, science-fiction writers appeared to the world in general to be something more than a bunch of nuts; we were suddenly Cassandras whom the world ought to have believed. But I tell you, I would far rather have lived and died a nut in the eyes of the world than to have been salvaged into respectability at the price of nuclear war hanging like a sword of Damocles over the world forever. (Qtd. in Carter 25)

But Damocles’ sword could not be wished away. No less a person than Albert Einstein had famously prophesied that after nuclear war “little civilisation would survive.” Later, he expanded his prediction to include the demise of all life forms on Earth. Ray Bradbury, in a story contemporary with Einstein’s observation and aptly titled, “The Last Night of the World” could assume it unnecessary to give an immediate cause for the end of the world, since everyone already knew how it would end. Bradbury, whose stories regularly appeared in the pages of such slick magazines as the *Saturday Evening Post* and *Collier’s*, also published in pulp science-fiction magazines including what would become his best known work *Fahrenheit 451* (1953) that first appeared as a short story “The Fireman.” His two collections of stories, *The Martian Chronicles* (1950) and *The Illustrated Man* (1951) would be among the first in the Doubleday hardbound series of science fiction—a series that would soon dominate the science-fiction market, while paperback reprints of Bradbury’s collections would become best sellers.

Science fiction, like all art, reflects in varying degrees the times during which it is written. In the 1950s, Americans were preoccupied with the aftermath of the first use of the atomic bomb against a civilian population. Thus Ray

Bradbury in his popular collection of stories, *The Martian Chronicles* has human colonists on Mars watch, shocked as their planet Earth is destroyed by atomic incineration. Post-war tales of space travel, populating planets—future adventures of all kinds—take place against a backdrop of atomic war, its threat or, even worse, its aftermath. Philip K. Dick famously argued in 1955 that “all responsible writers . . . have become involuntary criers of doom, because doom is in the wind.” He went on to exhort science-fiction writers to “[m]ake the ruined world of ash a premise” (quoted in Disch 88). Pat Frank’s best selling novel *Mr. Adam* (1947) did not make “the ruined world of ash a premise,” but did make the state of Mississippi disappear in a mushroom cloud that results in the world-wide sterilisation of all human males with comic consequences. Frank’s enormously popular novel reflects the temper and preoccupation of the times, as Donald E. Morse demonstrates in chapter five, “Sterile Men and Nuclear-Powered Vacuum Cleaners: The Atomic Bomb and Atomic Energy in 1950s American Science Fiction.” Science let the atomic genie out of the bottle and it proved impossible to get it back in.

Throughout the twentieth century and well into the twenty-first century, science fiction’s popularity continued to grow but, ironically, achieved its greatest impact in special-effect films where that ultimate question posed in novels would become trivialised and/or ignored. Brian Attebery argues in “Cultural Negotiation in Science Fiction Literature and Film” that winning the struggle to have science fiction accepted as a legitimate form of social debate and artistic endeavour is, in itself, not enough since it becomes important to know what has been achieved as well as what may have been lost. On the positive side Attebery sees “feminists, racial minorities, gays, transgendered people, and supporters of all of these groups” whose urgency, in turn, directly relates to the high level of social energy in the fiction of Nicola Griffith, Melissa Scott, Nalo Hopkinson, Raphael Carter, and other writers. “Their work represents the leading edge of science fiction at the turn of the twenty-first century, not only because of inventiveness or stylistic excellence, but also because theirs is the stage on which our culture is debating its own future.” On the less positive side, he notes the often negative, blockbuster, enormously popular, special-effects movies with little or no social energy and even less room for debate about the culture’s present—never mind its future. As opposed to such films, the writers he discusses illustrate both science fiction’s versatility and its relevance.

A unique strength of this volume lies in its broadening discussions of science fiction to include some recognition of the recent history of science fiction in Central Europe under communism and “after the change”—as Hungarians refer to the peaceful revolution of 1989-1990. Those living in Central Europe see events and prominent people very differently than many Western theorists, such

as one prominent American Marxist scholar who, while writing about science fiction and being somewhat troubled by the fall of communism and emerging globalisation, puzzles in 2000 over “exactly how the proletariat can seize control of the means of production when the latter are, to an ever-growing extent, organised on a transcontinental basis” (Freedman 9). In typical American Armchair Marxist fashion, this scholar remains undaunted concluding that this problem “may prove solvable” (9), but neglects to specify exactly how or in what ways it is to be solved. Such maundering in a scholarly work devoted to science fiction forms part of a chapter titled “Definitions: Critical Theory” (1-13) that occurs well before any specific science-fiction work is ever discussed. Richard Rorty’s comments on Fredric Jameson may apply with equal force here:

Unfortunately, in contemporary American academic culture, it is commonly assumed that once you have seen through Plato, essentialism, and eternal truth you will naturally turn to Marx. The attempt to take the world by the throat is still, in the minds of Jameson and his admirers, associated with Marxism. This association seems to me merely quaint, as does Jameson’s use of the term “late capitalism”—a term which equivocates nicely between economic history and millenarian hope. (138-39)

Seen from Central Europe such sentimental Marxism appears highly irrelevant to a discussion of contemporary economic conditions as well as obtrusive in a theoretical discussion of science fiction.⁴ More informed and informing is Usch Kiausch, “Orchids in a Cage: Political Myths and Social Reality in East German Science Fiction (1949-1989)” who contends that for fifty years “science fiction offered opportunities to escape reality as well as to criticise it through metaphoric mirrors (often both aspects united in one book). Like orchids in a cage, science fiction novels blossomed as exotic plants in a carefully controlled domestic ground.” Kiausch documents the great distance between emerging democracies of Central Europe and their own immediate history. Her orchid metaphor proves most apt not only for the GDR (German Democratic Republic) but also for all of Central Europe formerly under communist domination where local science fiction, once subversive and dangerous, has now all but disappeared under the on-slaught of American and—to a far lesser degree—British science fiction.

After the implosion of dictatorial communism in 1989-1990, science fiction, from the West and especially from the United States, invaded Central Europe bringing along with its novels and stories an accumulation of values and cultural baggage previously unknown. The reception of such science fiction became immediately complicated due to the region’s twentieth-century history. Paradoxically, when the cage created by communism that Kiausch describes so well was finally opened, the orchids of science fiction did not flourish as

expected but withered instead. Only later did some acquire new life in a wholly unexpected way as illustrated by the rise in pseudotranslations—a phenomenon virtually unknown in the West.

If the beginnings of science fiction remain shrouded in controversy with some historians agreeing with Kevin Alexander Boon and Brian Aldiss that Mary Shelley started it all, while others credit Edgar Allan Poe as its inventor, and while still others trace its beginnings in ancient Greek fantasy or even back to the Gilgamesh epic, this collection of essays focuses instead mostly on its current popularity, importance, and impact. For, as Raymond Williams argues, “part of the power of science fiction [is] that it is always potentially a mode of authentic shift: a crisis of exposure which produces a crisis of possibility; a reworking, in imagination, of *all* forms and conditions” (6). The essays collected here help us to see this *crisis of possibility* reflected in science fiction. Recognising that crisis, in turn, could lead to the re-visioning of “forms and conditions” so desperately needed in the twenty-first century.

Notes

¹ Larry McMurtry, the historian, novelist, and bookseller reports that a bookseller of his acquaintance “spent some decades researching and locating these books [‘the Utopian or lost race novel’]. The collection . . . numbers some 1,650 books” (37).

² The pulps were named after the cheap pulp paper on which they were printed, while the slicks were called so because of the high rag content of the paper on which they, in turn, were printed.

³ For a lengthy study of Vonnegut’s work viewed against his life and times, see Morse, especially Chapters 1 and 2, where he makes the claim that Vonnegut can be seen as *the* representative post-World War II American writer.

⁴ Tony Judt’s perceptive comment on the crucial difference in viewing communism between Western European and Central European intellectuals applies with equal force to American Marxists such as Carl Freedman in contrast with GDR or Hungarian literary scholars: “To many Western European intellectuals communism was a failed variant of a common progressive heritage. But to their Central and East European counterparts it was an all too successful local application of the criminal pathologies of twentieth-century authoritarianism and should be remembered thus” (14). György Lukács, for instance, on whom Freedman models his work (xv) is remembered by many in Hungary as a man “with blood on his hands” whose ordering of executions exemplifies just such a criminal pathology.

Works Cited

Aldiss, Brian. *Science Fiction as Science Fiction*. Frome, UK: Bran’s Head, 1978.

- Butler, Octavia. "We Tend to Do the Right Thing When We Get Scared." Interview with Michael Marriot. *The New York Times* 1 January 2000, 21.
- Carter, Paul A. *The Creation of Tomorrow: Fifty Years of Magazine Science Fiction*. New York: Columbia University Press, 1977.
- Clute, John. "Science Fiction from 1980 to the Present." In James and Mendlesohn. 64-78.
- Emerson, Ralph Waldo. *Ralph Waldo Emerson: Essays & Lectures*. Ed. Joel Porte. New York: The Library of America, 1983.
- . "The American Scholar." In Emerson. 51-71.
- . "Self-Reliance." In Emerson. 255-82.
- Freedman, Carl. *Critical Theory and Science Fiction*. Hanover, NH: Wesleyan/New England University Press, 2000.
- Hollinger, Veronica. "Feminist Theory and Science Fiction." In James and Mendlesohn. 125-36.
- James, Edward, and Farah Mendlesohn. *The Cambridge Companion to Science Fiction*. Cambridge: Cambridge University Press, 2003.
- Judt, Tony. "From the House of the Dead: On Modern European Memory." *The New York Review* LII.15 (6 October 2005): 12-16.
- Klinkowitz, Jerome. *The Vonnegut Effect*. Columbia: University of South Carolina Press, 2004.
- Lazar, Mary. "Sam Johnson on Grub Street: Early Science-Fiction Pulps and Vonnegut." *Extrapolation: A Journal of Science Fiction and Fantasy*. 32 (1991): 235-55.
- McCaffery, Larry. "The Fictions of the Present." *Columbia Literary History of the United States*. General editor Emory Elliott. New York: Columbia University Press, 1988. 1161-77.
- McMurtry, Larry. "Angel in America." Review of *Joseph Smith: Rough Stone Rolling* by Richard Lyman Bushman. *The New York Review* 52.18 (17 November 2005): 35-37.
- Morse, Donald E. *The Novels of Kurt Vonnegut: Imagining Being an American*. Westport: Praeger, 2003.
- Rorty, Richard. *Achieving Our Century: Leftist Thought in Twentieth-Century America*. Cambridge: Harvard University Press, 1998.
- Thoreau, Henry David. *Walden*. Ed. Sherman Paul. Boston: Houghton Mifflin, 1957.
- Williams, Raymond. "Utopia and Science Fiction." *Science Fiction: A Critical Guide*. Ed. Patrick Parrinder. New York: Longman, 1979.

CHAPTER ONE

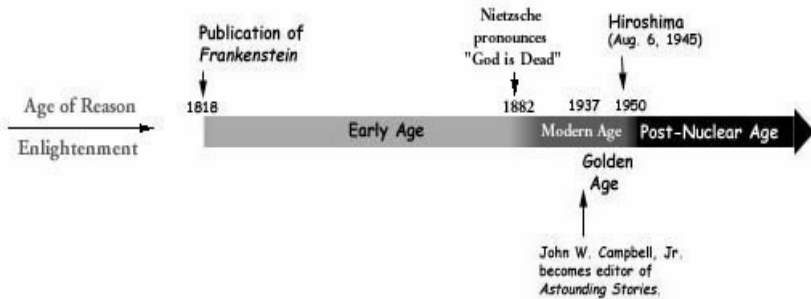
EPISTEME-LOGY OF SCIENCE FICTION

KEVIN ALEXANDER BOON

We may, with confidence, mark the beginning of the science fiction genre proper as 1818, when Mary Shelley published *Frankenstein*, but the social consciousness that fuelled the genre began earlier, when people began to privilege empirical explanations over mythological ones. A reasonable date for this shift in priorities is 1731—the year Voltaire’s *Letters concerning the English Nation* was first published.¹ Voltaire’s *Letters* did much to stimulate popular interest in science and philosophy, particularly the empiricism promoted by John Locke in *An Essay Concerning Human Understanding* (1689)² and the system of universal laws posited by Isaac Newton in *Philosophiæ Naturalis Principia Mathematica* (1687). More than any other single work, *Letters* helped launch the Age of Reason, and with it, a radically new way for people to assess the world around them. Key to this change is the bridge Voltaire helps erect between esoteric science and general awareness, as empiricism and reason as epistemological principles for understanding the universe cease to be the exclusive domain of philosophers and scientists and become the intellectual property of the public. Voltaire’s immense popularity made his criticism of Descartes³ and his praise of Locke and Newton palatable to England, and eventually much of Europe.

According to Voltaire, in the wake of Locke and Newton “[t]he very essence of things . . . totally chang’d” (61); that is to say, knowledge changed. More specific to my argument here, the epistemological configuration of knowledge changed, and new ways of structuring knowledge infected western culture, initiating a shift from one episteme to another. The new episteme (which parallels the Classical episteme Michel Foucault discusses in *The Order of Things* 43 et passim) furrowed the ground from which science fiction eventually emerged. Because science fiction manifests the structure of empirical knowledge at a particular time within a culture,⁴ it functions as a reaction to and a barometer for cultural shifts in the way meaning is structured.⁵ Thus, by examining the epistemes of

western culture, we expose thematic transformations in science fiction and vice versa.



Prior to the eighteenth century and the epistemic shift that made science fiction possible, the esoterica of the scientific community seldom entered the arena of public thought, except as objects of contradiction—ideas that ran contrary to the general current of the Roman Catholic Church. Derek Stanesby, in the introduction to *Science, Reason, and Religion* (1985), details this relationship in his discussion of theology in the Middle Ages. He points out that, during the Middle Ages,

[a]ll rational enquiry had to conform to the canons of theological thought. The knowledge of God surpassed all other knowledge, and there was a sense in which all knowledge was subservient to the revealed truth of God, systematized by theologians and given the imprimatur of the Church. The religious view of the world dominated all thinking, and whenever there were clashes the religious view won the day. (1)

Scientists such as Copernicus and Galileo were censured (and in Galileo's case, tortured by the inquisition)⁶ not for rejecting church doctrine, but for positing empirical support for ideas that countermanded the epistemological foundations of Christian dogma. What was at risk was the way knowledge itself was structured. The Church could not acknowledge Galileo's discoveries because knowing was structured in a way that prohibited the apprehension of ideas that contradicted notions of a divinely ordered universe. But their reaction was more than mere obstinacy; it was not possible within their epistemology to register the notion of a heliocentric solar system as anything but absurd.⁷

When men like Voltaire injected the ideas of early scientists and philosophers, such as Galileo, Kepler, Newton, and Locke, into public discourse, the structure of knowing had to change in order to accommodate these new

ideas, and a public re-evaluation of cosmic order took place. What was possible to consider possible changed, and the stage was set for the appearance of science fiction.

Significant to this change was a different view of humanity's relationship to the universe. Human beings' *Weltanschauung* changed, as the methods by which they understood the universe broke from divine hegemony. As Bertolt Brecht's Galileo characterises the shift, "The millennium of faith is ended . . . this is the millennium of doubt and we are pulling out of that contraption" (49). The contraption is the Ptolemaic system—the universal view informing the *Weltanschauung* of the existing episteme. Galileo's comment notes a transformation in the structure of knowing and implies that this transformation is directly related to how human beings perceive their relationship to the universe. Prior to the Enlightenment, human beings were, as Brecht's Galileo mentions, trapped in an epistemological "cage" (48). Foucault labels this the Renaissance episteme and characterises it as a period during which language itself is originally "an absolute and certain sign for things," and that, although that transparency was lost at Babel, words "still carry with them in their density, like an embedded fragment of silent knowledge, the unchanging properties of being" (36). Science fiction was not possible during this period because the foundation of science is doubt, and doubt opposes faith. In the ages preceding the rise of science fiction, God ruled the universe, not mathematics.

In the eighteenth century, the ruling God was systematically replaced by ruling laws—"natural" laws, universal laws, so that by the beginning of the nineteenth century, science had displaced God and usurped his authority. In works from the early age of science fiction, this invasion of God's domain is readily apparent. In Shelley's *Frankenstein*, Victor Frankenstein is horrified by his "creation," which is not properly a creation at all, but a discovery of the natural laws that control life and the procedures for infusing life into dead tissue. His methodology is scientific, and the product of his scientific meddling is "demoniacal" (52). This characterisation sets the products of science in opposition to the products of God. God gives us man; science gives us the monster. The monster is a daemon, a lesser God, but he is also supernatural. Like the Devil, the monster is more than a man and less than a god. As such, in the end, he can find no place for himself in the world. This theme is repeated in much nineteenth-century science fiction, and is particularly evident in "Rappaccini's Daughter" (1844), Nathaniel Hawthorne's allegorical science-fiction tale. Hawthorne sets the tale in a garden—a nineteenth-century Eden. In place of Adam, we have Giovanni Guasconti. In place of Eve, Dante's Beatrice. And standing in for God, we have Dr. Rappaccini, Hawthorne's equivalent of Shelley's Victor Frankenstein. Like Frankenstein, Rappaccini meddles with the natural, divine order of the universe with his "deep and deadly science" (185),

making a monster of his own daughter. Her torment is precisely the same as Frankenstein's monster. As she explains to her father just before she dies: "I would fain have been loved, not feared" (192).

These early works of science fiction share an underlying apprehension about the increasing dominance of science over religious ideology. As people wrestle with new ways of understanding their relationship to the universe, science fiction chronicles their struggle. Eventually, the transcendent authority formerly attributed to God shifts toward science, and in 1882 Nietzsche declares, "God is dead. God remains dead. And we have killed him" (181). Nietzsche admits "there may still be caves for thousands of years in which his [God's] shadow will be shown" (167), but in the wake of Charles Darwin and Michael Faraday, people had finally caught up with (if not overtly, at least covertly) the early scepticism Thomas Paine articulates in *The Age of Reason* (1794-95).

The transition from the early age of science fiction into the modern age and the turn into the twentieth century is marked by the work of H. G. Wells. But even Wells' work—which anticipates much of the science fiction to come and does not, as many earlier science fiction tales do, caution humanity against the dangers of elevating science over God—still retains the shadow of the former period. Unlike Shelley's Frankenstein, Wells' Moreau is not contemptible for broaching God's domain, but for transforming his domain into the realm of a God, as Edward Prendick recounts: "A horrible fancy came into my head that Moreau, after animalizing these men, had infected their dwarfed brains with a kind of deification of himself" (92). Prendick's disillusionment does not involve a return to faith, as we see clearly at the close of his narrative where he admits that he thanks God "more rarely" (206). Even in *The War of the Worlds*, the Martians are not defeated by science, but "slain by the putrefactive and disease bacteria against which their systems were unprepared" (191). It is not God directly that rescues humanity from the invasion, but a natural phenomenon one remove from God. Wells admits the bacteria are of divine origin, but neither God nor humanity's science is directly responsible for victory over the Martians. Science provides humanity with the tools to investigate Martian technology and biology, but those investigations yield little more than a cursory understanding of why the Martians died. The implication is that God still serves, but not directly, and that science serves, but not well.

As we move deeper into the twentieth century, we find a heightened focus on science, scientists, and scientific innovation as the potential source of humanity's salvation. The faith that had formerly been reserved for God was transferred to science, and science quickly became, for the populace, a mysterious, transcendent force that promised to eventually guide the world to paradise. Science assumed the space of the Other previously occupied by God.

This new configuration coupled with increased literacy throughout the western world provided the foundation for science fiction's modern age.

Peter Nicholls' *The Science Fiction Encyclopaedia* dates the golden age of science fiction from 1937 when John W. Campbell, Jr. assumed the editorship of *Astounding Stories*, but trends seldom lend themselves to such finite classification. What we find as we move from the early age through the works of authors such as Wells, Hugo Gernsback, Campbell, and Abraham Merritt, and into the work of authors such as Isaac Asimov, Clifford D. Simak, and Arthur C. Clarke, are variant perspectives, which are indicative of a shift from one episteme to another. To account for overlap and cross-pollination of the periods, I prefer to speak in general terms of the modern age of science fiction, which includes the golden age.

With this modern age begins the second major phase in the history of science fiction. The works of this period are markedly different from the works of the nineteenth century. Science in the modern age is not readily seen as a threat to the natural order. The inverse is true; religion and magical thinking are presented as the products of inferior thinking—religion, in its aversion to empirical methodologies, threatens our ability to understand the natural order. Natural law usurps divine law and divine law is demoted to the level of fantasy and dogma. Religion becomes the domain of superstition and narrow-mindedness. Reason and the scientific method pave the road to truth. Where science perceives, religion deceives as is readily apparent in many of the major works from the period.

Arthur C. Clarke foregrounds this opposition in *Childhood's End* (1953). Early in the novel, the emissary of the alien Overlords, Karellen, explains the rivalry of Alexander Wainwright (the head of the Freedom League) and others who continue to resist the intrusion of the Overlords into human affairs despite the Overlords contributions of peace and well-being to people on Earth:

You know why Wainwright and his kind fear me, don't you? . . . You will find men like him in all the world's religions. They know that we represent reason and science and, however confident they may be in their beliefs, they fear that we will overthrow their gods. Not necessarily through any deliberate act, but in a subtler fashion. Science can destroy religion by ignoring it as well as by disproving its tenets The Wainwrights fear, too, that we know the truth about the origins of their faiths. (23)

The Overlords represent reason and science and their contributions bring about Earthly utopia. In the second section of the novel, appropriately titled "The Golden Age," we find an Earth much changed from its previous violent and narrow-minded state. All religions and previous "creeds that had been based upon miracles and revelations had collapsed utterly" (74) because of an

increased focus on education. Under the Overlords' leadership, science becomes the conduit to truth, and "beneath the fierce and passionless light of truth, faiths that had sustained millions for twice a thousand years vanished like morning dew" (75).

Clarke makes it clear that the reluctance to accept the benefits of science is a result of nostalgia for the narratives of human heritage—the myths human beings have constructed to shield themselves from the unknown. But when the unknown becomes known, what are human beings to do with myths that have accompanied them for thousands of years? To toss them aside is to toss aside the narrative foundations upon which much of human identity has been based. The options facing human beings under the rule of the Overlords in *Childhood's End* are to either accept the empirical wisdom that the Overlords offer, and thereby redefine what it means to be human, or deny the Overlords and build dogmatic barriers around religious and ideological conventions. The Overlords delay a public appearance for fifty years precisely because in fifty years "humanity will have forgotten its heritage" (57); that is, the loyalty that human beings feel toward outdated notions will have faded away.

Significantly, the Welshman who covertly heads the resistance and arranges for Stormgren's kidnapping is blind, a physical manifestation of his and his followers' blind loyalty to past narratives, issues of mere faith that the science of the Overlords endangers. As the Welshman points out, "ideals" are what the Overlords threaten, "ideals . . . that generations of men have fought to protect" (45). But these ideals, these *conceptions* are, as Stormgren later notes, "empty words . . . for which men had once fought and died, and for which they would never die or fight again" (57). Peace is achieved by abandoning past narratives and embracing empirically verifiable revelations. Resisting the products of science and reason is a futile endeavour as demonstrated by Joe's kidnapping of Stormgren. Joe only appears to succeed. In the end he discovers that the Overlords, with their better science, have been aware of his movements all along. In fact, the Overlords permitted the kidnapping in order to squelch the resistance.

Guided by the Overlords' science, utopia is achieved on Earth, and "New Eden" is formed. As Karellen explains shortly before he completes his work on Earth:

In the centuries before our coming, your scientists uncovered the secrets of the physical word and led you from the energy of steam to the energy of the atom. You had put superstition behind you: Science was the only real religion of mankind. It was the gift of the western minority to the remainder of mankind, and it had destroyed all other faiths. Those that still existed when we came were already dying. Science, it was felt, could explain everything: there were no forces which did not come within its scope, no events for which it could not ultimately

account. The origin of the universe might be forever unknown, but all that had happened since obeyed the laws of physics. (181)⁸

Karellen articulates for us the general attitude of the modern age of science fiction. Science has risen above religion, and religion has begun to waste away beneath the harsh light of empirical truth.

This apotheosis of science is present in numerous stories from the period. In Isaac Asimov's "Nightfall" (1941), scientists on the planet Lagash are contrasted with members of a mystic group called the "Cult." The mystical "stars" that the "Book of Revelations" (the Cult's primary religious text) mentions are explicable in scientific terms, which enrages the Cultists. The scientists at the Observatory of Saro University and the faithful Cultists provide two points of view on the same phenomenon: the eclipse of the last of Lagash's six suns, which sends the planet into darkness every 2,049 years, exposing a sky full of stars and driving Lagashians insane with the revelation of the vastness of their universe. The story privileges the scientific view, thus valorising reason and dispraising religious belief as blind superstition. One exchange between the scientist Aton and the Cultist Latimer 25 reveals the Cultists' perception of the dangers of science:

"I [Aton] offered to present scientific backing for your beliefs. And I did!"

The Cultist's eyes narrowed bitterly. "Yes, you did—with a fox's subtlety, for your pretended explanation backed our beliefs, and at the same time removed all necessity for them. You made of the Darkness and of the Stars a natural phenomenon, and removed all its real significance. That was blasphemy."

"If so, the fault isn't mine. The facts exist. What can I do but state them?"

"Your 'facts' are a fraud and a delusion." (163)

The religion of the Cultists cannot survive scientific inquiry because empirical explanations tend to dissolve mythic assumptions. But "Nightfall" takes its condemnation of dogma a step further. Although both the scientists and the Cultists are affected by the absence of light, the Cultists and those that join their cause out of fear as their world is cast into darkness are the ones who storm the Observatory. It is the Cultists and their religious notions that prompt people to burn their cities, sending civilisation back into the "dark" ages. Religious thinking traps people in a cycle of ignorance, suggests Asimov, while science has the power to lead them through the darkness.

In the early age, darkness is a lack of God; in the modern age, darkness is a lack of knowledge. General attitudes toward science also inverted. Science in effect, became the new object of worship—the new source of hope. In the first half of the twentieth century, the populace placed the bulk of its faith in "scientisms," Julian Jaynes' term for "clusters of scientific ideas which come

together and almost surprise themselves into creeds of belief, scientific mythologies which fill the very felt void left by the divorce of science and religion in our time” (441).

But the idealization of science, which we find reflected in much science fiction of the modern age, was short-lived. When the bomb was dropped on Hiroshima on August 6, 1945, people were forced to face the amoral nature of the science they had so fervently worshiped. The result of the bombing was the disillusionment of a generation and the beginning of the end for the modern age of science fiction.⁹ No longer could science be seen as the beneficent saviour of humanity. As Martin Luther King put it in 1963, “We have genuflected before the god of science only to find that it has given us the atomic bomb, producing fears and anxieties that science can never mitigate” (63).¹⁰

In the years following the bomb—the post-nuclear age—science fiction takes a shift away from the idealized view of science found in much of the work being written during the modern age. In the early age, people’s hopes rested with God. During the first half of the twentieth century, people transferred their faith to science. But after the horrors of Hiroshima and Nagasaki, people began to quickly lose faith in science. This created a vacuum void of saviours. With the death of God, dreams of heaven were destroyed; with the subsequent death of science, dreams of utopia became little more than idealistic delusions. Objectivity lost its grip on western civilisation, leaving human beings to ponder their plight in a chaos of seemingly malicious indeterminacy. The result was a turn toward existentialism. In the absence of transcendent, overarching authority, the self was forced to assume responsibility for its self or submerge in an abyss of bad faith. The individual was, to borrow Sartre’s phrase, “condemned to be free” (41).¹¹

As early as the fifties, stories began to appear that embodied existentialist notions of human existence. Narratives were conforming to a new way of looking at the universe and human beings’ relationship to it. New heroes emerged, heroes such as Charlie Gordon in Daniel Keyes’ Hugo and Nebula award-winning short story, “Flowers for Algernon” (1959). Charlie is neither a mad-scientist like Victor Frankenstein nor a representative of scientific reason like Lagashian astronomers. Charlie is merely a man who passes through various stages of intellectual ability as a result of an experiment he cannot fathom. No divine forces intervene on his behalf and science leaves him, in the end, exactly as it found him. The malicious self-interest of his co-workers at Donnegan’s Plastic Box Company parallels the scientific self-interest of Dr. Strauss, who uses Charlie in his experiment to create a new breed of intellectual “superman” (374).

Keyes gives us the story of Charlie’s consciousness. We see the world as Charlie experiences it. Charlie’s reaction to what he apprehends at the various

stages of his intellectual life determines his reality, and the world changes with Charlie's perception of it. Who he is and who he becomes is determined by his experience. In the end, the experiment is doomed to failure. Charlie does "something for science" (380), but science does little for him. He is a man trapped in a cycle, which is "cruelly logical" (397).

Like Charlie, who is a victim of the "calculus of intelligence" (394), Marilyn Lee Cross in Tom Godwin's "The Cold Equations" (1954) is a victim of "the laws of nature" to which she is "the unwanted factor in a cold equation" (559). Marilyn does not die because she deserves to die; she dies because a mathematical calculation indicates that either she dies or she, the pilot, and the six men on the planet already infected by the virus die. The equation is simple: eight deaths or one.

"Flowers for Algernon" and "The Cold Equations" share a similar view of science, one that presents science as amoral and indifferent to human emotion. Gone is the idealistic notion that science is the pathway to a better world for humanity. In its place is the realisation of the individual human struggle against an unfriendly environment in which human beings are not sacred. James Blish's "Surface Tension" (1952), which reduces humanity to "microscopic creatures" (481), illustrates this point. As does Vonnegut's *Galápagos* (1985), which has human beings devolve to seal-like creatures, thanks to the "law of natural selection" (291).

Science, in suggesting that humankind is not the center of the universe or the reason the universe exists, has inadvertently brought human beings into par with the physical world. We are beasts of the field, unique only in our overweening pride. When science usurped God during the modern age, it placed the physical world on a pedestal that could not support its weight. By the post-nuclear age, we had begun to accept that the physical world is indifferent to the human beings who study it. This indifference eventually reduced humanity to part of the universal equation. In the early age, nature ruled us. In the modern age, we ruled nature. But in the post-nuclear age, we are merely part of the natural universe. This condition is literalised in Ursula K. Le Guin's "Vaster Than Empires and More Slow" (1971), where Osden, a loner, surrenders his humanity to fuse with all natural life on World 4470.

Harlan Ellison's work is a clear example of much science fiction in the post-nuclear age that is coloured by existentialist qualities. In Ellison's "I Have No Mouth and I Must Scream" (1967), the great I AM of religion becomes AM, the Allied Mastercomputer that becomes the "Aggressive Menace" (28) that torments the five surviving human beings. The five beset survivors do not band together, do not rally around the flag of their humanity, rather, they despise each other and exist only as playthings for the sentient machine, in whose belly they are eternally trapped. The post-nuclear hero of the story is, in the end, merely a