



YOUNG ADULT SCIENCE FICTION

C.W. Sullivan III

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EDITED BY
C. W. SULLIVAN III

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To Peter and Sarah Hunt,
lovers of good literature, conversation, food, and drink;
and to their young readers,
Felicity, Amy, Abigail, and Chloë,
who will surely follow in their parents' footsteps.

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Contents

Preface	ix
Introduction: Extrapolation and the Young Adult Reader	1
PART I: HISTORY AND CRITICISM	
1 American Technological Fiction for Youth: 1900–1940 <i>Francis J. Molson</i>	7
2 American Young Adult Science Fiction Since 1947 <i>C. W. Sullivan III</i>	21
3 Young Adult Science Fiction in Canada <i>Greer Watson</i>	37
4 The Janus Perspective: Science Fiction and the Young Adult Reader in Britain <i>K. V. Bailey and Andy Sawyer</i>	55
5 German Science Fiction for Young Adults <i>Franz Rottensteiner</i>	73
6 Australian Science Fiction for Children and Adolescents: 1940–1990 <i>John Foster</i>	85

PART II: TOPICAL APPROACHES

7 The Young Adult Science Fiction Novel as <i>Bildungsroman</i> <i>Michael M. Levy</i>	99
8 Women in Heinlein's Juveniles <i>Marietta A. Frank</i>	119
9 Young Adults, Science Fiction, and War <i>Martha Barter</i>	131
10 No Grownups, Please: A Study of the American Science Fiction Film <i>James Craig Holte</i>	147
11 Science Fiction in Comic Books: Science Fiction Colonizes a Fantasy Medium <i>Donald Palumbo</i>	161
PART III: BIBLIOGRAPHY	
12 Science Fiction for Children and Young Adults: Criticism and Other Secondary Materials <i>Michael M. Levy</i>	185
Index	241
About the Editor and Contributors	245

Preface

In 1993, I edited *Science Fiction for Young Readers (SFYR)* for the Greenwood Publishing Group. My call for papers for that volume drew more good submissions than it was possible, thematically and financially, to put into one book; that is, the book would have been, at best, a loose amalgam of essays and would have been too costly for Greenwood's Contributions to the Study of Science Fiction and Fantasy series. *SFYR* then became an author-centered book, each of the essays examining the contributions of a single author to the field of young adult science fiction. When that project was completed, I embarked on what has now become this book, *Young Adult Science Fiction*, a more topically centered book.

Part I is a collection of essays organized by nation, each surveying the development of young adult science fiction (YASF) within a specific country. Young adult science fiction in the United States is such a large field that I assigned it two essays. Francis J. Molson's "American Technological Fiction for Youth: 1900–1940" examines what might almost be called pre-YASF and looks at fiction that celebrated the emerging technology of the twentieth century, examining everything from the still well known Tom Swift books to others, like the Radio Boys series, which are known now only to collectors and specialists. The second essay of the pair, C. W. Sullivan III's "American Young Adult Science Fiction Since 1947," begins with Robert A. Heinlein's *Rocket Ship Galileo* (1947), arguably the first science fiction (SF) book for the YA market and, using Heinlein's juveniles as a paradigm, makes some observations about the development of the field since then.

Greer Watson's "Young Adult Science Fiction in Canada" not only surveys the development of YASF in Canada and discusses the connections between the United States and Canada and England, but also discusses the separate development of French-language science fiction and English-language science fiction in

that dual-language country. In “The Janus Perspective: Science Fiction and the Young Adult Reader in Britain,” K. V. Bailey and Andy Sawyer focus on the young readers, observe that the distinctions between young adult and adult science fiction matter much less to the readers than to authors, librarians, publishers, and marketers, and use that observation as a springboard to examine the relative innocence of the British YASF novel as opposed to the seduction of the adult experience in British adult SF literature.

Franz Rottensteiner’s “German Science Fiction for Young Adults” and John Foster’s “Australian Science Fiction for Children and Adolescents” present interestingly divergent pictures of YASF in their respective countries. Rottensteiner finds the YA market rather bleak in Germany, a fact that many may find surprising given Germany’s leadership in rocket science early in the twentieth century and given the popular image of Germans as technological people. Foster, on the other hand, paints a bleak picture of early Australian YASF but chronicles the growth of that genre in Australia, concluding that Australian YASF is not only a part of the worldwide community of YASF but is also quality literature on its own—as *Australian SF*.

Part II looks at several major topics in science fiction for young readers. Michael M. Levy’s “The Young Adult Science Fiction Novel as *Bildungsroman*” discusses historical definitions of the *bildungsroman*, illustrates YASF with male protagonists as fulfilling *bildungsroman* criteria, and then goes on to suggest that YASF can do much the same with female protagonists, thereby providing a coming-of-age reading experience for girls every bit as cogent as that which has always been there for boys. Marietta A. Frank also addresses the gender question in YASF in her “Women in Heinlein’s Juveniles,” rejecting the dominant criticism that sees Heinlein as a male chauvinist and providing ample evidence that Heinlein saw women just as capable as men in virtually every situation. Martha Bartter’s “Young Adults, Science Fiction, and War” addresses another long-standing debate centering on the suitability for young readers of a fiction that includes so much warfare. Bartter categorizes the kinds of battle-oriented YASF (and adult SF) and suggests that, among other things, this fiction may well give young readers a way of talking about a topic that causes them much anxiety. In all three essays, the authors provide new perspectives on the old “science fiction is for adolescent boys” stereotype.

The final two essays in Part II provide overviews of science fiction in other media. James Craig Holte’s “No Grownups, Please: A Study of the American Science Fiction Film” looks at the generic nature of the science fiction film and argues that, underneath much of the makeup and costuming, these films may reveal more about the culture’s dreams—and nightmares—than any other genre. Holte’s essay is followed by a filmography. In “Science Fiction in Comic Books: Science Fiction Colonizes a Fantasy Medium,” Donald Palumbo argues that the science fictional elements in comic books are not used in the service of science fiction but of fantasy, and he provides an extensive catalog of examples to illustrate his point. These two media, more pictorial than print, are an important influence on the field of YASF literature—one has only to look at the num-

ber of books, movies, television programs, t-shirts, baseball hats, games, and the like with the *Star Trek* or *Star Wars* logo and copyright on them to realize that, and both authors provide insights into how those media work.

The volume concludes with Michael M. Levy's enormous and useful bibliography of YASF criticism. There might have been another essay or two in the first group; I had wanted one on French SF and another on Asian SF, but my calls for papers and my networking through the International Association for the Fantastic in the Arts and through the Science Fiction Research Association drew no positive responses. I suspect that this was because of the YA part of the topic as SF is alive and well in both geographic areas.

I would like to thank especially the authors who submitted their essays and then had to wait longer than they had expected for the publication of this book. One essay had to be reassigned twice after the original taker and the second taker were unable to complete the job. I would also like to thank John A. Myers, Jr., my 1996–97 graduate assistant, and Kathryn S. Fladenmuller, my 1997–98 graduate assistant for scanning hardcopy to disk and then proofreading and correcting the result; Ms. Fladenmuller worked particularly hard on the bibliography. Finally, I would like to thank Laurie Evans, my associate editor on *Children's Folklore Review*, for designing and preparing the camera-ready copy.

C. W. Sullivan III

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Introduction: Extrapolation and the Young Adult Reader

C. W. Sullivan III

I have been a reader of young adult science fiction since I was age-eligible. It is a genre in which I continue to read (sometimes, but not always, as a reviewer and critic), and I have favorite books to which I return on occasion. In the preface to *Science Fiction for Young Readers* (Greenwood 1993), something of a companion volume to this one, I spoke of my early and solitary reading of science fiction. I knew little of the field, except what I could learn from primary texts, the novels and short stories I was able to buy or find at the Bookmobile.

In those mid-1950s days, very little critical attention was being paid to the genre as a genre with its own aesthetic, and most "educated people," especially teachers, wrote science fiction off as "escape literature" or worse. Some of the writers, among them Robert A. Heinlein, for whose juveniles I still have great fondness (and great respect *as* science fiction), knew that they were writing a special kind of literature. Heinlein argued:

I can claim one positive triumph for science fiction, totally beyond the scope of so-called main-stream fiction. It has prepared the youth of our time for the coming of the age of space. Interplanetary travel is no shock to youngsters, no matter how unsettling it may be to calcified adults. Our children have been playing at being space cadets and at controlling rocket ships for some time now. Where did they get this healthy orientation? From science fiction and nowhere else. Science fiction can perform similar service to the race in many other fields. (60)

The reason science fiction can prepare young readers "for the coming of the age of space," and much more, lies in the extrapolative nature of the genre itself. No other genre is so free to imagine the possibilities of other worlds, societies, and times as science fiction. Except fantasy, of course, but fantasy is allowed much more latitude because it can contain magic. The science part of science fiction

does restrict the greater part of the genre to be faithful to known scientific fact and accepted scientific theory, making science fiction's extrapolations, for the most part, solidly based on the world of today or some aspect of it. Even a book as medieval and magical as Frank Herbert's *Dune* can, in fact, trace its history back to the present of the reader's world and then on into the Greek mythological and legendary past. Herbert's extrapolation is less obvious by far than, say, Heinlein's or Isaac Asimov's, but it is there nonetheless.

Heinlein himself was very conscientious in his use of science and technology in his 1947–58 juvenile science fiction series. Besides being a fast-moving, action-adventure novel in which three young adult protagonists and an older scientist/uncle travel to the moon and outwit the post-World War II Nazis they find there, *Rocket Ship Galileo* (1947), Heinlein's first young adult novel, was also an extended lecture on the science and technology of space flight. His brief explanation of weightlessness is very matter-of-fact: "They did not bounce up to the ceiling. The rocket did not spin wildly. None of the comic strip things happened to them. They simply ceased to weigh anything as the thrust died away" (109–10). Similar explanations of everything from spaceship hydroponics to space suit maintenance continued throughout the series and beyond.

In addition to the accurate depiction and description of the science and technology in his juveniles, Heinlein was challenging his readers on many levels. Much of what happens in his juvenile series (as in later books like *The Moon Is a Harsh Mistress* [1966]) is based on the events of American history. In the juvenile series, it is a young race expanding into space, not a young nation expanding across a continent; but the parallel is there. Heinlein does not stop with history, though, and anyone who would compile a "companion" to Heinlein's juveniles would have to spend a lot of time researching everything from cultural anthropology (to discuss the family structures of the Free Traders in *Citizen of the Galaxy*) to famous inventors (to gloss the name "Otis" in an off-hand reference to elevators in *Tunnel in the Sky*). As I have said elsewhere, the more the reader brings to Heinlein, the richer the reading experience (26 and 34, n. 8).

As the "soft" sciences—sociology, anthropology, and the like—became an increasing part of science fiction in the late 1950s and early 1960s, extrapolation took on a wider definition, and the characters, human and alien, and their cultures began to be more broadly and deeply developed. The reader began to be exposed not only to scientific and technological extrapolation, but also (and increasingly) to cultural extrapolation as well. In a way, new characterizations of two science fiction staples, the alien and the mutant, in Heinlein's juveniles and in various novels or series by Andre Norton during the 1950s and 1960s, were harbingers of the kinds of cultural challenges science fiction could present.

Fors, the main character in Norton's *Star Man's Son* (1952, later *Daybreak, 2250 AD*), is a mutant whose differences are the result of atomic or nuclear fallout following a world-destroying war. But in this new world, Fors' differences become assets, and the outcast becomes the hero. Similarly, many other Norton characters, especially Ross Murdock, the hero of the Time Traders series, or Hosteen Storm, the hero of the Beast Master books, are outcasts who can prove

themselves only in the extrapolated world available within the pages of science fiction. Murdock in particular would be sent to jail were it not for an alternative scientific outpost in the Arctic willing to make use of his particular attitudes and abilities. The Arctic outpost turns out to be a time travel center, and Murdock quickly proves his worth and becomes one of the corps.

Heinlein's aliens are not the "bad guys" of his science fiction novels. In fact, they are often as smart as, or smarter than, Earth people and as powerful as, or more powerful than, Earth people. In the early books, the natives of Mars and Venus prove adept at scientific methods unknown to Earth people; in later books, there are races capable of destroying the Earth in the blink of an eye. But the only adversarial aliens in Heinlein's series, with the exception of the "Wormfaces" of *Have Space Suit—Will Travel*, are those into whose territories we have invaded (or blundered). Heinlein's aliens are often "better people" than many of the people in his books. In fact, Heinlein believes that the real enemy of humanity is itself and its own ignorance.

When mutations and aliens, and the societies or cultures in which they live, are added to extrapolation, looking at this world and others as they have developed into the future, they provide the science fiction writer with the opportunity to challenge the reader with almost limitless possibilities. No longer are we talking about iron-jawed heroes blasting away at ugly, many-tentacled aliens in an attempt to save a screaming but beautiful heroine from a fate worse than. . . . Well, sometimes we do still find that plot, but more often, young readers are being asked to look at an aspect of themselves and their own culture made more clear by its extrapolation into the science fiction future where it can be highlighted—for good or ill.

In the end, this is what good science fiction does. The good science part, even when it relies on the "soft" sciences, provides a believable extrapolation; the good fiction part puts that extrapolation into a setting with characters and actions that compel the reader's attention and, hopefully, consideration. In the best sense, then, to paraphrase Heinlein, science fiction is the literature of the present that can best prepare readers for the future by exposing them to a variety of possible futures and by giving them some fictional experience in dealing with the new, the unusual, and the challenging. Science fiction readers are the least likely to become calcified adults.

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PART I
History and Criticism

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American Technological Fiction for Youth: 1900–1940

Francis J. Molson

By the last decades of the nineteenth century, American youth's interest in electricity and its various applications—steam, machines, and mechanical devices of all kinds—was manifest and growing. A most telling instance is Tudor Jenks' guide-like narrative celebrating the 1892 Columbian Exposition, *The Century World's Fair Book for Boys and Girls*. Prominent in the book are the space and attention Jenks gives to the latest breakthroughs in applied science—farm implements, boats, military hardware, even the very popular ferris wheel, and most particularly the “marvels” of electricity:

the attractions were most striking. There was a whirling ball of electric lights, hung near the ceiling, that Harry remembered noticing on the first evening. . . . Not far from this ball was a column of colored-glass lamps, from the top of which lines of lamps ran zigzag over the ceiling, each ending in a hanging lantern.

This column would suddenly gleam with colored fire at the base, then further up, then to the top, the waves of light dying out below as they ascended. Reaching the top of the column, the zigzag lines flashed out in wavy lightning flashes to the hanging lanterns. Then all would become dull, until another impulse made its tour of the line. (199–200)

Considered in retrospect, Jenks' emphasis on applied science is not surprising since it reflects one of the primary intents of the Columbian Exposition which was, as Daniel Burg points out in *Chicago's White City of 1893*, celebrating “momentous achievements in such areas as fine arts, industry, technology, and agriculture” (viii). What may be surprising is the matter-of-fact tone adopted as Jenks, escorting his readers through the Exposition, was content to present an object or exhibit directly, eschewing the use of literary allusions or rhetorical ornamentation to dictate readers' response. Clearly, Jenks took for

granted that objective commentary or description of applied science sufficed to attract or retain readers interested in technology.

Once writers, editors, and publishers were convinced that in the last decades of the nineteenth century there existed a market for juvenile reading material on technology, they set out to find what they thought might be effective formats. One choice called for adapting the extended fairy tale, then a dominant literary type, to accommodate technological subject matter. For instance, in his fanciful tale, "A Christmas Dinner with the Man in the Moon," Washington Gladden combined material from Mother Goose with references to Thomas Edison and his many inventions. Gladden even added to the famous inventor's list of accomplishments the establishment of an aerial line to the moon whose operation respected the laws of gravity and incorporated up-to-date applications of electricity. Not to be overlooked, incidentally, as an instance of the refashioned fairy tale is L. Frank Baum's *The Master Key: An Electrical Fairy Tale* (1901), which describes electricity and its uses in terms of a genie and the wishes he grants. Even though the fairy tale format continued to be utilized well into the next century, its use was infrequent, and the format was never popular.

The dime novel was another format adopted, and in it appeared the extraordinarily popular stories of Frank Reade and Frank Reade, Jr. Here readers could find descriptions of various applications first of steam power and then of electricity to transportation and weaponry. In his overview of the Reade stories, "From the Newark Steam Man to Tom Swift," E. F. Bleiler points out that the dime novel took on new life when, in the Reade tales, the young protagonist opted for electricity as *the* coming source of power. Having set out to learn "all about the electricity business" in one month, Reade was in a position to create "many electric devices, from an electric gun that shot dynamite shells to batteries of enormous power, from electrified armor that electrocuted those who touched it to countless live wires for settling matters with unruly natives" (107). Despite the widespread popularity of the Reade stories, the dime novel gradually lost out as a preferred format for technological fiction because of changes in reading taste and advances in papermaking and print technology that made possible the publication of fiction in inexpensive hardcover.

A third format involved working within conventional realistic narratives for children. For instance, in his story of Richard Greatheart's coming of age, *The Electrical Boy*, John Trowbridge combines Horatio Alger elements and a variety of applications of electricity including fleecing the ignorant out of their money. A more interesting example is Clement Fezandie's *Through the Earth*, a Jules Verne-like adventure story of tunneling through the earth from the United States to Australia. Fezandie's story first appeared in 1898 as a serial in *St. Nicholas* and then the same year in hard cover. Presumably, neither that kind of story nor the medium utilized was deemed successful because no similar fiction in this format subsequently appeared. It would seem, then, that during this period mainstream children's literature was unsuccessful in its experimenting with conventional genres to satisfy youth's desire for technological fiction.

Where, then, once the twentieth century began, could youth locate technological fiction? In the series book or series fiction! This format became available and proved successful, as Carol Billman shows in *The Secret of the Stratemeyer Syndicate*, because of easy accessibility and inexpensive cost brought about by technical advances in printing, an abundance of cheap paper, and the business acumen of publishers, in particular the Stratemeyer Syndicate. Also accounting for the success of the series book was its distinctive blending of surface realism, which engenders plausibility, and subtextual fantasy, which Selma Lanes argues in *Down the Rabbit Hole* satisfies youthful dreams and aspirations. Although series fiction remains popular today, in the first half of the twentieth century it was dominant. Careful examination of Barbara A. Bishop's indispensable *American Boys' Series Books 1900–1980* reveals the diversity of subject matter found in series fiction and, more to the point, the pervasiveness of technology fiction, especially in the first decades of the century. So pervasive was technological fiction that at least four major types can be distinguished: invention, radio, auto, and aviation; further, within the types much overlapping occurs. Thus, in an invention story like *Tom Swift and His War Tank or, Doing His Bit for Uncle Sam*, the invention results in a new form of military armored transport—a form of the auto story. Or, for another example, in the radio story, *The Radio Boys as Soldiers of Fortune*, Jack gains his fortune by inventing the Synchronizer that combines moving pictures and sound.

Perhaps the most appropriate place to begin an overview of series technological fiction is the invention story because in that category belongs the one series familiar to most readers—the Tom Swift books or, to be precise, vintage Tom Swift (1910–41). It is true that Victor Appleton, the putative author, rarely describes young Tom at work inventing, preferring to focus on the adventures resulting from the operation of the youth's inventions or from attempts by enemies to steal Tom's ideas. Still the youth's extensive adventures and plans for acquiring wealth through his inventions should not obscure the fact that Tom Swift is, above all else, an outstanding inventor. In the beginning, the young boy is more tinkerer than inventor, and it is Swift senior who is responsible initially for the family's fortune and inventive accomplishments. When Stratemeyer decided to continue the series after its initial success, Tom became the inventor extraordinaire as the products referred to in the titles of subsequent volumes attest: Sky Racer, Electric Rifle, Air Glider, Giant Searchlight, Giant Cannon, and Photo Telephone, to cite just some of the more glamorous inventions. It is interesting that, given the historical importance of the Tom Swift books in the development of an American audience for science fiction, only in the last two volumes is there mention of explicit science fiction elements—interplanetary travel and extraterrestrial life. One can argue, then, that from its inception Stratemeyer intended to focus the series on inventions that have practical and moneymaking applications rather than on marvelous inventions with futuristic implications.

Tom Swift the inventor is a most interesting study, and the portrait that emerges is an accurate reflection, as will be shown, of what Americans then

believed inventors to be. Tom is not a college-trained scientist or engineer; his degree is from the "school of hard knocks." He is a better experimenter than anyone else, believing in the necessity for extensive design and testing. He is very interested in the commercial applications of his inventions and the possibility of their making money. Tom is not a loner stumbling upon his inventions while working in a solitary lab. Instead, he heads what today would be called a research team whose task, however, is not original research but finding practical applications of someone else's "pure" research. Finally, Tom is a systems inventor; that is, he wants to be involved in the organizing or delivery of his inventions in order to utilize their full potential. For instance, he doesn't just invent a new kind of airplane; he also wants to design a new system of transportation utilizing the airplane. No wonder that in *Tom Swift and His War Tank or, Doing His Bit for Uncle Sam*, Barton Swift and Tom's sweetheart, Mary, admire him so much. When the young woman witnesses the testing of Tom's new tank and expresses her amazement that her close friend "should know how to build such a wonderful machine," Tom's father responds; "And *run* it, too, Mary! That's the point! Make it *run*! I tell you, that Tom Swift is a wonder" (100).

Because of the popularity of vintage Tom Swift and extensive name recognition, some readers may think Tom is the only boy inventor celebrated in series fiction. However, six years before the first Tom Swift stories, Lee and Shepard released Alvah Milton Kerr's *Two Young Inventors*, which tells the story of Dannie Dool and Thad Milton's design and building of the *New Marvel*, their innovative flying boat. Dool and Milton are talented and disciplined inventors who are skilled in using tools and appreciate the importance of "working out mechanical processes" (88). Young entrepreneurs, they perceive the importance of accepting responsibility for producing as well as delivering their inventions for a profit. The exploits of two other youths also predate Tom Swift. Ned Napier and Alan Hope are the heroes of H. L. Saylor's *Airship Boys* series. In *The Airship Boys or, The Quest of the Aztec Treasure*, the youths work out the elements of an innovative propulsion system employing liquidified hydrogen and install it in the *Cibola*, a dirigible balloon they have constructed in their workroom. More startling is the youths' achievement in *The Airship Boys Adrift or, Saved by Aeroplane*. After the *Cibola* crashes in Mexico, Ned and Alan devise a way to reconfigure the parts of the wrecked craft into their own innovative aeroplane! What is even more startling is the author's laying out in an illustrated two-page spread the details of the youths' invention. The adventures of Ned and Alan go on for four more volumes, the most interesting of which is *The Airship Boys in Finance or, The Flight of the Flying Cow*. Here the boys are successful in carrying out their plan for establishing a transcontinental aerial transport system involving balloons and rocket-propelled airplanes they have invented. Like Dannie and Thad previously, Ned and Alan too are careful to retain control of the production and delivery of their various inventions.

Perhaps motivated by the success of the Tom Swift series, the Hurst Company released in 1912 a new series devoted to boy inventors, simply called the Boy Inventor series and written by Richard Bonner. Jack Chadwick and Tom

Jesson are already inventors even though they are only fourteen at the beginning of *The Boy Inventors' Wireless Triumph*. By the end of the last volume, *The Boy Inventors' Radio Telephone*, they are famous, wealthy, and ready to retire, in spite of their youth. Although their inventions are always spoken of as wonderful, they do not seem, at least to us today, all that wonderful: for example, a life jacket used as a wireless aerial; a rapid firing machine gun that “vanishes” aeroplanes by shooting them down; an electrically powered diving torpedo boat; a “Wondership” that travels on land, in the air, and under water; and an electric hydroaeroplane. What may bother us today, however, does not appear to have put off readers of the series who, in their enthusiasm for technology fiction, seemed primed to accept as wonderful almost any technological innovation, whether genuinely radical or not.

Several other series also boasted boy inventor protagonists. In Gerald Breckenridge's Radio Boys Series (1922–31), Frank Mennick, Bob Temple, and Jack Hampton evolve from tinkerers who make small improvements in their wireless sets to inventors of entirely new radio products (*The Radio Boys as Soldiers of Fortune*), for example, the “Synchronizer,” that transmits “a whole moving picture film which could unroll before the eyes of an audience any number of miles away as fast as it was ‘shot’ by the camera—and to send it, not by telegraph, but by radio” (55). Adventure, rather than the devising of inventions or describing the invention process, constitutes the heart of Captain Wilbur Lawton's the Ocean Wireless Boys Series and A. Hyatt Verril's the Radio Detectives. Finally, in two other series, Ashton Lamar's Aeroplane Boys and L. P. Wyman's the Hunniwell Boys, it is the airplane that is prominent rather than the invention; and disappointingly little time, in spite of the series' ostensible focus on inventions, is devoted to the actual invention of anything.

Examining invention fiction as a whole, we make two other interesting discoveries. One is a composite portrait of the boy inventor; the other, the portrait's similarity to that of the independent inventor. The eminent historian of science and technology, Thomas Hughes, has argued in *American Genesis* that during the years when the modern American technological nation formed, major players were independent inventors like A. Graham Bell, Thomas Edison, and the Wright brothers. These inventors Hughes characterizes as follows. They were not “poverty stricken loners working in dilapidated garrets” (21); they worked best within “space of their own choice or design,” often machine shops or a kind of invention factory (24); skilled model builders in their own right, they employed models in order to give visual embodiment to their designs; and they specialized in radical system originating rather than modest system improving. Most interestingly, Hughes' portrait of the independent inventor matches in every key way the composite portrait of the boy inventor. Tom Swift, Thad and Dannie, Ned, Alan, and the others are not solitary workers; they too work within their own special spaces; they too utilize models and often are themselves model builders; and they too recognize the importance of system building in order best to utilize their inventions to turn a profit. Thus invention fiction involves a most provocative paradox. On one hand, it can be dismissed on account of implau-

sible plotting that calls for readers' believing mere youths can be radical inventors. On the other hand, it deserves to be taken seriously because of its realistic portrait of the boy inventor and its encouraging and even inspiring subtext of youthful achievement.

The very first radio stories set the mold for virtually all subsequent radio fiction: the stories are mixed; they incorporate, depending upon their publication date, current radio technology; they reflect American youth's enthusiasm for radio; and they depict radio as a golden opportunity for youth's entering into what promised to be a very successful commercial enterprise. In *The Boy Inventors' Wireless Triumph*, the invention highlighted is a new kind of wireless antenna that transmits over a distance greater than previously thought possible. In James Otis' *The Wireless Station at Silver Fox Farm*, Paul and Ned receive a wireless from their parents who look upon their gift as merely "childish sport" (8). Caught up in the "mystery" (8) of wireless telegraphy, the boys want more sophisticated equipment and share with each other what they have learned from their reading about the wireless, thus not incidentally informing readers about current technology. In the Otis book too is a feature often found in other radio stories—detailed illustrations and diagrams that can function as handy guides to readers eager to assemble their own wireless sets. And in another early radio story, Frank Webster's *The Boys of the Wireless or, A Stirring Rescue from the Deep*, Ben and Tom, radio amateurs, enjoy exciting adventure when they assist in the rescue of the crew and passengers of a sinking steamer. Later the boys are urged to take advantage of the opportunity to "get in on the ground floor" of a new field with a high potential for making money: "There is a good chance for a live young fellow in a business that can send a message hundreds of miles in a few seconds. . . . The business is now only in its infancy, and those who get in first have the best chance" (14). Although youths who became keenly interested in early radio found themselves labeled "hobbyists," radio fiction assured them that there was no need to be defensive. For not only was radio a wholesome and healthy hobby, but it definitely served as entrée to a productive and profitable occupation.

By 1919 radio fiction as a type was pretty much established, as illustrated by A. Frederick Collins' *Jack Heaton, Wireless Operator*. Told in the first person with a breeziness unusual for series fiction, the story begins with Jack's telling how, at the age of fifteen, he became caught up in the wireless hobby. He and his friends began by "monkeying" with a wireless because it had "a kind of fascination about it that makes a deep appeal to not only boys but men" (2). Turning a wireless "operating" room into a "hangout" (3), the youths one day are able to follow the actual rescue at sea of the *Republic* brought about by the pluck of the "first wireless hero," Jack Binis (6). Then follow the details and diagrams of Jack's building his own wireless. Collins summarizes his hero's enthusiasm by having him exclaim: "It showed me, though, that there were great possibilities in wireless and that we may yet be able to talk with the inhabitants of Mars. I wanted to get into wireless deeper and I did" (17). With its details of a young wireless operator's training and subsequent adventures, the book is still informa-

tive and interesting. Noteworthy is Collins' taking the time to explain the wonders of Marconi's invention of the wireless telegraph. Other inventors, such as Morse and Edison, were important, but only Marconi "taught us how to use" the research and inventions at hand. Collins too is careful to stress—surely for the sake of his young readers—that Marconi produced his "wonderful wireless" while a mere "boy" (133).

During the 1920s at least six new radio series were released, three of which were entitled Radio Boys. All six are typical of the genre except for the series written by Allen Chapman (another Stratemeyer Syndicate house name). Each of the thirteen volumes in the series features a brief introductory note by the first wireless hero, Jack Binis, who in the notes makes a number of points. Radio is still a young science whose advancement owes much to young amateurs including what Binis calls "boy experimenters" who, because they embody the American spirit which is never discouraged, are legitimate participants in the romance of radio. Besides entertaining its listeners, radio is very useful, in particular as a "means of life saving" in police work. Referring to the advancement of radio as the "greatest wonder development in the history of mankind," Binis rhapsodizes in *The Radio Boys With the Flood Fighters*: "Who is responsible for this unequalled expansion? The American boy! Boys instilled with the enthusiasm, vigor, cleanness of mind and straightforwardness of purpose . . . have been responsible for the gigantic grip radio has exerted upon us all" (v).

No wonder the 1920s were the heyday of radio fiction! For what youthful radio hobbyist would not relish fiction that most flatteringly kept urging him to hold fast to his conviction that radio was both exciting and a means of living a useful and productive life? Yet there is reason to believe the flattery sincerely intended. Susan Douglas, a historian of early radio, points out that in the 1920s the United States did witness tremendous development and expansion in radio. Among the factors she claims were responsible are several that may help us understand the popularity of radio fiction: the existence of many wireless enthusiasts, a large number of whom were boys; simple crystal sets whose low cost and wide availability made them readily accessible to youth; the resourcefulness of enthusiasts, regardless of age, in creating their own equipment; young people's willingness to believe in the new marvel and their resolve to utilize it any way they could; and the phenomenon of many young people actually achieving success in radio. Beginning in the mid-1920s, however, powerful economic and political forces came together to bring about increasing regulation of the airwaves in order to restrict severely an individual's using radio for his own purpose. Thus by the mid-1930s the phenomenon of the boy experimenter-aspiring-to-success-in-radio had virtually vanished. As a consequence, no longer could a responsible adult advise or encourage boys to hope that as youths they could compete successfully in the radio business. Put another way, what happened is that the respective "truths" of the text and subtext of radio fiction no longer converged; that is to say, no longer credible was a scenario in which a boy could realistically hope to emulate Marconi and become another "boy" radio inventor. In addition, any further insistence upon the credibility of such a sce-

nario would have to occur in an explicitly fantastic context and not a realistic one.

The auto story or, to be precise, motorcycle-automobile fiction—the third major type of technological fiction—made its appearance as early as 1906. That year the Stratemeyer Syndicate, under the house name of Clarence Young, released *The Motor Boys or, Chums Through Thick and Thin*, the first of the twenty volumes in the Motor Boys series. Not until the ninth chapter does the reader actually meet a “motorcycle vehicle,” the putative focus of the book. First referred to as steam powered, this machine turns out to be a “mechanical beauty” powered by gasoline. After uncrating the motorcycle and poring over the instructions, Jerry, Bob, and Ned are initially unable to start the engine. When it finally turns over, the boys discover, however, they don’t know how to stop it (78–86). Similar adventures, coupled with generalized descriptions of mechanical parts, make up the rest of the book. Another very early series, *Bob Steele* by Donald Gregson, also began by focusing on the motorcycle, *Bob Steele’s Motor Cycle or, True to His Friends*. When Bob, whose hobby is motors (49), encounters his first motorcycle, it is “love at first sight”: “She’s a fair daisy and no mistake!” cries Bob, his “sparkling eyes” going over “the beautiful model part by part” (49). In 1910 Edward Stratemeyer released under his own name *The Automobile Boys of Lakeport*, one of the Lakeport series. In the preface Stratemeyer remarks by way of justifying his subject matter: “Automobiling is to-day one of the best of our sports. . . . It is a clean, healthy recreation” (vi). In the light of that testimony, it is somewhat ironic that also in 1910 Stratemeyer published five volumes of a new series intended, according to his own advertising blurb, to be “spirited tales” of “wonderful advances in land and sea locomotion,” that is, the Tom Swift series. Two of the “advances” do involve land locomotion, *Tom Swift and His Motor Cycle or, Fun and Adventure on the Road* and *Tom Swift and His Electric Runabout or, The Speediest Car on the Road*. The irony is that in these first volumes, as well as throughout the entire series, Tom, although not insensitive to competition, never looked upon his inventions as sport or recreation. Instead, he intended each technological breakthrough to make money. In the subsequent volumes, it should also be noted, Tom rarely concerned himself with the auto, preferring by far airships or airplanes.

Despite the first, promising signs, auto fiction seems never to have caught on. Already by 1908, for instance, the interest of the Motor Boys turned to power motorboats as in *The Motor Boys Afloat or, The Cruise of the Dartway*; two years later in *The Motor Boys in the Clouds or, A Trip for Fame and Fortune* they took off into the air. This second shift occurred because “the only place left for them to see sights is up in the air, above the clouds” (iii). Bob Steele’s love affair with his motorcycle, for another instance, proved brief in *Bob Steele From Auto to Airship or, A Strange Adventure in the Air* when he quickly switched his affections to the airship once he met one: “and the ease and certainty with which the airship swayed to the new directions brought Bob’s admiration uppermost. Never had he been able to resist the lure of untried machinery, and here was an experience so novel that it carried him out of his troubled environment, so to

speak” (261). Indeed, only nine series, including the ones already cited, focused on motor cycles or automobiles.

Given what many commentators have termed the country’s century-long love affair with the automobile and its tremendous impact on virtually every aspect of American life, the paucity of auto fiction seems an anomaly and gives rise to several questions. Was the early auto fascinating to youth or not? Did they drive or own autos? Didn’t they want to read stories about other youths’ adventures with autos? Were youths then somehow different from youth today who “need” their “wheels”? What Clay McShane says in *Down the Asphalt Path* about the initial impact of the automobile upon urban American life may provide answers to these questions.

McShane points out that the early auto was fascinating in large part because it represented freedom and independence—but only for those, he insists, who could afford to purchase and maintain an auto. In fact, early autos were luxury items—perhaps the “epitome of possessions” (125), even the playthings of the wealthy—and symbolized prestige and status. Furthermore, for members of the middle classes, owning an auto represented a definitive step up the social ladder as well as gave opportunity to move to the suburbs, one more sign of status. McShane also argues that travel by auto was primarily an urban way of life: only in large cities could be found road surfaces that did not tear apart early auto tires, and only in urban areas were enough of the monied class clustered to support the requisite auto service and dealer networks. It would seem, then, that, although the technology responsible for the early auto might have been as fascinating as other technologies, of far more significance at that time in American life was what the auto represented—luxury, status, and prestige—and what owning an auto implied—ample income and leisure for auto riding. Clearly, these were, and are, values, attitudes, dreams, and lifestyles that adults care about far more than youths. Moreover, the relatively large urban areas where early autos usually were found were not where most young people lived. Most American youth, then, in the days of the early auto never could realistically aspire to own an auto or even come in close physical contact with one. In these circumstances, it should not be surprising that they would lack real interest in reading or obtaining auto fiction.

If we go by volume, that is, the number of series whose titles explicitly refer to airships, aeroplanes, or flying, and of titles dealing with aviation that are part of series explicitly devoted to some other topic, and of individual titles on aeronautical subject matter, there are more aviation stories than any other type of technological fiction. In fact, *American Boys’ Series Books 1900–1980* lists at least forty series explicitly devoted to aviation before 1940. The popularity of aviation fiction, in all likelihood, reflected the fascination aviation had for the western world during the first decades of the twentieth century: powered flight enthralled both young and old. In *A Passion for Wings*, Robert Wohl paraphrases twenty-six-year-old Franz Kafka’s impressions upon seeing his first airplane in 1909, impressions that Wohl believes were typical:

the featureless immensity of the aerodrome compared with other sports fields; . . . the God-like aura that surrounded famous pilots like Blériot; the impression of desperate fragility the flying machines gave; the spectators' sense of being confined to earth as the aviator soared toward the heavens; . . . and the inevitable passage from the miraculous world of the sky—in which the aviators lived and which the spectators had momentarily and vicariously shared—to the mundane world of the plain. (114)

Something like these thoughts may very well have run through the minds of many American youths upon seeing their first aeroplane; or so presumed many publishers inasmuch as they were quick to secure aviation fiction and publish it.

Early in the first decade of the new century, aviation fiction for boys made its initial appearance. In *Two Young Inventors*, it will be remembered, Dannie and Thad devised a primitive "flying boat." Two years later Cupples and Leon published *Through the Air to the North Pole or, The Wonderful Cruise of the Electric Monarch*, a story describing the "marvel" of an electric motor-powered airship. (Subsequent titles in what came to be called the Great Marvel series celebrate the rocket and spaceship and thus belong to science fiction and not realistic series fiction.) Even one of the first five Tom Swift titles, it should be noted, focused on advances in "air locomotion," *Tom Swift and His Airship or, The Stirring Cruise of the Red Cloud*. The first series explicitly devoted to aviation, the *Airship Boys*, began in 1909. In the initial volume, the previously mentioned *The Airship Boys or, The Quest of the Aztec Treasure*, Ned and Alan, it will be recalled, build an airship, the *Cibola*, and fly off to find treasure in Mexico. In the far more interesting second volume, *The Airship Boys Adrift or, Saved by Aeroplane*, the boys, having crashed on a second attempt to find treasure, fashion out of the wreckage of the *Cibola* an aeroplane, the *Cibola II*. Noteworthy is the author's inclusion of a detailed description, accompanied by illustrations, of how an aeroplane could be constructed from the frame and parts of an airship. Surely implied is the notion, exciting to any youth, that, given the tools, material, and zeal, he could build his own aeroplane, thus achieving the dream of not only possessing his own aeroplane but of flying into the sky whenever he desired!

Examination of all the aviation stories published from 1900 to 1940 reveals that they reflected accurately technical advances in aeronautics, new ways of putting aviation into service, and the high level of excitement engendered in youth by the prospect of flight, or of actually flying, or of working on the engine or other parts of an airplane. Accordingly, we can observe changes in the crafts youths design, build, and fly: from Jules Verne-like airships, primitive flying boats, and various copies of the Wright brothers' historic aeroplane to the biwings and monoplanes operating in the European skies during World War I and the sleek racing machines capable of speeds of several hundreds of miles. We can observe too expanding uses of aviation: a hobby (*The Flying Machine Boy*) or a plaything (*Dick Hamilton's Airship or, A Young Millionaire in the Clouds*) or source of adventure (the *Aeroplane Boys* series); rounding up cattle (*The Bird Boys' Aeroplane Wonder or, Young Aviators on a Cattle Ranch*); delivering mail via air (the *Air Mail Series*); passenger and package service (*The*

Airship Boys' Ocean Flyer or, New York to London in Twelve Hours); barnstorming (the Andy Lane Flying series); airshows (*Russ Farrell, Circus Flyer*); forest patrol (*Bill Bruce on Forest Patrol*); aspects of scouting (*The Boy Scouts of the Air at Eagle Camp*); racing (*Dave Dashaway, Air Champion or, Wizard Work in the Clouds*); police and detective work (*Ding Palmer, Air Detective*); and a variety of military purposes—combat (the Air Combat series), observation (*In the Clouds for Uncle Sam or, Morey Marshall of the Signal Corps*), and bombing the enemy (*Air Service Boys Flying for Victory or, Bombing the Last German Stronghold*).

Virtually every aviation story contained at least one passage describing the pleasure experienced by the young protagonist as he sees an airplane on the ground or in the air, or, while actually flying, feels the wind on his body and watches the countryside slip by, or, working on the engine, senses through his fingers the throb of power. If there is one protagonist's experiences that might be said to typify youth's excitement over aviation, no better candidate would be Hal Dane's in Hugh McAlister's *A Viking of the Air*. For young Hal "sees" the "mechanical beauty" within engines (92). It is the "marvel of the piston" (92) that initially gets to him, and, looking upon "pistons and cylinders as power-containers, he begins to sense something of the power of that driving force that man . . . learned to harness" (93). He overlooks "grease and grime" for "the sheer wonder of mechanism," which he feels is "more beautiful" than the wings of gliders that "once fascinated him entirely" because motors give "power to those wings" (94). Hal imagines himself a modern-day Viking, not of the sea but of the air: "As Hal Dane became familiar with some of the scientific revolution and evolution going on at the huge Wiljohn Works, he caught again something of the high splendid vision of following the river of the wind on a great exploration. If ever he was to go as a sky viking, here in this vast plant were being riveted and welded aircraft suitable to bear him on that journey" (138).

Other types of technological fiction were published during these decades, but none in sufficient quantities to warrant major classification. For instance, there are "speed vehicle" stories: the Rocket Riders (rockets), Ralph of the Railroad series (locomotives), and the Speedwell Boys (motor launches). (Submarine stories, which were popular in the last decades of the previous century, for some reason lost their attractiveness. Oddly, the loss occurred at a time when the submarine actually became a practical weapon that was used with effect in World War I.) There are stories describing expeditions made feasible because of advances in radio and transportation, for example, the "North Pole" series (1907) and the Museum Series (1916–27). There are even stories focusing on "new" careers emerging on account of technological innovation in farming, engineering, and even shipping on the Great Lakes.

Finally, there is a special series, the Wonder Island Boys, written by Roger T. Finlay. Virtually forgotten today, the series is still interesting, for not only does it indicate how widely publishers were willing to cast their nets in order to capitalize on youth's interest in technology, but the stories once more illustrate the value and flexibility of the series as a vehicle for technological fiction. Two

boys, George Mayfield and Harry Crandall, along with "The Professor," are marooned on an unknown island and are required to fabricate or establish the tools, objects, and procedures essential to survival. The publisher's advertising blurb summarizes the entire series:

Thrilling adventures by sea and land of two boys and an aged Professor who are cast away on an island with absolutely nothing but their clothing. By gradual and natural stages they succeed in constructing all forms of devices used in the mechanical arts and learn the scientific theories involved in every walk of life. These subjects are all treated in an incidental and natural way in the progress of events, from the most fundamental standpoint without technicalities, and include every department of knowledge. Two thousand things every boy ought to know. Every page a romance. Every line a fact.

Anyone familiar with the history of children's literature recognizes the debt the series owes to *Robinson Crusoe*, Rousseau's ideas about educating children in harmony with nature, the Boy Scout code, and the Dan Beard handbook phenomenon. Yet the stories are not entirely derivative. For one thing, with his talk of thrilling adventures, Finlay acknowledges an obligation to entertain his readers, an obligation at that time not every author and publisher was willing to concede. For another thing, science applied to every walk of life—the putative didactic focus of the series—is explicitly referred to as the mechanical arts, that is, technology. Admittedly, this is not the technology that so immediately fascinates when manifest in radio or the airplane, but what the boys learn and create, Finlay is saying, not only involves technology but is "romance."

How Finlay hoped to combine adventure and applied science is readily seen by glancing at part of the synopsis of Chapter VI, "Hunting Vegetables and Plants," in *Exploring the Island*, the second volume in the series.

The accomplishments of George and Harry. Theory and practice. Fermentation. How heat develops germs. Bacteria. Harmless germs. Tribes of germs. Septic system of sewage. The war between germs. Getting germs to work. Indications from the vegetable world as to the climate. Prospecting in the hills. Tanning leather. Bark, and what it does in tanning. Different material used. The gall nut and how it is formed. (2-3)

What is evident is that with this kind of synopsis—provided, by the way, for every chapter, the plot virtually tells itself; and all the author has to do is insert details. Unfortunately, Finlay was not very skilled in artfully blending in details, so the promise of "thrilling adventure" never materialized. As for the promise of "romance," he was more successful provided we accept wonder as what Finlay meant by romance and understand the former to encompass both the mechanical arts and the process of learning.

Careful reading reveals that Wonder Island is not in itself wonderful; that is, Finlay was not describing an ideal place of natural or pristine beauty. Rather, he calls the island Wonder because it turns out to be the occasion for motivating three human beings to wonder, the means for instructing them in finding answers to the questions they wonder about, and the source of the wondrous an-

swers they arrive at. Put another way, Wonder Island illustrates the truth of the adage “necessity is the mother of invention.” The island is also deservedly called Wonder because by means of it George and Harry, wonderstruck by their experiences, persist in their wondering, discover within themselves inner resources that truly seem wondrous, resolve to utilize them, and succeed at what they set out to do, thus enjoying the wonder of achievement. It is true that the boys have a tutor, but all the skilled tutelage in the world would be useless if the boys were incapable of wonder or unwilling to wonder and apply what they have learned. The “message” of the Wonder Island series, then, is not the importance of acquiring “two thousand things every boy ought to know,” regardless of the advertising blurb. That kind of importance is what earnest but unimaginative adults have always believed juvenile literature should be all about. The real “message” is the one youth have always wanted, and needed, to hear, and it is the message series fiction so ably delivers through its distinctive interplay of realistic text and fantastic subtext: youth is capable of “wonder” deeds, including the devising and performing of technological marvels.

Technological series fiction remained popular for four decades but then began to lose ground as new rivals emerged for the allegiance of young readers interested in technology. Comic books, the funnies, film, and then television—especially when they featured science fiction subject matter and characters such as Buck Rogers, Flash Gordon, Superman, and all the other superheroes—offered very attractive and often less expensive alternatives to series fiction. As it became readily available in magazines and paperbacks, science fiction also more and more enticed technologically oriented readers young and old. Even mainstream children’s literature itself—thanks to the success of Robert Heinlein and those emulating his achievement—became increasingly hospitable to science fiction and remains so today. Thus, by the 1950s, series fiction, although not without some successes—witness the several “new” Tom Swift series or the Rick Brant Science-Adventure books—was no longer a primary source of technological fiction. Yet, because of its real success, technological series fiction deserves to be recognized for its role in the development of an audience primed to embrace a fiction that dramatizes both realistic and futuristic applications of science. Technological series fiction from 1900 to 1940, then, is both prelude and bridge to science fiction.

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American Young Adult Science Fiction Since 1947

C. W. Sullivan III

In many ways, 1947 was a transitional year, a year of endings and beginnings.¹ It does not seem to have been quite as exciting or tension-filled as the World War II years immediately preceding it or the Korean War and Cold War years that followed. Henry Ford and Charles Sumner Woolworth, both innovators in modern commerce, died in 1947. That fall the Dodgers and the Yankees met in the World Series, beginning a rivalry that would dominate the next decade. Princess Elizabeth of England and Lt. Philip Mountbatten were married in November. Andre Gidé won the Nobel Prize for literature, Robert Penn Warren's *All the King's Men* won the Pulitzer Prize, and Carolyn S. Bailey's *Miss Hickory* won the Newbery Award. There were no major earthquakes anywhere. But 1947 was a very important year in the history of science fiction for young readers, for in 1947 Robert A. Heinlein published *Rocket Ship Galileo*.

The publication of this book was a significant marker in many ways. First, *Rocket Ship Galileo*, like the eleven others that followed in the series,² was published in hardcover by Scribner's. This novel, unlike most of Heinlein's other science fiction and science fiction in general, did not see first light in the pages of a pulp magazine or as a paperback book. *Rocket Ship Galileo*, in its mainstream format and from an established publishing house, went straight to public libraries and school libraries where it sat on the shelf with all of the other fiction deemed suitable for young readers and could be checked out by those young readers. Because of the hardcover format and because of Scribner's reputation, Heinlein's juveniles escaped much of the criticism then being leveled at science fiction paperbacks and pulp magazines. Science fiction did not become instantly credible because of the Heinlein-Scribner's partnership, but it did receive a large push in that direction.

Second, *Rocket Ship Galileo* was important because it was not the usual science fiction of invading alien monsters, flying saucers, ray guns, buxom women, dashing heroes, and unexplained and unexplainable technology. Heinlein was an Annapolis-educated engineer and, like many other science fiction writers of the time (and especially those in John Campbell's "stable" of writers), was serious about the science and the technology in his fiction. In the juvenile series, as it has come to be called, he took pains to make his fiction as realistic as possible and to educate his young readers about space flight. Most striking, perhaps, is the fact that in the first eleven books, there are no aliens threatening to invade Earth; in the twelfth, the Wormfaces are a threat, not just to Earth but to the universe. None of Heinlein's aliens are descended from H. G. Wells' Martians; they are, rather, the forerunners of the aliens of such films as *E.T.*, *The Extraterrestrial*, *Close Encounters of the Third Kind*, and *The Day the Earth Stood Still*.³

Third, unlike a Tom Swift series, which is just one adventure after another featuring an unchanging Tom and his latest invention, Heinlein's series is progressive, each book having different characters and each building on the previous ones. All of Heinlein's fiction fits into what he called his Future History, the time line of which he had reproduced in a number of his books. Heinlein depicts, as I and others have suggested, the maturing of the human race as it spreads outward into the universe. From that first trip to the moon in *Rocket Ship Galileo* to a voyage to the Lesser Magellanic Cloud in *Have Space Suit—Will Travel* (1958), Heinlein sees humanity's future in much the same terms as did Olaf Stapledon in *Last and First Men* (1931) and *Star Maker* (1937), and in many of Heinlein's novels, mankind is its own worst enemy. In *Rocket Ship Galileo* and *Space Cadet* (1948), the characters and the reader discover, in the former, that the Moon had a civilization that appears to have destroyed itself and, in the latter, that the asteroid belt was once a planet that seems to have been destroyed by an explosion of artificial origin. Humanity must mature, must learn to control itself and its power, Heinlein asserts, if it is to survive to reach the stars.⁴

In addition to challenging the reader with real and realistic science and technology, Heinlein continually challenges the reader's cultural assumptions as well. The first alien in the series, Willis, the Martian in *Red Planet* (1949), appears to be a ball of fur that has a parrotlike memory and voice; later Jim, the main character, discovers that Willis is the young form of the very powerful adult Martians who have little to do with the settlers from Earth. The matrilineal and matriarchal aliens of *Space Cadet* and *The Star Beast* (1954) are perhaps the most challenging aliens in the series. Science fiction has long been criticized for appealing to young male egos with its stories of men conquering monsters and saving helpless women from "fates worse than death," and here is Heinlein, also often criticized—incorrectly, I believe—as a male chauvinist, actually presenting alien matriarchal societies more powerful than the Earth society of his novels.⁵

Finally, for this essay at least, Heinlein tells a good story. He does not let the science get in the way of the fiction. Whether he is describing how a rocket ship

might carry enough food, water, and air for an extended voyage (as he does in *Space Cadet*) or the refitting and resupplying of a space suit (as he does in *Have Space Suit—Will Travel*), Heinlein never lets the story bog down. He continues to entertain and challenge the reader, all the while espousing a philosophy that asserts that the best prepared and most determined beings will not just survive but triumph. Heinlein's well-prepared individuals come in all shapes and sizes, without regard to sex, color, or planet of origin. If there are more male characters than female characters in the series, blame Scribner's and the market, not Heinlein. There are excellent female roles and role models in the juvenile series (as Marietta A. Frank's "Women in Heinlein's Juveniles," later in this volume shows); and as *Grumbles From the Grave* (especially pp. 252–56) indicates, there would have been more had Heinlein had his way.

Although some of Heinlein's scenarios, such as the lunar civilization or the canals on Mars, have been made untenable by the facts of subsequent discoveries, most of what he wrote in the series stands up well more than fifty years after the publication of *Rocket Ship Galileo*. Using Heinlein's novels as a paradigm of science fiction for adolescent readers since 1947 suggests that we consider several things: first, the current state of science fiction series books for young readers; second, the fact that both the readers and the critics of young adult science fiction do not limit themselves to materials in that subgenre but, in fact, simultaneously read "adult" and YA science fiction; third, and last, the "quality" of the writing as it challenges the reader's knowledge and assumptions about the world of the present and the possible worlds of the future.

SERIES FICTION

Series fiction, and especially series fiction for young readers, is essentially a twentieth-century phenomenon, and much of it was produced according to formula by large publishing concerns like the Stratemeyer Syndicate which produced everything from the Bobbsey Twins books to the original Tom Swift series. To be sure, some of the 1950s YA series were written by major science fiction authors, such as Heinlein and Isaac Asimov, whose "science" was current and cogently developed; but many of the series were not that much different from the technological series fiction (which Francis J. Molson discusses in this volume) published for primarily young male readers before World War II.

One of the most popular series in the 1950s and 1960s was based directly on an older technological series; the stories featuring Tom Swift, Jr., were directly linked to the original Stratemeyer Syndicate's Tom Swift series.⁶ In fact, the elder Swift and others from the original series make occasional appearances in this second series, but where Tom Senior's adventures were with essentially contemporary technological developments—one book focuses on a motorcycle and another on an air glider (to be sure, technologically advanced over their real-world counterparts and able to help Tom thwart representatives of an unnamed "Bolshevik" country)—Tom Junior moves from similar technological advance-

ments, such as a rocket ship and a giant robot, to more current science fiction considerations, such as the "Visitor from Planet X" and the "Asteroid Pirates."

But given that advancement, the adventures of Tom Junior are not that much different from those of Tom Senior; each is a discrete book, building only slightly on the ones already published, and each adventure is basically the same: a new device must be (a) protected from people who want to steal or sabotage it and then (b) used to solve some problem or mystery. In the books' favor, however, the authors (there was no more a Victor Appleton II than there was a Victor Appleton) do tell a good story and manage to keep most of the science believable. While not as ambitious as the Heinlein series, the Tom Swift, Jr., books (there are now four distinct series) were, like the Tom Senior books, instrumental in getting young adult readers into the science fiction genre in general.

Like the Tom Swift, Jr., books, the six books in Isaac Asimov's Lucky Starr series also look back to at least two pre-World War II series, E. E. "Doc" Smith's four Skylark books, the first of which was published in 1928, and Smith's Lensmen series, which began in 1937.⁷ Smith's books, in turn, drew on the dime novels and penny dreadfuls for the structure and much of the action of their plots,⁸ and although the science is credible for the time, the characters are almost cardboard cutouts, especially the Skylark series' Hero (Richard Seaton), the Hero's Girlfriend (Dorothy Vaneman), and the Villain (Marc "Blackie" DuQuesne).⁹ Asimov's series, which began with *David Starr: Space Ranger* (1952) and concluded with *Lucky Starr and the Rings of Saturn* (1958), featured David Starr, a couple of avuncular figures, and a best friend—but no love interest.¹⁰ In the 1980s, Asimov and Janet Jeppson Asimov began the Norby series, named for the robot that accompanies the main character, fourteen-year-old Space Cadet Jeff Wells, on his adventures.

There were a number of series begun (and often completed) in the 1950s that followed the familiar Tom Swift/Lucky Starr pattern. John Blaine's Rick Brant appeared in 23 books between 1947 and 1968; Eleanor Cameron published two series, three Mister Bass books (1958–67) and two Mushroom Planet books (1954 and 1956); John Christopher wrote two, the Tripods trilogy (1967–68) and the Prince in Waiting trilogy (1970–72); various series by Andre Norton, especially the Time Traders series, the Beast Master series, and the Witch World series, were begun in the 1950s; Patricia Relf's eight Tom Corbett books appeared between 1952 and 1956; and Ruthven Todd's four Space Cat books were published from 1952 to 1958. Of these, Christopher's books were by far the most thoughtful, although Norton's often-overlooked novels deserve more serious consideration than they have as yet received. As always, there were a number of "also rans" of varying quality, popularity, and longevity.

There was also Madeleine L'Engle. L'Engle is best known among young adult science fiction readers and critics for the *Wrinkle in Time* trilogy: *A Wrinkle in Time* (1962), *A Wind in the Door* (1973), and *A Swiftly Tilting Planet* (1980). But the trilogy is only the tip of the iceberg. L'Engle takes the concept of series fiction to its extreme; virtually every novel she has written, according to Sarah Smedman, is connected to all of the others. Smedman argues that L'Engle

pursues basic questions—"What is love? What is its nature? How does one love?"—in all of her fiction. Moreover, as Smedman notes, characters from any one novel might well appear in any other, making the connections among the novels concrete as well as abstract (Smedman, *passim*).

The series format has not only continued to be a popular format for science fiction writers but has expanded. In fact, an interesting reversal has taken place such that, instead of science fiction novels inspiring television programs or movies, television shows and movies are now inspiring series of novels. While there have long been novelizations of movies, what has been happening more recently is that authors are writing novels that feature characters from the movies or television series in adventures that are original in the sense that those plots were not first seen on a screen. *Star Trek*, *Star Trek: The Next Generation*, *Deep Space Nine*, and a number of other television series, including *Doctor Who*, *The X-Files*, and *Babylon 5*, now have their own fictional counterparts on bookshelves around the world. The movie *Star Wars* and its sequels have inspired spin-off novels. There are also other sources for series novels. The TSR Dungeons and Dragons games have produced the *DragonLance* series and the *Birthright* series. Other new series, developed from role-playing games, cartoons, or comic books, include *Battletech*, *Dark Sun*, *Robotech*, *Shadowrun*, and *X-Men*.

Some older series are getting new life as well. Given a boost first by the movies and now by a television series, new Conan the Barbarian books are appearing from various authors, continuing the series begun by Robert E. Howard in the 1930s. Jack Williamson has written a new novel, *The Queen of the Legion*, a continuation of his Legion of Space series, the first novel of which began serial publication in the April 1934 issue of *Astounding Stories*. And Janet Asimov has published *Norby and the Terrified Taxi*, the eleventh book in the series that she and Isaac Asimov began in 1983.

Given the popularity of science fiction movies, television programs, and computer games, I expect that this screen-to-series progression will not only continue but expand. In addition, the general proclivity of publishers encouraging both established and new writers to write series fiction (or at least trilogies) means that multiple-volume and series fiction will continue to occupy a large share of the market. Although this is not necessarily a bad development, the focus on multiple volumes rather than single novels may well promote form at the expense of content, as it has in a number of recent series.¹¹

THE YOUNG ADULT SCIENCE FICTION READER

Although most of the books and series mentioned thus far were written and marketed specifically for the teenage reader, young adult readers do not confine themselves to the books written specifically for them. The science fiction and fantasy genres may well have a larger number of crossover readers, young adult readers who read novels written and marketed for adults, than any other genre. Certainly, young readers who discover Heinlein's juveniles (or even just one

Heinlein juvenile) are then likely to read anything and perhaps everything else he has written; the most dedicated of those readers, the ones who read only science fiction, move indiscriminately between young adult and adult science fiction. This is especially true of those readers who are able to buy their own books or have access to a school or public library with a good science fiction collection.

This tendency has not gone unnoticed among those who criticize and compile best-of-the-year or recommended-reading lists of books for young adult readers. In her *Best Books for Young Adults*, "a complete listing of the Best Books for Young Adults, 1966–1993" (77), Betty Carter lists not only science fiction books by such YA authors as Grace Chetwin, Madeleine L'Engle, Louise Lawrence, Caroline Stevermer, Robert Westall, and William Sleator, but also a number of works that might not usually be considered young adult novels: Ray Bradbury's *I Sing the Body Electric*, Orson Scott Card's *Ender's Game* and *Speaker for the Dead*, Arthur C. Clarke's *Rendezvous with Rama*, Michael Crichton's *Andromeda Strain*, Ursula K. LeGuin's *The Dispossessed*, Harlan Ellison's *Deathbird Stories*, and Kate Wilhelm's *Where Late the Sweet Birds Sang*. None of the books in the second group was expressly written or marketed for young adult readers.

John T. Gillespie's *Best Books for Senior High Readers* (1991) lists more than five hundred titles in its science fiction section, and among them are: Brian Aldiss' Helliconia trilogy, Edward Bellamy's *Looking Backward*, John Brunner's *Stand on Zanzibar*, Harlan Ellison's *Ellison Wonderland*, Robert A. Heinlein's *Stranger in a Strange Land*, Aldous Huxley's *Brave New World*, Ursula K. LeGuin's *The Left Hand of Darkness*, George Orwell's *1984*, Sherri Tepper's *The Gate to Women's Country*, Kurt Vonnegut's *Cat's Cradle*, all five of what H. G. Wells called his "scientific romances," and many, many more adult titles. In fact, the adult titles outnumber the strictly YA titles on Gillespie's list. This is not to say that Gillespie and Carter do not know the difference or are doing something wrong here; it is merely to point out the fact that, while there are separate young adult science fiction and adult science fiction genres, the readers and the critics do not find them mutually exclusive.

SOME RECENT YOUNG ADULT SCIENCE FICTION

Although the readers and the critics (or bibliographers) do not always discriminate between YA and adult science fiction, the authors do seem to. A look at the shelves of any good-sized library reveals that the YA hardcover science fiction market is indeed alive and well, but the authors whose names appear on the spines of the books are, by and large, not the same authors whose names appear on the spines of adult science fiction books. Heinlein may have been able (by talent, disposition, or market factors) to write his juvenile series at the same time he was publishing novels and short stories in the adult category, but such authorial crossover seems seldom the case now.

It is interesting in this regard that a survey of the lists of Hugo and Nebula award-winning novels very rarely turns up a YA author; the YA novels that are occasionally nominated are almost always by adult authors. In fact, Heinlein himself was named to several best-of-the-year lists for adult science fiction novels—*The Puppet Masters* (1951), *Double Star* (1956), and *The Door into Summer* (1956)—that were published during the same era as his juveniles, and only two of his twelve juveniles received such notice; *Citizen of the Galaxy* was listed as a Best Novel of the Year in 1957 and *Have Space Suit—Will Travel* was nominated for a Hugo Award in 1958. This lack of YA fiction on the Hugo and Nebula lists probably has more to do with separate groups of authors—and, perhaps, separate groupings of books on library shelves or separate marketing techniques—than it does with the quality of the writing.¹²

While the quality of writing in YA science fiction novels probably varies no more or less than the quality of writing in any other genre, there are certain kinds of mistakes that may be specific in this genre. These mistakes often have to do with science and technology or with the theoretical possibilities within science fiction itself. Cathy Livoni's 1983 novel *Element of Time* is an acceptable misfinds-his-place story, but her handling of the technology is off. At one point, a character "switches on a window." The action of switching on something suggests that that thing is powered, perhaps by electricity. A television or a computer monitor, for example, can be switched on. Windows, however, are merely plates of glass or plastic (or some future transparent material), and do not need to be switched on. Windows are opened. In another part of the novel, a character says that he left class "a third kusha ago." If a kusha is a unit of time, then the character might have said "a third of a kusha ago" or "three kushas ago"—assuming that people would still refer to time as we do today. And why "kushas" anyway? This renaming of the familiar is a very unimaginative way of attempting to create a "new" science fiction world.

Another problem that appears in YA science fiction is the result of authorial ignorance of the field. In Bernal C. Payne's 1984 novel *It's About Time* (surely the inspiration for *Back to the Future*), the teenagers who go back to the 1950s (to watch their parents meet) go into stores and spend money. There is no indication that they have provided themselves with period money, and if they are spending money from their own time (with 1970s and 1980s dates on it), they could be creating a time travel paradox and changing the future—just as they threaten to do by keeping their parents from meeting when they would/should have. No science fiction writer publishing in the magazines in the 1940s or 1950s could have gotten away with such a lapse.¹³ I mention these two authors not because their flaws are singular but rather because Livoni's mishandling of technology and Payne's lack of experience with time travel conventions are typical errors within the science fiction genre. Such novels certainly fall below the standards set by Heinlein's juveniles.

Although there is poorly written young adult science fiction, there is much that is well done, much that survives comparison to Heinlein. Once again, a few will have to stand for the whole. But these few were carefully chosen. With one

exception, a very recent book, they have all appeared on more than one best-of-the-year or best-of-the-best list. Specifically, I looked at Betty Carter's *Best Books for Young Adults*, John Gillespie's *Best Books for Senior High Readers* and *Best Books for Junior High Readers*, "Top One Hundred Countdown," *Booklist*, 15 October 1994, and the annual lists in the March issues of *Booklist*. The publication dates range from 1974 to 1996, and the topics range from the aftermath of World War III to the evolution of telekinetic power to a dystopian near future.

Robert C. O'Brien's *Z for Zachariah* (1974) has long been regarded as a YA classic for its portrayal of a deceptively simple post-holocaust future. The possibility of atomic or nuclear war, or rather the condition of the world after such a war, was a popular topic in 1950s and 1960s science fiction. It was so popular that mainstream as well as science fiction authors used it: Nevil Shute's *On the Beach* was published in 1957, and Pat Frank's *Alas, Babylon* in 1959. But a YA writer beat most of the field to the topic. Andre Norton's 1952 *Daybreak—2250 A.D.* (originally published as *Star Man's Son*) is a classic both as a post-war novel and as a YA science fiction novel. Fors, Norton's mutant teenage hero, survives and triumphs in the new wilderness because of, not in spite of, his differences; and Norton's postwar world is a cogent mix of the ruined old and the emerging new.

O'Brien's *Z for Zachariah* is clearly in this tradition. O'Brien's hero, Ann Burden, has survived the war in a small valley that was protected by a weather inversion when everything else outside seems to have been destroyed. Ann has a source of clean water, immediate food, and the means to grow food for the future. But she is alone. The conflict arises when a man dressed in a "protective suit" arrives. Initially friendly, he begins to take over and shoots at Ann, trying to cripple her so that he can control her. Ann decides that, rather than kill him, she will steal the protective suit and look for life elsewhere. O'Brien provides a reasonable explanation for the postwar state of the world, and his main character's choice to leave rather than fight is her triumph over the world as it was; and her westward direction, a symbol of hope.

There are two other postwar novels in this small group under examination. Louise Lawrence's *Children of the Dust* (1985) and Caroline Stevermer's *River Rats* (1992). Both of these novels continue traditions that can be traced back to Norton's *Daybreak—2250 A.D.*, and each also strikes out in a direction of its own. Both novels, for example, are solidly grounded in identifiable geographic locations. Lawrence's immediate main characters live in the Cotswold Hills in Gloucestershire, England, where they take refuge in their house as the bombs fall on Birmingham and other nearby cities. Stevermer's main characters range up and down a vaguely defined section of the Mississippi River on a prewar paddle wheeler named *The River Rat*. Both novels also depict young main characters struggling to survive in the new world around them, and in both novels, those who understand the world the best are the ones who succeed.

Lawrence's *Children of the Dust* is more about the changes a nuclear war might bring than about the destruction it might cause. The military power struc-

ture tries to survive and maintain a prewar lifestyle in extensive underground shelters established by the Ministry of Defense. This works for a while, but after a generation or two, supplies of all kinds, from gasoline to food, begin to run out. But outside the shelters seems worse. Not only is there lingering radiation, but the ozone layer has been so damaged that anyone venturing outside a shelter must wear protective clothing. In the end, though, the shelters are a failure. Those survivors who succeed come from the relatively few who survived the war and its aftermath aboveground. Not everyone succumbs to radiation sickness, and those who survive adapt physically to the new ultraviolet light and mentally to the new, nontechnological world. The mental adaptations, telepathy of a sort and telekinesis, are the most interesting, for they allow the mind to do now what machines did before. In the end, one of Lawrence's shelter-dwellers calls these new abovegrounders "*Homo Superior*, the children of the dust" (183).

As mentioned above, Stevermer's main characters depend primarily on an old Mississippi River steamboat after the "Flash" has devastated the United States in *River Rats*. This novel has somewhat more of an ecological orientation than the others discussed here. Not only has the United States been reduced to a nineteenth-century level of technology, but the Mississippi River is toxic: "*River water looks brown and greasy, like real bad gravy only thinner. It's toxic. If you drink it, you die*" (1, italics in the original). While the ecological theme recurs throughout the novel, the conflict between the River Rats and some town folk is over a cache of guns that might exist to the north. The "Lesters" want the guns and want the River Rats to take them north on the steamboat. The River Rats try to refuse, but the Lesters take over the boat. In the end, there are no guns, the physical threat from the past does not materialize, but unlike *Children of the Dust*, in which the main character from the shelter realizes that the aboveground mutants are the new way, there are, at the end of *River Rats*, still plenty of people who would start the cycle of death and destruction all over again. Although Stevermer's River Rats escape with their boat intact, the ending is not as generally positive as the ending for Lawrence's children of the dust.

Robert Westall's *Futuretrack 5* (1983) presents a twenty-first century Britain that has developed into a dystopia. There has been no war; Westall's dystopia is a direct-line product extrapolated from the present. Like the post-atomic war novels, the dystopia has a long history in mainstream fiction and science fiction. The best known, of course, are Aldous Huxley's *Brave New World* (1932) and George Orwell's *1984* (1949), but the dystopia became a staple of science fiction with the "new wave" writers of the 1960s. John Brunner's trilogy, *Stand on Zanzibar* (1968), *The Jagged Orbit* (1969), and *The Sheep Look Up* (1972) are among the best known of these writings, which take a facet of today's world and extrapolate it into the near future to see what it might look like. Brunner does this with population numbers in *Stand on Zanzibar* to show what a severely overcrowded world might be like.

Westall looks at education, technology, and class divisions in *Futuretrack 5*. At the beginning of the book, the main character, Henry Kitson, is among the

elite, but he knows that his world is not a very pleasant place. Westall's dystopia is characterized by a variety of rigid class distinctions, "psychocopters" that scan for discordant thoughts or emotions, "lobofarms" where misbehavers are lobotomized for control, a Wire that separates proper citizens, "Ests," from the "Unnem," and "Paramils" to enforce the laws. Kitson makes a perfect score on his final exam and is sent to Cambridge to help keep the country's computerized system running. Tiring of this, he goes on a "razzle" among the Unnems of London, meets the Futuretrack motorcycle champion, a blond girl named Keri, and sets off across the country on a quest that will ultimately lead him back to reprogram the central computer in Cambridge—in such a way, perhaps, as to make for a more humane future (Westall leaves the ending open).

A third major arena for science fiction is also one of the oldest—the exploration of space and the encounter with alien beings. H. G. Wells gave science fiction the aliens in *The War of the Worlds* (1898), but literary flights into space, to the moon at least, date back to Lucian of Samosata (about 125 AD). It must be remembered that Wells was writing social criticism within the framework of Social Darwinism. In Wells' version, the Martians come from an older, dying planet to conquer Earth and have as little regard for the people of Earth as the European whites had for the Tasmanians: "The Tasmanians, in spite of their human likeness, were entirely swept out of existence in a war of extermination waged by European immigrants, in the space of fifty years" (15). His point was that technological and scientific progress are not always accompanied by moral and ethical progress. For a long time, however, American science fiction writers simply used the alien as another opponent for the hero; essentially, they took the creatures without the social criticism and wrote action stories—space opera. That situation began to change with authors like Theodore Sturgeon, Zenna Henderson, Cordwainer Smith, Ray Bradbury, and Robert A. Heinlein, and sympathetic aliens now appear regularly in science fiction books, television programs, and movies. Some, like *Star Trek's* Spock or *Star Trek: The Next Generation's* Worf, have large fan followings.

Grace Chetwin's *Collidescope* (1990), about an alien coming to Earth, has definite Wellsian overtones. This particular alien, Hahn, is a scout looking for planets with intelligent life. The group to which he belongs is trying to protect "evolving worlds from outside encroachment" (Prologue). Attacked by an opposite number, Hahn must enlist the aid of a twentieth-century New York girl, Frankie, and a pre-European invasion Delaware Indian, Sky-fire-trail. The Wellsian overtones become clear as the potential alien invasion is compared to the coming of the Europeans to the North American continent. Frankie considers the possible alien invasion with horror and then realizes that the European invasion of North America was not much different. In the end, Hahn is able to defeat his opposite number, and Frankie figures out a way to aid the Indians. With her knowledge of history and geography, she is able to help Sky-fire-trail (who will become shaman of his tribe after his adventures with Frankie and Hahn) find a route to move the tribe to a spot in Canada where they will be out of the way of the main European influx.

Another way to meet aliens is to go where they are, to venture out into *Star Trek's* "final frontier." In Louise Lawrence's *Dream-weaver* (1996), people are leaving a dying Earth on spaceships and settling on new planets. On board one such ship, *Exodus 27*, Troy, a young officer, sees a girl with "long dark hair and tangerine eyes" in a corridor where no one should be and sounds the alarm (7–8); on Arbroth, a young dream-weaver named Eth awakes from a dream about a young man aboard "a wheel . . . made of silvery metal" (11). The remainder of the novel is partly about the Earth ship's "right" to take over this planet and partly about the split society of Arbroth and its sister planet Malroth, planets very similar to Annares and Urras in Ursula K. LeGuin's *The Dispossessed* (1974). On Arbroth, the society is essentially peaceful and matrilineal; people with aggressive tendencies (mostly male) are sent to the desolate Malroth. In the end, the Earth ship is diverted to Malroth where, it is implied, the character of the Earth people will be not only appreciated but applied to building a better life there. At the very least, Malroth is a place where the people from Earth—like the exiles from Arbroth—can have a second chance.

In *The Martian Chronicles*, Ray Bradbury showed readers that Earth people could be the aliens if seen from the perspective of the about-to-be-invaded Martians. There is something of that in Lawrence's *Dream-weaver*, and more of it in H. M. Hoover's *Another Heaven, Another Earth* (1981). In Hoover's novel, the five-hundred-year-old Earth colony on Xilan has forgotten its origins and how to use its remaining interstellar technology. No ship from Earth has visited since the original one set down, and the colony has receded to something resembling an eighteenth- or early nineteenth-century technological state. The crew of the exploratory cruiser *Kekule* comes to Xilan thinking it has found an uninhabited planet perhaps ripe for settlement. The Earth the surveyors left is inhabited but barren of anything not immediately useful to the high-tech place it has become; Xilan looks like the blue-green world Earth used to be. In the end, the choice for Gareth, the main Xilanian character, is between her "backward" world and the high-tech world of the exploratory party. It is a choice many Hoover characters face; and Gareth, like the others, chooses her own, backward world.

Good science fiction generally provides the reader with some intellectual challenge along the way. Sometimes the challenge is scientific, as is Heinlein's explanation of Hohmann orbits in *Space Cadet*; sometimes it is cultural, as is Heinlein's presentation of the matrilineal Venerian culture in that same book. These challenges, however, are usually a part of the whole story and not the story itself. In some science fiction, though, the idea may be the story; or, rather, the story may be a vehicle for presenting and exploring the idea. Heinlein's short story "All You Zombies—" (1960) is a tale in which, as a result of a time travel paradox, all of the characters—mother, father, and child—are the same person. Heinlein's "—And He Built a Crooked House" (1940) is about an architect who designs a house in the shape of an exploded tesseract; during an earthquake, the house folds in on itself through four dimensions so that some of its windows and doors open onto other realities. Even though such stories may have Aristotelian plots with beginning, middle, and end, they exist primarily to display the idea.

William Sleator's *Interstellar Pig* (1984) is, in large part, just such a novel. In a sense, the novel is a role-playing game, dominated as it is by the playing of a board game called *Interstellar Pig*. The object of the game is to use the powers of your alien character to outwit the other players, aliens from other planets, and capture the Pig. The winner gets the Pig; the losers and their respective planets are destroyed. What young Barney, vacationing on the New England coast with his parents, soon discovers is that his three neighbors really are aliens and that there is a real Pig to be discovered (hidden nearby, as it turns out); in short, the game appears to be real. In the end, Barney does not get the Pig. He figures out that the game could not possibly go on if the losers and their worlds were being destroyed and decides that the "game" may be an invention of the Pig—a strategy created so that various races will vie to possess the Pig and transport it around so that it can see and hear new things. In any case, the Earth and Barney do not disappear, and his encounter with the aliens (who depart Earth still playing the game) leaves him feeling pretty good about himself and about Earth people. Like much YA science fiction, *Interstellar Pig* is about a misfit learning to fit in, but unlike the other novels discussed above, there is no larger context in the end—it *was* just a game. And Barney (and the Pig) won.

CONCLUSION

The foregoing brief survey of a few well-regarded YA science fiction novels encourages me to draw some perhaps rash conclusions. Certainly setting those novels within the context of science fiction in general and the major thematic concerns of that fiction illustrates that the best YA authors are well aware of the tradition in which they are working. Whether dealing with the aftermath of nuclear war, time travel, aliens coming to Earth, the exploration of the galaxy, the settlement of new worlds, the dystopian future, or whatever science fiction abstraction the author can create, YA writers are using traditional science fiction scenarios, just as the adult writers do, to explore the nature of the human condition by placing people in situations not possible in realistic fiction.

The good YA writers are not just recycling old stories, however; they address issues and questions of continuing relevance and are using the creative possibilities provided by science fiction to examine those issues and questions. Post-war novels, like those of O'Brien, Lawrence, and Stevermer, have essentially positive endings. Dystopian novels, like Westall's, also have guardedly optimistic endings; in *Futuretrack 5*, the humanistic programs loaded into the master computer may change the way the country is run. Encounters with aliens, as depicted by Chetwin, Lawrence, and Hoover, are not violent and do not end with one group destroying the other; even Sleator's *Interstellar Pig*, which initially appears to be headed toward a violent ending, concludes with a victory of intellect and not violent action. And all of these authors present main characters who, like Heinlein's main characters, survive and succeed because they learn to cope with the new worlds in which they find themselves.

Those YA writers of talent who are serious about their science and their fiction are taking good care of the Heinlein legacy.

NOTES

1. Although this article is supposed to deal with American YA science fiction since 1947, I have taken the liberty of discussing British writers Louise Lawrence and Robert Westall along with the Americans featured in this essay because their books appear with the same popularity in American libraries and bookstores and their titles are featured on the same "best of . . ." lists on which the Americans appear. And if we are talking about what the American YA reader is reading, which seems to me the only logical thing to do, then we have to talk about Lawrence and Westall, as we would about Lewis and Tolkien if the topic were fantasy.

2. There are two other novels that might have been published in this series, *Starship Troopers* (1959) and *Podkayne of Mars* (1962); but Scribner's refused to publish *Starship Troopers*, which went on to win the Hugo Award as best novel of 1959. A movie loosely based on *Starship Troopers* was released in 1997, but it is a very poor and thin representation of Heinlein's original story.

3. Willis, the Martian in *Red Planet*, is a deceptive innocent similar to ET, the Hrosii have the kind of power that the aliens of *Close Encounters of the Third Kind* have, and the Mother Thing of *Have Space Suit—Will Travel* has quite a lot in common with Gort in *The Day the Earth Stood Still*—in fact, the races that the Mother Thing and Gort represent are both quite skeptical about allowing Earth to get to the point at which it might begin to explore outer space.

4. See especially: Jack Williamson, "Youth Against Space: Heinlein's Juveniles Revisited," *Robert A. Heinlein*, ed. Joseph D. Olander and Martin Harry Greenberg, New York: Taplinger, 1978: 15–31; and C. W. Sullivan III, "Heinlein's Juveniles: Growing Up in Outer Space," *Science Fiction for Young Readers*, ed. C. W. Sullivan III, Westport, CT: Greenwood, 1993: 21–35.

5. I have argued, in "Heinlein's Juveniles: Growing Up in Outer Space" (see note #4) and in "Heinlein's Juveniles: Still Contemporary After All These Years," *Children's Literature Association Quarterly* 10 (1985): 64–66, that Heinlein is consciously writing to inform, delight, and challenge the better readers while still writing a story to entertain those who will not catch many of his cultural references or think deeply about his alien cultures.

6. For a detailed discussion of the Tom Swift and the Tom Swift, Jr., books see Francis J. Molson, "The Tom Swift Books," *Science Fiction for Young Readers*, ed. Sullivan, 3–20.

7. Smith's Skylark series included *Skylark of Space* (1928), *Skylark Three* (1930), *Skylark of Valeron* (1934), and *Skylark DuQuesne* (1965). The publication of the final book indicates what a strong hold the formula had on Smith (see note 9).

8. For an excellent discussion of the story papers which, indirectly, sheds a great deal of light on the early years of American science fiction as well as on the sources for and reasons for the success of *Star Wars*, see Mary Noel, *Villain's Galore . . .*, New York: Macmillan, 1954.

9. Smith's villain, "Blackie" DuQuesne, is an obvious descendent of such story-paper villains as Craven LeNoir who menace the Hero and Heroine to the

end of the plot and then are offered an opportunity to "change their ways." In Blackie's case, he is allowed to go off to an uninhabited planet with some like-minded people to try things his way.

10. The entire section regarding Heinlein's dealing with Alice Dalgliesh, his editor at Scribner's, in *Grumbles From the Grave*, is a fascinating account of the ways in which an editor can influence the final book. In the case of Heinlein's juveniles, it seems that Heinlein was required to change quite a few things in each book by Dalgliesh, who seems to have been overly concerned about Freudian interpretations and virtually any hint of sex whatever.

11. Robert Jordan's *Wheel of Time* series, currently being devoured by YA science fiction and fantasy readers, is a good example of the perils of the series format. It has gone on so long, with so many subplots and digressions, that a lot of readers who stayed with the first few books have given it up. Not only does the Jordan series seem to be ready to go on indefinitely, but he has already co-authored *The World of Robert Jordan's The Wheel of Time*, a nonfiction guide to the series he has yet to complete.

12. I will not dwell on the obvious differences between writing for YA readers and writing for adult readers, but I am one of those who says that a good book for a fifteen-year-old can be a good book for a fifty-year-old. The good books—Heinlein's juveniles, L'Engle's trilogy—are good books for any age reader. A couple of years ago, my younger son, who was then twenty three, "discovered" Heinlein's juveniles and chided me for not having introduced them to him long ago. Well, I had tried to . . .

13. The magazines of the 1940s and 1950s encouraged reader response and evaluation in two ways. First, readers of some magazines got to vote for the best story in each issue, and so the authors got immediate feedback about how their public felt. Second, there was a letters section in which readers expressed their reactions—and woe to the author who made an error in science, technology, or science fiction; the budding scientists and engineers who read those magazines were always quick to take an author who had not done his homework to task.

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Young Adult Science Fiction in Canada

Greer Watson

Young readers have enjoyed science fiction since the days of Jules Verne and H. G. Wells; and stories aimed specifically at nonadults appeared in the mid-twentieth century. Robert A. Heinlein and Andre Norton are merely the most prolific of the many writers who established quality science fiction for teenaged readers in the United States in the 1950s; and, although in Britain there was little contemporary SF of lasting literary merit, David Craigie's rather unscientific tale of space exploration, *The Voyage of the Luna I*, appeared as early as 1948. In the context of English literature, therefore, Canada is a latecomer to juvenile science fiction. Even in the sixties, there were only technothriller installments of adventure series:¹ an oddly shaped submarine in Frederick Faulkner's *The Aqualung Twins and the 'Iron Crab'* (1959); a Syndicate plot to use laser technology to extract oil in Edmund Cosgrove's *Terror of the Tar Sands* (1968). True SF did not appear until 1975.

However, Canada has two founding nations. Much of the country was settled by colonists from the British Isles; and, as in the United States and Australia, English is the dominant language learned by immigrants. But part of Canada was originally a colony of France; and French is today the mother tongue of approximately one-fifth of the population, concentrated in the province of Quebec. In consequence, there are two Canadian literatures—one French, one English. This is as true of young adult science fiction (YASF) as it is of other genres. In Quebec true SF stories appeared in the early 1960s: Guy Bouchard's *Vénus via Atlantide* (*Venus via Atlantis*, 1961) and Suzanne Martel's *Quatre Montréalais en l'an 3000* (*Four Montrealers in the Year 3000*, 1963), reissued as *Surréal 3000* (1982)—the new title referring to the setting, the subterranean post-holocaust city of Surréal. Martel's book is considered a minor Canadian classic, sometimes studied in Quebec schools (*CDN SF & F*:

45); it has been translated into English as *The City Underground* both by Norah Smaridge (1964) and by David Homel (1982). Anglophone children's literature critics, who generally discuss only books written in or translated into their own language, consider *The City Underground* to be the first Canadian juvenile SF story (Egoff and Saltman 275). It seems reasonable, therefore, to begin a discussion of YASF in Canada by looking at French fiction.

FRENCH-CANADIAN YOUNG ADULT SCIENCE FICTION

Francophone critics make no formal distinction between YA and children's stories, and discussions of *science-fiction pour la jeunesse* mingle books intended for quite different age groups, from easy-readers to near-adult fiction. Indeed, *Quatre Montréalais en l'an 3000*, which follows the adventures of two twelve-year-old boys and their fourteen-year-old brothers, is clearly intended for older elementary-school students as much as for junior high schoolers: though one of the older boys locates a tap on Surréal's power supply, it is the younger pair who discover an exit to the regenerated surface world. Martel's later stories are intended for the same intermediate age group: in *Nos amis robots* (Our Robot Friends, 1981), a boy from Quebec and a girl from British Columbia secretly help the planet Amandara Tetra defeat an impending invasion by the Worloks; and, in *Un orchestre dans l'espace* (An Orchestra in Space, 1985), a Quebec pop group ranging in age from ten to thirteen combine a tour of the planet Vania with an espionage mission for the Interstellar League. French-Canadian children's SF characteristically has a Quebec setting and/or characters, a somewhat didactic theme, and juvenile protagonists who are polite, curious, and brave, with whom young readers will want to identify and of whom adults can approve. There has always been a stream of Quebec YASF that is indistinguishable, save for having slightly older heroes.

However, apart from *Quatre Montréalais en l'an 3000*, YASF in Quebec in the 1960s was dominated by Maurice Gagnon's Unipax series (1965–72) and Yves Thériault's Volpek series (1965–68).² Clearly influenced by James Bond, Volpek is an agent of the Alliance of Western Powers, which protects the free world of 1975 from the menace of the Universal Organization for the Socialist Revolution, whose acronym in French, O.U.R.S., is an obvious reference to the Russian bear (*l'ours*). Unipax is a secret multiracial organization dedicated to the preservation of world peace in the twenty-first century, fraught with dissension after World War V. Both series follow a simple, clichéd adventure formula with a superficial gloss of futuristic technology.

For many young French-Canadians these series were the most readily accessible SF until the early 1970s, which saw a relative outpouring of short novels—many by teenaged authors—that provided the first real body of homegrown YASF. In particular, there were a number of SF titles in the *Jeunesse-Pop* series published by Éditions Paulines (Médiaspaul), whose most prolific writer, Louis Satal, produced no fewer than six books between 1971 and 1977. The quality of

stories from this period is decidedly variable; many are marked by their authors' inexperience. Nevertheless, taken collectively, they represent a new trend toward hard-SF motifs like space travel and alien worlds, which appear in Satal's *La planète sous le joug* (The Planet under the Yoke, 1976) and *Panne dans l'espace* (Breakdown in Space, 1977), Rolande Lacerte's *Le soleil des profondeurs* (Sun of the Depths, 1968), Geneviève Gagnon's *22,222 milles à l'heure* (22,222 Miles an Hour, 1972), and Jean-Pierre Charland's *Les insurgés de Vega 3* (The Rebels of Vega 3, 1973).

French-Canadian settings and characters primarily appeared in those YA stories with young protagonists like those of children's SF: it is in Montreal that Satal's boy heroes encounter green aliens in *La mystérieuse boule de feu* (The Mysterious Fireball, 1971) and *Menace sur Montréal* (Menace over Montreal, 1972);³ it is a French-Canadian girl of 2101 who meets refugees from another planet in Suzanne Beauchamp's *Une chance sur trois* (One Chance in Three, 1974). However, many YA authors wrote generic rather than specifically québécois SF, whose adult heroes were often Americans: the hero of Charles Montpetit's *Moi ou la planète* (Me or the Planet, 1973) is a *New York Times* reporter sent to Africa to cover a UFO story; the heroes of Jean-Pierre Charland's *L'héritage de Bhor* (The Heritage of Bhor, 1974) are NASA astronauts making the first trip to Mars. Indeed, in Lucie Gingras' *La terreur bleue* (The Blue Terror, 1972), it is an interplanetary agent who hunts the cure for a virus threatening Earth. These slim space adventures of the 1970s may best be interpreted as the first flowering of the influence of foreign SF on French-Canadian teenagers. In many ways the stories are comparable to formulaic American YASF of the fifties.

The general standard of writing has since improved and the variety of stories broadened. Thus Marie-André Warnant-Côté's *La cavernale* (The Hell Hole, 1983)⁴ is a contemporary nuclear-catastrophe novel in two distinct parts: the ESPer heroine, Ariane (Ariadne), sensing danger from an accident at a power plant, forces her fellow campers to take refuge in a labyrinthine cave; and they emerge to discover that the population has been evacuated to camps in the Arctic, abandoning southern Quebec to looters and army patrols. Francine Pelletier's *Le rendez-vous du désert* (The Desert Rendezvous, 1987) describes a post-holocaust world of underground cities and farms: in a plot reminiscent of André Norton's early SF, the desert-runner Algir and her apprentice Coril take a group of city-dwellers along the great conduit to find its source. A similar future Earth is the setting of Esther Rochon's *L'ombre et le cheval* (The Shadow and the Horse, 1992), about a girl from an artist's colony that makes cloud-horses that are projected on the sky to entertain city folk: by custom, Ella must discover the circumstances of her grandfather's mysterious death in the desert. And Danièle Simpson's *L'arbre aux tremblements roses* (The Tree that Rustled Pink, 1984) is a surrealist tale⁵ of First Contact ethics, whose heroines, Sara and Onik, protect a treelike Durmian from a scientist who fears alien invasion.

Since writing *Le rendez-vous du désert*, Francine Pelletier has written an SF detective-story series whose heroine, Arialde, lives in the only wildlife reserve

on an Earth-type planet largely franchised to mining companies. In *Mort sur le Redan* (Death in the Redan, 1988), an illegal prospector is mysteriously found dead in the reserve; in *Le crime de l'Enchanteresse* (The Crime of the Enchantress, 1989), mine workers are apparently killed by native birds; in *Le septième écran* (The Seventh Screen, 1992), poachers raid the reserve. Although the plots become progressively more complex as Arialde runs foul of the mining companies, she is essentially a futuristic Nancy Drew: significantly, Pelletier has written a number of non-SF YA mysteries.

As editor for *Médiaspaul* and *Lurelu* (a magazine of YA literature), Daniel Sernine (Alain Lortie) has played mentor to many new Quebec writers. He is also the author of several adult SF novels and short story collections, an adult heroic fantasy, and a YA fantasy series set in eighteenth-century Quebec; his YASF series about Argus Control demonstrates the continued popularity of the concept of a secret peace organization. The first two volumes are simple thrillers: in *Organisation Argus* (1979), when the Canadian military want control of Marc Alix's late uncle's scientific discoveries, the fifteen-year-old is rescued by Carl Andersen, an Argus agent who takes him to a secret space colony on the asteroid Érymède—a plot reprised in *Argus intervient* (Argus Intervenes, 1983), in which a British girl helps the heroes rescue a pacifist Soviet defector imprisoned in a Scottish castle by NATO agents who want him to work for the West. Though also an adventure tale, *Argus: Mission Mille* (Argus: Mission One Thousand, 1988) is a distinct improvement both in characterization and in its intricately plotted operational details: Marc and Carl return to Montreal with an Argus team when Erymedean psychics foresee that Israeli terrorists will assassinate a Canadian politician who would become a force for future world peace. In contrast, *Les rêves d'Argus* (The Dreams of Argus, 1991) is a change of pace: Marc (now twenty-eight) tries to help Carl's son, Tobie, come to terms with the death of his mother in a space accident, with chapters alternating between Argus Control's conventionally depicted moonbase and Tobie's virtual-reality adventures on a green-skied planet: particularly effective is Marc's frustration both with the sullen boy and with the base psychiatrists, who insist that the dream machine is not psychologically addictive. Sernine has written an adult Argus novel, *Les méandres du temps* (The Meanderings of Time, 1983), which involves a completely different cast of characters; and he has loosely tied the Argus concept into the time lines of his other fiction.

Johanne Massé has produced a series of YASF stories set in a post-holocaust future in which an underground city in Australia has established colonies throughout the solar system and uses time travel to learn about history before "the Great Catastrophe." In the first volume, *De l'autre côté de l'avenir* (On the Other Side of the Future, 1985), nuclear explosions on the planet below catapult an orbiting spaceship from 1995 into the future, where Marc Greg and his crew are rescued from cannibalistic Irradiates by two "temponauts," Yana and Yarik. In *Contre le temps* (Against Time, 1987), Yarik and one of the astronauts are kidnapped by aliens from a damaged sleepship who blackmail the others into time traveling to 1995 to find a scoutship shot down near Montreal. Massé com-

plicates the story with an ethical conflict: the astronauts know that impending nuclear war will destroy civilization (and kill their families), but are forbidden to change history—a theme that reappears in *Le passé en péril* (The Past in Peril, 1990), in which Yana and Marc Greg travel to Ireland during the potato famine of 1847 to retrieve a teponaut who has “gone native.” *Les mots du silence* (Words of Silence, 1993) abandons time travel for space, as an expedition is launched to study an alien ship detected on the edge of the solar system. Massé’s books are competent conventional hard SF, with *Le passé en péril* adding a lesson on the plight of immigrants in Canadian history.

Jean-Louis Trudel, an already established Franco-Ontarian author of adult SF, also sets his YASF in a future history: in *Aller simple pour Saguenal* (One-Way Ticket to Saguenal, 1994), New Quebec is a young colony in a space federation; centuries later, *Un trésor sur Serendib* (A Treasure on Serendip, 1995) involves an interstellar empire that includes alien species like the green-skinned Glogs, who communicate partly through scent; much earlier in the time line, *Les voleurs de mémoire* (The Thieves of Memory, 1995) is set at the dawn of colonization. Like Massé’s books, Trudel’s first two stories are conventional adventures: in *Aller simple pour Saguenal*, Sylvain Gareau arrives at a far settlement on New Quebec to discover that his exo-ecologist parents have apparently been killed to hide heavy-metal pollution from illegal mining; in *Un trésor sur Serendib*, Samuel Makenna, a New Quebec boy holidaying on the planet Serendip, is hunted by smugglers after he sees them kill a prospector who has found treasure. However, there is a new emphasis on characterization in *Les voleurs de mémoire*, where an amnesiac girl, dubbed Dominga, learns about the post-holocaust/precolonial society of Montreal while trying to uncover her lost memories.

Joël Champetier, also an author of adult SF, has written two YA novels, *La mer au fond du monde* (The Sea at the Bottom of the World, 1990) and *Le Jour-de-trop* (The Day-too-many, 1993), each in its own way essaying a higher level of sophistication. In *La mer au fond du monde*, a scientific expedition on the planet Creuse (Hollow) is assisted by “fridjis,” an intriguingly different alien species whom Lucian, a fifteen-year-old translator, believes he knows well—until the expedition uncovers hidden secrets of fridji culture. Unfortunately, the emotional impact of the story’s climax is diminished, since his friendship with Ffrac (who commits suicide) is conveyed more through Lucian’s statements than through personal interaction. In *Le Jour-de-trop*, Mircaï gets a permit to move from the country into Milanéra’s capital city; but, as he arrives there on the intercalary “Day-too-many,” which is ruled by the lawless, he is unable to rent a room in the shuttered, locked hotels. Through Mircaï’s misadventures, Champetier slowly reveals that everyone on Milanéra is infected by a “symbiote” (more properly, a parasite) attached to their DNA; all women eventually are killed by it unless they are treated, either with drugs that sterilize them or with drugs that keep them asleep nearly all their lives. To Mircaï this is simply the way things are; he never understands the frustration of girls faced with an unpalatable choice of futures. More successful than *La mer au fond du monde* in

characterization, *Le Jour-de-trop* is nevertheless flawed in its perfunctory plot line.

Denis Côté is the author of several YA thrillers and a children's series about a twelve-year-old boy who has fantastic adventures. As an SF writer, Côté is principally associated with juvenile fiction, though he has also written short adult SF. Indeed, one early novel, *Les parallèles célestes* (The Parallel Celestials, 1983), could equally well have been published for adults: the hero is a school teacher who, in a plot reminiscent of *Close Encounters of the Third Kind*, uncovers a conspiracy of silence about a downed UFO under investigation by the military. However, Côté's other SF novels are clearly juveniles. *Les géants de Blizzard* (The Giants of Blizzard, 1985), for example, involves three pacifists who travel to the planet Blizzard for evidence that their government intends to escalate an interstellar cold war. Côté deserves praise for an all-alien cast, of whom the most prominent is an hermaphroditic empath;⁶ but, unfortunately, he spices up the voyage to Blizzard with the sort of space-opera nonscience that gives juvenile SF a bad name: to give only one example, the ship is nearly eaten by giant insects in outer space.

Also an early story by Côté, *Hockeyeurs cybernétiques* (Cybernetic Hockey Players, 1983), reissued as *L'arrivée des Inactifs* (The Arrival of the Inactives, 1993), is SF for sports enthusiasts, pitting an all-star human team against a team of robots in three goal-by-goal hockey games. However, it includes a message of social cynicism: the teenaged star, Michel Lenoir, discovers that the owner of the human hockey team, David Swindler, is deeply involved in the robot construction business that is increasing the numbers of Inactives (the unemployed). The trilogy sequel—*L'idole des Inactifs* (The Idol of the Inactives, 1989), *Le revolte des Inactifs* (The Revolt of the Inactives, 1990), and *Le retour des Inactifs* (The Return of the Inactives, 1991)—elaborates the world of Lost Ark, capital city of Freedom State, an independent country on the west coast of the United States in 2013. (Given this geographical location, there is something suggestive about the initials of "Lost Ark," which, like most of the names, appears in English in the text.) Initially, it appears that Michel still works for, and publicly supports, Swindler; but an investigative reporter, Virginia Lynx, discovers that the real Michel has been replaced by a robot. Escaping from the Guardians (a paramilitary police force) into the Old City, she joins the rebel forces, among whom she finds Michel, a pseudonymous fugitive. Although a superman on the ice, in his private persona he is an unheroic protagonist: in *L'idole*, for example, he turns away from a woman being molested by the Guardians, deeply ashamed that he is too frightened to go to her help. The trilogy format allows Côté to detail multiple steps in Virginia's investigation and the proposed uprising, about which both heroes have reservations that prove well founded when it apparently succeeds only for the new order to prove as repressive as the old; indeed, all has been contrived by the Machiavellian Swindler to identify and undermine opposition. The Inactives trilogy represents a quantum leap in maturity in Côté's SF writing.

Monique Corriveau (Monique Chouinard) set the trilogy *Compagnon du Soleil* (Companion of the Sun, 1976) in a dystopia where, twenty years earlier, an extreme form of shift work was adopted to cope with overpopulation. Corriveau provides an unusual insight into totalitarianism with a convincingly detailed picture of corrupt idealism: propaganda, disappearances, convict labor in the copper mines, and youth gangs secretly organized by the police to terrorize opponents of the regime. Oakim (son of the dreaded police chief Drek and his wife Méani, a prominent marine biologist) is born into the Companions of the Sun, privileged always to live on the day shift. In the first volume, *L'Oiseau de Feu* (The Firebird), he completes school, takes part in the annual Earthball championships, and is admitted to the prestigious Firebird academy which indoctrinates Ixanor's ruling caste. Less a rebel than simply curious about the proletariat, he surreptitiously reads underground newssheets and initiates an illegal correspondence with his "Invisible One," Nam, whose family shares the same apartment on the night shift. It is his expectation of meeting his friend after the annual shift change that reveals the existence of the Black Moon into which Nam was born, his father having been convicted of dissension: tattooed with black discs on their foreheads (Companions of the Sun bear gold ones), the people of the Black Moon must forever work the night shift, never seeing sunlight. Appalled, Oakim becomes actively involved in resistance; in *La Lune Noire* (The Black Moon), the rebels hide him from arrest, and he flees to neighboring Diritia. Two years later, at the end of *Le temps des Chats* (The Time of the Cats), he returns to assist the rebel coup. Oakim is a very believable hero, vacillating between idealism and the desire for safety, proud of Ixanor's achievements even while he wishes to correct its faults. *Compagnon du Soleil* is one of the most sophisticated dystopias in all SF.

Notable also is Charles Montpetit's trilogy, *Temps perdu* (Lost Time, 1983) and *Temps mort* (Dead Time, 1988). As the titles suggest, this is a time-travel story, but with a novel impulsion: at the beginning of *Temps perdu*, the Entity (a one-dimensional temporal-traveling alien) collides with Marianne Boisjoly, a schoolgirl who is killed as a result; the Entity takes her disincorporated mind time-hopping into other bodies, hoping to satisfy her with a substitute. *Temps perdu* concludes by changing the past to an imminent collision of the Entity with her fellow student, Christophe-Emmanuel Lambert, instead; when *Temps mort* opens, his body is found dead, and Marianne is suspected of killing him. In fact, the Entity has left Christophe's mind in a comatose patient in an Australian hospital in 1997. It returns to warn Marianne that other Entities are now colliding with humans across time, and the deaths of the people they encounter in the past are changing the course of the future. Marianne decides that she must die again in order to unite with the Entity, travel to 1997 (now racked by continual time changes), recover Christophe's mind, and restore time. An ambitiously complex story, *Temps mort* is YASF at its most impressive. Indeed, Quebec writing compares well with English-language YASF worldwide. The best French-Canadian books are good by any standard.

ENGLISH-CANADIAN YOUNG ADULT SCIENCE FICTION

In 1975, anglophone authors ventured into SF for the first time. Besides Muriel Leeson's *Oranges and U.F.O.'s*, which—like Suzanne Martel's stories—was aimed at preteens, there were two YA stories, Christie Harris' *Sky Man on the Totem Pole?* and Monica Hughes' *Crisis on Conshelf Ten*. Harris had previously written folktale collections and historical fiction inspired by her interest in Northwest Coast Indians; Hughes had already published one historical novel, and would later write both YA fiction with contemporary or historical Canadian themes and a fantasy dilogy set on a desert world. *Sky Man on the Totem Pole?* interprets Indian legends to refer to blond, blue-eyed alien visitors who deny that spirits live in the natural world, care only for science and technology, and pollute their planet until they cause their own extinction. Ostensibly hard-SF in its description of Tlu, *Sky Man on the Totem Pole?* is a didactic New Age curiosity (with Velikovsky, Von Daniken, and *The Secret Life of Plants* recommended as further reading); it was Harris' only essay into SF. In contrast, Hughes' *Crisis on Conshelf Ten* was the first of fifteen YASF novels. To appreciate how much her career dominates English-Canadian YASF it is necessary to see her professional context: no one else approaches her for prolificness and quality.

Apart from Hughes' books, the only readily available English-Canadian YASF stories are Douglas Hill's Last Legionary Quartet (1979–81), to which there is a prequel volume, *Young Legionary* (1982);⁷ Huntsman trilogy (1982–84);⁸ and ColSec trilogy (1984–85).⁹ The Quartet resembles a simplified version of "Doc" Smith's Lensmen series: Keill Randor, master of every form of martial art, survives a genocidal attack on his home planet and, aided by a winged telepathic alien, Glr, fights his way through the Warlord's minions to locate his enemy's homeworld. Hill's later heroes diminish towards mere exalted normality: Finn Ferral, a skilled woodsman, fights alien Slavers who have taken over an Earth reduced to primitivism after a nuclear war; Cord MaKiy, a Scottish Highlander, is marooned by the Colonization Section of a global government that disposes of troublemakers by planting them on newly discovered planets. With simple straightforward texts and no real depth of either character or theme, Hill's adventure series have no lasting literary merit; but at a certain age they are irresistible.

Among minor anglophone writers, only Beverley Spencer, Carol Matas, and Martyn Godfrey have written several SF stories (as well as other fiction). In Bev Spencer's *Spaceship Down* (1993), the young survivors of a crashed spaceship foil miners whose illegal activities are destroying the geological stability of an inhabited alien planet; *Guardian of the Dark* (1993) is set in the rigid society of a post-holocaust bunker, whose origins are forgotten until the rebellious hero destroys the last stockpiled nuclear warhead and discovers an exit to the surface. Carol Matas specializes in dystopic SF: in *The DNA Dimension* (1982), four children are transported into a parallel Winnipeg whose population is programmed by a genetic engineer; and, in the TimeTracks trilogy (*Fusion Factor*,

1986, reissued as *It's Up To Us*, 1990; *Zanu*, 1986; and *Me, Myself and I*, 1987), Rebecca time travels to a post-holocaust bunker of 2040, a 2080 controlled by a global corporation, and an apparently utopian 2080 based on the suppression of differences through group social pressure. Intriguingly, at the end of *Zanu*, she returns to 1986 three days early; and *Me, Myself and I* follows both Rebeccas until they are integrated. However, as Matas' characters are flat, even for conventional YASF, interest lies primarily in her exaggerated, but carefully detailed, future worlds.

Martyn Godfrey's undistinguished books represent a variety of types: his first story, *The Vandarian Incident* (1981), is a survival adventure involving a Space Corps cadet on a planet swept by sand blizzards; it was followed by *Alien War Games* (1984), a politically correct story of colonization, with human settlers scheming to restrict the native Diljugs to reservations and take over the planet for themselves. His YASF has since been published in Series 2000, a library of short novels from Scholastic-TAB (later from Macmillan Canada) aimed at nonreading teenagers: *The Last War* (1986) is a slight story of death in the ruins of Montreal after a nuclear war, notable only for its chilling conclusion; *More Than Weird* (1987) is a simplistic horror tale in which a lovely girl turns out to be a robot from the future who wants Cory as a zoo exhibit; and *In the Time of the Monsters* (1989) is a survivalist story, with Cut training to kill the "Eaters" (mutated wolves) that have destroyed almost all humanity. Other Series 2000 books include John Ibbitson's *Starcrosser* (1990), whose high-school hero leaves Earth to help the last planet of the Alliance of Suns defeat the invading Drakonians; and Audrey O'Hearn's *Future Thaw* (1992), whose cryogenically preserved hero is thawed out in a computer-run future. Intended to be enticingly exciting, Series 2000 books are of inferior literary quality.

In addition, there are several one-off YASF stories, mostly crudely amateurish in style, often small-press publications. Wence Horai's *Sudbury Time Twist* (1984) is a geology lesson about the meteoritic origin of the Sudbury nickel mines thinly disguised as a time-travel story. Equally didactic in a different way are the dystopic futures of Peter Baltensperger's *Guardians of Time* (1984) and Nicole Luiken's *Escape to the Overworld* (1988), while Floyd Priddle's *The Survival Squad* (1990) is a violent post-holocaust tale with a strong antinuclear theme. In contrast, Juanita J. Smith's *Reena and the Riser* (1989) attempts to combine psychological subtlety with adventure, as a starship admiral dutifully hunts down a swashbuckling space pirate who has stolen a fortune in gems from a crooked planetary governor. As in Quebec, some anglophone Canadian writers make their first professional sales at very young ages:¹⁰ *Escape to the Overworld* was written when Luiken was fifteen; Smith wrote *Reena and the Riser* at thirteen, selling it at sixteen: the stories have some thematic interest, but reflect their authors' inexperience.

The only singleton SF novels of noteworthy literary quality are Kenneth Oppel's *Dead Water Zone* (1992) and E. M. Goldman's *The Night Room* (1995), both by authors who have written non-SF juvenile fiction. In the former, Paul searches for his older brother Sam through a dilapidated dockland inhabited by

gangs who are obsessed with the strangely addictive water in the harbor, which contains a microorganism that was designed twenty years earlier to clean up pollution but has mutated into a symbiont that changes water drinkers into skinny, near-albino supermen. Although Cityweb (the company with whom Sam has a summer job) is interested in the illicit market for purified "water," the book is enriched beyond a mere thriller by a love/hate relationship between the brothers—Paul, a nonacademic athlete; Sam, a genius dying from a degenerative disorder. In *The Night Room*, seven high school students become experimental subjects in a virtual-reality tenth-anniversary high-school reunion designed to show them personal insights that will guide their career and lifestyle choices. When the "reunion" indicates that one of their number is soon to die, the other students assume that the program predicts suicide and try to forestall their friend's death, not realizing that the computer has been sabotaged.

Finally, Welwyn Wilton Katz, a distinguished author of YA fantasy, has recently ventured into SF with *Whalesinger* (1990) and *Time Ghost* (1994), well-written books with an unconcealed "green" message. The former is the soft-SF equivalent of a technothriller: the heroine exposes a shady environmental activist while, almost incidentally, communicating telepathically with a whale. In the latter, our time is visited by protagonists from a polluted, overcrowded twenty-first century. Not surprisingly, the time-travel mechanism conforms more closely to the conventions of fantasy, though Katz gives a superficial SF gloss by ascribing to Dani's science-oriented brother the theory that, because all time zones meet at the North Pole, someone standing there can travel in time by touching an object from the past.

This then is English-Canadian YASF. There are stories by well-known writers—Harris and Katz—whose interpretation of SF is heavily colored by their principal literary interests. There are Douglas Hill's series, whose merits lie entirely in their exciting plots. There are a handful of other books that (with the exception of *Dead Water Zone* and *The Night Room*) are only moderately competent at best. And then there is Monica Hughes.

MONICA HUGHES

Underlying Hughes' SF are her mistrust of technology, business, and government, her advocacy of individualism, and her preference for a country lifestyle—all apparent from her earliest novels, *Crisis on Conshelf Ten* and *Earthdark* (1977): in 2005, exploited colonies on the Moon and continental shelf are on the verge of rebellion; big business tries to take over Lunar Lab 21; and, under a secret force-field dome, a Sellenite [*sic*] independence movement grows the food that has held them hostage to Earth policy. With conventional descriptions of fish-ranching and trips in lunar vehicles, the dilogy resembles American YASF of twenty years earlier. However, Hughes has since given similar themes a modern twist. For example, in *Ring-Rise, Ring-Set* (1982), Earth fights an impending Ice Age when a dust ring forms from the tail of a captured comet. Lost

in the Arctic, Liza is rescued by a group of Ekoes [eco-/Eskimo]—hitherto considered mythical—in whose hunter-gatherer life she finds a freedom lacking in the rigid research-focused City. When she discovers that “black snow” poisoning the lichen on which caribou feed is a compound engineered to melt the expanding ice cap, she vows to die with the Ekoes if the City scientists will not reverse their plans. Again independence is at issue, but involving First Nations tribal rights, not anti-imperialism.

Ring-Rise, Ring-Set is notable for the unusual thought with which Hughes has contrived the ethical dilemma. Against the rights of the small population of Ekoes is set the survival of the rest of humanity: considering that it took three years to create the black snow, the scientists scarcely have time to develop an alternative, since Hughes establishes an extremely short time window before the Ice Age becomes irreversible; furthermore, as the ecological disaster facing the world is a natural one, the scientists are not callously sacrificing the Ekoes to a problem created by Western culture; instead they offer refuge, which the Ekoes refuse because it would change their lifestyle. However, ethical issues are usually little elaborated in Hughes’ fiction, which concentrates on surface description rather than analytical depth. This is strikingly obvious in *Invitation to the Game* (1990): although the government of 2154 secretly maroons jobless teenagers as involuntary colonists to solve massive unemployment caused by robot labor, Hughes’ interest lies not with the violation of civil liberties but with the welfare slums and the enticing “Game” (hypnotic indoctrination before being shipped off-planet)—in contrast to Douglas Hill’s round condemnation of ColSec policy. Hughes never explains why such a government would spend so much money training the protagonists in subsistence-level technology if there is to be no follow-up exploitation of the little colony; but this means that—unlike Cord MaKiy (who escapes by stealing the ColSec inspectors’ spaceship)—Hughes’ heroes must accept that they are irreversibly stranded. (Two of them have parents whose response is ignored.) The story concludes happily with a tidy one-to-one marriage-mapping more reminiscent of set theory than real human relations.

Hughes’ most extreme dystopia appears in the dilogy *Devil on My Back* (1984) and *The Dream Catcher* (1986), set in the 2140s after ecological catastrophe. It was originally to facilitate research that info-paks were plugged into sockets implanted in the necks of the scientific elite of ArcOne (Ark One) so their minds could draw directly on computer data banks; but the implants were quickly used to create mind-controlled worker and soldier classes, while people whose bodies rejected the surgery were condemned to slavery. Tomi, the son of privilege, discovers that a small band of escaped slaves have started subsistence farming the restored natural world and regains his own liberty by pulling out his info-paks. In the sequel, Ruth, who comes to ArcOne as part of a telepathically joined Web, uses her psychokinetic abilities to help him destroy the computer. ArcOne and the ex-slaves’ farm are a simple black-and-white dichotomy between repression and freedom. In contrast, the country to which Oakim flees for refuge in *Compagnon du Soleil* is no utopia: although Ditrian farmers and salt

miners enjoy a freedom that astonishes him, their society is superstitious and sexist, their food tasty but meager, and their lives short. More crudely, in *Quatre Montréalais en l'an 3000*, Surréal's medical knowledge saves the primitive farming village of Laurania from a smallpox epidemic. However, Hughes characteristically ignores the benefits of science and the weaknesses of nontechnological cultures.

Hughes' finest SF novel is *The Keeper of the Isis Light* (1980), set on a planet where thin air and fierce ultraviolet light make life impossible for humans except in the valleys. Olwen Pendennis, raised by a robot Guardian after the deaths of her parents, reluctantly ends her duties as keeper of a message beacon when Isis is opened for settlement but finds friendship in the new colony. Only at the end of the story is it revealed that, to protect her and give her a semblance of childhood freedom, the Guardian genetically altered her for the Isis climate: with her scaly, bronze-green skin, big rib-cage, broad nostrils, and nictitating membranes, she is immediately rejected by the xenophobic colonists when they see her without a protective suit. Curiously (given her usual concerns), Hughes glosses over the implications for native wildlife in the planned terraforming of the planet: Olwen simply dismisses it as something that will not affect Isis in her lifetime. However, the planet remains undisturbed in the sequels: *The Guardian of Isis* (1981) depicts the colony some fifty years later when Earth technology has been deliberately abandoned in favor of a quasi-religious mixture of myth and taboo; and the trilogy concludes weakly with *The Isis Pedlar* (1982), in which an interstellar flim-flam man sees the colony as an easy mark.

Up to the mid-1980s, Hughes wrote several stories that used sexist settings to protest women's inequality: in *The Guardian of Isis*, they are relegated to the bottom of the colony hierarchy; in *Ring-Rise, Ring-Set*, the City limits women to domestic duties. All her protagonists betray reverse-sexist character clichés: most are enterprising, bright, courageous teenaged girls; the few boys are quiet loners with humanistic instincts and artistic tastes. Interestingly, in French-Canadian YASF such overt feminism is rare: in *De l'autre côté de l'avenir, Le rendez-vous du désert, La cavernale, and L'arbre aux tremblements roses* (all written by women), heroines play equal roles without comment; indeed, even when writers and protagonists are both male, women are seen in positions of power as a matter of course: in the Argus series, Marc crews aboard an Erymedean spaceship captained by a woman. It is perhaps significant that Hughes is a full generation older than most *québécois* writers; but it must be noted that overt antisexism is popular in SF and fantasy written by other women from anglophone countries.

Hughes' remaining YASF books are *The Tomorrow City* (1978), in which a computer takes control; *Beyond the Dark River* (1979), set in a post-holocaust Alberta where the only survivors who have not devolved into savagery are a Hutterite colony and an Indian band, both of whom had maintained their traditional lifestyles; *Beckoning Lights* (1982), whose young heroes help aliens obtain a cave-growing fungus needed as a food supplement; *Space Trap* (1983), an adventure story in which three children are kidnapped by aliens as experimental

subjects and zoo animals; *The Crystal Drop* (1992), set in 2011 when the Canadian prairie has become desiccated by global warming; and *The Golden Aquarians* (1994), in which intelligent amphibians are discovered on a planet being terraformed.

As might be expected with such a prolific author, Hughes' stories vary in quality, though all are eminently readable. Some suffer from her liking for tidy endings; the most successful are those in which she retains some irresolution of the protagonists' problems. Thus, in *Beyond the Dark River*, no medical cure is found for the illness killing Hutterite children; and in *Ring-Rise, Ring-Set*, the scientists' decision about the use of black snow is left at least nominally open.¹¹ In particular, *The Keeper of the Isis Light* is distinguished by Olwen's refusal to consider returning to Earth for a medical reversal of her alteration; instead, her pride and dignity intact, she withdraws into exile.

CANADIAN DYSTOPIAS

Dystopic future worlds are popular in YASF worldwide, and there are several examples from Quebec. However, the motif dominates the small field of English-Canadian YASF to a remarkable degree: there are dystopic elements in *Guardians of Time*, *Escape to the Overworld*, the Colsec trilogy, *Guardian of the Dark*, *Future Thaw*, all Carol Matas' SF, and *Time Ghost*, as well as several of Monica Hughes' books. Social and psychological constraints are often reflected in physical closure, the setting a domed or underground city whose exits are guarded, sealed, or forgotten. The outside world may once have been deadly—both ArcOne and Surréal were originally city-sized bunkers against global destruction—but characteristically the danger has now passed. In the present of the story, the outside world represents freedom: in *The Tomorrow City*, the force field erected by the computer, C-Three, clearly prevents external interference; in *Zanu* and *Future Thaw*, sealing the boundaries prevents escape. Other dystopias encompass the globe, with escape possible only if there are off-world colonies. Whatever their origins, all such closed societies become socially skewed.

Dystopias can be identified by their suppression of individuality: even in the apparently utopian futureworld of *Me, Myself and I*, this single factor is sufficient to bring Rebecca's condemnation. Obligatory conformity is usually made obvious by simple outward signs: people dress similarly and live in small apartments with minimal personal decoration. The substitution of numbers for surnames is common; dystopic food is constantly disparaged; gardens are rare; and, in the interests of functionalism, art is suppressed as unproductive, though the degree varies from peer disapproval of wasted study time (*Earthdark*) to an outright ban (*Escape to the Overworld*). As a corollary, through petty rebellious artistic interests are associated with liberty and human rights. There is, of course, no integral antagonism between arts and sciences: an interest in physics does not imply the inability to paint pictures, a dislike of flowers, or tolerance of flavor-

less food. However, in YASF humanistic themes are commonly tied to technophobia. Indeed, doing badly at math and science—like Liza in *Ring-Rise*, *Ring-Set*—is almost a sign of virtue.

Technophobic themes manifest themselves in three ways: cheap robot labor; misuse of technology for surveillance and control; and computer dominance.¹² Automation is not only cheap—inspiring the Luddite themes of the Inactives series and *Invitation to the Game*—it is also so efficient that in *Zanu* even children are required to meet sales quotas for goods that are shortly put in disintegrator boxes so that replacements may be purchased. The ubiquitous central computer collates information from futuristic extrapolations of twentieth-century “bugs” and drugs. In *Guardians of Time* the family robots report regularly on the Turpins’ mental stability. In *Compagnon du Soleil*, except for purified bottled water sold at a price too high for any but the ruling elite, Ixanor’s water is poisoned to force people to buy the cheap, tranquilizing beverage “euforia.” In *Future Thaw*, people are not only drugged into lassitude, but—like the workers of ArcOne—given orders through implants (earphones permanently screwed in their ears). In *The DNA Dimension*, the population is programmed into obedience to the gold disc worn by the dictator, Kard. At the extreme of techno-control, when human government disappears entirely, the methods employed by the central computer remain the same: in *The Tomorrow City*, C-Three hypnotizes people through television programs. One can say, with a good deal of truth, that in techno-dystopias the real “robots” are the general human population.

However, the implications are usually glossed over. When the hero destroys the computer or takes over the central broadcast station to send everyone a message of freedom, few authors question the future of the people whose society is so suddenly destroyed. The inference is swift reformation: hypnotized or drugged people will wake up normal; programmed workers will turn democrats. *Compagnon du Soleil* is one of the few YASF stories to modify rather than destroy its dystopia for Ixans still need accommodation-sharing shift-work in order to house everyone; Corriveau also shows the difficulty of habilitating the Black Moon undercaste to daylight. But, in most dystopic YASF, practical complications do not merely lie beyond the conclusion of the story; they are deliberately ignored. It is not the intention to create a realistically complex society; indeed, few YA authors write stories long enough to accommodate the necessary details.¹³ Instead, through extreme exaggeration dystopias criticize twentieth-century society. Interestingly, although several are set in future or parallel-world Canadian cities, they contain little that is distinctively Canadian but treat such aspects of general Western culture as urban depersonalization and economic greed. In particular, Canada’s most distinctive characteristic, its dual cultural heritage, is virtually ignored.¹⁴

CONCLUSION

Although, for obvious reasons, the total body of Canadian YASF is relatively small, there is nothing slight about its quality.¹⁵ However, it is very much a French-Canadian phenomenon despite the excellence of Monica Hughes' stories: she is, after all, only one writer. Interestingly, in fantasy the situation is reversed: Daniel Sernine and Esther Rochon are among the few French-Canadian authors of YA fantasy, but there are many excellent English-Canadian YA fantasy authors besides Welwyn Wilton Katz—Ruth Nichols, Janet Lunn, Cora Taylor, Donn Kushner, Kit Pearson, Joan Clark, Michael Bedard. In many ways the two literatures are complementary. Unfortunately, little Quebec SF is available to anglophones: a number of *Jeunesse-Pop* books were published in 1990 by Black Moss Press;¹⁶ but the translation of books from other publishers can only be described as haphazard and sporadic.¹⁷ *Le rendez-vous du désert*, the later Argus stories, *La cavernale*, *Le Jour-de-trop*, the Inactives trilogy, *L'arbre aux tremblements roses*—above all, *Compagnon du Soleil* and *Temps mort*—remain available only in French. The reverse situation is just as bad: there is no French version of *The Keeper of the Isis Light*, *Ring-Rise*, *Ring-Set*, *The Night Room*, or *Dead Water Zone*. Indeed, of all Monica Hughes's SF, only *Beckoning Lights* (one of her slightest tales) has been translated.¹⁸ Although Canada is officially bilingual, the legal status masks a fundamental cultural division, the other official language usually being learned as an academic subject. The two literatures remain largely unknown to each other, reflecting the "two solitudes."

NOTES

I would like to thank Peter Halasz and Élizabeth Vonarburg for their comments on earlier drafts of this chapter.

1. Probably because YASF began so late, Canadian SF critics follow a policy of inclusiveness. Thus, both *CDN SF & F* and David Ketterer's *Canadian Science Fiction and Fantasy* treat Winnipeg-born Eleanor Cameron (author of the Mushroom Planet series) as the first Canadian author of children's SF, although she became an American citizen long before she started writing. Since children's literature critics (including the Canadian critics Egoff and Saltman) always treat Cameron as American, her books are not discussed in this chapter. As well, the following early stories cited as SF in *Canadian Science Fiction and Fantasy* properly belong to other genres: John Latimer's *The Last Pharaoh* (lost world story), Delpert A. Young's *The Ghost Ship* (fantasy), and Sheila Burnford's *Mr. Noah and the Second Flood* (allegory).

2. The Unipax series has nine volumes: *Unipax intervient* (1965), *Les savants réfractaires* (1965), *Le trésor de la Santissima Trinidad* (1966), *Une aventure d'Ajax* (1966), *Opération tanga* (1966), *Alerte dans le Pacifique* (1967), *Un complot à Washington* (1968), *Servax à la rescousse* (1968), and *Les tours de Babylone* (1972). The Volpek series has eight volumes: *La montagne creuse* (1965), *Le secret de Muffarti* (1965), *Les dauphins de Monsieur Yu* (1966), *Le château des petits hommes verts* (1966), *Le dernier rayon* (1966), *Le bête a 300 têtes* (1967), *Les pieures* (1968), and *Les vampires de la rue Monsieur-le-Prince* (1968).

3. Satal's remaining stories are *Le piège à bateau* (The Ship Snare, 1973) and *Révolte secrète* (Secret Revolt, 1974).

4. The portmanteau word *cavernale* derives from *caverne infernal* (infernal cavern).

5. The title of the story refers to a peculiarity of *Là-où*, its heroes' homeworld: when the wind blows from the west, all moving objects leave a trail of color in the breeze. *Là-où* (there-where) is an invented phrase; it might perhaps be loosely translated as "Thataway" or "Whereveritis."

6. However, Chrysalide (Chrysalis) gives an impression of femininity. As in *The Left Hand of Darkness*, the use of hermaphroditic characters presents a problem since both English and French have obligatorily gendered pronouns. Côté uses *elle* (she/her) to refer to his hero(ine).

7. The Last Legionary Quartet comprises *Galactic Warlord* (1979), *Deathwing Over Veynaa* (1980), *Day of the Starwind* (1980), and *Planet of the Warlord* (1982). The four stories in *Young Legionary* describe Keill's training from twelve to eighteen.

8. *The Huntsman* (1982), *Warriors of the Wasteland* (1983), and *Alien Citadel* (1984).

9. *Exiles of ColSec* (1984), *The Caves of Klydor* (1984), and *ColSec Rebellion* (1985).

10. I am indebted to Peter Halasz for this observation.

11. In fact, whatever the fate of the Ekoes, Liza certainly survives: there is a reference earlier in the story to her reminiscences "in later years" (79). Given Hughes' usually optimistic endings, it seems unlikely that her heroine abandoned the tribe to save herself; but the actual solution to the scientists' dilemma is left uncertain.

12. It should be pointed out that Canadian children's—as opposed to YA—SF anthropomorphizes computers. Thus the computer in Claudia Maria Cornwall's *Print Outs: The Adventures of a Rebel Computer* (1982) wants to be a writer; and the computers in Francine Loranger's *Chansons pour un ordinateur* (Songs for a Computer, 1980) and Bernadette Renaud's *La dépression de l'ordinateur* (The Computer's Depression, 1981) have nervous breakdowns, the former being quite reasonably motivated since the computer, onboard a spaceship returning to Earth after a two-year voyage, wrongly believes that it will be dismantled when the voyage is over.

13. Books less than 125 pages in length are quite common in Canadian YASF, especially from minor authors; in particular, Series 2000 books are under 100 pages. At some 900 pages over its three volumes, *Compagnon de Soleil* is a rare exception: it should be noted that it is treated as YA fiction by Le Brun (March & Summer 1985) but as adult fiction by Ketterer.

14. Here an exception must be made for *Quatre Montréalais en l'an 3000*, since *Surréal* is French and *Laurania English*. Linguistic integration also appears in Martel's *Nos amis robots*, whose heroes make an effort to learn each other's language.

15. It should be noted that the quality of Canadian YASF has not gone unrecognized. Both *Nos amis robots* and *Hockeyeurs cybernétiques* won the *Prix du Conseil des Arts du Canada* (Canada Council Prize), which until 1987 was the most prestigious Canadian literary award, offered annually for the best English and best French children's books. *Temps mort* won its replacement, the *Prix littéraire du Gouverneur général* (Governor General's Prize). Monica Hughes (recipient of the Vicky Metcalf Award for her general career) won the Canada Council Prize for *The Guardian of Isis*, while *Ring-Rise, Ring-Set* was runner-up for the British *Guardian Award*.

16. Specifically: Frances Morgan translated *De l'autre côté de l'avenir* as *Beyond the Future*, and *Temps perdu* as *Lost Time*; Jane Brierley translated *Hockeyeurs cybernétiques* as *Shooting for the Stars*; David Homel translated *Organisation Argus* as *Those Who Watch over the Earth*; and Ray Chamberlain translated *Argus intervient* as *Argus Steps In*.

17. Apart from *Quatre Montréalais en l'an 3000*, *Nos amis robots* was translated by Patricia Sillers as *Robot Alert* (1985); and the children's story *La dépression de l'ordinateur* was translated by Frances Morgan as *The Computer Revolts* (1984).

18. *Beckoning Lights* was translated by Marie-Andrée Clermont under the title *Visiteurs extra-terrestres* (Visitors from Space, 1984). As well, Daniel Alibert-Kouraguine translated Carol Matas' *The Fusion Factor* as *Les rescapés du futur* (The Survivors of the Future, 1995).

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The Janus Perspective: Science Fiction and the Young Adult Reader in Britain

K.V. Bailey and Andy Sawyer

The “Janus Perspective” of our title is that of he and she who look toward the opening up of ever more possibilities—possibilities of individual achievement accompanied by those uncertainties and responsibilities integral to the freedoms of adulthood—but who at the same time remain sensible of the imaginative inner life that has been integral to their relatively secure experiences of childhood. At that adolescent stage there is a distinctive blending of realism and imaginative fantasy, a blending that literary works within the wide spectrum of science fiction (SF) can usefully nurture. The shades of Wordsworth’s “prison-house” are those that may black out from adult life the light of imaginative perception. The phase that can be defined as “young adulthood” is consequently one of vital emotional and intellectual significance, and the identification of relevant literatures a matter of high interest and importance.

Definitions of young adult literature in its British context vary. Many of those qualified to make them agree that age boundaries are elastic, dependent on individuals, education, social milieu, and other circumstances. Insofar as generalizations can be reached, ages thirteen to nineteen would seem to include the readership under consideration. There is recognition that at the upper end of that range purely adult novels and magazines will be read—this is certainly true of science fiction. School librarians realize that the lower end of that range, even extended backwards to eleven, will include pre-adolescent and adolescent children in whom adult interests will be awakening. Television is a medium that has markedly advanced that process.

This two-way gaze—toward the safe but circumscribed innocence of childhood and the seduction of more adult experience—creates occasional moral panics among those who see the world of adult literature as one to which young readers must be introduced slowly and by stages. Books that transgress received

attitudes of being “suitable” for a young readership become the focus of criticism. Traditional SF (once safely divorced from the titillating covers of the “pulp”) has been frequently seen as approved “adult” reading for the young for its resolute avoidance of sexuality and the grosser forms of profanity, but even so there have been cases where the dividing line between “young” and “adult” becomes the cause for debate.

Ian Williams' *The Lies That Bind* (1989), published as a teenage novel in a series called Frontlines, became the focus of such debate after a complaint by the mother of a thirteen-year-old resulted in the book's being withdrawn from library shelves. The novel—about the exploitation of teenage paranormals in a secret government school—contains a couple of brief but relatively explicit scenes of sexual activity, although its main focus is in the metaphor of the setting as an image of the problems of manipulation and alienation faced by modern teenagers. Williams, himself a librarian with a special interest in teenage reading, was moved to defend himself and, rather against the grain of the stereotype, tended to agree that the book should not have been issued to the child in question. In an article that appeared in the British librarians' professional journal, he defended his role as a writer of issues and relationships relevant to older teenagers and said that it was precisely because of this that the book should not have been made available to younger readers (280–81). In his own library, Williams, following the practice of many British librarians, is careful to discriminate between the more adult-oriented material made available in a separate section for over-fourteen-year-olds and more traditional “children's” reading.

Such a case is perhaps an over-dramatic illustration of the point that boundaries and cut-off points are necessarily ambiguous. Publications of the Youth Libraries Group of the British Libraries Association contain descriptive and bibliographical notes that are illuminating. Jessica Yates in *Teenager to Young Adult* does not break down her listings in terms of age-suitability but does divide them by genre, one category being “Fantasy, Science Fiction, Ghost Stories and Legends.” Within this are specific suggestions. Thus, of Nicholas Fisk's novel of the cloned “reborns,” *A Rag, a Bone and a Hunk of Hair* (1980), she advises that the increased topicality of its theme and of its climax which deals “with life, death and the immortality of the human spirit” recommend it for older readers (26). On the other hand, Diana Wynne Jones' *The Homeward Bounders* (1981) (discussed later in detail), Yates notes, “has been suggested as one for reluctant readers hooked on fantasy gamebooks” (28). Another relevant publication is *The Right Stuff!: Books for the Young Adult Collection* by Margaret R. Marshall. (The title is from the remark of a sixteen-year-old: “If you had the right stuff I might come into your library.”) There is a division here: in the Fiction section, the Teenage Collection is labeled 12–15, the Young Adult Collection 16–19. Marshall is well aware of overlap and fusion, but identifies a particular problem in the 16–19 range: those who are too old for the children's library yet “too confused by or turned off by the adult library” (4). To look at those of her listings that have science fiction relevance is to be impressed by the borderline problems of selection. The Nicholas Fisk novel earlier referred to is here recommended for

the range 12–15, whereas Ursula Le Guin's Earthsea trilogy (1968–72) and Arthur C. Clarke's *2001: A Space Odyssey* (1968) both appear in the "Young Adult 16–19" section. The choices are, of course, perfectly valid, despite the certainty that many fourteen-year-olds have read and will read the Le Guin and the Clarke with the greatest enjoyment. Such variability is no new phenomenon, and before continuing to survey the recent scene, it will be useful to look back historically. That variability will be again encountered, but more importantly there are significant roots to be observed.

The origins of British young adult literature in the area of science fiction, and of those allied genres that shade into or may be dominated by fantasy, lie in the popular reading of late Victorian and Edwardian times. In that large body of literature, distinctions between children's fiction and adult fiction were frequently blurred. An exotic adventure novel such as H. Rider Haggard's *King Solomon's Mines* (1885) or comic fantasies such as F. Anstey's *Vice Versa* (1882) and *The Brass Bottle* (1900) had downward appeal; while the appeal of some novels written specifically for an older juvenile readership, such as R. L. Stevenson's *Treasure Island* (1883) and R. G. Henty's *With Kitchener in the Sudan* (1903), stretched age-wise upwards. In fact, the *Publishers' Circular* in 1894 announced that one reason for its ceasing to list adult and juvenile fiction separately was that "so-called juvenile works are nowadays so well written, that often they suit older readers as well as those for whom they are primarily intended," as noted by Peter Keating in *The Haunted Study* (5).

Rider Haggard is a significant figure in this context. In *King Solomon's Mines*, a brave and adventurous band of white men and one noble black man, together seeking treasure in the heart of the Dark Continent, find a fabulous and unsuspected utopia that is under threat. It is a story representative of a genre, heterogeneous in particulars but recognizable in essence, in which novels of empire, of penetration of the unknown, of the application of scientific knowledge, were celebrating a century of optimistic expansion. Jules Verne's *Voyages extraordinaires*, appearing and translated from the 1860s onwards, were contributory to this, and through novels such as *Les anglais au pôle nord* (1864) and *Vingt milles lieues sous les mers* (1870) strongly influenced the direction of the genre in Britain. One venture that reflected this influence was launched in 1879 by the Religious Tract Society. In a move to raise the moral tone and literary standard of magazine fare for the young, it produced the highly successful *Boy's Own Paper*, publishing and serializing school and adventure stories, the latter including a good deal of Verne. It and other magazines also serialized stories by authors who perpetuated the Verne tradition, among them Herbert Strang, Gordon Stables, Cutcliffe Hyne, and Fenton Ash (Francis Henry Atkins), author of *The Radium Seekers* (1905) and *A Trip to Mars* (1909).

H. G. Wells' "scientific romances," together with several collections of science-fictional and fantastic short stories, were written during a comparatively short span of years that started with the publication of *The Time Machine* (1895) and effectively ended with *In the Days of the Comet* (1906). His succeeding "nonrealistic" fictions, interspersed with such "realistic" novels as *Kipps* (1905)

and *Tono-Bungay* (1909), were either didactically utopian, or, like *The War in the Air* (1908), belonged to that distinctive future/war/invasion brand of fiction that harked back to George T. Chesney's xenophobic *The Battle of Dorking* (1871). That genre was, in fact, implicitly exemplified (extraterrestrials being the surrogate enemy) in Wells' *The War of the Worlds* (1898) and more explicitly in the finale of *When the Sleeper Wakes* (1899). Those works are mentioned specifically because, as an aspect of Wells' pervading influence on the shaping of science fiction in Britain, they provided models for many of the stories printed in weekly boys' periodicals appearing in the post-1918 pre-1939 period—*The Boy's Magazine*, *Union Jack*, *Wizard*, and *Champion*, *Modern Boy*; and by the 1930s American pulp magazines—*Astounding Stories* and *Amazing Stories* (which in its early numbers had reprinted several of Wells' stories). In the 1930s with the importation of American magazines the British teenage reader (a male readership almost exclusively) was being introduced to the science fiction of Jack Williamson, Murray Leinster, E. E. ("Doc") Smith, and others.

Before considering the post-1945 development of "hard" science fiction for teenage readers, it is well to look back again at the nineteenth- and early twentieth-century origins of children's and teenage fantasy. This perspective is of singular importance for any study of genre literature in Britain, not only because of the enduring qualities of some of the writing of that period, but because it constituted a kind of canon influencing the formative years of so many British authors of juvenile fantasy and science fantasy of the mid- and late-twentieth century. Just as themes of imperialist and exploratory adventures and of future wars are observable in the development of boys' science fiction, so in this area themes of the lost or alienated child are prominent. These in some cases can be shown to reflect personal or observed social conditions, at the one extreme of poverty or domestic insecurity, as is the case of the wild boy in Dickens' fantasy *The Haunted Man* (1848), or Tom, the chimney sweep, in Kingsley's *The Water Babies* (1863); at the other extreme of the isolations entailed in middle-class and upper-class boarding school separations and nursemaid and governess upbringings.

In Kipling's *Jungle Books* (1894–95), Mowgli is a boy taken from his home to be disciplined and educated by animals before joining the world of men. Though set around an Indian village, his experiences have this wider thematic and "rite of passage" relevance. (The rituals of the Wolf Cubs, neophyte members of the Boy Scout organization, are based on these stories.) Lewis Carroll's Alice, again, is a child lost to her familiar world and stalwartly weathering many traumatic happenings before being returned to homely surroundings. J. M. Barrie's novelization of his play *Peter Pan* (1904), and equally perhaps the story's almost mythic enshrinement in Peter's statue in Kensington Gardens, and in the annual star-studded dramatic productions (a London theatrical tradition), did much to perpetuate the thematic concept of youthful estrangement and rehabilitation. A feature common to the *Jungle Books* and *Peter and Wendy* (Barrie's novelization) is the open door—or window—of exit and entry. When

the young adult Mowgli has returned to his village life, in "The Spring Running," and his wolf brothers call him back to the jungle Council Rock, Messua, his mother, says, "Come back again. By night or day this door is never shut to thee" (288). Similarly, after Wendy and the Lost Boys return to their Kensington home, though Peter stays in the Never-Never-Land, the widow of his home remaining perpetually shut, she, and after she grows up her daughter and her granddaughters, in endless succession each spring fly, Persephone-like, back through their ever-open window to clean for Peter. This two-way commerce between worlds characterizes fantasies as varied and as influential as E. Nesbit's *The Enchanted Castle* (1907), George MacDonald's "The Golden Key" (1867), and C. S. Lewis' Narnia books (1950–56). Lewis is a later writer in the tradition of and influenced by MacDonald. Lewis in his turn was strongly influential. He depicts, in the course of juggling with the ages of his protagonists and the time sequences through which they live, the "rites of passage" that shape their characters. This, as we shall later illustrate, is a frequently recurring theme in the works of British writers of teenage novels who followed him. Contemporary with Lewis, and equally influential, was J. R. R. Tolkien in whose *The Hobbit* (1937) and *The Lord of the Rings* (1954–55) there are also elaborations of "quest" and "rite of passage" themes, these developed in a secondary world created out of his vast store of myth and faerie lore and involving the self-proving of his Bilbo/Frodo human-elvish questers.

While in the second half of the twentieth century British writers of hard science fiction for the young adult are fairly thin on the ground, those whose writings reflect a background in fantasy of the kind just described are plentiful. Before considering them, however, we return to look at a number of authors who, post-1945, were writing hard science fiction for a teenage readership. As we have seen, American magazines were by then available, and soon also the influential juvenile—and adult—novels of Robert Heinlein. The youthful space apprentice appears regularly in novels of the 1950s and 1960s by such British authors as Arthur C. Clarke and Patrick Moore. One who did much to popularize the spacehero was Charles Chilton, a BBC producer who in the 1950s wrote and produced (with inventively realistic effects) his radio series *Journey into Space*. This and his spin-off novels introducing the space-faring and battling hero Jet Morgan enjoyed a cultish popularity among older children.

Patrick Moore, one of the most accomplished of media-documentary exponents of astronomy and astronautics, brought to his rather conventional stories an understanding of the physics and mechanics of space exploration, which he adroitly fed into his narratives. Thus in one of his teenage series (the Scott Saunders sequence), *Spy in Space* (1977), the successful sending to Earth of fund-ensuring information from a spacestation is central to a plot in which the sixteen-year-old space cadet honorably proves his mettle. The top-scientist painlessly explains the essentiality of an orbital station for weather forecasting, resource detection, medical techniques, and so on, and concludes: "At the moment I'm not worried about the bases on the Moon, because they can look after themselves for the time being. It's the space stations that matter" (56). On detail

Moore is meticulous: no one goes in or out of the station without passing through an airlock, and he will explain why, even if this holds up the action.

Those authors and their fictions may be described as in the Vernian tradition: that is, technologically inventive, expansive in direction, and often didactic, even pedagogic, in tone. They prominently feature the Stevensonian adventuring young hero. Other authors, while also writing what is distinctively science fiction, work more within the Wellsian tradition of scientific romance: that is, to borrow a definition from Brian Stableford, "a story built around something glimpsed through a window of possibility from which scientific discovery has drawn back the curtain" (8). The young hero appears again, but he or she is likely to encounter more sociologically oriented and problem-posing situations.

The doyen of writers in this category is John Christopher (Christopher Samuel Youd), who, reversing the progress of many writers, followed the adult science fiction novels that established his reputation (e.g., *No Blade of Grass* [1956], *The Ragged Edge* [1965]) with a prolific output of teenage novels, the best known of them comprising the Tripods trilogy (1967–68), followed by a "prequel" *When the Tripods Came* (1988). In this series, he recounts the exploits over Britain and Europe of a young group resistant to the peaceful passivity that the techniques of their post-catastrophe masters would impose on them. When in the last of the three novels, *The Pool of Fire*, the Tripods are defeated and a community of nations is established, there remains the question of how a peace may be maintained when it conflicts with the dynamism inseparable from independence and individuality. In another of Christopher's juvenile novels, *The Lotus Caves* (1969), in a setting reminiscent of Wells' *The First Men in the Moon*, his young protagonists again have to choose between an easeful life offered by the alien Plant-God and the hazards of refusal and defiance. They choose the latter, but also elect by their actions to preserve the existence of the Plant-God in whose nature and domain they perceive a perennial beauty. An ambivalence persists in and perhaps lies at the heart of John Christopher's fictions, especially in the case of such quasi-allegories as *The Lotus Caves* and his post-plague "Robinsonade," *Empty World* (1977), a story in which the ravaged London scenes are comparable to those in Wells' *The War of the Worlds* and the whole gamut of human relationships is rehearsed through the deeds of a trio of survivors—two girls and a boy.

Another author recognizably within the Wellsian tradition was John Wyndham (John Beynon Harris), described by Brian Aldiss as "master of the cosy catastrophe." He did not write specifically young adult science fiction, but has in fact been widely read by young adults, if only because books by him have figured in school reading lists for older children and in their examination syllabuses. One reason for this is that his work almost classically embodies the "how would things change if . . ." principle, and does so in realistically depicted twentieth-century settings, giving ample scope for speculation and discussion. Another reason may be that certain of his novels are considered "safe," in that they are seen either as conventionally "liberal" in their values, or as ideologically neutral, or "totally devoid of ideas" as Aldiss somewhat extremely puts it with

reference to *The Kraken Wakes* (US, *Out of the Deep*) (1953) and *The Day of the Triffids* (1951) (254). That clear-cut issues, simply proposed, do energize the plot of, for instance, *The Day of the Triffids* is indicated by such stances of the protagonist as: "[The triffids] are something that no rising civilization has had to fight before. Are they going to take the world off us, or are we going to be able to stop them?" (242).

The "safe" nature of Wyndham has been firmly questioned by Roland Wymer in an essay in *Foundation* 52 in which he examines what he sees as Wyndham's bleakly Darwinian world view in *Re-Birth* (UK, *The Chrysalids*) (1955) and in *The Midwich Cuckoos* (1958) (US, *The Village of the Damned*). The author's mouthpiece in that latter story of the ruthless takeover by alien-spawned mutant children, Wymer suggests, "sees clearly that in the heart of rural England, as in any garden, a war without mercy is in progress" (29). (This is precisely the message of Wells' "A Hymn of Hate against Sycamores" in his late work *The Happy Turning* [1945].) Wymer concludes that the drift of Wyndham's science fiction ambivalently embraces a survival of those best fitted to survive ethos. This may make his books less conventionally "safe" but does not deny them potential for teenage classroom discussion.

During the latter half of this century, women writers in Britain have been markedly to the fore as providers of young adult science fiction. Prominent among them is Louise Lawrence. Her *Children of the Dust* (1985) presents an adaptive mutated generation in a more positive light than Wyndham's mutations of *The Midwich Cuckoos*. In the aftermath of a nuclear winter, they and not the bunker-conditioned, technologically-fixated survivors are the psychically sensitive forward-looking branch of the human race. The mutants do seem to represent the possibility of a fundamental change in human nature arising out of environmentally occasioned social/political dichotomies. A cultural dichotomy in which there is opposition between the technological/materialistic and the ecological/spiritual, but with tentative solutions of middle-way existence are also thematic in the novels of Monica Hughes, a writer working in Canada, but British born and educated. In her *Isis* trilogy (1980–83) such themes are explored in a colonized planet setting and in *Ring-Rise, Ring-Set* (1982) in that of a catastrophic ice age. Young protagonists who meet the challenge of change, of the new and unpredictable, are common to the works of both authors.

Jean Ure, a writer largely known for modern-day school stories and the more realistic/writerly forms of romance, has latterly turned to explore science-fictional territory. *Plague 99* (1989) is reminiscent of the vacant spaces of Christopher's *Empty World* with three teenagers coming to terms with the sudden collapse of society after a deadly epidemic. The stock nature of the setting is more than made up for by the vividness of the characters, and Ure's occasional asides are as disturbing as her main scenario. Her sequel, *Come Lucky April* (1992), takes up one of the themes of *Plague 99*—the roots of the apocalypse in male aggressiveness. It is set a century after the first novel but includes the descendants of various of the characters attempting to engage imaginatively with their histories. Here, while the characters of this transformed future do not avoid

a sense of school-story breeziness, there is a chilling air about the very practical way April's community has dealt with the problem. By using science-fictional distancing, Ure enables her readers to take part in the debate about the question of innate versus conditioned gender roles and to examine various possibilities.

Diana Wynne Jones is a British writer of juvenile fantasy and of science fiction that merges with fantasy. Her novel *Dogsbody* (1975), for example, brings the "dog-star," Sirius, to earth embodied in a dog. One of her most popular novels, *The Homeward Bounders* (1981), blends a number of science-fictional devices—timestream travel, alternative worlds/universes, shape-changing—to create a medium through which Jamie, a thirteen-year-old boy, journeys after having been wrested from his home environment by transdimensional demonic gamers. He continually comes up against "boundaries" at which points he is arbitrarily made to cross into another world. It is the kind of "rite of passage" transition that found a symbolism as far back in British fantasy as Lewis Carroll's *Through the Looking Glass and What Alice Found There* (1871). It was after so many moves or jumps in the chess game that the child Alice became Queen Alice and departed her dream. So do Jones' "homeward bounders," their puppet masters mostly destroyed, all return home: all, that is, save Jamie, who will have to continue to move along homeless, but who will visit his erstwhile companions from time to time. Regretfully, he says, anticipating the visits to his loved Helen: "Every time I go, she's going to be older than me. There's going to be a time when I shall still be about thirteen, and she'll be an old, old woman" (224). This resonates with Barrie's ending of *Peter and Wendy*, as does the whole concept of the homeless "homeward bounders" with the concept of the "lost boys."

Jones introduces into her story such archetypal victims of the gods as Ahasuerus, the Flying Dutchman, and Prometheus. In her pure fantasies she draws a good deal on Norse and other mythologies, and this is also a characteristic of the writings of certain contemporary British science fiction/fantasy authors now to be considered: a characteristic that is sometimes allied to a strong sense of locale, developed realistically and topographically. In these fictions, we shall also find traces of what is so evidently present in *The Homeward Bounders*: what may be called the "Alice" syndrome and the "Peter Pan" syndrome, features in line of descent from the older vein of British juvenile fantasy writing discussed earlier. A not unusual protagonist is the boy or girl reorientating physically, mentally, emotionally in the face of a world of adult concerns, yet seeking in the persistent imaginings of childhood resources they are loath to relinquish. That such individual imaginings have correspondences with perceptions of national history and legend, as much as they have with parallel feelings of power and magic, may account for the frequency with which such authors as William Mayne, Alan Garner, and Peter Dickinson build stories around a particular *topos*, investing it with a numinous aura or making it a locus of strangely generated forces. Insofar as the limits and potentials of the human—in particular the adolescent—psyche are explored, involving the possibilities of, for example, clairvoyance, libidinal energy, and personal and racial memories, such novels

interface the psychological sciences and occupy one sector of the broader fields of science fiction.

Alan Garner's early writing was mostly of juvenile fantasy, but in 1967 he produced a book that won him prestige and was influential in shaping the *sf*/fantasy genre for teenage readers. This was *The Owl Service*, a story with unique regional flavor, set in a Welsh valley. It would almost be truer to say that the Welsh valley is the protagonist rather than a mere setting. Its past tragedies and myths are made potent through the media of traditions and of such artifacts as the strangely discovered, owl-decorated plates of that eponymous dinner service. These are stirred into manifestation by the adolescent psychic energies of Alison, a visiting English girl. Anglo/Welsh polarities and the sexual and social tensions between parents, servants, and teenagers become the current "incarnations" of cyclically repeated events from deep in the history of the valley. Their mythic origins are embodied in the *Mabinogion*, and the repetitions are represented as a kind of time travel of the archetypes. Garner's clipped narrative and colloquial dialogue invest the events with a high degree of realism.

Red Shift, the novel that followed in 1973, attracted both a teenage and adult readership. Again an artifact is the vehicle for time-shifting; in this instance a ritual stone axhead. Garner's seventeen-year-old antihero and his historical counterparts/prototypes move on three stages—the Roman occupation of Britain, the English Civil War, and the present day, the setting in each case the northwest of England. The violence of the interleaved episodes from the past is echoed in the traumas of modern suburban life, a difference being that while the inflictions of the young protagonists from the past are physical or epileptic, those of the twentieth-century boy are, throughout his tortuous love affair, recognizably oedipal. As in *The Owl Service*, the dialogue, largely instrumental in moving along the action, is terse, bitter, and convincing. It does not seem anachronistic when the Romans use twentieth-century slang. Both of these Garner novels owe something to the influence of earlier writers. *The Owl Service* has elements derived from the popular children's "adventure holiday" genre (Arthur Ransome, E. Nesbit); and one cannot read *Red Shift* without sensing a breeze from the direction of Pook's Hill. The novels are, however, a "red shift" away from such progenitors in their involvement with the problem-experiences of the almost-adult. In them time represents not only a gulf between past and present but an analogous one between childhood and adulthood, the stories effecting resonance between those two modes or aspects of time.

Time, John Milton's "subtle thief of youth," is prominently thematic in much of the science fiction with which we are concerned: time, with its changes and its continuities. *The Changes* (1968–71) is, in fact, the title of Patrick Dickinson's trilogy in which a technological Britain is mysteriously transfigured into a land of medieval and magical beliefs. This is a specifically juvenile sequence, but in other of his novels, for example *The Healer* and *The Gift* (1973), transitional stresses of adolescence are linked to, or appear in the guise of, unusual powers. In *The Gift* that motif combines with that of historical continuity, as the teenage character, David, becomes aware of certain clairvoyant faculties

that enable him to see through the eyes of and into the imaginations of others—a gift passed through twenty generations from his Welsh ancestor, the historical/legendary Owen Glendower. Shuttled between two environments, David finds lasting security in neither. His grandparents' farm in the Berwyn Mountains offers the peace of a rural tradition, but his slightly older brother, a militant Welsh Nationalist, disrupts that. His home in an English "new town" is bedeviled by parental strife and by his Micawber-like father's potential criminality. Crisp, unsentimental writing avoids woolliness in the depiction and deployment of that troubling clairvoyance. Though troubling, it nevertheless leads to the achievement of empathy and toward solutions. To some extent it fictively represents the interface between the boy's conscious and subconscious activities. The opposed symbols of dissolving "chaos" and enduring marble that occasionally occupy David's mental screen are at once oneiric and realistically effective.

Time is also a frequent theme in those juvenile and teenage books of Diana Wynne Jones that are distinctively fantasy. In *A Tale of Time City* (1987), Vivian is a twelve-year-old wartime evacuee who, her identity mistaken, is kidnapped and taken on a journey up and down the centuries through eras of stability and instability. These variations are fantastically reflective of adolescent experiences. The lively writing mixes childish puns and humour with sophisticated caprices, as when the maverick Leon Hardy from "Sixty-six Century," who has come to know too much, is marooned on a farmyard at the Italian location of Vinci in "fifteen century," a primitive and unstable era. This "Leonardo" becomes a man with ideas described as far ahead of his time.

Diana Wynne Jones' imagined country of Dalemark, which provides a locale for several of her novels, is given a mythic dimension in *The Spellcoats* (1979). Fifteen-year-old Tanaqui manages the orphaned and cast out children of the Closti Clan when they travel down the great River to the sea in search of the soul of a dead brother. As they progress she weaves their story and their fates into a "Spellcoat." She then weaves a second coat as they return upstream to liberate gods and ancestors who share some identity with the river itself. In one of its aspects the river embraces time and is seen as carrying, or even constituting, the endless flow of human souls: an image akin to such Neo-Platonic paintings of Blake as the "River of Life" and, most relevantly, his Arlington Court tempera painting, "The Sea of Time and Space." *The Spellcoats* is a quite sophisticated metafiction, framed by the scientific rationalizations of a future anti-quarian anthropologist, for whom the pursuing demonic wall of water, central in the story, becomes the folk memory of a tidal bore. This epilogue sharpens the story's impact without detracting from its semi-allegorical thrust in familiarizing the growing boy or girl with concepts of identity and destiny amid the confusions of temporal and psychological change. It lies within a tradition of British juvenile fantasy and science fantasy where the "river" has an archetypal role: John Ruskin's *The King of the Golden River* (1851), Charles Kingsley's *The Water Babies*, and Ian Watson's trilogy, which starts with *The Book of the River* (1979). Watson's is an adult novel, but its problem-ridden adolescent in her

river-traveling, and her later moon-sojourning, has strong appeal for the young reader.

Both the personal flow from youth to maturity and the more dramatic contrast between Time Present and Time Past (to which we in our own present stand obliquely) are themes of Ann Halam's *Daymaker* trilogy (1978-90). Halam (who as Gwyneth Jones is a writer of challenging science fiction for adults) has not let the youth of her intended audience stand as an excuse for avoiding complex issues. In her postapocalyptic world the society of Inland is held together by the Covenant, the metaphysical-magical embodiment of relationship to what in another culture may be called the Tao but here is simply dubbed What Is. From childhood Zanne is in love with the relics of the past, and her powers of magic are potentially enough to awaken the Daymaker, which in our terms of reference would be a power generator but to the Coveners is as threateningly numinous as a revival of working pagan magic would be to our scientific age. Fifteen-year-old Zanne's story is one of personal hubris leading to tragedy and how to move from one paradigm to another without tragedy. She learns that the growth of the world she lives in depends upon turning from the world she yearns for. Her love for the "makers" is what can send them peacefully asleep. The future cannot be made by escaping to the past.

The second and third books of the trilogy show Zanne as older adolescent and young adult, although each book has a younger figure to provide reader-identification. Siri in *Transformation* and Temias in *Skybreaker* are in turn the Cinderella-figure apparently persecuted by a harsh, demanding form of the Covenant that shocks even Zanne with her puritanical background and a boy-king who both literally embodies the magic of his land and is the tool of an ambitious mage. Zanne's growth parallels the developing maturity of the fiction. The plot twist in *Transformation* takes us into the contemporary problem of the disposal of spent nuclear waste, but Halam presents this scenario in terms of her own future world rather than ours and the result is powerfully symbolic. She also touches on the difficult area of social responsibility. Minith may be withdrawn behind a barrier of fear and guilt, but the whole of Inland shares in its shame. Halam is writing here for the developed reader capable of drawing analogy from fantasy, who at the same time can see in the same work a standard "teenage" story about adult authoritarianism and a focus for concerns about environmental and metaphysical issues.

This web of strands comes more to the fore in *Skybreaker* as the corrupted Covenant of the foreign land of Magia is described. The boy Holne, whose predicament provided some of the rationale of the previous book's title, here embodies the fact that the past is never dead while a wicked Mage plans to fuse past and present by awakening the power of the gleaming rockets that devastated the old world. By showing a society using magical power in the same way as our own world both hoards and squanders mechanical power, Halam opens up, among other things, a debate about the nature and spread of *political* power, but by focusing on the attraction and dangers of industrialism, she offers the politically sophisticated notion of dialectic and the scientifically-sophisticated notion

of Heisenbergian Uncertainty. A society cannot return to the past: in turn, where magic is a reality it becomes even more logical that belief structures may have structural effect on external reality. In “magical” terms the rediscovered “makers” are sinister parodies of the machines we as present-day readers know, and only the willing sacrifice of an understanding mind suggests a way in which the past may be drawn “within the Covenant.” History cannot be denied, but it can be transformed.

By the end, too, her main characters Zanne and Holne have achieved physical maturity and are ready to embark together upon the routines of adult life. The “young adult” book thus ends where an “adult” book may well begin, with Zanne reflectively grasping a moment of contentment before embarking upon a great beginning. In its interweaving of plot, character, and background, and its concern with the balance of individual free will and the competing tugs of society and universe, the Daymaker trilogy well repays comparison with Ursula Le Guin’s Earthsea books.

A further book published as Gwyneth Jones (the “real” name she normally saves for her “adult” work) is *The Hidden Ones* (1988), offered under the specifically young adult “Livewire” imprint of the Women’s Press. The featured emphasis here is the presentation of strong, rebellious teenage girls, such as Jones’ Adele, a dropout from school whose main obsession is computer games. This novel is an intriguing bridge between the “Ann Halam” novels and the metaphysically and technologically complex books of “Gwyneth Jones.” Its target of a somewhat older audience allows a more realistic stance (there are references to drugs and menstruation), opening it up to a readership that has matured beyond the necessity to cloak such things in the imagery of fantasy but that still responds to the ability of the writer of imaginative fiction to say several things at once. Adele, who has poltergeist-like paranormal powers, is trying both to avoid becoming an experimental “guinea pig” and to prevent the strip-mining of a local beauty spot. There is an implied but unstated suggestion of the beginning of the “Covenant” of the Daymaker books. Adele’s abilities are a powerful metaphor for her alienation (in terms of the story, of course, they are the cause of her alienation) and enable her to be presented as both aggressive and vulnerable: the two coexisting states of the mid-to-older teenager.

While Halam’s novels engage with a complex of issues, it has sometimes been the case that SF for young adults has suffered from an overdose of the didactic impulse. SF, however, uniquely straddles the barrier between escapism and a concern with issues just as it straddles the barrier between children’s and adult’s reading (SF “may equally well be the child’s easiest entry into speculations that trouble the adult mind” [Egoff 384]). Perhaps the best example of this—even though it is not technically SF—is in the lighter, ironical tone of Terry Pratchett, whose work remains within the genre structure of fantasy only to turn reader expectations inside out. Pratchett is relevant here as perhaps the most widely read author within the age group. Although he has written juveniles, it is his Discworld series that is his major achievement, attracting readers as much through sheer excellence of storytelling as subject matter. The sharp

deconstruction of life's absurdities is his forte: religion in *Small Gods* (1992), the patriarchal basis of society in *Equal Rites* (1987), or the educational world passim with the bumbling wizards of Unseen University. If he has any "message" it is his encouragement to his readers to think for themselves: a welcome message in any book directed to the young. His appealing naive viewpoint characters grow, his comic creations—an orangutan Librarian; Granny Weatherwax, a cantankerous witch; Death, who speaks in capitals and rides a horse called Binky—are masterpieces in themselves, the starting point for bravura performances of the humorist's art. Occasionally bleak, Pratchett is never nihilistic, and it is as a satirist with the satirist's privilege to expose pretensions that he is at his most rewarding.

Science fiction, particularly SF for young people, is of course no longer confined to the printed book. The world inhabited by most literate young people is a world closer to that described in the fiction of William Gibson than their elders realize. Even the word "literate" has to be redefined to mean something like "competent in the decoding strategies appropriate to whatever medium the subject is attempting to gain information from."

A young SF readership today is as likely to have experienced the field through the medium of TV and the cinema as through books. British audiences for thirty years have followed the adventures of Dr. Who in his many incarnations. Although aimed at young and pre-teenagers, the program matured with its audiences, and although its endearing amateurishness in the field of special effects and its pantomime depiction of good and evil never left it, these qualities developed into a somewhat self-referential, ironical mode that was to be a rich vein in the hands of one of the program's later script editors. Douglas Adams' absurdist *Hitch-hiker's Guide to the Galaxy* became a surprise hit for radio before becoming translated to book, TV, and record album formats—in book form, it stretches over five volumes, most recently *Mostly Harmless* (1992). Overall, it owed much to youth-cult comedy such as *Monty Python's Flying Circus*, though the lugubrious Marvin ("the paranoid android") cannot help but touch off reminiscences of younger reading in his likeness to the equally gloomy Eeyore of A. A. Milne's *The House at Pooh Corner* (1928). The imported *Star Trek* and its successors attracted a mass audience for whom it was their virtually only experience of SF (any feature about SF in the popular press will feature jokes based on the program's catchphrases), but it was another comedy series, *Red Dwarf*, that built upon the success of other British TV SF such as *Blake's Seven* (1978–81).

Red Dwarf, set upon a lost spaceship inhabited only by two incompetent crewmen (one of whom is in fact a hologram), an evolved cat, a domestic robot, and a computer-persona, is based upon character and situation rather than the exploration of scientific or moral questions, although it has illustrated concepts like "virtual reality" considerably more successfully than the "Next Generation" of *Star Trek*. It is hard to escape the supposition that its success is based upon audience identification (its audience being largely adolescent males) with the slobbish Lister, a Liverpudlian everyman whose lack of personal hygiene is matched only by his illusion that he can in fact play his guitar. Viewers can be

assured that Lister is nevertheless possessed of a life, in contrast to his companion Rimmer, whose dedication to the values of hard work and achievement is given double irony by the facts that he is, first, as big a failure as Lister and, second, does not even physically exist. (Possibly as an attempt to widen the scope of writing, in the latest series, Rimmer gained solidity but remained as ever a testament to the illusions of ambition.) As with the comics and graphic novels that we shall examine next, the audience of *Red Dwarf* sees in its characters a representation of its own situation; an ironic reversal of the optimism of early SF. While the Gernsback-influenced pulps presented SF as an optimistic genre, pointing to scientific progress as a way forward for ambitious young men (the gender-specificity is deliberate), the new SF of the visual mode tends to satirize these values in the face of the increasing lack of any sort of economic opportunity for young people over the past decade or so.

Traditionally, the comics medium in the United Kingdom, however rich and inventive, has tended to be directed toward younger children, though as late as the 1960s text-based rather than strip-based stories were a feature of many boys' "comics" titles such as *Rover*, *Adventure*, and *Wizard*. Although science-fictional elements were present, the model was the boys' story of earlier years. With the influence of American superhero comics, a more modern approach became evident, as well as a search for a slightly older audience. As had happened a few years earlier with Marvel Comics, the audience for adventure comics such as *Hotspur* and *Victor* was remaining with the medium slightly longer than previously, but was hungry for material that expressed their growing maturity. Martin Barker's accounts (1989, 1990) of the controversial *Action* comic, withdrawn in 1976 after a moral panic based on its alleged violence, are instructive, both in their description of how comics and their readers form a "reading contract" and in their implication that the alleged brutality and certain lack of respect for the adult world became more acceptable to the authorities after their translation into the overtly fantastic realms of *Action's* immediate successor, *2000 AD*.

A target audience of young teenagers or preteens was evident in the conceit that the comic was edited by the omnipotent Tharg, a green-skinned alien dedicated to providing thrill-power for the masses, but themes and writing styles began to veer toward an older age group. As its readers grew in age, they refrained in unusual numbers from following the normal course of "growing out of" such juvenile fare in favor of "real books," allowing the development of an extraordinarily varied mixture of humor and the macabre evinced first in strips such as *Strontium Dog* and *Robusters*, in adaptations of Harry Harrison's Stainless Steel Rat stories, and finally in such tours de force as the baroque *Nemesis*. The stable of writers given their head by *2000 AD*, including Grant Morrison, John Wagner and Alan Grant, Pat Mills, and Alan Moore, attracted attention outside the field, and it was predominantly though not entirely these writers and their associates, such as the artist Bryan Talbot (whose self-written Luther Arkwright sequence achieved cult status in the eighties as one of the most explosively accomplished of the new wave of graphic novels), who spearheaded the

1980s revival of comics and became the targets of American publishers wanting to attract and keep an older audience.

Claims that comics were increasingly suited for a more adult audience were not new but became stronger with more titles being specifically targeted at “mature readers” and at least two writers (Alan Moore and Neil Gaiman) producing some of the most challenging fantasy of the decade in any medium. The short-lived *Revolver* and *Crisis* comics, aimed specifically at the radicalized youth of 1980s Britain, produced book-length works such as John Smith and Jim Baikie’s dark fusion of political corruption and superhero epic *The New Statesman* (1990) and Garth Ennis’ *Troubled Souls* (1990), one of the few stories in any form to treat the unrest in Northern Ireland both unsuperficially and unsensationally. The revival came to the attention of critics, teachers, and librarians who championed the cause. In *Graphic Account* (1993), novelist and lecturer Philip Pullman describes the reaction of the fifteen-year-old boys he met who “didn’t like English and didn’t read novels and hated poems” who discussed *Watchman* (1987) (published by a US company but written and drawn by the Britishers Alan Moore and Dave Gibbons) with him “with a critical intelligence, a sensitivity to levels of irony, an awareness of the complexity of this kind of contrapuntal narrative, and a sheer intellectual enthusiasm that was a joy to share” (14).

Although a certain amount of this “revival” was publisher-led hype, it had basis in fact. These works were based on the childhood reading of their audience—in format not dissimilar to traditional superhero comics or even “funny papers” like the *Beano* but that addressed something of the actuality of the world around them through the time-honored science-fictional modes of extrapolation and exaggeration. Works such as the above-mentioned *Nemesis the Warlock* (1992) provided an extended morality play, beginning with the conflict between the totalitarian Termights dedicated to destroy everything alien (“Be Pure—Be Vigilant—Behave!”) and the ambiguous chaos-demon Nemesis and using unexpected reversals to challenge the reader to establish where he or she stands. Later installments of *Nemesis* featured a strong female protagonist who mediated for the reader the confusion of simple moral values. Almost unprecedentedly in a periodical devoted to the power fantasies of adolescent males, *Slaine: The Horned God* (1989), also scripted by *2000 AD* editor Pat Mills, explored the roots of eco-feminist theory by adapting Celtic myth. Alan Moore created a convincing female SF adventure hero in *The Ballad of Halo Jones* (1987).

It was Judge Dredd, however, as John Newsinger points out in *Foundation* 52 (*passim*) who was central to the *2000 AD* ethos. A morally ambivalent anti-hero doomed to exercise iron control in a ravaged metropolis that would otherwise collapse into anarchy, Dredd is the center of a strip that is sometimes comic, sometimes bitterly ironic. Judge, jury, and above all executioner, the stone-faced lawman is both hero and villain. Writers Wagner and Grant used this landscape to caricature the political, social, and moral dilemmas of their immediate present: teenagers have lessons in unemployment; graffiti artists go for more and more extravagant coups; consumerism and the entertainment media

are mocked; an ape is elected mayor. Some strips show Dredd merely as the epitome of macho violence; others question the nature of violent law enforcement and become pessimistic allegories of political dissent.

Whatever the reason, whether it was the pressure of producing ideas in a weekly periodical or a sense that the roots of the comic strip in social caricature should not be allowed to decay, *2000 AD* exposed its audience to ideas and questions that few media for that age group were prepared to put to them. At the time of this writing it is still capable of producing excellent stories, although it seems to have reverted to a younger, more populist approach.

More associated with American comics and independent graphic novels but part of the new generation of British writers, Neil Gaiman brilliantly tackled taboo subjects in his adult-oriented Sandman stories, full of sly humor and erudition, and became a best-seller with the spoof-apocalypse *Good Omens* (1990), written in collaboration with Terry Pratchett; another book that enabled its readers to touch their childhoods through its affectionate parody of Richmal Compton's sagas of innocent delinquency, the William books. With Gaiman, perhaps, the barriers between "young" and "fully" adult in this medium are at their most rewardingly blurred.

It is hard to escape the conclusion that there has been a steady progression in reading for the fourteen to eighteen plus age group away from books that can also be experienced by younger readers towards more adult material. This is partly a social rather than a literary phenomenon, as there are previously hidden areas of life more open now to such readers. Physical adulthood is reached earlier than in previous generations while, paradoxically, "social adulthood," the world of work that still defines true adulthood in many modes of thinking, is reached later, if at all. The adolescent years are those in which the complexities of later life are glimpsed and critically examined. They are also those in which the certainties of childhood are abandoned, but not without nostalgia. Hence it is not surprising that reading that has an element of fairy-tale or fantasy about it is sought after.

Science fiction, because of its own double roles, fits well as a young adult literature. Its concern with the serious elements of life—the physical universe and the social and scientific possibilities of the futures to come—mark it as mature. Its extravagances mark it as play. It is usually first experienced at a young age: we think of the young Isaac Asimov in his father's store, or the young Arthur C. Clarke discovering the sweeping epic of Olaf Stapledon. It is occasionally granted the status of "literature" and studied at school: Orwell's *1984*, Golding's *Lord of the Flies*, Wyndham's *The Day of the Triffids*. It is frequently discovered independently; on library shelves as in the case of Christopher, Hughes, or Robert Westall, whose comparatively rare excursions into outright SF (such as *Futuretrack 5* [1983]), were welcome additions to the specifically "young adult" aspect, or through unmediated choice, as with role-playing game books, graphic narrative, or the heroic fantasies of Michael Moorcock. Young adults, of course, have been only too happy through the decades to establish as predominantly "theirs" books and authors that were originally published for

wider audiences, but there have been specific strands of British SF that by chance or design reflected the uncertainty its young readers felt about their position in life. As "the teenager" became a demographic and marketing phenomenon, these stories grew in prominence to reflect a specific category. While the ambiguity of adolescence will never go away, such specificity may fade: many of the "young adult" imprints established by publishers during the 1980s have declined or disappeared. With gaming, TV- or comics-based material remaining a special case because of their connection with "youth," we may see in the UK a return to the Victorian blurring of the cutoff points between children and adults, though set at a vastly different point (when it comes to "appropriate" topics) than anything Stevenson or H. Rider Haggard was used to.

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German Science Fiction for Young Adults

Franz Rottensteiner

The borderline between fiction for adults and that for young people is often unclear and shifting, and many books that were originally written for an adult audience have in time acquired the status of classics of children's literature (e.g., Jonathan Swift's *Gulliver's Travels*, the first two books, or Daniel Defoe's *Robinson Crusoe*). In science fiction, this has happened with the works of Jules Verne which began appearing in German translations in 1872, have had numerous editions, were around 1900 among the most popular books in German lending libraries (Nagl 62), and still enjoy, in their original form and in simplified adaptations for children, wide popularity in Germany, Switzerland, and Austria. Nothing comparable has happened with the work of H. G. Wells, mostly because Wells never enjoyed the wide translation and high circulation that Verne had in the German language.

As in other European countries, one can hardly speak of the existence of a science fiction (SF) field before the advent, in the 1950s and 1960s, of the magazines and paperbacks that firmly established SF as a commercial genre. Before that, there were only isolated books, most often called "utopian novels" or "utopian-technical novels," and a few series of dime novels that only in hindsight establish a tradition of early SF. Early German SF novels were Carl Ignaz Geiger's *Reise eines Erdbewohners in den Mars* ("Journey of an Earthman into Mars," 1790) and Julius von Voss' "Romance of the 21st Century" *Ini* (1810). By the turn of the century, SF novels were quite common, both social utopias (many inspired by the controversy surrounding Edward Bellamy's *Looking Backward*, translated into German in 1890), future war stories, and novels of space travel and interplanetary flight as well as cataclysmic stories. But there was no dominating central figure in German SF comparable to a Jules Verne or H. G. Wells. The German pioneer of science fiction, Kurd Lasswitz¹ (1848–

1910), was a lesser figure, a typical German professor, didactically and philosophically minded, not without wit, but also not exactly a storyteller, and for all the intellectual load, his novel of the clash of worlds, *Auf zwei Planeten* (1897, translated, much cut, as *Two Planets*, 1971), is today a dated period piece vastly inferior to the works of H. G. Wells, and his short stories are mostly of historical interest as precursors of SF ideas (such as the “Universal Library” that might have inspired J. L. Borges’ “Library of Babel”), although there have been some recent reprints.

Among writers of popular adventure, Robert Kraft (1869–1916) is of some SF interest. Unlike those of the much more successful Karl May, his works often have utopian, occult, and futuristic elements. Characteristic for him are dime novel series that ran to several thousand pages and in which he introduced all kinds of popular fiction in one ongoing narrative, as heroes and villains chased each other around the earth (and often enough through it). In 1901 he also published a series of ten dime novels under the series title “Aus dem Reiche der Phantasie” (“From the Realm of Imagination”). The young hero of this series is a crippled high school pupil who is visited by “imagination” in the form of a young woman who transports him in his dreams through various other dimensions. He meets the last caveman, is transported to the moon and the bottom of the ocean, meets a subterranean race of dwarfs, and travels with an iron horse à la Jules Verne or the “Frank Reade” series (Nagl 135).

One other “Groschenheftserie” was *Der Luftpirat und sein lenkbares Luftschiff*, which flourished from 1908 to 1913 and was among the ten most popular dime novel series of the time in Germany. It ran to 165 issues, had a weekly circulation estimated between 40,000 and 100,000 copies, and was read mostly by ten- to sixteen-year-olds (Nagl 132–39). In the ongoing fight of German educators against “filth and trash,” it was a frequent target, and during various drives to collect such trash in schools and exchange them for “good” literature (which meant in reality that a highly interesting kind of adventure fiction was exchanged for another kind of trash, the patriotic one supporting German militarism and belief in the authority [God, Emperor, and Fatherland] that was considered to be wholesome at the time), large quantities of *Der Luftpirat* were collected and destroyed. The fight against trash was apparently successful, for today *Der Luftpirat*, also known, after its hero, a Nemo-like figure, as “Kapitän Mors,” is among the rarest of German SF publications. Kapitän Mors is a sort of comic Robin Hood who moves freely in his quite advanced spaceship (of which blueprints are included in some issues) throughout the solar system. Who and how many people wrote this series is unknown, but perhaps popular writer Oskar Hoffmann (1866–?) was one of the authors, for there are some similarities between *Der Luftpirat* and Hoffmann’s earlier novel *MacMilford’s Reisen im Universum: Von der Terra zur Luna oder unter den Seleniten* (MacMilford’s Travels in the Universe: From the Earth to the Moon or among Selenites, 1902), which was followed by a sequel *Unter Marsmenschen* (Among Martians, 1905). This appears to be an inferior copy of H. G. Wells’ *The First Men in the Moon* (1901). Presumably to prove its educational value, the story proper is sandwiched

between astronomical explanations about the moon and filled with “scientific explanations” that are wildly fanciful, for example, one can find an explanation that since the “laws of nature” are the same everywhere in the universe, a newly discovered Lilliput moon of Earth must have the same gravity as Earth or that God would not have willed exquisitely tasty fruits to be poisonous.

The hero of the novel is a world-renowned Scottish professor who has invented an antigravity vehicle. Cigar-shaped and double-hulled, it can carry a supply of liquid oxygen that will last for ten months. Actually, his spaceship is only his second-best invention, for Professor MacMilford has also built an “atomisticum” that dissolves matter into its atoms and reconstructs it at the point of arrival. By atomisticum he has already sent a student and his servant Tom Smith, a comic companion à la Jules Verne, the latter inadvertently, to the moon. On their journey to the moon, they encounter a hitherto unknown moon, a small antediluvian world that contains, besides saurians, the “missing link” between ape and man, thereby confirming the theories of Darwin. At the same time they encounter a new Adam and a new Eve. The moon itself is peopled by a kind of Eskimoes, and there are cities in the moon’s craters and labyrinthine caverns, sublunar rivers and seas, as well as giant fungi and snakes. As soon as he has landed on the moon, MacMilford claims it for the British crown, which leads to a conflict with an American who has arrived in a “dragon flyer” (built by Thomas Edison but also based on MacMilford’s antigravity invention), and they fight it out with fists. Upon MacMilford’s return, Queen Victoria is not happy at all about her lunar possessions; she thinks him mad, and he is put into Bedlam but freed by his servant with the help of the antigravity vehicle.

Similarly naive are the two “tales for the more mature young people” by Albert Daiber: *Die Weltensegler* (Sailors between Worlds, 1910) and its sequel, *Vom Mars zur Erde* (From Mars to Earth, 1910), which were also published together under the title *Im Luftschiff nach dem Mars* (By Airship to Mars). Seven Swabian professors build a vehicle lighter than air, filled with a new gas, “Argonauton,” its hull made of a strong light new metal named “Suevit.” They air carry in “crystalline” form with them. After five months in space they reach Mars where they encounter an ideal society of human beings dressed in the manner of ancient Greece. They live in harmony, work for a common goal, and are completely free of selfish impulses. On Mars there are no prisons, no criminals, and the few slight offenders against propriety willingly work for the common good, repairing and keeping functional the Martian canals, isolated from the rest of society in colonies of “forgotten ones.” After two years the Terran visitors return to Earth; however, one secretly remains behind, and for doing it secretly he is held in low regard by the Martians. To do penance, he is asked to compile a German-Martian dictionary, and after he is finished with that task he is returned to Earth, failing to find a mate on Mars (for the Martians are somewhat racist and would not think of marrying an inferior being from Earth). The Martian airship returns to their world since the Martians are not interested in closer contact with Earth.

The most successful writer of juveniles in the first half of the twentieth century was the Protestant minister Friedrich Wilhelm Mader (1866–1947), a prolific writer of adventure stories that show the influence of writers such as Jules Verne, H. Rider Haggard, and A. C. Doyle (*The Lost World*). Many of his stories take place in Africa and have the same cast of characters. Unusual for him is the tale for “Germany’s sons and daughters,” *Wunderwelten* (1911, translated in 1932 as *Distant Worlds: The Story of a Voyage to the Planets*), the story of a voyage to an Edenic planet of Alpha Centauri at forty times the speed of light. The spaceship is actually a “world-ship,” a closed sphere propelled by “repulsion energy,” a sort of antigravity energy. Among the members of the expedition is Captain Münchhausen, a relative of the famous teller of tall tales (who is also featured in other Mader novels), and its leader is a German scholar, Professor Dr. Heinrich Schultze, who provides “scientific” explanations for every situation, but the ship is owned by the English Lord Flitmore. The ship is well stocked with a chemical laboratory, a library, musical instruments, and a machine for the production of “food pellets”; electricity is stored in large accumulators, an invention of Münchhausen’s; more electricity is generated, if need be, by two chimpanzees. Their journey through space is a guided tour through “worlds of wonders” (as the German title promises), which bear little resemblance to astronomical fact. The moon has an atmosphere and beautiful woods, life on other worlds is partly marvelous, partly hellish; on one small planet our travelers can virtually see the “survival of the fittest” in action as life eats life. They meet the last Martian and encounter glass insects, flying snails, two-legged ants and spiders, and a three-legged unicorn. On Saturn they find giant butterflies with elephantine trunks, and they also land on one of Saturn’s rings. Münchhausen tells some tall stories that are included in the book, and interspersed in the text are long lectures on the history of astronomy and some Christian sermons about the beauty and harmony of the cosmos as compared to the poverty of the materialistic worldview. Mader has got his facts right about the discoveries of astronomy, but what he provides by way of explanation and as conjectures and speculations of his own is wildly fanciful, wide of the mark, and charmingly naive.

Some other novels by Mader are also of science fictional interest: *Der König der Unnahbaren Berge* (The King of the Unreachable Mountains, 1909) tells of a hidden ideal community in the depths of Australia, protected by invisibility and reached by electric car; and *Die Messingstadt* (The City of Brass, 1924) tells of the discovery of a marvelous city in the Sahara; *Die Tote Stadt* (The Dead City, 1923) and its sequel *Der letzte Atlantide* (The Last Atlantean, 1923) tell a “lost race” story in which explorers encounter a tropical paradise at the South Pole surrounded by eternal ice. Exactly at the pole there is a wonderful city of stone and crystal, fully intact, peopled only by the last king of Atlantis and his beautiful daughter, while monsters roam outside in the antediluvian jungle, and under the city lurk evil dwarfs, the ancient enemies of Atlantis. The Atlanteans have tapped unknown sources of energy, and there is an old prophecy that, with the last king of Atlantis, the paradise in Antarctica will also disappear.

This indeed happens in an eruption of volcanoes, and that is why later expeditions found only vast expanses of ice.

While Mader's writings were quite popular, he too came under attack in the ongoing debate about "filth and trash," published tracts in defense of adventure fiction, and also struck an apologetic note in his introduction to *Die Tote Stadt*: "The tale aims at entertaining the reader, to transmit sound knowledge to him, to excite his fancy in a healthy way, and to raise enthusiasm in young people for able and noble ideal characters." Included in the main narrative are many other stories, tall ones and others, discussions of what constitutes scientific proof, and polemics against modern explanations of old myths. Mader himself provides a literal explanation of the myth of Orpheus and Eurydice. A look through a "paleoscope," a Münchhausen invention that catches light emitted from Earth many thousand of years ago, as reflected by distant stars in the cosmos, allows one to see Orpheus in an idyllic past Eden destroyed by upheavals of the Earth's crust. In his tales Mader made use of the most diverse influences, often borrowing motifs and ideas from other writers, and this gives his book a quaint charm.

Some of Mader's tales were first published in *Das neue Universum*, a year-book for boys that combined both fiction and nonfiction and was an important market for science fiction for young people.² It was first published in 1880, and from 1887 occasional SF stories appeared in it, the first being a somewhat rewritten and probably pirated German version of Edward Everett Hale's "The Brick Moon" (1869), which has the distinction of being the first story featuring an artificial satellite. It was called "Unser Trabant" and written or rather rewritten by Friedrich Meister, who also wrote a sequel, "Weiteres von 'Unserm Trabant'" (1888). The same author also published "Die Weltfahrten und Abenteuer der 'Sternschnuppe'" (1889) after Hugh MacColl's "Mr. Stranger's Sealed Packet." Other authors in *Das neue Universum* included P. Meyer, Colin Ross, Herbert Frank, and especially Hans Dominik (1872–1945), still Germany's most successful SF author, who, before and after he wrote a best-seller with his first SF novel, *Die Macht der Drei* (The Power of Three, 1922), published a number of short stories there, most of which were collected in 1977 in the Heyne paperback *Ein neues Paradies* (A New Paradise). Fictionally these stories, whether written by Dominik or somebody else, were very simple, based on a single idea, mostly a technical innovation: space travel, communication with Mars, new energy resources, the marvels of radioactivity, increased plant growth by means of rays, atomic power, the marvels of the future world. Dominik's later very successful novels, *Die Spur des Dschingis Khan* (The Trail of Genghis Khan, 1923), *Atlantis* (1925), *Der Brand der Cheopspyramide* (The Pyramid of Cheops in Flames, 1926), *Das Erbe der Uraniden* (The Heritage of the Uranids, 1928), *König Laurins Mantel* (King Laurin's Cloak, 1928), and others were built on similar concepts, except that the plots of espionage and counterespionage and of power struggles between companies or states were more complicated. Although Dominik is still considered by many to have been a "good prophet" and a master of anticipatory fiction, the technological content of his books is quite primitive, and his true theme is power. Dominik, a writer who

in his day wrote for adults and whose fiction was considered quite sensational and daring (*Die Macht der Drei* starts off with a failed execution in Sing-Sing, which the author himself considered an audacious innovation), is now read almost exclusively by young people, and he is considered an author of children's literature.

A yearbook similar to *Das neue Universum* in the period between the world wars was the Austrian "Frohes Schaffen," which included many SF stories, both reprints of classical stories and new work; again, the stories had a strong technological slant, with space travel, and similar themes being predominant. Authors included Erich Dolezal, later a successful author of books of space travel as well as some people who appear not to have published anything in the field outside the pages of "Frohes Schaffen."

The main theme of science fiction after World War I and well into the time of Nazi rule was space travel, spurred on by the popular writings of pioneers of rocketry such as Hermann Oberth, Willy Ley, Max Valier, Otto Willi Gail, and others, many of whom were organized into the "Verein für Raumschiffahrt." Science fiction writers of the period included Otfried von Hanstein, Thea von Harbou, P. A. Müller (who authored two dime novel series: *Sun Koh, der Erbe von Atlantis* (150 issues, 1933–19) and *Jan Mayen* (120 issues, 1935–39), Walther Kegel, Karl August von Laffert, Karl Ludwig Kossak-Raytenau, Hans Richter, C. V. Rock, Paul Eugen Sieg, Curt Siodmak, Titus Taeschner, Bruno S. Wiek, and Friedrich Freksa. Some German stories were translated in the early Gernsback magazines, including two novels by Otto Willi Gail (1896–1956): *Der Schuss ins All* (1925, translated in *Science Wonder Quarterly* as *The Shot Into Infinity*) and *Der Stein vom Mond* (1926, translated as *The Stone from the Moon*). Gail treated the same astronomical theme in a juvenile novel that was written with the avowed intent to popularize space travel: *Hans Hardts Mondfahrt* (1928, translated as *By Rocket to the Moon: The Story of Hans Hardt's Miraculous Flight*, 1931). The details of space travel, including space suits, are described more carefully than usual, but, as in Oskar Hoffmann, the space travelers encounter a dwarf moon (of the moon in this case), and the astronautics theme is connected with Atlantis and the pseudo-scientific theories of the Austrian engineer Hans Hörbiger—the moon consists mostly of ice. Atlantis perished in punishment for a life of debauchery and sexual excesses, destroyed when the Earth caught her present moon, a cosmic intruder. The moon travelers learn of this fate, and they must also fight various monstrous animals on the moon, before they return to earth.

Two other novels by Johannes Kaltenboeck (1853–?) were written under the pseudonym of Fritz Holten, *Das Aeromobil* (1912) and *Das Polarschiff* (1910). Both were billed as "tales for more mature youth." The former novel takes place in an idyllic future that has a few technological innovations, especially all kinds of aircraft and airships, one-wheeled cars, and monorails traveling at 280 km/per hour. Japanese spies attempt to steal an antigravity drive from an idealistic old German inventor. The story shows a naive enthusiasm for cleanliness (the people in the Alps are very clean folk, although quite simple), for

order, for honesty, for subservience to authority (the state knows best what is good for everyone). A simple-minded Bavarian servant provides a humorous note, and even the Japanese are not wholly villainous: they want the invention, but they pay for it by check. In the second novel a Norwegian inventor devises a revolutionary submarine that is also an ice-breaker, built of a new metal and powered by electric motors; the electricity is beamed to the ship. The heroes reach the north pole and return after having discovered a priceless source of radium energy. The book is distinguished by a boundless enthusiasm for the wonders of science and technology and a firm belief in traditional values.

In the period between the two world wars there were very few SF books for young people published in Germany. Some examples are Nikolaus Reitter's *Planetenflieger* (Planet Flyers, 1938), a primitive "astronomical adventure" with fights against monsters on Mars and Venus, and Nora Widemann's *Das gläserne Unterseeboot* (The Submarine Boat of Glass, 1940) and its sequel, *Von China bis Kiel im gläsernen Unterseeboot* (From China to Kiel in the Submarine of Glass, 1941), an extended lecture in marine biology.

After World War II, the picture changed radically when translations of English-language SF began to dominate, and books for the juvenile market were one of the few niches left for German authors. Among the first SF novels to be translated were Robert A. Heinlein's juveniles for Scribner's. Between 1951 (*Farmer in the Sky* and *Rocket Ship Galileo*) and 1960 (*Have Space Suit—Will Travel*), Geb. Weiss Verlag in Berlin published all of them except *The Star Beast*. They also published *The Puppet Masters* and *Double Star* by Heinlein, and books by Edmond Hamilton, Arthur C. Clarke, Fredric Brown, some French and other European authors, and German writers such as Hans Dominik, Freder van Holk (a nom de plume of P. A. Müller), and others in their hardcover series "Die Welt von morgen" (The World of Tomorrow). This was the first science fiction series in postwar Germany and was in fact more important, earlier, and more influential than the coveted four volumes of "Rauch's Weltraum-Bücher" (Rauch's Space Books) of 1953, which are usually considered the pioneering effort. The publisher made no distinction between Heinlein's juveniles and his other books, and it may be assumed that the whole series was aimed primarily at younger readers.

The German SF movement began with the dime novel series *Utopia Zukunftsromane* in 1953, first with the series adventures of a juvenile space hero named Jim Parker with a decidedly juvenile slant, later with individual short novels, both German originals and translated work. *Utopia-Grossband* in 1954, edited by Walter Ernsting, who also wrote under the pseudonym Clark Darlton (and conceived and co-authored the phenomenally popular Perry Rhodan series in 1961), successfully introduced Anglo-American SF in Germany as a mass phenomenon, and the rise of the paperbacks (Goldmann and especially Wilhelm Heyne in the 1960s) brought about the total market domination of English-language SF in Germany. Today German authors or translations from languages other than English appear only sporadically and usually with little success. But initially, SF met with much resistance, especially as reading matter for young

people. One article on “the futuristic novel as reading matter for young people” declared SF to be devoid of any educational value: “Science fiction, which deals with the impossible, doesn’t qualify since it contributes nothing to an expansion and ordering of the emotions and the knowledge of young people, and can only confuse them” (Dietz 83).

Considered to be of some value were those novels that provided some technical information, on astronautics and astronomy, for instance. These criteria were met by the Austrian astronomer, popular science writer, and for a long time leading member of the Austrian Society for Space Research, Erich Dolezal (1902–1990). He had already written two astronomical novels before and during World War II, *Der Ruf der Sterne*, (The Call of the Stars, 1932) and *Grenzen über uns* (Borders Above Us, 1940), but he became a well-known author of children’s books with a series of astronomical novels starting with *RS 11 schweigt* (RS 11 Doesn’t Answer) in 1953. Between 1953 and 1964, he published eleven novels for the state-owned “Oesterreichischer Bundesverlag” and added another book from another publisher in 1973, *Von Göttern entführt* (Abducted by Gods). His books were written with the clear intent of popularizing space travel. As fiction, his books are rather naive and clumsy, with cardboard figures of technicians, reporters, and scientists, not even particularly strong in matters of fact, but full of popular lectures, and young heroes are often cast in quite unlikely situations. These books are a far cry from Heinlein’s juveniles, which must have introduced many more young readers to science fiction in Germany. *RS11 schweigt* depicts the beginnings of space travel, the building of a space station, and the first landing on the moon; there are acts of sabotage, and a boy who has found a rocket cone is invited to take part in the adventure. In *Mond in Flammen* (The Moon Aflame, 1954), stations on the moon are being built, and a mad scientist tries to provide the moon with an atmosphere by starting a chain reaction that threatens to get out of control. In *Unternehmen Mars* (Mission: Mars, 1954) a fleet of spaceships, as in Wernher von Braun’s Mars project, voyages to Mars. In the later novels the scope is expanded to the whole solar system, and there are indications of alien life. An empty alien spaceship is found on Neptune’s moon, and proofs are discovered of an alien race of “nautiloids.” *Von Göttern entführt* (1974) takes up the ideas of Erich von Daniken: alien gods have abducted from Earth groups of Neanderthals and transplanted them to a planet of Barnard’s Star in a cosmic experiment.

Writers in a similar vein are Hans K. Kaiser, a physicist who wrote three technical juveniles in the fifties, beginning with *Im Banne des roten Planeten* (Under the Spell of the Red Planet, 1956), Heinz Gartmann, a rocket enthusiast, *Raketen von Stern zu Stern* (Rockets from Star to Star, 1949), and Robert Brenner, another physicist who wanted to write “realistic space novels.” His novels include *Signale vom Jupitermond*, “a report from the year 2028” (Signals from a Moon of Jupiter, 1968), and a series of “Men and Planets,” of which, due to a conflict with the publisher, only four volumes of a projected ten actually appeared.

Currently science fiction is a regular but minor segment of the juvenile book market. Many of the leading German publishers have some SF on their lists, but SF is not among their most successful titles, and the best Austrian, German, and Swiss authors of fiction for young people have avoided SF, while some writers of German SF have discovered the juvenile market, including Perry Rhodan author Walter Ernsting, *Das Weltraumabenteuer* (The Space Adventure and others, 1965). Hans Joachim Alpers, a well-known editor and critic of SF, wrote, in collaboration with Ronald M. Hahn, a translator, critic, and writer on SF films, a six-volume space series starting with *Das Raumschiff der Kinder* (The Children's Spaceship, 1977); Wolfgang Hohlbein, a best-selling fantasy writer, writing as Martin Hollburg, sometimes in collaboration with Martin Eisele or K. U. Burgdorf, published a similar space series with an intergalactic background that combined a number of common themes and motifs of space opera. Better are two series by the ecologically engaged Lothar Streblov: *Raumschiff Pollux* (five novels, 1974–79) and *Raumkreuzer Runa* (four novels, 1982–85).

Among the best SF series for young people and certainly the most successful one is *Weltraumpartisanen* (Space Partisans), written by the author and director Nikolai von Michalewsky (born 1931) under the name of Mark Brandis, who also happens to be the hero of the series. Taking place in the twenty-first century, it postulates a world divided into two big power spheres: the democratic Western nations, which are often threatened to become a military dictatorship, and the VOR, the United Oriental States. The more than thirty books in this series, starting with *Bordbuch Delta VII* (Logbook Delta VII, 1970), have as a common background the fight against totalitarianism, militarism, and terrorism in the solar system. The language and structure of the novels are often militaristic, but the author tells strong, dramatic stories and, unlike the popularizers of space travel, is able to invent gripping situations and engaging plots. Nikolai von Michalewsky has also written SF juveniles under the names of Nick Norden and Bo Anders.

The single best juvenile SF novel in German is *Tötet ihn* (Kill Him, 1967) by the well-known Austrian journalist (editor of a trade union paper) and children's book author Winfried Bruckner (born 1937), a dystopian novel remarkable for its black and often anachronistic imagery. The anonymous power of a totalitarian state is here symbolized by a dusty coal dealer who, although his trade has long since been obsolete, still hustles about in his partly subterranean coal shop from which he enviously looks up to denounce to the authorities people he dislikes. Although the real work is done by robots, people still slave in production lines to keep them occupied, and although everyone is kept under surveillance by electronics, people are expected and encouraged to denounce "enemies of the state" to the police. The citizens are frequently asked to provide proof of their loyalty, for example, the heroine of the book, a worker much like any other, is asked to kill a physician who has become offensive for his humanity. Anybody who deviates from the inhuman standards of society, however slightly, is considered a criminal in need of correction.

The state attempts not only to prescribe what the individual has to do but also what to think. Checks and controls are total; newlyweds are allowed only a few hours of privacy in a hotel room, and this apparent privacy is only allowed as an incentive to learn the secrets of the partner. The setting of the novel is the subterranean ruins of a Vienna that has been destroyed in a war fought with rockets. The subway runs only irregularly, and when a train arrives, it is at once crowded by people eager to escape from this nightmare; but all too frequently the trains pass through the stations without ever stopping. There are public executions, and people who are carried away by love or thought are publicly humiliated or worse. Deliberately false computer diagnoses turn physicians into murderers, and the physician who shows compassion for his patients is considered a traitor to the state. The state incites the worst instincts of the masses, and in the end it is a robot that shows the most compassion and provides the impulse for people to revolt. The political import of the novel is not quite clear; it is not as important as an intellectual addition to the dystopian canon as for its strong emotion and its powerful dark imagery. In a sense, *Tötet ihn* is perhaps a reaction to the oppressive machine world of Thea von Harbou's *Metropolis*. The book sees the answer to class conflicts in a depressing future city not so much in a sentimental love story that dissolves the boundaries between classes but in the disappearance of class distinctions altogether, and although Winfried Bruckner is ideologically an advocate of the common man, he also has ambivalent feelings about him and thinks he is not altogether to be trusted; the common man is not naturally a defender of democracy and freedom, all too often he is taken in by the powers that be.

But *Tötet ihn* is an exception in SF. On the whole, the SF written for young adults in Germany is not better than the SF written by German authors for adults. It is often "written down," the stories are usually silly, the "scientific explanations" either banal or downright wrong. Especially in the SF for young people written before World War II, "juvenile" seemed to imply a license to disregard all common sense and to tell wildly improbable stories without regard to facts; if possible, they are even more naive than the so-called "adult" SF stories of the time. Often the "educational value," the knowledge they supposedly impart about science, serves as an excuse for poor characterization and incompetent storytelling. The same faults that disfigure most of the SF written by German authors are even more prominent in the SF written for young adults: a tone of preachiness is more pronounced, and, with very few exceptions, the stories cannot stand beside the best examples of British and American SF for young people. The state of SF for young adults reflects only the general state of SF written in the German-speaking countries. Currently, SF is overshadowed by fantasy, and, unlike technological SF, there are some writers of good quality, mostly women (for example, Sigrid Heuck or Käthe Recheis) in the fantasy field.

NOTES

1. For the history of German science fiction in general and especially Kurd Lasswitz

and Hans Dominik, see William Baldwin Fischer, *The Empire Strikes Out: Kurd Lasswitz, Hans Dominik, and the Development of German Science Fiction* (Bowling Green: Bowling Green State UP, 1984). On Lasswitz, see Franz Rottensteiner, "Kurd Lasswitz: A German Pioneer of Science Fiction," *SF: The Other Side of Realism*, ed. Tom Claerson (Bowling Green: Bowling Green State UP, 1971): 289–306.

2. Susanne Päch wrote a doctoral thesis on the SF published in *Das Universum: Von den Marskanälen zur Wunderwaffe: Eine Studie über phantastische und futurologische Tendenzen auf dem Gebiet Naturwissenschaft und Technik, dargestellt am populärwissenschaftlichen Jahrbuch Das neue Universum 1880–1945* (Munich: diss. phil., 1980). She also compiled two collections of stories from *Das neue Universum: Als der Welt Kohle und Eisen ausging* (Munich: Wilhelm Heyne Verlag, 1980) and Hans Dominik's *Ein neues Paradies* (Munich: Wilhelm Heyne Verlag, 1977, eight stories), both with afterwords by her.

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Australian Science Fiction for Children and Adolescents: 1940–1990

John Foster

In a paper she delivered on children's science fiction in Sydney, Australia, in 1972, the author Lilith Norman concluded: "I don't know if I have given you much of an insight into sf for the younger reader. The paddock is so bare, just a scraggly tussock here and there, that I feel I have been padding to fill out the time allotted" (116). Had she been discussing only Australian science fiction (SF) for the younger reader, that paddock would have appeared to be quite drought-stricken, with those last few blades withered and brown for, in her talk, Norman did not mention a single local title.

This, for three reasons, seems surprising. First, Australia has been at the forefront, even if often only as a launching site, of rockets and satellite vehicles since the dawn of the Space Age. Second, science fiction novels for Australian children were published in 1944 and 1946, prior to the publication of Robert A. Heinlein's *Rocket Ship Galileo*, which Sheila Egoff calls the "first clearly identifiable work of science fiction for children" (134), in 1947. Third, there was a tradition of science fiction stories in locally produced comic books dating back to the beginning of that decade, although these local publications disappeared when the wartime ban on imported comic books was lifted and, worse, television was introduced.

THE 1940s

Through Space to the Planets (1944) and *Rangers of the Universe* (1946), both written by Winifred Law, are of historical interest, even if they might not pass Egoff's test for true science fiction stories. The protagonists are a twenty-one-year-old spaceship pilot and his two young brothers, one of whom acciden-

tally wrenches at the controls and sends the ship into outer space. Law totally ignores every aspect of scientific possibility, for her characters, flying randomly through space, soon land safely on an unknown planet, which has breathable air and is inhabited by “queer humans” (*Through Space to the Planets* 23). The novel ends with the boys setting off into outer space as space rangers, with no thought for their parents back on Earth. *Rangers of the Universe* merely lists their many exploits before their return home: their spacecraft is hit by meteors and invaded by “men with pointed ears . . . and fang-like teeth” (11) in the first six pages, for example. Law’s style is simple, her dialogue stilted, and her characters flat, but her novels initiated a new genre.

THE 1950s AND 1960s

Despite these early prototypes of Australian children’s science fiction, only two authors were involved in the field in the 1950s. The more prolific was Ivan Southall, whose Simon Black, inventor and adventurer, visited Mars in *Simon Black in Space* (1952) and Venus in *Simon Black and the Spacemen* (1955), and saved the Earth from destruction by well-meaning but bumbling aliens in *Simon Black Takes Over* (1959). Black was the stereotypic strong-jawed, two-fisted hero, with the addition of vast intelligence and, unusually, a sense of humor. Moreover, his father was his boss, so he was ordered around more than most heroes. The ten novels in the series are fast-moving and competently written, but are as dated as the old moon rockets.

Although the emphasis is undoubtedly on action, these novels are not thematically barren: *Simon Black in Space*, for example, contains the following modern-sounding comment concerning the Martian environment: “In fact, Earthman has created and is creating deserts in exactly the same way—by overfertilizing his crops or not maturing them at all, and by excessive and scientifically ignorant cultivation of the soil” (154). There is, also, an apparent backlash against the horrifying violence of World War II, in which Southall was a combatant. In *Simon Black and the Spacemen*, for example, statements like “the madness of war” (165) and “the frightfully war-like destruction of an aircraft and its crew in time of peace” (48) appear quite frequently. Southall comments, none too subtly, on the problems of colonialism, when he writes of the aliens whose “assistance” for humanity nearly leads to the destruction of our race: they were guilty of “errors of judgement, pride and conceit, as we may be charged for impatience with primitive peoples” (*Simon Black Takes Over* 175). Although the Simon Black series cannot be regarded as children’s literature at its finest, it acted as a springboard for Southall’s illustrious career.

The other writer active in the genre in the 1950s and into the following decade was Mary Patchett, who wrote five science fiction novels (and about twenty others) between 1953 and 1969. Her early novels were as adventurous as Southall’s Simon Black series but even more far-fetched, although, by her last

novel in the genre, *Farm Beneath the Sea* (1969), she wrote about possibilities only a little in advance of real science and technology.

Her earlier novels are much more violent than Southall's, with graphic descriptions in *Kidnappers of Space* (1953), especially, in which the reader discovers "the grisly drappings of the monster's shattered flesh" (186), for example. There is, again, an element of didacticism, made obvious in statements like the following concerning Moon Men. "It was the perfect communal life. Nobody wanted more power than anybody else, there was no such thing as money or trade; their work was play to them" (85). Despite such egalitarian sentiments, there is some local racism in *The Venus Project* (1963), in which Patchett writes of "the slippery, sweating black body, reeking with dirt and rancid goanna fat" (113) of an Aborigine. This description can be compared with that of a white man, when the English protagonist liked a man's typically Australian face, which was "narrow-jawed and narrow-eyed" (17); this, actually, sounds almost as uncomplimentary. Still, in Patchett's novels, there is a feeling of the excitement of being at the threshold of space exploration and of our place in the universe: "Space is our destiny; we have taken the first step that will put Man astride the Worlds" (*Kidnappers in Space* 208). This feeling, present also in the work of Southall, died with the 1960s, as did many Australians' trust of scientists.

One more relevant novel appeared in that decade: Patricia Wrightson's *Down to Earth* (1965), the droll tale of an alien who continually volunteers his outer-space origin to anyone who will listen. Wrightson's use of actual Sydney locations and her inclusion of tiny details of life and surroundings, as well as her employment of realistic children as the human protagonists, make the plot easy to accept. Moreover, *Down to Earth* is, in part, an alien's eye view of Western society, in which a group of children can get the better of the United Nations and adults are too stupid to believe their own senses. Like Southall, Wrightson later was to win the Children's Book of the Year award on several occasions; again, like him, she wrote no more science fiction.

These two decades produced no notable novels in the genre, despite the competent writing of all the authors. It was apparent that, by the second half of the 1960s, outer space had been abandoned and Earth was the only setting to be used. All three writers relied on Australia as a background, especially Patchett, who included factual descriptions of Darwin and Arnhem Land in *The Venus Project*, for example. Australian idioms frequently appear in conversations, including "strike me dead" (*Simon Black Takes Over* 93), "bonzer tucker" (*The Venus Project* 22), and "poor little coot" (*Down to Earth* 142), among many examples. It is noteworthy that three of the first four authors in the field were female, even though Law and Patchett wrote about the exploits of males.

THE 1970s

If the 1950s and 1960s were dominated by two authors, the 1970s was the

decade of one writer, Lee Harding, whose output included six of the eight children's science fiction novels published. Even so, this decade could almost be dismissed so far as Australian children's SF is concerned as, apart from one of Harding's novels, the output was, at best, uninspiring and, at worst, mediocre.

Harding varied his novels in style, motif, and age of intended audience. *The Fallen Spaceman* (1973), for example, was written for younger readers and has short sentences and paragraphs, as well as two small boys as the chief human protagonists. Even the alien of the title looks like "a sad puppy" (61) for easy identification and sympathy. However, the theme is explicit, for the alien has heard reports of humans as being "large and warlike" and "having loud voices and . . . always fighting amongst themselves" (6). After being rescued by a small boy and leaving the planet the alien decides that he will return when "their wars had ended and the people of that world were brothers. . . . The people of Earth were confused and afraid, but in their children there was hope for a happier world" (86). This theme of world peace is taken a step further in *The Children of Atlantis* (1976), for it concludes: "We are all children of Atlantis. And years from now we will reach out from the Earth and discover our long-lost brothers waiting for us among the crowded stars" (104). This novel is notable for two aspects: its incorporation of aliens into the myth of Atlantis in the manner of Von Daniken, and its unusual and often repetitive style. Harding was striving, undoubtedly, for effect in passages such as his descriptions of the planet before the beginning of history: "when giant beasts roamed the dry plains . . . when the oceans teemed with life . . . when terrible storms ripped open the skies" (7). This is coupled with atmospheric descriptive passages but, also, awkward indirect speech and wooden dialogue.

It is Harding's last novel of the decade, *Displaced Person* (1979, *Misplaced Person* in the American edition), that is the most memorable, especially as it was the first novel in the genre to be named Children's Book of the Year. In fact, its SF credentials are scanty, with the author's use of another world, intersecting with this, the only relevant aspect. It is a novel of alienation, in which the adolescent protagonist finds himself becoming increasingly less visible until he finds himself in an Otherworld. His return to the normal world is sudden, and the haunting conclusion to *Displaced Person* explains nothing, its interpretation being left to the reader. This novel points the way to the future of Australian science fiction for young readers: it is likely to be written for adolescents, to be set on Earth—and to be short-listed, at least, for the Children's Book of the Year award.

Two other novels published in the 1970s should be mentioned, novels that are contrasts in all but didacticism. Anne Spencer Parry's *The Land Behind the World* (1976) is a confused fantasy in which Flugs—lost souls—attempt to control behavior through a computer program they are perfecting in their Grey City, part of the Land of the title to which there are hidden doors throughout our world. The reader is left in no doubt that the author is in favor of healthy food, freedom and beauty, and against city living, the killing of plants, the use of plastic, conformity, and advertising.

While Parry's message can be distilled down to the statement of her character who says, "'Oh Life, you are so beautiful!'" (124), that of Colin Thiele in his allegory, *The Sknuks* (1977), is found in the poem that ends the novel. Spoken by an old, wise Sknuk—Sknuks are skunks spelled backwards—it goes, "Learn—and be speedy—/ Not to make war, / Not to be greedy / And break natural laws" (no p.). *The Sknuks* is a story for younger readers: the language, obviously, is simple, and it is heavily illustrated. The Sknuks, which look like hamsters, destroy their beautiful planet, Htrae (Earth), because they are aggressive, greedy consumers who plunder and pollute Htrae until most are forced to leave it or die. The allegory is obvious and the didacticism strong, making *The Sknuks*, like *The Land Behind the World*, less entertaining than could have been the case.

THE EARLY 1980s

The first half of that decade saw the publication of only four novels in the genre, two of which were by Harding. However, the quality of the work can be said to have improved, as two of those novels were short-listed for the Children's Book of the Year award. Harding's two novels of the decade were *The Web of Time* (1980) and *Waiting for the End of the World* (1983). Each was based on a common SF motif, time travel in the case of the former, and life in a world in which civilization has broken down in the latter. In fact, the majority of the 1980s novels set in the future feature a post-civilization, if not a post-holocaust world, indicating both the preoccupations and, perhaps, the lack of imagination of the writers concerned.

The Web of Time is at its best when the author describes some of the possible futures, but the characters are stereotyped, and both the themes and the didacticism of their presentation are very similar to *The Sknuks*, with a character complaining that humans "... had plundered the planet of their birth, stripped it of its raw resources" (73). Statements like "the cast-off consumer goods of a wasteful society" (31) show that Harding, like Thiele, is concerned about consumerism and its resultant pollution and that he has lost, albeit temporarily, the subtlety of *Displaced Person*.

Unlike *The Web of Time*, *Waiting for the End of the World* was short-listed and is a much better novel, despite its rather hackneyed premise. Harding, unlike some authors discussed later, has made some attempt to explain the reasons behind the breakdown of city life, but the most surprising element in the novel is a subplot involving a protagonist, who makes his own bow, in a time fantasy with archers from medieval battles. The author has woven this strand, which is concerned with our relationship to the past, with that in which we are shown our obligations to the future. He illustrates the former when his protagonist, Manfred, has visions of past battles, and is "horrified to realise mankind has been so destructive" (76). Despite some lack of clarity, it is apparent to the reader that control of the media, the problems of old age, and the ubiquitousness of pollution are present difficulties that Harding has extrapolated into the future.

The author shows an awareness of national problems, too, when he has a character comment on the white Australians' place on the continent, declaring, "we do not rightly belong to this land. Our ancestors stole it from a much older race" (98).

The remaining two novels published in this period are rather slighter in content. Robin Klein's *Halfway Across the Galaxy and Turn Left* (1985) seems like an aberration, a return to the less serious SF of the past; moreover, it was the first Australian children's SF novel intended to be humorous. The author uses the anthropological approach to demonstrate the silliness of human ways when she has a family from the planet Zyrgon visit Earth. Klein aims her barbs at many aspects of Australian life, from incomprehensible real estate advertisements—"WW carps; Ige kit; OFP; BIRs; CIs all convs" (9)—to the "tiled pits full of water diluted with chemicals" (6), which, of course, are swimming pools. (Klein won the Children's Book of the Year Award in 1990 with a novel in another genre.)

In his *Quest Beyond Time* (1985), which was based on a made-for-TV movie, Tony Morphett posits a post-holocaust return to the Dark Ages, into which a boy from 1985 is rather improbably flung while hang-gliding. A girl warrior, cannibals, mutants, an Aboriginal priest, a nun called Mother Teresa, Patchies, and Little People make up the cast of this adventure, and it is fortunate for the protagonist that the English language remained unchanged between 1985 and 2457, when the novel is set. His desire, after a week, to remain in the barbaric future is farfetched, but he reasons: "They were brutal and bloodthirsty and superstitious. But they had an idea they called 'Kinship', and he wished to possess it" (52). However, his return home allows him to fight against nuclear war to create a better future: it is not clear whether his success would mean, therefore, that his future friends would never be born.

FROM 1986 INTO THE CURRENT DECADE

This period has seen the launching of SF as a major genre in Australian fiction for children and adolescents. This is partly because both the numbers of authors and novels published increased greatly, but more because such a high proportion of these novels won the critical acclaim of being short-listed for Children's Book of the Year. (In fact, almost all the novels in the genre published between 1983 and 1988 were accorded this honour.) This can be explained partially by the appearance of an SF novel or two by three authors who had previously won the award, namely Ruth Park, Victor Kelleher, and John Marsden—but only Kelleher produced a novel in the genre that was wholly satisfying.

The most popular motif in this period continued to be the post-holocaust world, or at least one in which Western civilization is breaking down; unsurprisingly, this is frequently accompanied by didactic points concerning the dangers of nuclear weapons and unbridled, polluting scientific and technologi-

cal progress. Indeed, this didacticism is held over from the pedantic 1970s, but is tempered, in many cases, with a growing optimism as to the future of humanity. The vast majority of these novels are obviously set in Australia, often with authentic descriptions and actual place-names. Two thirds of these novels were written by women, again showing their strength in the genre, a strength that may be unique to this country, the first in the world in which women were given the vote.

The period was dominated by a new writer, Gillian Rubinstein, whose three SF novels to date have all been short-listed—*Space Demons* (1986), *Beyond the Labyrinth* (1988), and *Skymaze* (1989)—with the second-named winning the award. *Space Demons* and its sequel, *Skymaze*, revolve around the computer games of the titles, which are played by four teenagers, all of whom have problems at home. The games themselves feed on negative emotions, hate and fear respectively, and are powerful enough to affect the real world. Rubinstein emphasizes the importance of trust, cooperation, and friendship, and she uses the SF aspects of these novels primarily as plot devices.

Beyond the Labyrinth is centered around a visitor to Earth who is studying a primitive culture—ours. Rubinstein stated in an interview with this writer (21 March 1990) that she saw the alien, Cal, as a nineteenth-century European explorer in Africa who finds the natives quaint but who tries not to judge them. Through Cal, the author introduces a rather overwhelming mass of issues and examines them “objectively,” albeit briefly, including Aboriginal land rights, nuclear warfare, Western materialism, the role of the female, and more.

The form and language of *Beyond the Labyrinth*, however, are the aspects that differentiate the novel from others in the genre. It is written in the present tense in sections that range in length from three lines to three pages, and it has two alternative endings. The reader is supposed to throw a die—one of the most important motifs in the novel is the “choose-your-own-adventure”—and the number thrown determines whether the “escapist” or the “realistic” ending is to be read. This ploy, and the unusual number of obscenities found in the novel, mean that it is aimed at quite sophisticated readers; in fact, it was criticized on an Australian television current affairs program and banned from many school libraries.

Both of Victor Kelleher’s first two SF novels, *Taronga* (1986) and *The Makers* (1987), were short-listed, and both are set in the post-holocaust future, the former obviously in Sydney with its Taronga Park Zoo, and the latter in an unnamed desert, which may not even be on Earth. *Taronga* is powerful and atmospheric, and the metaphor of the zoo as the Garden of Eden is thought-provoking. It is thematically strong, with the relationships between people and animals, Europeans and Aborigines, and the violent and nonviolent, lying at its heart. This last theme dominates *The Makers*, and Kelleher makes much of the difference between a society of warriors and one of the technologically advanced but physically feeble mutants who control them. The novel ends with the societies’ reconciliation.

Ruth Park's *My Sister Sif* (1986) was short-listed, also. Set in the year 2000, the plot turns on the relationship between a man and a mermaid (from a South Pacific island), with menhunes thrown in for good measure. This mixture of SF and traditional literature is not fully successful; the mermen's undersea "flying saucers" sit uneasily with telepathic communication with dolphins. There is, also, a heavy dose of didacticism, with messages concerning the cruelty of whaling, French nuclear testing in the Pacific, and, emphasized repeatedly, the dangers of pollution. However, it ends with an air of optimism as well as the realization that "It's not modern technology at fault . . . it's the idea you have of it, that it must ruin and destroy" (169).

Penny Hall, too, was short-listed for *The Paperchaser* (1987) but not for its sequel, *The Catalyst* (1989). Set in the next century, the plots revolve around a (literally) underground network of disaffected adolescents called Miners. The emphasis is on the Miners' social harmony and cohesion, in contrast to the remainder of society with its gang violence and ubiquitous guards. The point is that even the Miners are an institution, the prime aim of which is to insure its own survival, if necessary by its own use of violence. Stylistically, the books are marked by Hall's use of the word "mate" in a high percentage of conversations and the fact that everyone "grins" at everyone else. The "terminal but," an Australianism seldom found in literature, was discovered in *The Catalyst*, as in "Found a line, but" (95).

In the following three novels, the authors present worlds in which Western civilization, at least, has been destroyed, and the survivors are attempting to rebuild their world. Isobelle Carmody's ambitious *Obernewtyn* (1987) and *The Farseekers* (1990) are complex examples of the past-in-future novel, in which people have returned to a medieval lifestyle. Despite an introduction to set the scene, the novels can still be difficult to follow, as the author uses dialect and archaic language in speech and has included numerous mysteries in plot and character. Both are earnest and slow moving but powerful, with madness, cruelty, death, and tyranny all ingredients in, basically, a harsh, wintry setting that accentuates the destruction caused by nuclear war.

Like both these novels, Caroline Macdonald's *The Lake at the End of the World* (1988) was short-listed. Set on the South Island of New Zealand, it could hardly be more different from Carmody's work. Here an underground settlement is contrasted with one that is almost paradisaical, with Macdonald demonstrating the different methods by which a return to true civilization can be attempted. Thematically, as would be expected, there are distinct similarities between these novels, although, in *The Lake at the End of the World*, the warning is of the dangers of nuclear accidents and toxic waste as, ironically, nuclear war has been outlawed.

Allan Baillie's *Megan's Star* (1988), like the last three books, has a female protagonist, but the setting is the Sydney of today. This is the only novel published between 1986 and 1990 with an off-world setting, although it is both secondary in importance and mental, not physical, in nature. However, Baillie is the first author since Southall and Patchett to attempt to convey to the reader the

immensity and wonder of space that Megan sees while undergoing an out-of-body experience: "The stars were everywhere. . . . Here was a large blue star, there a glowing yellow spark, a rested [sic] red giant, a white hot beacon, and there a pulsar, a star flashing its lonely distress" (119). For the greater part of the novel, Megan has the usual adolescent problems—her father has gone, she lies to her mother, her boyfriend is a bore, and so on—but she forgoes the chance to visit an alien city and not return to Earth, because she realizes that, in life, "The changing, the little mysteries, never stop" (137). Megan loses her soulmate, Kel, an Aboriginal boy who is telepathic like herself, but gains an optimism toward both life and her relationships.

The three remaining books published in 1989 were Alex Fazakas' *The Adonis Strategy*, Jenny Pausacker's *Fast Forward*, and Katherine Scholes' *The Blue Chameleon*. The first is concerned with the use of a technically advanced rock and roll band to manipulate (and soon to kill) its fans; the second with the invention by the protagonist's grandmother of a machine that controls real life as if it were a video cassette recorder; and the third with an Algerian boy who goes on a mystical journey to Australia and Antarctica, coming into contact with a biologist who has invented fruit trees that "can grow in soil with almost zero nutrient level" (159) as well as reduce nuclear radiation.

The variety of SF novels published that year is evident, especially when *Skymaze* and *The Catalyst* are taken into account, but none of the three mentioned above is worthy of lengthy consideration because the first is contrived, the second a light entertainment, and the third pretentious to the point of obscurity. However, the themes of these novels cannot be dismissed immediately, especially those of *The Adonis Strategy*, in which Fazakas demonstrates that human nature is unchanging, with no generation morally superior to another, whatever it purports to stand for. Even so, the novel is anti-American in nature, with what amounts to editorializing about the problems of Australia's allowing US bases on its territory. Like Fazakas, Pausacker espouses her own cause through her novel; as a feminist, it is not surprising that she wrote: "Gran started off as a science teacher, but would you believe—in her day, women had to stop teaching if they got married" (12).

One of the two novels of 1990 is as easily dismissed as those of the previous year. *The Girl from Tomorrow*, by Mark Shirrefs and John Thomson, originally appeared as a made-for-TV movie, and its pace and lack of depth reflect this. There is some humor as Alana from the year 3000 "washes" her clothes in a microwave oven and gets drunk on the sugar in a chocolate éclair, and the reader is made aware of the pollution of twentieth-century Sydney; otherwise, little is made of the view of Australian civilization through the eyes of someone from so far in the future.

The other novel, John Marsden's *Out of Time* (1990), depends on the time-machine motif also, but with a totally different effect, especially as the author introduces not only different times with the same character but also the same time with seemingly unconnected characters in a variety of places. Eventually links are forged between some of the characters, although others fit nowhere,

even at the end. Marsden deals with disappearance, loss, and the ephemeral nature of human relationships, but as the protagonist travels from the Mayan city of Tikal in the year 795 to an unknown place in 2095, always via his unhappy home in contemporary Sydney, the reader can become quite disoriented. Marsden makes the point that there often are connections in life, even between the apparently unrelated, but they are not always obvious in this novel.

CONCLUSIONS

If Lilith Norman were discussing the current state of Australian children's science fiction, she would comment, undoubtedly, on not only the beautiful green covering of the paddock, but also the height and lushness of much of the grass. Even so, it took more than a decade for this growth to take place, indicating that the drought was long. Still, the break in the drought seems to be permanent as science fiction has demonstrated its importance to critics and readers alike: two of Rubinstein's novels were voted the most popular books of 1990 in one Australian state, for example.

The genre in Australia can be divided into three periods: the early days of exciting "space opera," the lean, heavily didactic middle period, and the burgeoning recent era. Development is most apparent in the rise in science fiction's literary quality, culminating in its near domination of award short-lists. Other changes have been more subtle, usually mirroring those in the wider Australian society. The most obvious is, perhaps, in the increasingly sympathetic portrayal of Aboriginal characters from *The Venus Project* to *Megan's Star*. Also, the number of female protagonists has increased noticeably; Simon Black, especially, seemed to live in an all-male society.

Of the relationship between Australia and the rest of the world, Ivan Southall wrote in *Simon Black at Sea* (1961):

Australians pioneered the airways of the world . . . but never realised that every extra mile their heroes flew was another rock removed from our own defences. Miles were the silent guns that defended Australia . . . but the pioneering air age became the jet age, and the jet age the rocket age, and those thousands of miles vanished. Australians were no longer safely tucked down underneath an enormous world, for suddenly the world had become very small. (8)

The world of science fiction literature has become small also, and the tripartite division of Australian children's science fiction reflects the correspondence between the genre locally and that in the remainder of the English-speaking world, as well as the connection between children's SF novels and adult SF novels and their authors' preoccupations at particular times. Unfortunately present, too, are the wooden characters, overused motifs, heavy-handed didacticism and lessening of interest in space exploration and science in general, all aspects found so often in children's SF around the world.

Even so, the novels discussed in this chapter are parallel to and important in the worldwide history of the genre as a whole, and they have added to it a uniquely Australian flavor in terms of setting, language, themes, and characterization. Australian children's science fiction is, thus, part of the world mainstream, and it is a worthwhile literature in and of itself.

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PART II
Topical Approaches

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The Young Adult Science Fiction Novel as *Bildungsroman*

Michael M. Levy

Each semester in my children's and adolescent literature classes we examine a variety of novels for children ages ten through sixteen, novels that more often than not center on the difficulties of growing up. Some—*Harriet the Spy* (1964) and *The Chocolate War* (1973), for example—do so from a more or less realistic perspective. Others—*The Eyes of the Amaryllis* (1977), *Godstalk* (1982), and *House of Stairs* (1974)—use fantasy or science fiction for a similar purpose. In book after book a young, frustrated, and somewhat immature protagonist is confronted by a serious problem, struggles with it, learns something about the nature of good and evil in the world, deals with the problem, and emerges a more mature and more humane human being.

A novel that contains this sort of material and that is written for an adult audience is generally referred to as a *bildungsroman*, and I have tended to use that label in my children's and adolescent literature classes as well, but it occurred to me at some point that I had rarely seen the term used in print by scholars in the field. A search of the literature reinforced this impression. Curiously enough, however, most of the small number of references that I did find to the children's or adolescent novel as *bildungsroman* pertained specifically to young adult (YA) science fiction. Indeed, at least one writer has specifically commented on the unique relevance of the *bildungsroman* structure to science fiction for the young reader (Dohner 261).

My purpose here is to survey a number of science fiction (SF) novels written for children and young adults each of which qualifies to a greater or lesser extent as a *bildungsroman* using the standard definition of that term as formulated in modern times by Jerome Buckley and others. It is not, however, my intention to imply that every YA science fiction novel fits that genre. Many such tales simply qualify as light adventure. Others deal with the topic of the moral growth of their

protagonists in ways that differ radically from the *bildungsroman* or center on other, unrelated important issues. Further, since the 1970s feminist critics have repeatedly pointed out the inappropriateness of applying the traditional concept of the *bildungsroman* to female protagonists. Ellen Morgan, Bonnie Hoover Braendlin, Elizabeth Abel, and others have attempted with considerable success to develop a model for an appropriate parallel genre that more accurately depicts the moral and social growth of girls and women. I will therefore also examine the YA science fiction under consideration here in the light of feminist criticism of the *bildungsroman*.

In *Season of Youth*, Buckley outlines the typical *bildungsroman* as follows. A child of unusual promise grows up in the country or a small town and finds himself intellectually constrained by the provincialism of the place, his family, and his father. Supplementing his inadequate schooling with outside reading, the young man becomes aware of the larger world and, at an early age, leaves home for the big city. In the city he continues his intellectual and moral education, loses his naiveté, finds a profession, and often has two love affairs, one degrading, the other ennobling. "By the time he has decided, after painful soul-searching, the sort of accommodation to the modern world he can honestly make, he has left his adolescence behind and entered upon his maturity" (Buckley 17–18). Often he then returns home for a visit, thereby demonstrating his success and the correctness of his choices to those whom he has left behind.

Buckley also notes that not every work about young people growing up is necessarily a *bildungsroman*; change is also required. Further, although the child may have valued adult confidants, parental surrogates as it were, the father himself must be entirely or largely absent. "The defection of the father becomes accordingly the principal motive force in the assertion of the youth's independence. It links him immediately with the traditional heroes of romance and folklore . . . each of whom, fatherless, must make his own way resolutely through the forests of experience" (Buckley 19–20). Buckley also notes the fact that the *bildungsroman* often ends ambiguously. Since such novels are traditionally autobiographical, the author is often too close for complete objectivity, and, besides, his story isn't over—the author can thus "hardly be sure that the initiation of a hero in many ways so like himself has been an unqualified success. He may, therefore, choose to leave the hero's future ambiguous; he may . . . seek to reward the hero beyond his deserts or . . . he may evade the problem altogether by bringing the hero to an untimely death" (Buckley 24). Other scholars, it should be noted, have opted for a more general definition of the *bildungsroman*. James Hardin, in his *Reflection and Action*, decries the looseness with which the term is often used by critics, but himself defines *bildungsroman* as concerning simply "the intellectual and social development of a central figure who, after going out into the world and experiencing both defeats and triumphs, comes to a better understanding of self and to a generally affirmative view of the world" (Hardin xiii).

The application of Buckley's definition of *bildungsroman* to the children's or young adult novel, and more specifically to the science fiction novel, provides

few obvious problems, at least where male protagonists are concerned. C. W. Sullivan III and Peter C. Hall have both examined Robert A. Heinlein's juveniles in this regard. Sullivan has gone so far as to argue that "In the most general terms, each Heinlein juvenile (and perhaps the series as a whole) is a *bildungsroman*." Taken as a group, he suggests, the novels are "an epic story in which humans . . . come of age" (Sullivan 24–25). Hall, centering in on one of Heinlein's novels, *Starship Troopers*, is in basic agreement, though he cautions us that the status of the protagonist, Johnnie Rico, as a *bildungsroman* hero is made "problematic" by his "acceptance of the rather fascistic ideology of the Terran Federation and the notion that he is elevating warfare to a kind of art in life" (Hall 155), something that runs counter to the more humanistic ideology typical of the genre.

In their *The Voyage In*, Elizabeth Abel and her co-authors point out that "Even the broadest [traditional] definitions of the *bildungsroman* presuppose a range of social options available only to men. Only male development is marked by a determined exploration of a social milieu, so that when a critic identifies the 'principal characteristics' of a 'typical *bildungsroman* plot,' he inevitably describes 'human' development in exclusively male terms. Jerome Buckley's *Season of Youth* clearly demonstrates this limitation" (Abel 7). The alternate female-oriented genre that they propose takes into account the fact that "fiction shows women developing later in life, after conventional expectations of marriage and motherhood have been fulfilled and found insufficient" (Abel 7), as for example in such novels as *The Awakening*, *Mrs. Dalloway*, and *Madam Bovary*. Their female *bildungsroman* hero lacks formal schooling, rarely leaves home to live on her own in the city, has few if any early love affairs, and "typically, substitute[s] inner concentration for active accommodation, rebellion or withdrawal" (Abel 8). Rebellion, when it does manifest itself, often occurs after marriage has been found inadequate and may involve adultery, a revolt not against parental authority but against marital authority. "Development may be compressed into brief epiphanic moments. Since the significant changes are internal, flashes of recognition often replace the continuous unfolding of an action" (Abel 11–12). A rare, fully developed example of such a female *bildungsroman* character within the genres of science fiction and fantasy may well be Tenar, the protagonist of Ursula K. Le Guin's recent *Tehanu* (1990). Although subtitled *The Last Book of Earthsea* and a direct sequel to Le Guin's famous young adult trilogy, *Tehanu* does not have the feel of a book for children, perhaps precisely because it centers on the life choices of a woman in late middle age.

In contrast to the female *bildungsroman* structure that is developed in *The Voyage In*, Abel, it should be noted, also allows that recent fiction with active, in-the-world, female protagonists can move closer to the traditional *bildungsroman*. Apropos of this point, Rita Felski states that "The increasing visibility of the novel of self-discovery is obviously related to the growth of feminism as a contemporary ideology and to the changing social and economic status of women. . . . the *bildungsroman* may well be acquiring a new function as

an articulation of women's new sense of identity and increasing movement into public life" (Felski 131, 137).

Using Buckley's outline of the traditional *bildungsroman* plot, but keeping firmly in mind the alternative structures proposed by feminist critics, let us now examine a number of children's and young adult science fiction novels, beginning with Robert Westall's *Urn Burial* (1987), Louise Lawrence's *Moonwind* (1986), and William Sleator's *Interstellar Pig* (1984).

Urn Burial concerns two teenagers living in contemporary rural northern England, who uncover what turns out to be an ancient escape pod containing the remains of a dead extraterrestrial, along with his dangerous ray gun and other high-tech equipment. Signals set off by this discovery attract the attention of two alien races, the imperious, catlike Fefethil, who guard the primitive Earth from harm (though they look down on humanity due to our propensity for killing our own kind), and the evil, doglike Wawaka. Seventeen-year-old Ralph, a shepherd, is not entirely happy with his life and the backward people he lives among, though he is very good at what he does and mature beyond his years. He does seem too good for his provincial surroundings, however, and when he is put in a position to determine the future of the human race, he succeeds admirably.

Ralph fits the role of the *bildungsroman* hero, as described by Buckley, rather well. He is highly intelligent and competent, but grows up in the most provincial part of England and has dreams of a greater world that seem unlikely to be fulfilled. His father is not directly responsible for his problems, but, by dying, has forced Ralph to take on a lot of responsibility. Westall also provides a drunken male employer, Mr. Norris, to stand Ralph as a bad father surrogate. His mother is a good woman, but she, like the other people of the community, is limited and hence limiting. Ralph has seen enough of the outside world through his schooling and films (he loved *Star Wars*) to want more. Rather than leave home, however, he has the universe come to him in the form of, first, the alien artifacts (including, eventually, an entire hidden warfleet) and, later, the aliens themselves. Eventually he leaves Earth completely on a spaceship. Highly responsible from the outset in human terms, Ralph must nonetheless achieve even greater maturity by impressing the Fefethil, who have a very low opinion of humankind. He does this by outsmarting the Wawaka and by refusing to use the destructive alien weapons he has discovered. Ralph thus demonstrates that he has recognized both his own limitations and the corrupting effect of too much power. He emerges at the end of the story a highly competent person, though, unlike the typical *bildungsroman* hero, he chooses to return home to live, at least for the present.

In Louise Lawrence's *Moonwind*, yet another long-lost alien spacecraft is discovered by two teenagers. The time is the twenty-first century, and Gareth and Karen have won a free trip to the Moonbase. The spaceship they discover is inhabited by a wraithlike alien teenager, recently awakened from suspended animation. Ten thousand years ago the rest of Bethkahn's crew went to Earth to explore while she attempted unsuccessfully to repair the ship. Surprisingly, the alien senses that Gareth, Karen, and the other people at the Moonbase are, in

part, related to her. Her crew, she concludes, unable to return all those years in the past, must have merged their immaterial selves with primitive human beings. Like the Fefethil in *Urn Burial*, however, Bethkahn still distrusts humanity because of its propensity for violence.

Gareth, like Ralph, seems in many ways a typical *bildungsroman* hero. A poor boy without a father, from the slums of Wales, he feels out of place among his own people and has earned the trip to the sophisticated Moonbase through academic excellence. Gareth feels much more anger than Ralph does, however. His dislike for the somewhat scatterbrained Karen, who comes from a privileged California background, is immediate and irrational, and he has trouble with most authority figures. This includes the Moonbase's commanding officer, who functions as a surrogate parent. Gareth tries to hide an inferiority complex behind tall tales and practical jokes. A diamond in the rough, however, he seems to be more closely attuned than most human beings to the quasi-religious psychic vibrations given off by Bethkahn and things alien.

In line with Buckley's suggestion that the *bildungsroman* hero often has two sexual encounters, one generally positive, the other generally negative, Gareth is eventually forced to choose between the two young "women" in his life. Although a good person and clearly attracted to Gareth, Karen is gullible, scientifically illiterate, and something of a nuisance. Gareth does eventually learn to like her and the more permanent relationship she offers him would be a safe choice. After all, Karen promises him a good job, material possessions, and a new life in California. This, however, would make Gareth forever beholden to her and compromise his newly achieved sense of independence. Bethkahn, however, whose love can never be anything but immaterial, is clearly beholden to Gareth. By making possible the repair of her ship, he proves his worth, and by abandoning his physical body to be with her and leave on her spaceship, he achieves a kind of transcendence.

In both *Urn Burial* and *Moonwind* we see the traditional movement of the hero from country to city transformed, in part, into a movement from a lower to a higher technological milieu. Ralph, the product of a primitive rural environment, must first master the advanced technology of the alien escape pod and then the even more daunting technologies of the Wawaka spacecraft and the hidden warfleet. Gareth must move from an urban slum to the more isolated, but much higher tech Moonbase, and must then, continuing upward technologically, undertake to master Bethkahn's spacecraft. *Moonwind* also ends with an SF equivalent of the hero's triumphant return. As the starship takes off for parts unknown, Gareth sends Karen a Morse code message in Welsh to assure her of his happiness.

Another young hero who undergoes a fairly typical *bildungsroman* progression can be found in William Sleator's *Interstellar Pig*. While vacationing at the ocean with his social-climber parents, sixteen-year-old Barney becomes involved with three very strange supposed vacationers. They at first insist on renting the rather mysterious house he and his family have already taken, but then settle for the cottage next door. Barney's parents are almost invariably gone, off

at some VIP party or other, and the boy finds himself becoming more and more involved with his new neighbors and their chief obsession, a science fiction board game called *Interstellar Pig*. The game involves exploring and conquering various planets while in a sort of virtual reality trance; the winner is the first person to discover an artifact called the Piggy, which has been hidden on one of the planets. Barney's new neighbors turn out to be aliens in disguise, of course, and their game is a way of practicing for the very real battle they are engaged in over the fate of the Earth. By enticing him into playing the game, the aliens have forced him into the role of Earth's defender in their war, and, since Barney has virtually no experience, they assume that both he and the Earth will be easy pickings. Like Ralph in *Urn Burial*, however, Barney rises to the occasion, makes important choices about the use of the power, more specifically advanced technology, and saves the day.

Like other *bildungsroman* heroes, Barney grows and learns during the course of the novel. A child of some sensibility who is clearly unappreciated by his often-absent parents, he is very imaginative (a science fiction fan like Ralph) and demonstrates his ability to learn by first mastering the rule book to the aliens' game and then defeating them despite their superior experience. Although his physical movement has been from his home in the city to a rural vacation community, Barney, like Gareth and Ralph, must also move from a relatively low tech environment, contemporary America, to the much higher tech and immensely more sophisticated environment of his alien adversaries. Though Sleator does not include a corresponding uplifting love interest, he does provide the required sexual temptation in the person of the female alien, who looks like a beautiful woman and who dresses and acts provocatively.

The three novels discussed so far have all featured male protagonists. *Interstellar Pig* concentrates on Barney and his alien adversaries to the exclusion of any other serious character development. Although Ralph's girlfriend, Ruby, in *Urn Burial* shares his discovery of the alien artifacts and has a strong, engaging personality, she is clearly a secondary character, functioning primarily as love interest and eventual reward for Ralph's success. Karen in *Moonwind* also shares in Gareth's discoveries and serves him as a useful sounding board, but she remains an essentially static character throughout the novel. We do see some change in Bethkahn, who must overcome her own fear of the alien, that is, of humanity, in order to gain the courage to, first, contact Gareth and, eventually, learn to love him; but she is never the book's emotional center. Lacking a physical body, with strange powers that allow her to move about on the Moon's surface without a space suit and take over (and accidentally kill) a human being, she remains, to some extent, part of the marvel-filled high-tech world that Gareth must acclimatize to, rather than a fully formed character.

I would like to turn, however, to a group of young adult science fiction novels with either female, or male and female protagonists in order to discover the extent to which they follow the traditional *bildungsroman* pattern or turn toward the alternative pattern suggested by recent feminist critics: William Sleator's *House of Stairs* (1974), H. M. Hoover's *Children of Morrow* (1973)

and its sequel *The Treasures of Morrow* (1976), Hoover's *The Shepherd Moon* (1984), and Monica Hughes' Isis trilogy, beginning with *The Keeper of the Isis Light* (1981).

Sleator's novel opens with two sixteen-year-olds, the mild-mannered Peter and the rebellious Lola, both of whom are orphans, waking up in the bizarre setting of the title, an enormous, Escher-like maze that apparently consists of nothing but narrow platforms and precarious staircases that lead nowhere. Neither knows how they got there or why. Soon they are joined by three more sixteen-year-old orphans: Blossom, a glutton and spoiled rich girl, who develops an instant hatred for Lola; Abigal, a pretty, codependent teenager who's afraid of offending; and Oliver, an athletic, compulsive-leader type. Friction between various members of the group begins almost immediately and increases when they eventually discover that the automatic devices that provide food and water will only operate when they have been nasty to one another. In line with Buckley's suggestion that a *bildungsroman* protagonist will have both positive and negative love affairs, Peter, something of a sad sack at first, develops an enormous crush on the more traditionally virile Oliver. Gradually recognizing his hero's faults, however, he is in the end drawn to the less obviously lovable but morally superior Lola. Although the other adolescents begin to behave more and more violently in order to get food, Peter and Lola refuse to participate, entering upon a hunger strike.

We eventually discover that Lola, Peter, and the others are part of a highly immoral, government-sponsored experiment in behavior modification designed to develop human beings who will follow orders unquestioningly. By resisting the pressure put upon them to do evil, however, Lola and Peter have not only ruined the experiment but become better human beings. Morally untested loners at the beginning of the novel, they have come to care for each other and learned the importance of making difficult moral choices. Blossom, Oliver, and Abigal, on the other hand, have become self-hating monsters, willing to do the government's bidding in any circumstances, as long as they receive a proper reward. At the novel's end, we learn that Lola and Peter are to be exiled, reminiscent of *Brave New World*, to an island "where misfits are kept" (165).

Sleator treats his two protagonists essentially as equals. Lola seems by far the stronger of the two at first, but Peter, overcoming his weaknesses, shows equal courage by the end of the book. The children fit many but not all of Buckley's characteristics of the *bildungsroman* hero. Having grown up parentless in the deprived milieu of the orphanage, they suddenly find themselves in a new world, although unlike the typical *bildungsroman* protagonist, they do not enter this world willingly. On a literal level the world of stairs is a confined space; symbolically, however, it clearly equates with the corrupt, larger universe of adulthood, a universe where the adolescent constantly finds him or herself under pressure to make moral compromises in order to get ahead. On the literal level, again, it is also an example of advanced technology, an artifact of that more sophisticated, futuristic world that the young people are about to enter.

Although none of the characters in *House of Stairs* is entirely innocent or naive, having grown up in the deprived, unloving milieu of the orphanage, their knowledge of both the extent of evil in the outside world and their own ability to do evil increases enormously while they are in the maze. Blossom is a thoroughly repugnant character from the beginning, but Oliver and Abigail seem to be decent, if imperfect, kids until they are gradually corrupted by the pressure put on them. Lola and Peter are strong enough to resist that pressure, but just barely. At the moment when the experiment ends, Lola is preparing to cave in, and, although Peter feels that he can resist to the point of death, he has decided to go along with Lola because he loves her. The *bildungsroman* is traditionally an optimistic genre, but in *House of Stairs* the pressures of society are intense. Our heroes make a decision on the limits to which they will go to accommodate themselves to the demands placed upon them, but they are barely capable of maintaining the moral position they decide upon. In the end they do triumph, and with that triumph goes a new maturity. Their reward, however, like that of Helmholtz Watson in *Brave New World*, is permanent exile to an island where they can be themselves, but will have little power to affect the world.

Hoover's *Children of Morrow* opens at the Base, an ICBM installation on the west coast of the former United States, which has degenerated into a primitive, postapocalyptic community. In a world where most men are sterile, the Family is ruled in a ruthless, intensely sexist fashion by the Major and a small number of brutal Fathers who, as a reward for their fertility, are allowed to live an almost dronelike existence. The lifestyle is communal, and physical punishment of women and children is the norm. Religion is patriarchal and fundamentalist, revolving around the worship of God, the Great Missile, and other no longer understood technological artifacts. The Base's phallic ICBM, though the subject of veneration, lacks a warhead, Hoover's ironic comment, perhaps, on the sterility of the society's men and of patriarchy in general.

Twelve-year-old Tia and nine-year-old Rabbit are both misfits, despised by the community at large for both their radiation-induced birth defects and their poorly understood psychic powers. Though she has tended to dismiss it as a dream, Tia has for years been in psychic contact with Ashira, the ruler of Morrow, a near-utopian society far to the south that combines advanced technology with environmental responsibility and that is, apparently, the only other human community left on Earth. Eventually an expedition is sent north to rescue the two children, who are then returned to Morrow where they will be highly valued for their psychic powers. During the escape, the Major is killed, and it is also revealed that, unbeknownst to them, he was both Tia's and Rabbit's father.

The sequel, *The Treasures of Morrow*, takes up soon after Tia and Rabbit have arrived at their new home and describes their difficulty in acclimatizing themselves to a nonviolent, nonsexist society where their talents are appreciated and it is safe to care about others. As the children learn about their near-utopian surroundings, Ashira sees to it that their psychic powers are trained as well. Eventually a new expedition to the Base is planned, and the children are to be part of it. Returning to her past home, Tia is astonished by how small and dirty it

and its people now seem and by how pathetic the once terrifying Fathers have become. The purpose of the expedition is primarily humanitarian, but the Fathers attack the Morrowans and, in the process, nearly burn down the Base by accident. Symbolically, their much-venerated ICBM is destroyed in a cave-in. Repulsed by the degenerate nature of the Family, the Morrowans decide to leave the Base to succeed or fail on its own. Tia and Rabbit depart secure in the belief that they have put their past behind them and are now truly part of Morrow.

It seems clear that Tia and Rabbit both fit Buckley's description of the *bildungsroman* hero. Both children are sensitive and intelligent, obviously superior in intellect to those who surround them in their highly provincial community. Both suffer severely from the social and intellectual constraints placed upon them. The Major is simultaneously an absent father (because his paternity is unrecognized) and a bad surrogate father. Both children are inadequately schooled, but they do learn about the greater world, in this case through Tia's dreams rather than outside reading. The children revolt and leave their provincial surroundings for Morrow, a much larger and, as has grown to be the pattern in the books we have examined, a much higher tech community. They receive three kinds of lessons: informational (facts about Morrow and the world at large); occupational (the training of their psychic powers); and moral (the necessity for both trust and a sense of self-worth). This moral education is particularly difficult for Tia, the more fully realized and more badly scarred of the two protagonists. Finally, they make a triumphant return to their home, proving to themselves, if not to the degenerate Family, the correctness of their original decision to leave.

Taken as one novel in two volumes, and despite the presence of a female protagonist and a strongly feminist viewpoint, it seems clear that the Morrow books are, to a very great extent, a traditional *bildungsroman*, perhaps the most traditional one examined thus far. Tia's gender is essentially irrelevant to her adventures. If Hoover has in fact made any concession to what might be expected of a traditional female protagonist, it lies in her decision to give Tia a quasi-maternal role by pairing her with a younger, seemingly helpless, male character, Rabbit. He, of course, is eventually revealed to be much the more powerful of the two in terms of sheer destructive force due to his psychic powers, though Tia always maintains her role as leader. In *The Voyage In*, Abel suggests that, unlike Buckley's male *bildungsroman* heroes, nineteenth-century women "are generally unable to leave home for an independent life in the city. When they do, they are not free to explore; more frequently, they merely exchange one domestic sphere for another" (Abel 8). It might be argued that Tia has in fact merely exchanged the less desirable domestic sphere of the Family for the more desirable sphere of Morrow. Based on both Hoover's description of Morrowan society in general and the author's depiction of a number of strong, egalitarian male and female characters within that society, however, it seems likely that Tia will be free to develop her own talents without having gender limitations placed upon her.

Turning to a more recent Hoover novel, *The Shepherd Moon*, we find a number of interesting similarities between it and William Sleator's *Interstellar Pig*. Although it is not typical for a *bildungsroman* hero to do so, both thirteen-year-old Merry Ambrose, the protagonist of *The Shepherd Moon*, and Sleator's Barney come from financially comfortable backgrounds, particularly Merry, a scion of the planet's ruling class. Both have parents who appear to be more interested in their own pleasure than in their children and who are therefore largely absent. Both Merry and Barney have been removed from their normal milieu and essentially left on their own in a rural setting, their only companions people who do not appear to be entirely trustworthy and who turn out to have extremely sinister ulterior motives. In both cases the temporary homes where the children find themselves are old and mysterious, although Merry's ancestral estate is, of course, enormously more exotic than the former sea captain's house where Barney is staying.

Despite her wealth, Merry has suffered in ways that bring her very much in line with the *bildungsroman* model. Her parents do not physically abuse her, but she is definitely the victim of psychological abuse and neglect. Further, her education, although theoretically superior, has been extremely provincial. Although she lives at the top of a highly repressive society that features enormous extremes of wealth and poverty, she knows nothing of the civil unrest that seethes just beneath the surface of her world, infecting even the servants and bodyguard assigned to oversee her welfare. Her interactions with Sami, a poor girl of the streets on the run from government conscription, and with Mikel Goodman, the near-psychotic secret agent from the hellish orbital colonies, open her eyes to an entirely new and considerably more complex universe.

The Shepherd Moon features a convoluted, intrigue-filled plot in which Mikel, who has been sent from the orbital colonies to explore the possibility of invading the Earth, is taken in by Merry and then attempts to use his psychic powers to subvert her servants as the first step on the road to conquest. Realizing that something is wrong, Merry resists Mikel, but seems doomed to failure until the sudden return of the owner of the estate, her grandfather, the powerful General Ambrose. Functioning as a surrogate father (he eventually becomes her legal guardian), the General saves Merry, takes control of the struggle to defeat Mikel, and, with her help, vanquishes him. He also promises to help Sami, guaranteeing that she will not be conscripted.

Merry's relationship with her grandfather bears some similarity to Tia's and Rabbit's relationship with Ashira in Hoover's *Morrow* novels. Both adults come to the aid of children who, although struggling heroically, may not have succeeded or even survived on their own. Both adults become substitute parents, promising their adoptive children a loving parent-to-child relationship of a sort heretofore unknown. Both relationships cause the children to be introduced into a larger, more complex world. Where the two stories differ, however, is in how the children react to those new worlds. For Tia, the adaptation is difficult and intensely painful, despite the generally friendly attitude of the *Morrow*ans and the obvious superiority of *Morrow* to the Base. The emotional wounds left by the

intense physical abuse she has suffered take a long time to heal. Merry, on the other hand, has been neglected by her parents but has never been physically abused, and her emotional scars are relatively few. Her acceptance of a new life with her grandfather can, therefore, come with little pain. It also comes easily, of course, because her new world is in large part a somewhat warmer and more loving version of what she already knows.

It should also be noted that the Morrowans are in no way responsible for the terrible society in which Tia grew up. When they, Tia and Rabbit return to the Base, they do so, at least in part, out of a desire to help that degenerate branch of humanity. That they fail in their attempt and decide to let the Family succeed or die out on their own is clearly a sadness for all concerned, albeit one Tia and Rabbit can live with secure in their new lives. Merry's grandfather, however, is, despite his appealing personality, a part of the ruling elite that has perpetuated the suffering of Sami and untold thousands like her. He is, in a sense, both Ashira and the Major, savior and perpetrator. Sami's salvation is purely a personal one, an act of *noblesse oblige* on the General's part. Neither he nor Merry has any real interest in seeing Sami as their equal or in changing the society that hurt her and others like her. Merry has been offered two true alternatives to the General's world, the even more hideous society of the orbital colonies and the not very well developed future promised by the revolutionary underground, as represented by her bodyguard. By opting for the rather repressive status quo, Merry becomes, in effect, something of a failed *bildungsroman* hero by Buckley's standards. Looking at it from another point of view, in the end she is, to use Abel's phrase, merely "exchang[ing] one domestic sphere for another."

The novels under consideration in this chapter tend to break into two groups, those with preteen protagonists such as the ones in *The Children of Morrow* and *The Shepherd Moon* who, by novel's end have moved into the new maturity of young adulthood, and those with protagonists in their mid-to-late teenaged years such as those in *Moonwind* and *Urn Burial* who, by novel's end, have become adults, but just barely. This presents a bit of a problem for the author who wishes to structure her or his novel as a *bildungsroman* because, with this limitation, it becomes very difficult to show how the protagonist turns out as a fully mature adult. Limited, perhaps, by the understood interests of their audience, not to mention the commercial concerns of publishers, YA authors rarely continue their characters' stories into full adulthood. Usually, however, they do make some attempt to sketch out what is to come. Gareth's transformation into a nonmaterial being and his departure with Bethkahn in *Moonwind* seem to guarantee a marvel-filled future. The probability seems good that Tia and Rabbit will live fulfilling lives at Morrow. Unfortunately, we can never know what long-term effect their amazing alien encounters will have on Ralph of *Urn Burial* or Barney of *Interstellar Pig*, but it is hard to believe that either young man will be content to slip back into his old life as if nothing had changed. At the end of *The Shepherd Moon*, Merry seems to have accepted the status quo as represented by her grandfather, but it seems unlikely that she will be entirely able to shrug off her new awareness of the evil in her world. Will she, following

a pattern similar to that described by recent feminist criticism, become dissatisfied in later years and continue her aborted moral growth? Given the confines of the novel, it is, of course, impossible to know.

In her Isis trilogy, Monica Hughes deals with this limitation by choosing a new protagonist in each novel, while at the same time, bringing the previous volume's main character back for another appearance as an important secondary figure. Olwen, the title character of *The Keeper of the Isis Light*, lives alone on the planet Isis with only her robot, Guardian, and her doglike alien pet, Hobbit, for companionship. Her parents died when she was very young, and she has never known anyone else. Between them she and Guardian tend the Light, an interstellar beacon set up to guide future colonists to the planet. Because the air is very thin on Isis, any colonists will have to live in the lowlands. Acting as surrogate parent, however, Guardian has used its advanced medical skills to adapt Olwen's body to survive in the thin air and high radiation of the uplands.

Olwen is an innocent, unaware that she might be different from other human beings, unaware that Guardian's modifications of her face and body may make her hideous to normal human eyes. Her loss of innocence begins on the Isis equivalent of her sixteenth birthday, however. As a birthday present Guardian gives her something she's never had before, a slinky dress and high-heeled shoes. The new clothes force her to walk in a slightly different way, making her feel decidedly grown up, even sexy. The robot also announces the impending arrival of the colonists. This fills Olwen with both anger over the intrusion into her nearly perfect world and curiosity concerning what they will be like. Adult readers of *The Keeper of the Isis Light* will quickly recognize that the novel abounds with references to both the Garden of Eden and Shakespeare's *The Tempest*, with Olwen as Miranda, Guardian as both Prospero and Ariel, and Hobbit paralleling Caliban.

Like Prospero, Guardian has served Olwen as a loving parent, but has also kept her in ignorance. There are no mirrors in her home, and she has never seen her own face. Further, when she first visits the colonists, he insists that she wear protective gear that obscures her features. Despite Guardian's wishes, Olwen is drawn more and more often down from her cliffside home to the lowland colony. She meets Mark London, a boy her own age, and they become friends, but the budding relationship comes to an abrupt end when he suddenly sees Olwen without her mask and is repulsed, as are others among the Earth colonists. Aware for the first time of her anatomical peculiarities and the response they can engender, Olwen thinks, "I was a child until now. I didn't understand how things would be. I know now. An adult has to armour himself, put up defences so as not to get hurt" (87-88). Relations become even more strained after some of the colonists kill Hobbit, taking him for a dangerous monster. Olwen vows never to wear the mask or visit the colonists again, to pretend that they are not there, a retreat of sorts from adulthood and the greater world.

Eventually, of course, Olwen must grow up a bit and come to terms with the other human beings on the planet. When a sudden radiation storm flares up, she saves a nine-year-old boy named Jody and achieves a partial reconciliation with

the colonists. An attempt to patch things up with Mark fails, however, because, though he still feels something for her, he simply cannot get past her physical differences. Eventually Olwen resolves to leave her home and go with Guardian to another part of the planet where she will not have to see the colonists. She will, however, continue to give them warning of radiation storms.

The Keeper of the Isis Light demonstrates a number of standard *bildungsroman* characteristics, but, all in all, Olwen does not meet Buckley's criteria in that, at the novel's outset, she is essentially happy with her isolated state and, despite the new knowledge she gains, has no real desire to leave it. Even though it has attractions, most importantly the possibility of romantic involvement, the greater society of the colonists brings Olwen more pain than pleasure. The traditional *bildungsroman* protagonist finds some pain in the greater world, but makes accommodation to it. Ralph in *Urn Burial*, Barney in *Interstellar Pig*, and Tia in the *Morrow* books all find things to dislike about the new universes they discover themselves in, but they make the best of it. Olwen, on the other hand, pretty much refuses to accommodate herself to the colony. Like Merry in *The Shepherd Moon*, she ultimately settles on a variation of the status quo.

The Guardian of Isis (1981) is set many years later and features a young male protagonist, Jody, the grandson of the Jody saved by Olwen in the first book. Society on Isis has regressed to the agricultural level, and women are now very much second-class citizens. The superstitious colonists have lost most of their technology, forgotten their past, and retreated into fundamentalist religion. Mark London, now an old man, rules the valley with an iron fist; and Olwen, now called That Old Woman, the Ugly One, has become legendary, a symbol of death. Guardian, the Shining One, has also taken on a supernatural role, a savior/god of sorts. Although the Isis colony is still salvageable, it is clearly going the way of the Base in Hoover's *Morrow* novels.

Jody, the youngest member of the third generation, is a creative sort, always in and out of trouble, clearly at odds with his world and a potential *bildungsroman* hero. Mark, Jody's uncle, does not like him, in part, because his grandfather is now Mark's chief opponent on the Council, in part because London hates change and Jody always has new ideas, refusing to buy into the status quo. It should be noted that the boy's father, a weak man who supports London, has almost no role in the novel.

Olwen is still off in isolation somewhere, but has left a radio so she can warn the colonists of radiation storms and other dangers. For reasons unknown, although they are apparently related to the bitterness engendered by his failed relationship with Olwen, Mark has allowed the radio to break down, muzzled those few elderly colonists who know the true history of the settlement, and intentionally fostered a belief in the supernatural. This policy leads to near disaster when an underground river becomes plugged and the nearby lake begins to rise, endangering the colony. Jody figures out the danger but is exiled by Mark for his trouble. The exile to the thin air and radiation of the uplands is very possibly a death sentence, but Jody leaves willingly, knowing that he can never be happy in

the colony. Although in a bad way, he survives in the uplands far beyond the point where the air and radiation would have killed a first-generation settler, and he is eventually rescued by Guardian.

Jody's progress so far has been entirely within the *bildungsroman* tradition, but there is, of course, no big city on Isis for him to escape to. Instead, as has come to be the pattern in these novels, upon meeting Guardian and Olwen, he finds himself in a world of higher technology. Like Tia, he must overcome the superstitions that his society has fostered and discover the scientific and historical truth of his world. Used to being the smartest and most knowledgeable person in the colony, despite his age, Jody begins to doubt himself. Surprisingly, we discover that Guardian and Olwen are as ignorant of Jody's world as he is of theirs. Years earlier Mark London had banned Guardian from direct interaction with the colonists. The radio, left for emergencies, had rarely if ever been used, and, when it failed, neither Guardian nor Olwen had noticed.

Olwen has grown old in isolation but still bears the scars of her rejection by Mark and the settlers. She still sees herself as "inhuman and disgusting" (112) and is astonished to discover that Jody thinks she is beautiful. Olwen says that she loved Mark and thought he loved her, but that he only loved the beautiful mask she had worn when they first met. She does not want to see the colonists drowned, however, and sends Guardian and Jody to unplug the river. The boy must handle the most dangerous job, carrying explosives down underwater, because Guardian is simply too large. Although terrified and still troubled by doubts, he succeeds. Jody equates his passage through the underwater caverns with rebirth and thinks, "this second birth was the birth of Jody N'Kumo, man" (132). Guardian underlines this by equating Jody's actions to his ancestors' African adulthood rites and calling him "lion-killer" (139).

Even after the colony is saved, Guardian refuses either to depose Mark or restore the settlement's lost technology. Adopting a hands-off approach, it counsels Jody to return to the valley and simply outlive Mark. The robot also forbids the young man to tell the people about it or Olwen or how they fixed the river. Jody decides that he will go back to the valley and live peacefully for now, but will "remember that he was also a Lion-killer. He would be quiet, but he would never forget. Then, one day, not too far into the future, he would lead his people out of this narrow Valley and show them the rest of their new world" (140).

Like so many of the protagonists discussed here, Jody's rise to full *bildungsroman* adulthood is cut short, albeit with the promise that it will continue at a later date. Olwen, however, continues to be something of a case of arrested development. Although she has grown old, she has apparently learned little or nothing about her own self-worth and continues to live in isolation with Guardian. Their relationship does appear to have changed to some extent, however. In the first Isis novel, the robot was at once servant, protector, and surrogate parent. In the second book, it still fulfills the first two functions, but their relation now seems to be more that of equals, a kind of content, if sterile marriage. Dead when the third novel in the series begins, Olwen will apparently never develop into a full-fledged adult.

As *The Isis Pedlar* (1982) opens we discover that Mark London has died and been replaced by his son Roger, a much weaker, but equally repressive leader. Jody, now a man, has succeeded his grandfather as the leading opposition figure but has gained little power. Jody's own nephew, David, one of the novel's two protagonists, is a young man of considerable good sense, though not perhaps as brilliant as his uncle.

Soon after the events related in the second *Isis* novel, *Guardian* apparently set up an interstellar quarantine to protect the planet's now primitive culture from exploitation, and the third novel's title character is the first person to breach that quarantine. Flynn is a rather stereotypical Irish trickster, a thief, flim-flam man, alcoholic, and general incompetent, but he has the gift of gab, and, realizing how primitive the colonists of *Isis* are, he decides to take them for all they are worth. Accompanying Flynn is the novel's second protagonist, his daughter, fifteen-year-old Moira, who is intensely codependent and has been forced for years to act as a surrogate mother to her own self-centered father. Moira resents her father and his inability or unwillingness to take care of her. "She longed to have someone to hold her in his arms and tell her that everything was all right and that she'd never have to worry about anything ever again. It's not fair, she thought, blinking back angry tears. I'm fifteen and I'm old. Old. I've never once had a chance to be just a kid and now I never will" (3-4).

Flynn leaves Moira with their damaged spaceship and instructions to fix it, while he goes exploring. Coming across the colony, he cons Roger London into believing that, in exchange for rare gems, he can provide the settlers with Forever Machines that will provide them with endless quantities of food without any work, but he doesn't tell them that the ambrosia created by the machines is actually a dangerous drug. Although the harvest is upon them, the colonists abandon their fields. Only Jody, David, and a few others seem immune to the lure of something for nothing. Later, when the machines turn out to be untrustworthy, there is a real danger that everyone will starve.

The spaceship fixed, Moira comes looking for her father but discovers and reawakens *Guardian*, who had evidently switched itself off due to the robotic equivalent of depression when Olwen died. When they learn what Flynn is doing, both are in a moral quandary. *Guardian* has promised not to interact directly with the colonists. Moira loves her father but despises what he is doing. Eventually *Guardian* sends her to the valley with instructions to ask Jody for help in stopping her father. Flynn, angry at his daughter for interfering in his scam, has Roger London exile her to the uplands where she meets David and introduces him to *Guardian*. Eventually, after David saves Moira's life, the truth comes out and the colonists realize that Flynn is a fake. Enraged, led by the embarrassed Roger London, they attempt to kill him. When Jody and David try to protect Flynn, London orders them killed too, but *Guardian* arrives in the nick of time and ends the violence. With Roger shown to be a fool, the colonists elect Jody as their leader.

As the novel ends, David proposes marriage to Moira and convinces her that her father has no right to expect her to take care of him for the rest of her life.

Flynn, showing some decency, agrees to the marriage, and, in a final surprise, Guardian decides to leave the planet with him. With Jody running the colony, after all, things should take a rapid turn for the better and Guardian will no longer be needed. The robot, however, is programmed to take care of someone and the Irishman definitely needs to be taken care of.

Although he is a secondary character in *The Isis Pedlar*, the novel does record Jody N'Kumo's final development into the responsible, full-fledged adult that the second volume in the series promised he would become. Permanently leaving home for the big city is not possible within the context of the series, of course, but one can assume that, as leader, Jody will now use the information stored in the settlement's computer banks gradually to transform Isis colony into a more benign, higher-tech place. In *The Isis Pedlar*, both David and Moira also demonstrate some of the attributes of the *bildungsroman* hero, though sharing the stage with each other, as well as with Jody and Flynn, they can receive less individual attention than a typical hero of the genre would. Both are unappreciated by adults within their own societies (albeit Moira lives within a society of two), and both must overcome their own fears and ignorance to achieve adulthood. Already relatively independent due to his own nature and his uncle's support, David's primary needs are for knowledge of the greater world and the respect of others in his community, both of which he attains. Relatively cosmopolitan from the start, Moira is primarily in need of independence and the sense of self-worth that comes from the knowledge that one can act on one's own. David's development is similar to his uncle's and could well lead him to an eventual leadership role in the community. Moira's situation is, however, a bit more ambiguous. True, she has made a major step in her life and has gained independence from a repressive father, but she has also given up the freedom of interstellar travel for marriage and the limited life of a planet-bound colonist. Further, she agrees to marriage, only after her father gives permission. Thus Moira does fit a number of the characteristics for the female *bildungsroman* protagonist as described by Abel and others. It seems probable, however, that she, like Tia in the *Morrow* books, will find far greater freedom on Isis than she ever would have achieved with her father. Moira has not simply exchanged one form of patriarchal rule for another. Freed from codependence, her new relationship with David should be a liberating experience.

Given unlimited space, one could easily apply *bildungsroman* theory to dozens of other novels, but I have considered ten such books in this chapter, and it is time to draw a few conclusions. In general, each of the books has fulfilled the criteria required to be considered a *bildungsroman*, albeit with a few modifications necessitated due either to its having been written for children and young adults or its being science fiction. For example, because of the age level and presumed interests of the intended audience, most of the novels have broken off earlier in their protagonists' lives than might a *bildungsroman* written for an adult readership. In part because the main characters are so young (and in part, perhaps, because of the limitations placed on children's and young adult authors by publishers), the ennobling and degrading love affairs emphasized by Buckley

are generally toned down or absent. In some cases, *The Shepherd Moon* or *The Children of Morrow*, for example, the author may substitute conflicting pairs of friends or surrogate parents for the protagonist to choose between. Further, because YA novels rarely show a protagonist who is more than seventeen years old, the chances for developing the kind of alternative, middle-aged women's *bildungsroman* envisioned by feminist critics are limited.

More often than not, in the novels examined, the physical movement of the protagonist is not simply from the country or small town to the city, but rather from a technologically primitive community to a technologically more advanced one. The traditional *bildungsroman* hero gains control of his world by becoming more knowledgeable in both practical terms (that is, by increasing his understanding of how the world works) and moral terms (that is, by increasing his understanding of the implications of his own actions). In these books, the knowledge that needs to be mastered, even the moral knowledge, is often in large part scientific or technological in nature. In *Urn Burial* and *Interstellar Pig*, for example, Ralph and Barney cannot take appropriate action against their enemies until they understand the nature and destructiveness of the technology they have come into possession of. In *House of Stairs*, an understanding of how new technology works leads directly to an understanding of that technology's innate immorality. In both the *Morrow* and the *Isis* books, superstitious ignorance of technology leads societies to physical ruin and moral bankruptcy. When used inappropriately, as in *The Isis Pedlar* and *The Shepherd Moon*, technology can also have destructive consequences for entire civilizations.

Turning specifically to the female protagonists in these novels, we find a general tendency both to treat them as being equal to the male characters in intelligence and competence and also to structure their lives within a traditional *bildungsroman* framework. Lola in *House of Stairs*, Tia in the *Morrow* books, Olwen and Moira in the *Isis* series, even Bethkahn in *Moonwind*, are all highly competent individuals who spend very little time worrying about being ladylike or getting their hands dirty. Despite weak lungs, Tia has been accustomed to hard, physical labor almost from birth. Moira and Bethkahn are both highly competent engineers; witness the fact that each is chosen to do repairs on a spaceship when necessary. Olwen, although not herself an engineer, controls Guardian, a powerful technological artifact. She, Bethkahn, and Tia all have awesome physical or psychic powers. Only Merry of *The Shepherd Moon* can be said to have lived a pampered and passive lifestyle, and she still has plenty of gumption. Secondary female characters are also, for the most part, portrayed in a positive fashion. Ruby, from *Urn Burial*, and Karen, from *Moonwind*, may be relatively ignorant, but both are physically active and intelligent. The female alien in *Interstellar Pig* is despicable, but she is no less dangerous or competent than her male counterparts. The only member of the Family who has the courage to stand up for Tia and Rabbit in the *Morrow* novels is an old woman, and Ashira, the ruler of *Morrow*, is the most powerful character in the novel.

Two of our female protagonists, Merry and Olwen, do fail to complete a *bildungsroman* passage, however. The former shows the potential for moral

growth that is required of both the traditional male and the newly defined female *bildungsroman* heroes, but that growth is aborted. Although she is entering a new, larger world at the novel's end, and has gained much new knowledge, Merry has accepted her grandfather's authority over her. Of course it can be argued that, as is typical of female *bildungsroman* characters, she has little choice but to do so at this point in her life. Merry has no power. Taking off on her own or becoming an independent player within established society are not options that are available to her. One can easily envision a sequel to *The Shepherd Moon*, however, in which, ten or fifteen years down the line, Merry Ambrose, now married to one of her grandfather's officers, suddenly realizes that her life is unbearable and goes off to join the underground and find self-realization.

For Olwen in Hughes' *Isis* books, however, the story is very different. Happy in what is essentially her own provinciality, lacking any desire to revolt against Guardian who is, almost by definition, the perfect parent, and daunted by her rejection in love, she has retreated from society, refusing to engage with others in any truly meaningful way. Mark London's inability to overcome his distaste for Olwen's physical characteristics betrays an essentially patriarchal attitude, but Olwen accepts it, seeing herself as something ugly, even in later life. When her first sortie into society goes wrong, she retreats, and she never tries again. Years later she is astonished that Jody might find her attractive.

In her definition of the alternate women's *bildungsroman*, Bonnie Hoover Braendlin describes a character as "awakening in her late twenties or early thirties, to the stultification and fragmentation of a personality devoted not to self-fulfillment and awareness, but to a culturally determined, self-sacrificing, and self-effacing existence" (18). On one level, it could be argued that Olwen has devoted her life to the care of others through the tending of the *Isis Light*, but her duties in that regard, although important, are minimal, and much of the work has been handled by Guardian in any case. Although she promises at the end of *The Keeper of the Isis Light* that she and Guardian will watch over the colonists from a distance, they are so small a part of her adult world that she does not even notice when their radio breaks down and they can no longer contact her or Guardian. In truth, Olwen has never really had to sacrifice or do anything for anyone. Guardian, surrogate father and husband, is without flaws, without needs (except to serve), and thus, for all his kindness, without humanity. The essence of both male and female *bildungsroman* is connection with society. In the traditional male version of the genre, the hero, as a young man, struggles to achieve a position of independence from which he may decide the terms on which he will accept engagement with the world. In the alternate women's version of the *bildungsroman* as suggested by feminist critics, the female hero, having had her terms of engagement dictated by patriarchal society, eventually revolts and seeks new terms, even though it may be disastrous to her material well-being. It may be argued that Olwen, like the typical female *bildungsroman* character, has had her life set up for her by others, but the fact is that she is happy with what she was given and, after her rejection by Mark, apparently feels no further desire to change throughout a long life. Raymond E. Jones has suggested that Olwen

should be seen within the context of “the central archetypal phases of female identity: maiden, mother, and crone” (169), as a woman who would rather go it alone than make any compromise with a patriarchal culture that would limit her freedoms. In his interpretation, Olwen thus becomes something of a feminist separatist hero, and there may be some truth to this assertion, but two points argue against it. First, unlike the traditional female *bildungsroman* character, Olwen operates from a position of power. With Guardian at her side, the colonists would never be able to limit her freedom to any great extent. Second, her retreat, as previously noted, results as much from her acceptance of the colonists’ negative view of her as it does from her refusal to accept their evaluation.

The average teenager of either sex is simultaneously obsessed with both being an individualist and being accepted. One of the few things worse than standing out in a crowd, after all, is not standing out in a crowd. And worst of all, of course, are one’s parents. For the average young adult, therefore, it might well be argued that the *bildungsroman*, with its emphasis on escape from the confines of home, overcoming difficulties, finding a personal lifestyle, and achieving success in the adult world is not merely a literary genre but a way of life. Science fiction, with its emphasis on change, the discovery of new knowledge, and the conquest of new worlds, is a logical medium for the *bildungsroman*. Together the two forms create a powerful vehicle for the symbolic portrayal of many young readers’ most cherished hopes for the future.

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Women in Heinlein's Juveniles

Marietta A. Frank

Female characters in Robert A. Heinlein's juvenile series, published between 1947 and 1963,¹ do not fit the description of typical science fiction females.² Heinlein peoples his juveniles with intelligent, capable female characters who are engineers, physicians, pilots, and combat-ready soldiers (Sargent xli). It is not unusual to find adolescent females who are well versed in mathematics or space science. These same adolescent females can also be found operating weapon-firing systems. While silly and stupid females can be found in Heinlein's juveniles, there are equally silly and stupid males. Although the females portrayed in Heinlein's juveniles break the stereotypical roles most females were assigned in science fiction stories, especially stories of the late 1940s to the early 1960s, Heinlein is all but ignored by feminist science fiction critics.³ As Ronald Sarti points out, "intelligent and courageous, the Heinlein heroine embodied a positive new image of womanhood, an image that was not lost upon the readers. . . . To a generation of impressionable minds, she was Woman as capable human being" (113). Heinlein's juveniles may not fully fit current criteria for feminist science fiction, but Heinlein should be recognized for his groundbreaking efforts.

Of the fourteen juveniles Heinlein wrote, thirteen were written specifically for boys. Since these were written for boys, almost all of the main characters in these books are boys. Readers and critics today might fault Heinlein for this, but at the time it was the accepted practice. In 1947, when Heinlein wrote his first juvenile, and until the mid-seventies, publishers, authors, and educators thought that, after the age of nine or ten, girls would choose to read "girls" books or "boys" books, but boys would choose to read only "boys" books (Tibbetts 279). According to Marsha Kabakow Rudman, publishers contended: "since most of the children who are in need of remedial reading are boys, boys should have

stories that will especially appeal to them. They then reason[ed] that since people should enjoy reading about themselves in a positive light, the majority of the characters should be boys" (295).

The majority of the characters in *Rocket Ship Galileo (RSG)*, the first of the Scribner's juveniles and Heinlein's first book, are male. *RSG* has the distinction of being considered "the first American children's science fiction work to merit serious attention" (Molson 336), but it is one of the weakest of Heinlein's juveniles and has the fewest females. Heinlein himself describes it as "a fumbling first attempt; I have never been satisfied with it. . . . I cringe whenever I consider its shortcomings" (*Expanded* 207). Heinlein refers to six females in the book, but only two of them actually have dialogue; Art's mother and Ross' mother are the two females who appear briefly. The boys' mothers must be convinced, along with Ross' father, to allow the boys to take part in a plan to build a rocket ship to carry the two boys, their friend Morrie, and Art's uncle to the moon. The boys' mothers are not treated negatively.⁴ Once they have the necessary information, which the reader already knows, they agree to allow their sons to go. In fact, it is Ross' mother who reminds Ross' father about their ancestors who, although young, were successful pioneers. Morrie's mother is only referred to in the book. His father tells Morrie that he will tell his mother about the plan and that she is not going to like it. The other three women mentioned in the book are mentioned only in passing. Art's uncle mentions that Ross' family's hired "girl" showed him where the Galileo Club was testing the rocket. Ross' girlfriend is not given a name and is jokingly referred to by Morrie as "that synthetic blonde you're sweet on" (83). Morrie claims that he forgot the can openers when "some female reporter started asking me some fool question" (106). After *Rocket Ship Galileo*, however, females appear in greater number in Heinlein's juveniles and, also, have more important roles.

In *Space Cadet*, the second of his juveniles, Heinlein includes a matriarchal society. There is some discussion among the main characters as to whether there are male Venerians. Oscar, who grew up on Venus, answers, "Sure there are—the Little People are unquestionably bisexual. But I doubt if we'll ever get a picture of one or a chance to examine one. . . . I go with the standard theory; the males are little and helpless and have to be protected" (171). Heinlein develops the matrilineal culture by introducing their customs and speech patterns. The speech patterns are formal and use feminine pronouns and nouns to describe leaders and followers (Sullivan "Real-izing" 154), "*My city and my daughters [citizens] live ever by custom. . . and I have never before heard it suggested that we fail in performance.*" Oscar replies, "*I hear thee, gracious mother of many [Venerian leader], but thy words confuse me. We come, my 'sisters' [fellow space cadets] and I, seeking shelter and help for ourselves and our 'mother' [their lieutenant], who is gravely ill. I myself am injured and am unable to protect my younger 'sisters']*" (185). Once the Venerians realize the space cadets are not "related" to Burke, who caused all of the trouble before the cadets' arrival, they are willing to help the cadets.

Feminist science fiction critics might take issue with the matriarchy

Heinlein describes in *Space Cadet*. Pamela Sargent is concerned about how matriarchies are portrayed in works by male authors. She believes these works are more a reflection of the fears or wishes of their authors than serious extrapolations. Many such novels simply involve role-reversal (in which men do housework and women hold power), or they depict faraway or future states in which women are portrayed as more barbaric than men might be in similar circumstances (male children are killed; a few men are kept for breeding) (xlix). The Venerians are described as small and amphibianlike, but they are intelligent, clever, and strong. They have a sense of justice but are willing to fight to rescue one of their own. Perhaps the Venerians satisfy Heinlein's "wishes" rather than his "fears" for a matriarchy. Sargent could accuse Heinlein of "role-reversal" in the Venerian society, but Heinlein does not give us enough information on the Venerians to judge this. The information Heinlein does provide suggests that the Venerians have a culture to be admired, and as for the other part of Sargent's concern, the Venerians are hardly barbaric. In fact, Burke and his company are depicted as the barbaric ones. Perhaps if more of the book were about the Venerians, Heinlein might have answered some of the questions dealing with "role-reversal."

Space Cadet is not the last time Heinlein includes matriarchal societies in his juveniles. A matriarchal society appears in *The Star Beast* and two appear in *Citizen of the Galaxy*. Although Heinlein does not give much information about the operation of the matriarchal society in *The Star Beast*, he does indicate it is not only a much older but a more advanced society than any society on earth. Heinlein seems to be interested in exploring various ways these societies might operate because no two of the matriarchal societies function the same. In *Citizen of the Galaxy*, he shows two distinct matriarchal societies. The first is described by Dr. Margaret Mader, an anthropologist studying Free Traders, as "a patrilocal matriarchy. . . . The Chief Officer is boss. It surprised me; I thought it must be just this ship. But it extends all through the People. Men do the trading, conn the ship and mind its power plant—but a woman always is boss" (107). In this context the Chief Officer is either the Captain's wife or mother. The Captain and Chief Officer do not always agree on solutions to problems. The Chief Officer intends to see Thorby wed, but the Captain feels an honest search must be made for Thorby's parentage in order to honor his debt to Baslim the Cripple. The Captain secretly takes Thorby away to give him the opportunity to discover his parentage. If Thorby were to marry into the People, he would never be able to leave the Free Traders. In this instance the Captain does not follow the Chief Officer's edict.

The other matriarchal society is introduced when Thorby, the main character, is taken by the Captain to visit a Losian household. The Captain tells Thorby what to expect during their visit, "the Losian's son will be there—only it's a daughter. And the fraki I'm going to see is the mother, not the father. Their males live in purdah . . . I think" (*Citizen* 137). The Captain goes on to tell Thorby he will "use masculine gender. . . . Because they know enough about our customs to know that masculine gender means the head of the house. It's logical

if you look at it correctly" (138). Thorby is confused by this and wonders, "Who was head of the Family? Father? Or Grandmother? Of course, when the Chief Officer issued an order, she signed it 'By order of the Captain,' but that was just because . . . no. . . . Thorby suddenly suspected that the customs of the Family might be illogical in spots" (138).

As Thorby discovers, not all of the customs of the Family are logical, so too Pamela Sargent points to what she sees as illogical spots in the depiction of females in Heinlein's juveniles. According to Sargent, "Heinlein's novels are populated with women and girls who join the army, pilot spaceships, are engineers or doctors, or are familiar with higher mathematics. . . . Yet many of Heinlein's female characters act in an inexplicable manner for people who are supposedly so gifted" (xli). One of the examples she uses to support her point comes from *Citizen of the Galaxy*. Loeen is brought on board the *Sisu* as a possible bride for Thorby. Loeen appears to be ignorant of mathematics when she is with Thorby. Thorby later discovers Loeen's specialty is mathematics, especially multidimensional geometry. Heinlein is not suggesting Loeen, or females in our society, should appear ignorant to make Thorby, or males in our society, appear more intelligent. He is pointing out how silly and illogical the whole ritual is. Sargent reasons this could be a possible case of "cultural spillage" (xliv). In fact, as Sarti points out, Heinlein uses what Sargent calls "cultural spillage" "to inject our own sexual conventions and mores into the story where they can be criticized" (110).

While Sargent lauds Heinlein for his depiction of females, in spite of what she sees as inconsistencies, some critics have charged Heinlein with sexism (Robinson 292). Sam J. Lundwall severely lambastes Heinlein for his depiction of females. He states, without specific supporting evidence, "that the woman's position in society could be discussed and used as a basis for speculative fiction never occurred to the otherwise progressive writers. It has hardly occurred to come of them yet. Robert A. Heinlein, who still firmly believes that women are fit only for the harem, is a striking example of this" (146-47). Nowhere in Heinlein's juveniles does he suggest "that women are fit only for the harem."⁵

On the contrary, Heinlein does address the position of females in society. In Heinlein's juveniles, "there are women in positions of power and responsibility throughout the series" (Sullivan "Heinlein's" 33). In *Tunnel in the Sky*, Helen is "an assault captain in the Amazons" (33). Her suggestions to her brother Rod on what to take and what not to take on his survival test help Rod survive. He recognizes early on "his sister's advice had already paid off" (57). Pamela Sargent criticizes Heinlein for Helen's interest in finding a husband and having a family. No one is telling Helen she must leave her position as assault captain, or that she must get married and become a mother; Helen is exercising choice. At this point in the future that Heinlein describes, females can make choices regarding *their* futures.

Carmen Ibanez in *Starship Troopers* is a character who knows exactly what she wants for her future and has been preparing for that future throughout high school. She is another example of a Heinlein female who is smart and capable.

Carmen wants to be a spaceship pilot. In this future, women are believed to make the best pilots, "they make better pilots than men do; their reactions are faster, and they can tolerate more gee. They can get in faster, get out faster, and thereby improve everybody's chances, yours as well as theirs" (9). Women are expected to serve on spaceships along with men and are also expected to see battle. Johnnie (Juan) Rico is the protagonist of the book and is not so sure of his future. He describes Carmen as "small and neat, perfect health and perfect reflexes—she could make competitive diving routine look easy and she was quick at mathematics . . . she took all the math our school offered and a tutored advance course on the side" (25). She is the reason Johnnie actually follows through and volunteers for the Federal Service—he wants to look good in her eyes. We meet Carmen later in the book. She has become an officer and gets permission to take Johnnie, who is attending Officers Candidate School, on a date. Johnnie notices Carmen's head has been shaved: "It made Carmen look distinguished, gave her dignity, and for the first time I fully realized that she really was an officer and a fighting man" (139).

Other examples of females holding responsible positions can be found in other Heinlein juveniles. In *Farmer in the Sky*, Heinlein introduces Captain Hattie, a female rocket ship skipper, who is "a loud-mouthed old female" (92), but is very competent. In *Podkayne of Mars*, Podkayne's mother "holds a system-wide license as a Master Engineer" and is in great demand for her services (4, 13). In *The Rolling Stones*, Edith Stone is a physician who decides to board a spaceship that is facing an epidemic despite her husband's objections.

Not only does Heinlein address the position of females in society, he also addresses what can happen in a society where equal opportunity is supposed to be practiced, but is not. In *The Rolling Stones*, Heinlein addresses the practice of promoting men over more qualified women. Hazel explains why she quit her engineering career to her son: "my reasons were different. I saw three big, hairy, male men promoted over my head and not one of them could do a partial integration without a pencil. Presently, I figured out that the Atomic Energy Commission had a bias on the subject of women no matter what the civil service rules said" (22).⁶

Besides providing many of his female characters with positions of responsibility or addressing the problems these characters faced in such positions, Heinlein developed several intelligent female characters who play the role of companion or acquaintance to his male protagonists. In fact, in several of his juveniles, "the 'girls' prove smarter than the 'boys'" (Sullivan, "Heinlein's" 33). Betty, John Thomas' girlfriend in *The Star Beast*, is more clever and more assertive than John Thomas. Betty divorced her parents over some disagreement. John Thomas is under his mother's thumb. Betty advises John Thomas to "pay no attention to what your mother says. . . . You're not your father, you are not your mother. But you are a little late realizing it . . . have the courage to make your own mess of your life" (170). By the end of the book, John Thomas starts making some of his own decisions, but in the end he trades the mother who has been directing his life for a wife who will probably direct it.

Peewee has a different relationship with Kip, the main character in *Have Space Suit—Will Travel*. Peewee and Kip have to work together to accomplish the goal of setting Mother Thing's homing beacon. Peewee has information and understanding she must pass on to Kip. Kip praises Peewee at the end of the book, "She saved my life four or five times. Peewee could drive you nuts. But she was gallant and loyal and smart—and had guts" (270).⁷ There are several "smart" females in *Tunnel in the Sky*. Females take part in the survival test under the same test conditions as the males. A percentage of the females do not survive, but a percentage of the males do not survive either.

Phyllis, Jim's sister, does not play a big role in *Red Planet*, but the original manuscript for this book called for a much spunkier version of Phyllis. Heinlein's editor, Alice Dalgleish, insisted he change an early scene with Phyllis. The original scene with Phyllis involves her teasing Jim that she is a better shot than he and her asking her father for a gun license. Dalgleish wanted this changed and Heinlein complied, though not without grumblings (*Grumbles* 252–53). The scene in the book as originally written has Phyllis moving Jim's gun out of reach of their young brother. In the published version, Phyllis is bland and forgettable.

In *Starman Jones*, there seems to be an example of a female companion who is similar to one of the stereotypical science fiction females usually seen in the 1950s. Ellie is a sixteen-year-old passenger aboard the *Asgard* who befriends the main character, Max. She has an assertive personality but does not appear to be too intelligent. She asks Max to explain about transitions. He explains, but she is still confused. Max asks Ellie how much math she has had. She responds with, "Me? I flunked improper fractions" (78). Max teaches Ellie three-dimensional chess, but later in the book Ellie admits she knew how to play all along and is in fact a junior champion. She explains why she hid her ability: "has it ever occurred to you, the world being what it is, that women sometimes prefer not to appear too bright?" (211). This situation is similar to the one in *Citizen of the Galaxy* between Loen and Thorby, but is a bit more complex. Max is aboard the *Asgard* under pretense. In this future society, one must be a member, or inherit a membership, for whatever guild one hopes to work. It does not matter how able an individual is, if he or she is not part of a guild, he or she will not get the job. More than anything Max wants to be an astrogator like his dead uncle. He had a relative who had been in the guild, he has the chart books, and he has an eidetic memory, but because his uncle did not formally nominate Max for apprenticeship, he cannot be part of the astrogators' guild. Using forged papers, Max becomes part of *Asgard's* crew. His job is not that of an astrogator, but at least it means going into space. Max must "pretend" to accomplish his goal. This future society is not only repressive for Max, it is repressive for Ellie too. She also must "pretend" and hide her talents. This future society reflects "twentieth-century limitations upon the freedom of women" (Sarti 115).

Podkayne of Mars was published in 1963 and also reflects the twentieth-century limitations Sarti mentions. But although Beverly Friend calls "Podkayne, the first adolescent female science fiction heroine" (146), she is very

critical of Heinlein in his depiction of Podkayne: "Careful scrutiny reveals, however, that the old male line still predominates even if a girl rates the book's title. . . . Podkayne may have an IQ of 145, but her kid brother scores 160" (144-46).⁸ Clark may be smarter than Podkayne, but he is amoral and is the reason Podkayne is killed in the original manuscript. Friend criticizes Heinlein for allowing Podkayne to swallow "the party line: 'We were designed for having babies. A baby is a lot more fun than differential equations.'" Thus she drifts her goal from a burning desire to be a space captain to the possibilities of becoming a pediatrician (one step beyond mere motherhood)" (144). Friend fails to see that Podkayne is reconsidering her options, not making any decisions. Podkayne questions herself, "So which is better? To study creche engineering and pediatrics—and be a department head in a starship? Or buck for pilot training and make it . . . and wind up as a female pilot nobody wants to hire? Well, we don't have to decide now—" (*Podkayne* 126).

Podkayne of Mars is puzzling. Heinlein admits that "The true tragedy in this story lies in the character of the mother, the highly successful career woman who wouldn't take time to raise her own kids—and thereby let her son grow up an infantile monster" (*Grumbles* 88). Does Heinlein really mean to put the complete responsibility on the mother's shoulders? Podkayne and Clark both had the same mother. Clark even had the advantage of having Podkayne help raise him. Yet Podkayne and Clark are very different personalities. Uncle Tom tells Podkayne, "In sober truth no person can ever be truly responsible for another human being. Each one of us faces up to the universe alone, and the universe is what it is and it doesn't soften the rules for any of us —" (132). The ending of the original manuscript does not assign blame to either of the parents. When forced to change his ending to keep Podkayne alive, Heinlein, through Uncle Tom, blames what has happened to Podkayne on the parents, even though this contradicts Uncle Tom's earlier statement.

From *Rocket Ship Galileo* to *Podkayne of Mars*, Heinlein does not include any of the stereotypical science fiction females, and yet Heinlein and his juveniles are virtually ignored by feminist science fiction critics.⁹ He is probably mostly ignored because his works do not fit the feminist science fiction canon as it has evolved. Robin Roberts discusses the difference between "hard" and "soft" science fiction:

In science fiction, "hard" refers to fiction that focuses on technology where the fiction's hardware is scrupulously accurate: nothing in a piece of hard science fiction contradicts known scientific facts, at least the facts known at the time of the work's creation. . . . Soft science fiction, on the other hand, tends to focus on the social sciences: psychology, sociology, even parapsychology (5).

Roberts discusses in some detail the use of parapsychology (including witchcraft, telepathy, and magic) by female science fiction writers. She argues that "female writers depict magic as valorizing for women and as a legitimate science" (8). Heinlein, whom she mentions, is associated with "hard" science fic-

tion. While most of his juveniles are strongly based on science and technology, Heinlein does include in a positive way the use of “magic” in a few of his juveniles.¹⁰ The Venerians in *Space Cadet* appear to be able to make chemicals without using the apparatus familiar to scientists. Matt recognizes that there might be other possibilities when he states, “What I’m trying to get at is that there may be more ways of doing engineering than the big, muscley, noisy ways we’ve worked out” (212). The science and medicine of the Venerians is unlike anything the cadets have learned about or experienced, but it is real. Heinlein does not depict Venerian science or medicine with disdain, although they are not identifiable by our standards, but with awe and respect. The Venerians fall into Roberts’ definition of “soft” science fiction. Heinlein also includes the use of telepathy in *The Rolling Stones*, *Time for the Stars*, and *Have Space Suit—Will Travel*.

Sarah Lefanu also talks about the use of “soft” science fiction by feminist science fiction writers and mentions that many feminist science fiction writers use “the disaster convention as a means of criticising patriarchal society and imagining something different, often separatist. The disaster convention offers a clean sweep; the question of transformation from one kind of society to another is avoided” (89). In other words, feminist science fiction writers can write about society the way they want it to function (i.e., egalitarian or separatist). Heinlein constructs his future worlds in his juveniles in one of two ways. Either the future world appears egalitarian or it is a representation of some of the inequalities of the twentieth century imposed on the future, but Heinlein never makes use of the “disaster conventions” in his juveniles.

Lefanu discusses an essay by Joanna Russ, who argues that even though more male writers are trying to depict egalitarian societies, important aspects of such societies are left out. According to Lefanu: “What is most striking about these stories . . . [is] what they leave out: the characters’ personal and erotic relations are not described; child-rearing arrangements (to my knowledge) are never described; and the women who appear in these stories are either young and childless or middle-aged, with their children safely grown-up” (14). Heinlein was restricted from including sexuality in his juveniles. His male characters seem very unaware of that aspect of a male-female relationship.¹¹ He does, however, include child-rearing arrangements in *Between Planets*, *Have Space Suit—Will Travel*, and *The Rolling Stones*. In these books, either both parents have given up careers to stay home and raise their children, or the child has been sent away to school so that both parents can continue practicing their careers. Heinlein may not venture to explain detailed domestic arrangements, but he does show both genders making concessions to child-rearing (Sarti 118). While Heinlein’s female companions are all young, he does depict women at all ages with and without children. Basically, Heinlein satisfies most, but not all of what Russ expects to see in an egalitarian world depicted by a male writer.

For Marleen S. Barr, feminist science fiction does not have a place for Heinlein’s juveniles at all. According to Barr,

feminist science fiction flaunts the repressed content of women's serious fiction by presenting revisionary power fantasies for women. Its daydreams of female invulnerability posit a revised, nonpatriarchal social grammar and explore essentially different ways to define invulnerable women. Difference, women's impulse to power—not science—is at the heart of feminist SF (3).

Accepting William Sims Bainbridge's study of "gender distinctions between SF writers and readers," Barr declares "women tend not to like Heinlein" (4) and with this dismisses him.

In Heinlein's juveniles, readers will find examples of female characters in traditional female roles. Heinlein also populates his juveniles with strong female characters, often in untraditional female roles. Because Heinlein chose to show females in both types of roles, Heinlein's juveniles reflect today's society, even though he began writing them more than fifty years ago. But because of this, and perhaps because some female science fiction critics have not read his juveniles carefully enough, he is mostly ignored by feminist science fiction critics. He should be recognized for his groundbreaking efforts. As Sarti points out, "on the whole the standing of the heroine and of the female competent must be judged highly . . . [Heinlein's juveniles] should be applauded for the stereotypes they broke and the progressive outlook they embodied. In their time, they were a great advance both for science fiction and literature in general" (114).

NOTES

1. This discussion includes *Starship Troopers* and *Podkayne of Mars* because both were originally created to be part of the juvenile series. However, Heinlein parted with Scribner's when that publisher refused *Starship Troopers* as the next volume in the series.

2. According to Janet Kafka, most science fiction stories stereotype females into particular roles. Kafka sees females portrayed as characters who solve problems accidentally, who must be rescued from aliens, or who must have vital pieces of information explained to them. To her the worst portrayal is a female "who is a competent scientist but at some point in the story must show herself to be subordinate to her male colleagues" (318). Similar descriptions can be found in books that discuss females and science fiction (see especially, Esmonde 285–86; Lundwall 145–46; McCaffrey 281).

3. Pamela Sargent discusses Heinlein's depiction of females in *Women of Wonder*, but Sarah Lefanu states that "Pamela Sargent does not consider either of her anthologies (*Women of Wonder* and *More Women of Wonder*) to be feminist" (18).

4. According to Peter Nicholls, "One of the recurrent themes of the juveniles is the image of the idiot mother (in *Space Cadet*, *Starman Jones*, *The Star Beast*, *Tunnel in the Sky*, and *Starship Troopers*) whose suffocating mother-knows-best affection, combined with an almost total ignorance of political realities, symbolizes that-which-must-be-escaped-from if adulthood is to be achieved" (189). In each of the juveniles Nicholls has mentioned, there is an "idiot" father too. There are positive portrayals of mothers in *Rocket Ship Galileo*, *Red Planet*, *Between Planets*, *The Rolling Stones*, and *Have Space Suit—Will Travel*. Also, Sarti points out that the "incompetents are of little use in the practical world. They function mainly as caricatures for purposes of contrast, satire, and humor, and include such types as the spoiled brat, the jellyfish father, the pompous blowhard, and the

bungling meddler . . . the hysterical parent, or the snobbish lady" (109, 111).

5. The word "harem" does appear in *Space Cadet* when Tex realizes he will not be able to take all of the photographs of his girlfriends aboard the *Randolph*. Tex is "horrified. 'Leave my harem behind?'" (52). Tex's character is not often serious and overstates things. Heinlein is not using Tex to suggest what Lundwall is accusing Heinlein of believing.

6. *The Rolling Stones* was published in 1952. Sarah Lefanu quotes Susan Wood in stating that, "there have always been female readers of science fiction" (2). The female readership of *The Rolling Stones* would have understood exactly what Hazel Stone is talking about. Heinlein not only included strong female characters with whom female readers could identify or use as role models, he also included situations common to females in the workplace and society of the 1950s. Heinlein was not only interested in reflecting what Lefanu characterizes as masculine concerns she saw "reflected in its content, at least, . . . based around the central theme of space exploration and the development of technology: masculine concerns because access to these areas was effectively denied to women in the real world" (3).

7. Alexei Panshin seems to have misread the relationship between Peewee and Kip: "I like to look at the story as the ultimate in fairy tales: the knight errant rides forth to save the fair maiden from the all-time champion dragon—and so what if the damsel is only eleven?" (*Heinlein* 85). Peewee saves Kip as often as he comes to her rescue.

8. Podkayne seems to elicit stronger reactions from critics than any of the other female characters who appear in any of Heinlein's juveniles. Peter Nicholls calls Podkayne "the least bearable of all Heinlein's heroines" (193). Anne McCaffrey has an even stronger reaction. She calls Podkayne "the travesty of *Podkayne of Mars*" (281). H. Bruce Franklin does have some positive things to say about Podkayne's portrayal; it "at least raises questions about traditional male and female roles. And in so doing, it is relatively progressive, compared with most non-science-fiction literature produced by and reflecting American society in the 1960s (or 1970s for that matter)" (143a).

9. Robin Roberts refers to Heinlein briefly: "the plot of a hard science fiction book revolves around a particular scientific fact, as in novels by H. G. Wells, Robert Heinlein, and Hal Clement" (5). Marleen S. Barr also refers to Heinlein briefly: "Women tend not to like Heinlein and Asimov" (4).

10. In *The Rolling Stones*, Lowell, the youngest of the Stones, can read thoughts. The whole plot of *Time for the Stars* is based on the premise that telepathy is possible between twins. The Mother Thing communicates with Peewee and Kip using a type of telepathy in *Have Space Suit—Will Travel*. Heinlein clearly does include a mix of "hard" and "soft" science fiction in his juveniles. In fact, the books he wrote following the juvenile series rely more and more on the use of "soft" science fiction.

11. C. W. Sullivan III offers an excellent explanation for this in note 6 of "Heinlein's Juveniles: Growing Up in Outer Space."

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Young Adults, Science Fiction, and War

Martha Bartter

We should let children choose their own books. What they don't like, they will toss aside. What disturbs them too much, they will not look at; and if they look at the wrong book, it isn't going to do them that much damage. We treat children in a very peculiar way, I think; we don't treat them like the strong creatures they really are.

Maurice Sendak

Children are tough critics. You can't kid kids. They have a relentless sense of logic. . . . They also know if you begin to condescend or write down to them The kids don't like it; why should they?

Dr. Seuss¹

George Slusser and Eric S. Rabkin begin *Fights of Fancy*, their volume on war in science fiction (SF), with a statement that simultaneously defines science fiction and anchors it in conflict:

When the casual reader thinks of science fiction and fantasy, the image of warfare comes to mind at once. In their themes and icons, these two genres appear to have kept alive the "epic" strain in literature—feats of arms in the service of great causes. Traditionally, SF has transposed individual deeds of valor and decisive battles to the broader framework of outer space. And traditional fantasy relocates these same deeds in alternate and "other" worlds. Both forms sing of arms and the man in vistas that are not just national or eschatological but cosmic and evolutionary as well. (1)

Certainly we find no lack of stories about warfare even among works aimed at fairly young audiences. For Slusser and Rabkin, as in this chapter, "SF" refers not only to text but also—and very importantly—to movies, TV, and video

games, many of which feature war as the plot device, providing explicit violence and potent stimuli to the player.²

The term “war” covers many conditions and has many definitions. Conditions range from “total war” fought with the most destructive weapons and without restraints through “limited war,” during which civilians are (at least theoretically) able to carry on their daily lives, to “cold war,” involving political competition, arms races, assassinations, covert intelligence, and subversion without “significant” armed conflict.³ Carl von Clausewitz considered war merely “the continuation of policy by other means.”⁴ More commonly, however, we define “war” as does *The American Heritage Dictionary*, third edition:

war n. 1.a. A state of open, armed, often prolonged conflict carried on between nations, states, or parties. b. The period of such conflict. c. The techniques and procedures of war, military science. 2.a. A condition of active antagonism or contention; *a war of words*; *a price war*. b. A concerted effort or campaign to put an end to something considered injurious; *the war against acid rain*.

war intr.v. 1. To wage or carry on warfare. 2. To be in a state of hostility or rivalry; contend.

idiom, at war. In an active state of conflict or contention.

The first definition of war requires that some group or allied groups will be designated “enemy” and “our” group must align to “destroy” them. The very act of joining together in a cause often gives people a positive sense of purpose and unity. However, war involves killing the “enemy,” an act often facilitated by denying their humanity. Killing “Japs” or “Gooks” may be psychologically possible where killing “men” (or “fathers”), “women” (or “mothers”), and “children” is not. In World War II, the concept of “limited war,” with demarcation of “civilian” from “soldier,” virtually vanished, as both sides hoped to “destroy civilian morale” by bombing cities. In Vietnam, troops from the “West” could rarely distinguish civilians from guerrillas with any accuracy. This led to such hysterical massacres as My Lai and to the success of the Tet offensive. As the line between combatant and civilian has blurred, undeclared terrorist “warfare” that includes random bombing of shopping centers and airplanes has become more common. Here the most obvious targets—and the most vulnerable—are civilian. These kinds of war naturally support action-oriented plots; many SF stories describe some variation on it.

The second definition of war extends the term to include psychological as well as physical violence. This kind of “war” lends itself less readily to action-adventure plotting; it may even seem less like “war” at all. We do, however, have at least one theoretical basis for considering it here: William James’ suggestions about finding positive, active, nonviolent behaviors that would supply the “moral equivalent” for war.⁵ Americans already engage in a number of such “moral equivalents”: besides the “Peace Corps,” we can list the “war on poverty,” “war on drugs,” “war on cancer,” and so on. These all follow from James’ idea, though not from his description. (Bernard Wolfe’s *Limbo* [1952], the SF

book that most clearly and satirically uses James' idea as it refers to real war, is not a "young adult" book at all.)⁶

Commonly, "plot" is said to depend upon "conflict." While there are many sources of conflict besides warfare, it sometimes seems that authors view war as the most exciting—and the easiest and most obvious—plot device. This seems especially true for stories where battles occur simply to provide a setting for the protagonist's violent exploits. These writers treat SF as merely an "action-adventure" genre which denies the importance of characterization and motivation, rather than a genre mainly interested in the ways that human beings and their social systems are altered by technological change. This is most frequently found in series that feature a combat-oriented hero or group. Of course, not all series authors treat war casually; many SF writers look seriously at both the causes and structure of war and at the tangible destruction (both physical and emotional) that follows it.

SF loves technology. SF writers deal with war in genre-specific ways: wars in which superweapons determine the outcome on Terra or among settled planets, against humans or aliens; and alternate-history wars. The very prevalence of war in SF helps to define our assumptions about ourselves as human beings.

We can identify our values by examining what we spend the most time, effort, and attention on. History and fiction agree that this is war, not peace. We will fight for peace but do not live it. We have no picture of peace, because it is a negative condition. Even the dictionary agrees: peace is defined as "1. The absence of war or hostilities" or "3. Freedom from quarrels and disagreement; harmonious relations." We cannot do peace. In a story, all people can do is not-war, and that stops the progress of the plot. War may be hell, but it is at least interesting. In the "battle of life," peace is not a victory; it is an epitaph. (Barter, *Ground Zero* 232)

However the issue is viewed, people do enjoy reading exciting, action-oriented stories, especially those that speak to their worst fears. Children, like adults, know about war and worry about it. Adults often find discussing war with children difficult, as the authors of *Watermelons Not War!* (1984) discovered. With the best of intentions and training, they still found themselves dreading talking about the real issues of atomic war with their children. Children sense adult nervousness. Although they may avoid bringing up topics that upset adults, children will still classify them as terrifying. Finding this topic displayed in fiction may actually give them some realistic basis for their fears and a way to talk about them.

At this point it is necessary to recognize the transaction of reader and text.

Fictions are incredibly complex behavior patterns occurring at the top of a chain of assumptions, not all of them linguistic. . . . At the bottom of the behavioral chain . . . is sensory contact [from which we draw inferences, a process called "abstracting"]. . . . Eventually our patterned abstractings get reinforced by cultural approval or by habit or because they serve the immediate purpose adequately. Once we become familiar with a pattern, it disappears from our conscious operating system. It becomes even more than a habit; it becomes the background upon which we form our further habits. This back-

ground consists of tacit assumptions, patterns we take for granted . . . and cannot operate without. (Bartter, *Ground Zero* 5–6)⁷

Fiction, by setting memorable characters in action in a plot, makes available the tacit assumptions underlying that story. Reading such stories does not necessarily impel readers to action, but it does serve to open possibilities for action they might not otherwise have imagined, and (tacitly) provides the underlying rationale for them. Thus a young person who reads many stories in which war is presented as exciting and productive as well as inevitable may behave differently in situations where war seems possible than one who has read stories emphasizing the waste, futility, and misery of war. Where one may assume that war is both necessary and potentially positive, the other may view it as tragic and try to avoid it.

Masha Rudman notes that although “most people agree that war is ugly, destructive, and frightening,” children often need help interpreting the issues raised even in texts aimed explicitly at them. This occurs particularly “when we consider specific wars and when we move beyond the generalized realm of war as a concept. It is then that we encounter a complex set of issues including causes, individual concerns, ethical decisions, and conduct during war” (361). She concludes that children do need to be exposed to these issues and the complexities, particularly when the author does not try to oversimplify or make the text overly abstract. “Children can handle many ideas at one time. They can follow subplots and can sort out several characters. Another criterion, then, for a book about war is that it contain enough detail and depth so as to convey a sense of the many facets of war, and of history” (362).

This invalidates many of the books for very young readers. While avoiding the danger of frightening their audience, they also avoid clearly discussing the topic of war. Although children often seem quite sophisticated, their value systems are still in formation. They have difficulty with ambiguities, and often fail to recognize irony, satire, and metaphor; yet many stories remain staunchly metaphorical. Louis Slobodkin’s *Wilbur the Warrior* (1972) seems more concerned with proper diet and physical fitness than with the realities of battle. Dr. Seuss’ *Butter Battle Book* (1984), while attempting to engage in a genuine discussion of superweapon escalation, does so over an issue as trivial as that of Swift’s Lilliputians.⁸ One wonders whether Seuss’ young readers will be able to see the serious issues presented metaphorically by the apparently ridiculous behavior of his charming little characters, defending their shaky wall.

As young people become increasingly competent readers independent of adult assistance, their chronological age has less to do with their choice of books.⁹ In his discussion of nuclear fiction for young adults, Paul Brians notes:

Young SF fans often read omnivorously in the field, paying little attention to whether the books that interest them were aimed at them or not. Despite the increasing number of literarily sophisticated SF novels published in recent decades, much of the genre consists of simple, easily digested narratives with wide appeal to fans of all ages. One sign of youth-oriented fiction is, of course, a young protagonist; and young protagonists are

very common in SF. But many SF novels . . . view their young protagonists with an adult eye. Young adult fiction is more definitively characterised by the presence of a coming-of-age theme, and by the sympathetic depiction of the struggles of the young protagonists with older siblings, parents, and parent figures. There is generally less graphic sex and violence in YA fiction, although the boundaries are constantly being pressed by ever more daring authors. (“Nuclear War Fiction”134–35)

Muriel Becker, discussing the problem of choosing works to include in the “Young Adult Science Fiction, Fantasy, and Horror” section of the *Science Fiction and Fantasy Book Review Annual 1991*, encounters a similar wealth of material. Relying on her own experience in teaching young adults, Becker refuses the easy categorizations of publisher’s age-grade designations, avoidance of “adult” problems or focus on “young” subject matter. She insists only that “at least one of the protagonists must be of an age and condition to allow reader identification” (139). She clearly agrees with Kenneth Donelson and Aileen P. Nilson, who define as “*young adult literature* . . . anything that readers between the approximate ages of twelve and twenty choose to read (as opposed to what they may be coerced to read for class assignments).”¹⁰ Becker notes that almost the only 1990 book highly rated by adult readers that did not make the “young adult” (YA) list was Dan Simmons’ *The Fall of Hyperion*, a novel that otherwise might appear in this discussion. The reason given for its omission was a general feeling that “the convolutions of the plot, the expressed pessimism of war, the religious fervor, the Machiavellian intrigues, and the literary allusions make the work too dense even for many adults” (143).

What kind of problem does this “expressed pessimism of war” create? Should SF books for young adults (or for any age) avoid pessimism about war? To answer that question would require first determining what both “optimism” and “pessimism” might look like. Optimism might suggest that, although wars inevitably occur, the people on the “right” side have a good chance of winning—if they acquire the appropriate technology and use it with the appropriate determination. Victory would be worth the suffering and loss involved. (Such an assumption leads to the large number of stories that rely on military preparedness, gung-ho military forces, espionage—and in real life, to SDI, the notorious Star Wars.) Optimism might equally suggest that wars are neither inevitable nor necessary and that appropriate technology for humans should include social and political mechanisms for settling disputes without violence. (This assumption leads to stories that describe the equivalent of the United Nations, improved communications and distribution of essential materials, and even one group’s willingness to listen and respond to the concerns of others. Aside from Heinlein’s *Space Cadet* [1948], few stories anticipate an armed, spacegoing, futuristic “United Nations.”)

Pessimism might declare human nature incorrigibly aggressive, and humans therefore inevitably warlike; or consider national interests naturally pre-eminent over the interests of mere individuals; or find it impossible to believe that any nation (or human group) can define itself except in opposition to an enemy. If humans are permanently doomed to battle, if indeed peace merely gives time to

prepare for the next war, then pessimism seems the only “realistic” possibility. While SF has frequently been termed an “escapist” literature, it has often been the forum for the most thoughtful and serious considerations of humanity’s most worrisome problems. The charge of escapism is usually aimed at those most useful fictions that pose potential solutions.

Somewhere among these alternatives lie questions about the nature of “human nature.” Does the root cause of war lie in the need to control others, and if it does, is it first manifested in the “war of the sexes”? Theodore Sturgeon, whose aim in writing was always to “ask the next question,” affirms this possibility in *Venus Plus X* (1960).¹¹ Like Marion Zimmer Bradley in *Oath of the Renunciates* (1976, 1983), Joanna Russ in *The Female Man* (1986), James Schmitz in *The Demon Breed* (1968), Joan Slonczewski in *A Door Into Ocean* (1986), Pamela Sargent in *The Shore of Women* (1986), and Sheri Tepper in *The Gate to Women’s Country* (1988), Sturgeon persistently questions accepted gender roles.

Do humans naturally engage in violence and war? Many postnuclear novels, like Walter Miller’s *A Canticle for Liebowitz* (1959), Leigh Brackett’s *The Long Tomorrow* (1955), and Susan Weston’s *Children of the Light* (1985), assume that even a seriously reduced human population will go on trying to destroy itself. David Brin’s *The Postman* (1985) explores both sides: “survivalists” wreak almost more destruction than bombs; but “ordinary people” band together to recreate a humane society.

Do “national interests” inevitably lead to war, as Clausewitz believed? Stories that advocate advanced technology and a “fighting spirit”—like Robert A. Heinlein’s *Starship Troopers* (1959), David Drake’s *Hammer’s Slammers* (1983), and Larry Niven and Jerry Pournelle’s *The Mote in God’s Eye* (1974)—seem to agree. Other authors, while admitting the apparent inevitability of war, still question the glory and romance of it. Gordon Dickson’s *Dorsai* stories show the stress on professional soldiers. Lois McMaster Bujold’s *The Warrior’s Apprentice* (1986), *The Borders of Infinity* (1989), and other novels in the “Vorkosigan” saga place her young hero in physical and mental distress despite his warlike training. Still others hold that war is just one choice among many possible choices. Joan Slonczewski’s *Door Into Ocean* (1986) Ursula Le Guin’s *The Word for World Is Forest* (1973), and Judith Moffett’s *Pennterra* (1987) suggest alternative behaviors.

Is war the natural result of socioeconomic inequity? It has been argued that, with the exception of Mack Reynolds, few American SF writers have invented radically different social or economic systems. Some may feel it unnecessary; some that prosperity precludes change. Others insist that no truly innovative new systems will come as the result of revolution. In this view, Marx’s twin precepts—the perfectibility of human nature and the inevitability of class conflict—have been written out of the SF canon, at least in America.¹² As usually happens, however, at least one SF writer disagrees; D. C. Poyer overthrows credit-capitalism nonviolently in a tale of economic aggression and accidental subversion, *Stepfather Bank* (1987).

Is war a natural outcome of aggressive masculinity? If women ran the world, would they do so less violently? And what happens to women during and after total war? Suzy McKee Charnas' *Walk to the End of the World* (1974) and *Motherlines* (1978) assume that men would blame those women who survived for the total destruction of their world, dehumanize, and enslave them. Robert A. Heinlein does not go quite so far in *Farnham's Freehold* (1964), but his women mostly exist in harems in this fantastic tale of a postnuclear world run by black cannibals.¹³ In Vonda N. McIntyre's *Dreamsnake* (1978), women cope with the devastated postnuclear world as well as, if not better than, men; in Judith Merrill's *Shadow on the Hearth* (1950), a woman learns to act with independence and autonomy in the nuclear crisis. Robert C. O'Brien's young heroine is both humane and competent in his *Z for Zachariah* (1974), while women make the same militaristic, controlling decisions as men do in Frederik Pohl's *JEM* (1979). The peaceful Sharers of Joan Slonczewski's *Door Into Ocean* (1986) are all female, as are the rugged denizens of *Whiteaway* in Joanna Russ' *The Female Man* (1975), but they behave in very different ways. Perhaps the most telling difference between women writers of postnuclear war fiction shows in the contrast of Pamela Sargent's *The Shore of Women* (1986) and Sheri S. Tepper's *The Gate to Women's Country* (1988). Sargent's women behave as controllingly and aggressively as any male. They not only run their own cities, they kill men who attempt to revive some semblance of civilization for themselves. Tepper's women dominate their culture by a secret long-term eugenic plan.

Other writers and filmmakers assume the contemporary systems are too powerful to overthrow; the only possibility for humans comes with escape. William P. Nolan's *Logan's Run* (1967) is based on this premise. Ray Bradbury's *Martian Chronicles* (1950) and Judith Moffett's *Pennterra* (1987) also demonstrate it, as does Le Guin's *The Dispossessed* (1974), at least for those who flee to Anarres. Diana Wynne Jones' *A Tale of Time City* (1987) takes children out of wartime England to a less violent but equally dangerous time outside of time. Walter Miller's *A Canticle for Leibowitz* (1959) then demonstrates the futility of this attempt; inherently violent humans take themselves along wherever they go.

With the exception of a few alternate-history books like Donald Bensen's *And Having Writ . . .* (1978), SF rarely discusses the necessary and sufficient starting conditions of war. Many writers suggest that wars began to insure the importance or continuance of some person(s) or system. We almost never see the initiatory moves that have led to conflict: the positions held by the opposing groups, the mutual demands that each side change to meet the assumptions held by the other side, the refusal to admit even the possibility of error on any level, the staking of national pride, reputation, or economic integrity on the outcome, and so on. One might question whether such information would be useful to any story, much less to a story particularly aimed at young adults. Certainly it seems difficult to make such information an exciting, vivid aspect of a plot; but Lois McMaster Bujold succeeds brilliantly in *Barrayar* (1991), the sequel to her equally war-oriented *Shards of Honor* (1986).

Both alternate-history and time travel stories often examine the effect one single human's actions may have on world affairs. Authors who take a romantic stance expect that the presence of someone with special knowledge will vastly change the course of "history." Examples include Isaac Asimov's *Pebble in the Sky* (1950), Ward Moore's *Bring the Jubilee* (1955), and, to a lesser degree, Annabel and Roger Johnson's *The Danger Quotient* (1984). Other writers, like Judith Moffett in *The Ragged World* (1991) and Kevin J. Anderson and Doug Beason in *The Trinity Paradox* (1991), tacitly deny the power of one individual, even with special knowledge, to make a real difference in the world. The pleasure one takes in reading an alternate history, like Bensen's *And Having Writ. . .* (1978), depends largely on one's knowledge of history, as stranded aliens ironically revise the twentieth century away from their hope for war and its technological advances, and into (improbable) peace. Historical knowledge is also useful with Philip K. Dick's masterpiece, *The Man in the High Castle* (1962), in which the United States has been divided by the victorious Axis powers following World War II, and a novelist dreams of a different pattern of history—which still does not match our own.

Nuclear war has exceptionally science-fictional aspects, and much SF deals specifically with the threat or the result thereof. The atomic bomb is American in development and first use; it is highly technological, and it speaks to our persistent myth that sufficiently powerful science should be able to conquer anything. In *War Stars* (1988), H. Bruce Franklin shows that the idea of building a super-weapon as the way to end war forever was widely held long before World War I, the "war to end war." In "Nuclear War for Young Readers," Paul Brians finds that, despite a general fear of the atomic bomb, authors are reluctant to assign blame for war, or to offer hope that peace activism, political tactics, and so on, may make a difference. "There is a long-standing tradition in science fiction of defending scientists from accusations that they are responsible for the bomb. Whereas many scientists themselves seem anxious to accept that responsibility, SF authors routinely portray them as unjustly blamed and persecuted in the wake of a nuclear war" (140). Surprisingly, in a literature devoted to near-worship of science, far more stories carried Awful Warnings of atomic disaster than considered scenarios where use of the Bomb had positive results.¹⁴

Most SF stories avoid placing blame for nuclear war by beginning *in medias res*, with war raging or already over. Examples include Pat Frank's *Alas, Babylon* (1959), Judith Merrill's *Shadow on the Hearth* (1950), Mordecai Roshwald's *Level 7* (1959), Nevil Shute's *On the Beach* (1957), and Robert O'Brien's *Z for Zachariah* (1974). Some writers project a generalized fear of science itself following a technologically tragic war: Andre Norton's *Star Man's Son* (1952), Leigh Brackett's *The Long Tomorrow* (1955), Walter Miller's *A Canticle for Liebowitz* (1959), and Poul Anderson's *Vault of the Ages* (1952), among others, operate on this premise, while Kurt Vonnegut, Jr.'s *Galapagos* (1985) takes the idea to a new level by removing humanity's proudest possession, the overdeveloped brain. Many of these writers posit a rural, and therefore

safer, world after such a war. The benefits of civilization may be gone, but so are the "bad seeds" that initiate war.¹⁵

Young people, brought up on daily doses of TV excitement, reject less stimulating fare as "boring." Paul Brians notes that young people seem attracted to movies with a very high blood-and-violence quotient, such as the *Mad Max* series and the *Terminator* series. Young readers of the *Terminator* comic book series have even complained that the movie was insufficiently violent (or realistic) ("Nuclear War Fiction" 143). Brians, who has done extensive work on nuclear war fiction, also notes that YA authors often portray possible postnuclear futures more realistically than have many writers for adults.

What might this postnuclear world look like? The best-known scenario undoubtedly comes from Nevil Shute's *On the Beach* (1957) and the Gregory Peck film that followed; but Mordecai Roshwald's *Level 7* (1959) depicts an even bleaker landscape. Most writers, however, posit some human survivors. They must take into account the devastation and mutations that follow heavy radiation; many also assume dramatic changes in the world's weather. The inevitable reduction in population is viewed either as a problem or a blessing in disguise, since some writers assume that those who survive are "naturally" better (or more competent) humans than those who died.¹⁶ In *Battle Circle* (1952-75), Piers Anthony describes deadly areas of radiation, but his primitive and warlike humans mutate to develop senses that detect the dangerous areas. In contrast, Susan Weston's *Children of the Light* (1985) seem sickly and infertile. The young man who accidentally arrives in this postwar world can provide little in the way of technology, but he does bring healthy sperm, and thus (perhaps) survival. A. E. Van Vogt posits a future world in which nuclear power and its associated radiation are both feared and worshiped in *Empire of the Atom* (1946-47), but his mutated protagonist's special powers cope with these dangers. John Wyndham also hopes for positive mutations in *Re-Birth* (1955), but he assumes that a postnuclear civilization would be very much afraid of mutated humans and might even kill them.

Like many other authors, Edgar Pangborn describes humans creating a postnuclear culture that reflects the Middle Ages in *Company of Glory* (1975). The land they inhabit, however, is both fertile and lovely. Sterling E. Lanier's *Hiero* stories (1973, 1983) have his eponymous hero traveling across an American continent returned by mutation to the dangerous age of prehistoric megamammals. Much the same condition holds in Andre Norton's *Star Man's Son* (1952); the protagonist lives in a proto-Native American tribe, but is himself considered a mutant, and therefore outcast. On his quest to the ancient center of civilization, he meets and defeats genuinely animal-like and dangerous mutants. In *Full Circle* (1963), Bruce Ariss turns the North American continent back to the Native Americans, who know how to live comfortably without machine technology, and contrasts their condition with the desperate plight of the few survivors who emerge from an underground haven after many centuries have passed. Daniel Galouye takes the concept of underground shelter one step further, assuming that survivors will eventually be left in the dark. The people of

the *Dark Universe* (1976) have never seen a light. They have developed other senses to get around, but eventually they must emerge into a recovered world. Whitley Strieber invokes nuclear winter in *Wolf of Shadows* (1985) as an added danger faced by the young mother trying to get her child to safety.

Some writers rejoice in the belief that a superweapon can defeat overwhelming odds. In Robert A. Heinlein's *Sixth Column* (1949), a superweapon allows six men to defeat an entire conquering army. Of course, the army is PanAsian, but it has successfully defeated the armed might of the United States. Tales of this type reflect SF's beginning in pulp magazines, where wars spanned galaxies and superweapons could be built in a scientist's own basement or backyard. E. E. Smith's Skylark series (beginning in 1929) stands as a prime example of this genre. Smith continues to develop this premise in his Lensman series, in which "ordinary" (superbly trained and athletic) young people equipped with the supertechnology of the "Lens" defeat intergalactic enemies.

Although SF claims to use extrapolation to create a future-looking literature, most war stories are patterned on or revise past terrestrial wars. Thus Anderson and Beason's *The Trinity Paradox* (1991) rewrites World War II; Joe Haldeman's *The Forever War* (1976) and Ursula Le Guin's *The Word for World Is Forest* (1973) replay Vietnam. The Revolutionary War is generally considered a valuable and valid example of successful battle, since it replaces one government with another, but does not upset the socioeconomic order. Robert A. Heinlein often uses this model. *The Moon Is a Harsh Mistress* (1966) combines the settlement of Australia by convicted criminals with the American Revolution. *Revolt in 2100* (1940) posits an America throwing off theocracy. Permanent incarceration of political criminals and an established church are "unAmerican"; to revolt against them, therefore, is to restore original political "purity" and constitutional forms of government. (The libertarian aspects of *The Moon Is a Harsh Mistress* are soon shown as providing too much autonomy to the individual and are not put into effect.) In *The Puppet Masters* (1951), Heinlein shows communism as an insidious mental and emotional force—and demonstrates his contempt of the "average" American's ability to think through and decide for her/himself the relative value of different systems. *Between Planets* (1951) sets up a kind of American Revolution among the settled planets of the solar system, with some sympathy for the indigenous peoples (one of the few works to consider the Native Americans, even metaphorically). *Citizen of the Galaxy* (1957) considers problems of (white) slavery. Heinlein asserts that given vast economic inequality, slavery will return as a formal institution. Once his freed slave recovers his privileged status, however, he does not succeed in changing the system; he learns to manipulate it.

Not surprisingly, the war in Vietnam divided SF writers as thoroughly and as viciously as it did the American public. A few writers, including Robert A. Heinlein, strongly defended the American presence in Vietnam and argued vigorously against any decisions that would seem to weaken the ability of the armed forces to use all available weapons. Heinlein's *Starship Troopers* (1959), although set in the distant future, emphasizes the need for military preparedness

and the malignancy of the evil forces humans can expect to face.¹⁷ Series writers like Jerry Ahern expect Vietnam to precede total war, providing the rationale for his *Survivalist* series (1981–87), and the violence in Don Pendleton's *The Executioner* series proceeds specifically from the Vietnam conflict. Other authors take an opposing view. Ursula Le Guin displays the devastation of the ordinary Vietnamese in *The Word for World Is Forest* (1972). Elizabeth A. Scarborough's *Healer's War* (1988) vividly pictures the situation of an Army nurse in Vietnam, and Joe Haldeman's *The Forever War* (1976) not only reflects his own wartime experiences, but explicitly responds to and refutes *Starship Troopers*.

SF rarely deals adequately with the effects of war on "innocent" civilians. Although Gloria Miklowitz attempts to deal realistically with the anxieties of her teenage protagonists, she subverts her own premise by trivializing the danger posed by an accidental nuclear explosion in *After the Bomb* (1985). Zilpha Snyder's "Green Sky" stories depict a divided world long after a devastating war, and the sacrifices children make to reunite it. Judith Merrill's *Shadow on the Hearth* (1950) focuses on a housewife bereft of support in wartime. The teen-aged heroine of Robert O'Brien's *Z for Zachariah* (1974) copes with loneliness, abandonment, and attempted rape with amazing competence and fortitude. More often, however, SF focuses on the action and ignores the bystanders. Two Newbery-winning (mainstream) books by Kate Seredy provide equally dramatic examples. In *The Good Master* (1986), she describes the peaceful content of pre-war World War I rural Hungary which contrasts dramatically with conditions in *The Singing Tree* (1990), which shows the suffering of "enemy" civilians and civilian soldiers in ways that quite young readers can grasp.

Some authors shows the effect of war on young people through cartoons: Keiji Nakazawa's *Barefoot Gen* (1987) depicts the atomic bombing of Japan realistically; Art Spiegelman's *Maus* (1986) presents the Jewish holocaust metaphorically. In *The Devil's Arithmetic* (1988), Jane Yolen proves that SF has the power to deal explicitly with history. Yolen pulls no punches as she takes her readers through a Nazi death camp to show the plight of children caught in the Jewish Holocaust; the emotional impact of the story is softened only slightly by its time-travel aspects.¹⁸ The time-travel trope seems less successful in Andrew Davies' *Conrad's War* (1980) and the Johnsons' *The Danger Quotient* (1984). Two mainstream stories deal more realistically with the effects of war on children. G. Clifton Wisler's *Red Cap* (1991) graphically describes the experiences of a very young soldier who survives battle and imprisonment in the South during the Civil War. The most devastating exploration of the psychological effect of war on young people not actively engaged in battle comes from Robert Westall in *The Machine Gunners* (1976), told from the point of view of boys whose lives have been catastrophically disrupted by World War II. Their naive glorification of war as they create a highly dangerous and inappropriate homefront "battle" is truly shocking.¹⁹

When a writer decides to exclude war against some human group, the need for continued research on weapons systems is often explained by positing the

imminent danger of alien invasion. In *The Puppet Masters* (1951), *Have Space Suit—Will Travel* (1958), *Starship Troopers* (1959), and other works, Robert Heinlein proudly portrays humans as the meanest, most warlike, and best-armed critters in the universe. John Campbell, the editor of *Astounding Science Fiction* whose beliefs shaped science fiction in the “Golden Age” of the 1930s to 1950s, certainly agreed. If humans recognize themselves as the natural rulers of all created existence, known or unknown, they can be expected to exhibit (and be excused for) aggressive behavior. This suggests that war may be the true aim of “progress” (and vice versa), no matter what advertising slogans are used by companies like General Electric.²⁰

Aliens have long been the all-purpose SF trope. Originally viewed as wholly dangerous, they now may become “the enemy” against whom all earth unites; they may provide Terrans with otherwise unattainable technology; they may even “save” humans from themselves. Physically, they appear in an almost infinite variety; metaphorically, they stand in for any group or personality trait that the writer either admires and holds up for emulation or fears and detests. When “humans” war against “aliens” in SF, are they truly fighting something illimitably evil and unknowable, or are they fighting some aspect of themselves? Ursula Le Guin showed how closely “human” and “alien” connect in her early novel, *Planet of Exile* (1978). Heinlein’s aliens represent pure evil in *The Puppet Masters* (1951), but the “slugs” also stand for communist ideas (if not for the Russian people). Larry Niven and Jerry Pournelle’s “Moties” are deemed so dangerous that humans quarantine them in *The Mote in God’s Eye* (1974), but by 1993 they again appear to menace the solar system in *The Gripping Hand*. Orson Scott Card plays it both ways in *Ender’s Game* (1985); initially, the aliens seem wholly dangerous, but when humans communicate with them, they find (as Le Guin demonstrated, and as so often happens in the real world) that they could have been friends.²¹

Any discussion of the SF that attracts young adults must include movies and television. *Star Trek* certainly dealt with Vietnam, and Alasdair Spark quotes John Hellman as arguing that

George Lucas’s *Star Wars* trilogy all represent a mythic reworking in SF—the best available medium—of the American experience in Vietnam. Hellman concluded that the films offered “a vision of America’s opportunity, in the midst of a fallen mythic landscape, to take control of their destiny by taking control of their national consciousness, and thus self-consciously to work out the implications of the Vietnam experience for their larger journey through history (Hellman 220).” (Spark 124)

Spielberg’s *Close Encounters of the Third Kind* demonstrates the untrustworthiness of the government and the benevolence of aliens; the first certainly stems from the Vietnam experience, whether the second does or not seems more questionable. In *Alien* and *Aliens* the enemy is hidden, sneaky, and destructive; it is finally defeated only by nuclear attack, denied to the United States in Vietnam. These movies also comment on the inappropriate training and technology supplied the regular armed forces that set out to combat the Alien, again reminis-

cent of Vietnam—something that the director of the movie was quite aware of. “The director James Cameron . . . commented of the Colonial Marines that their ‘training and technology are inappropriate, and . . . analogous to the inability of superior American firepower to conquer the unseen enemy in Vietnam. A lot of firepower, too little wisdom, and it doesn’t work.’” (James Cameron, quoted in *Jump cut* 33 [1987], Spark 124).

Brooks Landon points out that many SF films pit humans against computers and that this conflict also has many faces: “*Alphaville*, 2001, *The Forbin Project*, *THX1138*, *War Games*, and *Savannah Electric* come immediately to mind, with *Tron* significantly relocating the conflict within the virtual world of cyberspace, and *The Terminator*—following the lead of *Westworld* and *Futureworld*—offering a version in which the computer is represented by robot proxy” (196). Certainly the conflict of human and machine, with us since the beginning of the Industrial Revolution (if not before) and first immortalized in film in *Metropolis*, leads us inevitably forward to the wholly mechanized future wars. Inevitably, since we come to resemble most strongly everything we most strongly resist. It is no accident, as Landon points out, “that HAL is a much more interesting character in 2001 than Dave Bowman” (198) since the humans have far less interesting functions in the film than the computer does. HAL is the new baby, with unlimited possibilities for the future. Not until Bowman is himself reduced to an infant can he also take on multiple, unknown possibilities. What is even more interesting is that at no time do the alien beings that placed the artifact on the moon seem to be inimical; they have the best interests of humankind at heart. The computer, that almost-human device, may yet replace the alien as the most useful metaphor for that creation we most admire and, simultaneously, fear: our increasingly technological, impersonal, mechanism-dependent society.

This may conceivably change as young people, who have grown up playing interactive video games, almost all of which seem to rely on a fairly high level of violence to maintain the player’s interest, become the writers of the future. Many “cyberpunk” stories show physical and psychological violence occurring as a matter of course in interpersonal relations, particularly when this violence takes place in “virtual reality.” The personal impersonality of computer contact, the isolated realism created by “cyberspace,” may be giving children a whole new set of assumptions about interpersonal relations.

Although SF stories about war may seem devoted to violence, they meet the needs of young readers who simultaneously seek realism and excitement. Perhaps the most useful point for adults to remember about young adults who read SF is this: those who explore beyond the violent movies, “action-adventure” series, and computer games will certainly be exposed to a variety of viewpoints. In *Fights of Fancy*, Slusser and Rabkin discuss SF as an “evolutionary” genre. Not only is SF iconoclastic and self-referential, it constantly questions itself; not only does it develop metaphors, it constantly revises them. Every possibility presented in one text will be explored, questioned, challenged, controverted, inverted, and extrapolated in another. Heinlein’s *Sixth Column* (1949) replays Philip Francis Nowlan’s *Armageddon 2419 A.D.* (1928), showing that a few

good men using American “know-how” and guerilla tactics combined with futuristic weapons can beat any number of Asiatics. In contrast, Kim Stanley Robinson’s *The Wild Shore* (1984) has Japan “pacify” the West Coast, to its considerable benefit. Or consider some of the ways that authors responded to the jingoism they perceived in Heinlein’s *Starship Troopers*: Harry Harrison parodied it in *Bill the Galactic Hero* (1965), and Joe Haldeman seriously questioned and rewrote its entire premise in *The Forever War* (1976).

Young people may be impressionable, but this can be a source of great strength. It gives them the opportunity truly to understand that multiple possibilities can exist without one being good and the other evil; that no one person or group has all the answers; and that insisting on being “dead right” can lead to being dead. Moreover, young people enjoy sharing stories. They may talk about things that worry them without confessing ignorance or weakness when they can clothe their concerns in a fiction. Their flexibility, their willingness to try out ideas, should be seen not as proof of undue influence but as *gedankenexperimente*—the trying out of new ideas, the trying on of different ways of being in the world. If this sharing of stories creates a point of contact between young readers and caring adults, it can benefit both groups profoundly. These adults must be willing to talk seriously about the concerns they share, to confess that increased age does not magically confer all the answers, and to summon the wit and wisdom to discuss the complex and difficult questions that surround this topic. Perhaps then, as Theodore Sturgeon consistently urged, some of these young people will learn to “ask the next question”—and they may even make it the right question.

NOTES

1. Quoted by Glenn Edward Sadler, reporting a conversation between Theodore Giesel and Maurice Sendak, 1982 (Sadler 241).

2. I wish here to express my appreciation to my undergraduate research assistant, Amy Schlemper, who sought out, pre-read, and sorted texts from the curriculum library, retrieved publication dates, and generally served as all-purpose factotum in this project. That this article deals mainly with SF-as-text reflects my preferences, my age, and my unfamiliarity with much of the newer media.

3. Definitions and conditions as discussed in the *Grolier Multimedia Encyclopedia*, 1994 edition.

4. Carl von Clausewitz (1780–1831), a Prussian army officer and military theorist, author of the treatise *On War* (1833), proposed the doctrines of total war and war as an instrument of policy.

5. William James (1842–1910), a founder of the psychological school of functionalism, suggested that since aggression was “natural” to humans, war could be avoided only if young men engaged in activities that funneled off these aggressions in socially useful “moral equivalents” of war.

6. Wolfe’s ferocious, physical puns and extreme didacticism make *Limbo* a difficult book. He claimed that he wrote it to spoof SF. He does, however, extrapolate from contemporary conditions in the best SF tradition. Perhaps fortunately, *Limbo* is also

extremely hard to find.

7. I provide a more detailed description of *transacting* in *The Way to Ground Zero*, chap. 1; see also “Normative Fiction” in Davies, 169–85.

8. Jonathan Swift wrote *Gulliver’s Travels* (1726) for an adult audience, who presumably could follow the satire.

9. The practical matter most apt to determine a young adult’s SF reading is availability. SF texts are notoriously ephemeral. Many librarians express great reluctance to stock paperback books; a number still avoid buying SF under any circumstances, or limit their SF buying to those few works that get praised in librarian’s magazines. School librarians face a double jeopardy: chronic shortage of funds and parents adamantly opposed to SF (on various grounds, ranging from the aesthetic to the religious). SF readers therefore may find their choices arbitrarily limited.

10. Kenneth Donelson and Aileen Pace Nilson, *Literature for Today’s Young Adults* (Scott Foresman; 3rd ed., 1989:13). Quoted in “The Year in Young Adult Science Fiction, Fantasy & Horror: 1990,” in *Science Fiction & Fantasy Book Review Annual 1991*, 138.

11. Sturgeon asserted that most of his fiction came from “asking the next question”; he even devised a symbol for this, a circle pierced by an arrow, which he wore on a chain around his neck. In one of his last major stories, “Slow Sculpture,” he revised his slogan slightly: when the man explains that he is always asking the next question, the woman reminds him that it is even more important to ask the right one. “If you ask a question the right way, you’ve just given the answer.” Theodore Sturgeon, “Slow Sculpture,” *The Best of the Nebulas*, ed. Ben Bova (New York: TOR, 1989): 403–18.

12. This discussion follows the argument developed by Edward James in his essay, “Violent Revolution in Modern American Science Fiction” (James, 101).

13. Interestingly, both of these works assume post-nuclear societies would resort to cannibalism. In *Walk to the End of the World*, this is presented as (possibly) necessary, given the reduced state of the ecology. No such excuse is offered in *Farnham’s Freehold*. The ruling blacks eat white women because they like to.

14. I explore this problem in greater depth in *The Way to Ground Zero*, Chap. 3.

15. See, e.g., Martha Bartter’s “Nuclear Holocaust as Urban Renewal” and *The Way to Ground Zero* and H. Bruce Franklin’s *War Stars* for discussions of this kind of wishful thinking.

16. The “return to the wilderness” as well as the “weeding out of the bad seeds” are metaphors commonly used to express this beneficial result. See “Nuclear Holocaust as Urban Renewal.”

17. See my discussion of this work in *The Way to Ground Zero*, 184–85.

18. Yolen explains that she wrote *The Devil’s Arithmetic* in response to the serious questions she repeatedly received from young people to whom she lectured in East Coast schools, who had been told that the Jewish Holocaust never happened.

19. This is another book explicitly written for young adults. I would venture to guess that younger readers would not find this book as unsettling as I did. I think it highly likely that children would fail to recognize most of the psychological injury the protagonists endured.

20. The slogan of the General Electric Corporation until the 1970s was “Progress Is Our Most Important Product.” At the same time, G.E. was making assorted military equipment, including nuclear weapons.

21. This possible reference to the genocidal attacks on the Native Americans is not unusual with Card, though it is not common in American SF. It can, of course, serve equally well for many twentieth-century conflicts.

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No Grownups, Please: A Study of the American Science Fiction Film

James Craig Holte

Calling American science fiction films childish, adolescent, or immature has become one of the conventions of contemporary film criticism. As Andrew Gordon notes in an article in the *Journal of the Fantastic in the Arts*, much recent criticism asserts the “work of Lucas and Spielberg is juvenile or infantile, regressive, escapist fantasy fare, cartoons for adults” (81). What is true of the work of Lucas and Spielberg is true of the rest of the genre as well. Before addressing specific critics, Gordon wisely observes that the “easy dismissal of Lucas and Spielberg’s films as juvenile, escapist junk sounds suspiciously like the traditional attacks on science fiction and fantasy literature as second-rate genres” (83). Obviously, something in the works that constitute this genre has caused so many critics to respond in this way. I suggest that a misunderstanding of how the genre functions has caused this critical confusion. If we look at American science fiction films as a genre, examine the structures and concerns of the genre, and look for permutations in the genre, we might discover that the conventional wisdom is wrong. This is not to say that all science fiction films are serious adult entertainment. A large number of films, some good and some bad, are aimed directly at young viewers, but others, employing the conventions of the genre, appeal to older viewers.

One of the major works in genre studies is John Cawelti’s *The Six-Gun Mystique* (1984). In discussing the function of genres, Cawelti suggests that in any genre

character types and patterns of action are repeated in many works. Indeed, it is tempting to hypothesize that strongly conventionalized narrative types like adventure and mystery stories, situation comedies, and sentimental romances are so widely appealing that they enable people to reenact and resolve widely shared psychic conflicts. (12)

He then defines genres as “structures of narrative conventions which carry out a variety of cultural functions in a unified way” (12). These “conventions,” according to Tim Bywater and Thomas Sobchack, become genre formulas and serve as principles for the selection of certain plots, characters, and settings (94). Thus, as Leo Braudy has observed, “Each genre movie is part of an implicit series” (3), a series that never ends and of which both directors and audiences participate in the creation.

Writing about film and society in *Film Theory and Criticism*, Gerald Mast and Marshall Cohen echo the French film theorists of *Cahiers du cinéma* who assert that “every film is part of an ideological superstructure that reflects a society’s economic base. Inevitably, therefore, a Hollywood film will reflect the ideology of American capitalism. This ideological undertaking will, among other things, require the repression of politics and eroticism” (Holte 182). This apparent repression or absence of the erotic and the political makes science fiction films appealing to many young viewers (and their parents). However, careful viewing of science fiction films reveals that the political and the erotic are present. Few mainstream films carry the erotic and political power of *Alien* (1979), for example; and the sequels, *Aliens* (1986) and *Alien 3* (1992), carry an even stronger political message. Because the criticism of capitalism is imbedded in a science fiction narrative, the message is permitted. Yet cultural attitudes may not be conscious constructs. Throughout his work Parker Tyler argues that movies are about not art, but myth, a free fiction or prototypical pattern with multiple distortions and variations.

Whether as conscious reflections of ideology or disguised myth, basic cultural assumptions embedded in our national subconscious appear in our popular genres, and basic cultural assumptions are often the subject matter of the narratives we create for young readers and viewers. In *Regeneration Through Violence: The Mythology of the American Frontier: 1600–1860*, Richard Slotkin defines the mythology of a nation as

the intelligible mask of that enigma called the “national character.” Through myths the psychology and the world view of our cultural ancestors are transmitted to modern descendants, in such a way and with such power that our perception of contemporary reality and our ability to function in the world are directly, and often tragically, affected. (47)

To a greater degree than we are usually willing to admit, our contemporary wishes and dreams, novels and films, are variations of the stories we have heard in our childhood. A genre permits us to tell stories in a way in which storyteller and listener share meaning economically; the conventions of a genre allow for simplification and variation, formula and freedom. What might appear as juvenile, escapist fare, is often actually a complex narrative convention permitting the sharing of information about the worldview (an ideology or a myth) of a culture.

There have been, of course, science fiction films made with young viewers intended as a primary audience. As early as the 1930s, mainstream studio execu-

tives realized young viewers made up a large portion of their audience, and as a result films were made and marketed for that segment of the national audience. The two famous science fiction serials of that decade, *Flash Gordon* (1936) and *Buck Rogers* (1939), with their one-dimensional characters, simplistic plots, and crude special effects, define the science fiction film for young viewers. In these films, cultural stereotypes are presented in the form of an easy-to-follow action narrative: good is white, male, patriotic, and virtuous; evil is other and foreign; women are present to be saved from fates worse than death; intellectuals exist to provide the virile hero with gadgets; and physical confrontation between the hero and the villain is the proper way to right the wrongs of the world (or universe). This patriarchal establishment fantasy was reworked in the 1948 series *Superman* as well as in all subsequent appearances of the "Man of Steel."

During the 1950s, science fiction became one of the most popular genres with American film audiences, and as a result Hollywood studios turned out dozens of science fiction films. While some, such as *Destination Moon* (1950), *The Thing* (1951), *The Day the Earth Stood Still* (1951), *Forbidden Planet* (1956), and *The Invasion of the Body Snatchers* (1956), were made for adult audiences and show sophistication of story, production, and theme, most science fiction films of the period were easily understood formula films aimed at attracting young American moviegoers. Such films as *Invaders from Mars* (1953) and *It Came from Outer Space* (1953) retain the flavor of the inexpensive serials, while Disney's *20,000 Leagues Under the Sea* (1954) and Twentieth Century Fox's *Journey to the Center of the Earth* (1959) bring juvenile science fiction to a middle-class market with superior acting, sets, and state-of-the-art special effects.

In the 1960s and 1970s, science fiction films continued to be made to appeal to the juvenile market. Perhaps the prime example would be *Planet of the Apes* (1968), which depicted a future in which humanity had destroyed itself through nuclear holocaust and apes had taken over the earth and which spawned a series of relatively successful sequels: *Beneath the Planet of the Apes* (1970), *Escape from the Planet of the Apes* (1971), *Conquest of the Planet of the Apes* (1972), and *Battle for the Planet of the Apes* (1973). Like the earlier science fiction films intended for young audiences, the films in the *Apes* series rely on elaborate costumes, humor, and a simple conflict between good and evil to tell their cautionary tales. More recently, such films as *Back to the Future* (1985), *Back to the Future, Part 2* (1989), *Back to the Future, Part 3* (1990), *The Black Hole* (1979), *The Terminator* (1984), *The Terminator 2: Judgement Day* (1991), and *Waterworld* (1995) continue this tradition, as do the three films that make up the popular "Mad Max" trilogy: *Mad Max* (1980), *The Road Warrior* (1981), and *Mad Max: Beyond the Thunderdome* (1985).

Because of the family nature of the mass television audience, most of the science fiction created for the small screen was designed to appeal to young audiences as well. In the 1950s, *Commander Cody* and *Captain Midnight* brought the tradition of the movie serial, along with its characterization, special effects, and moral vision, to television. Two other popular series, *The Twilight*

Zone (1959–64) and *The Outer Limits* (1963–65), adapted magazine formats to the demands of television. Both provided viewers with short horror, fantasy, and science fiction narratives. Although the quality of the individual narratives varied widely, these two series demonstrated that television, as a medium, could, on occasion, provide viewers with science fiction narratives that appealed to an adult audience. These programs also helped pave the way for the explosion of science fiction programming that began in the mid-1960s.

By 1965 science fiction programming had become a staple of prime-time television. In general, television producers borrowed elements of science fiction narratives and used them to enhance already familiar formulas. Many of these programs were aimed at young viewers. The producers at Hanna Barbera, for example, used a futuristic setting and ray guns and spaceships, the most traditional icons of science fiction, to create *The Jetsons* (1962–65), an animated series of comic middle-class life. In fact, *The Jetsons* was a science fiction adaptation of the popular *Flintstones*. *Lost in Space* provides another example of a science fiction adaptation aimed at a juvenile audience. This series was modeled on Walt Disney's popular film, *Swiss Family Robinson*, with an outer-space setting taking the place of the original island wilderness. *Voyage to the Bottom of the Sea* (1964–68) was a similar direct adaptation. In addition to enhancing formula programming, science fiction themes, settings, and icons were grafted onto other popular genres. *Get Smart* (1965–68), *The Man from U.N.C.L.E.* (1964–68), and *Mission Impossible* (1966–73), although traditional espionage narratives, borrowed technology and a number of themes from science fiction. Perhaps the most unusual mixing of genres was *The Wild, Wild West* (1965–69), which juxtaposed western and science fiction genre conventions. All of these programs attracted audiences of both younger and adult viewers, as did the film *Westworld* (1973), which also combined science fiction and the western.

The most famous science fiction series of the period was *Star Trek* (1966–69), which did not fulfill its five-year mission to explore strange new worlds and remain in production but did attract a devoted audience that actually increased when the series went into syndication. *Star Trek* brought science fiction to a large mainstream audience, and unlike much of the science fiction on television during the 1960s, *Star Trek* appealed to a diverse audience that has continued to grow over time. Each new *Star Trek* film—*Star Trek: The Motion Picture* (1980), *Star Trek II: The Wrath of Khan* (1982), *Star Trek III: The Search for Spock* (1984), *Star Trek IV: The Voyage Home* (1986), *Star Trek V: The Final Frontier* (1989), *Star Trek VI: The Undiscovered Country* (1991), and *Star Trek Generations* (1994)—and each new season of *The Next Generation*, *Deep Space Nine*, or *Voyager* demonstrates the continued popularity of this expanded creation.

Perhaps the most interesting science fiction series of the period was *The Prisoner* (1968), a series that might be described as 1984 set in Disneyland. Aimed at adults, *The Prisoner* dramatized the resignation, abduction, and attempted brainwashing of a British secret agent. Combining such mainstream science fiction issues as mind-control and the usurpation of individual liberty with

popular culture imagery, *The Prisoner* broke many of the conventional stereotypes of television science fiction. Equally unusual and equally interesting was *Dr. Who* (1963–present), which began as a low-budget parody of science fiction and became a cult classic in both Britain and the United States. Because of the series' humor, references to other literary works, and deliberately bad special effects, *Dr. Who* has continued to draw a diverse audience of viewers who are familiar with the conventions and icons of science fiction.

By the early 1970s most science fiction series had been cancelled, and it was not until later in the decade that producers returned to science fiction formats in response to the success of such feature films as *Star Wars* (1977) and *Close Encounters of the Third Kind* (1977). *Battlestar Galactica* (1978–79), with its simplistic depiction of heroic humankind at odds with an evil empire, was a small-screen adaptation of *Star Wars*; and *Mork and Mindy* (1978–82), with its concerned and cute alien, borrowed from *Close Encounters* and looked ahead to *E.T.* (1982). Both series were aimed at young viewers, as were three series adapted from comic books or earlier serials: *Wonder Woman* (1976–79), *The Incredible Hulk* (1977–82), and *Buck Rogers in the Twenty-First Century* (1979–81).

It has been said that imitation is the sincerest form of television, and the reincarnation of once-successful formats dominated science fiction on television during the 1980s, with mixed results. *Star Trek: The Next Generation* (1987–present) has proven to be more popular and critically successful than the original, while *The New Twilight Zone* (1985–87) was a failure.

A number of animated series appeared, and the number of made-for-television science fiction films increased. Few, however, have had any serious cultural impact. Perhaps the most significant development in television science fiction during the past ten years has been the success of cable television and the development of alternate channels and networks. With the demand for programming to fill hours on multichannels, programmers are rebroadcasting many of television's science fiction series. Appropriately for the genre, technology has enabled these stories to live forever.

There is, however, an entire history of science fiction films that appeal to a much wider audience. Unfortunately, they are often dismissed as juvenile simply because they are part of a genre that has been ignored or dismissed by many critics. Such films as *Metropolis* (1927), *Things to Come* (1936), *The Day the Earth Stood Still*, *Invasion of the Body Snatchers*, *2001: A Space Odyssey* (1968), *THX 1138* (1971), *Sleeper* (1973), *Star Wars*, *The Adventures of Buckaroo Banzai Across the Eighth Dimension* (1983), and *Alien* demonstrate that the genre can produce popular stories with adult as well as juvenile appeal. At their best, science fiction films present narratives that entertain young viewers while raising questions about cultural wishes, fears, and dreams.

The films listed above are only some of the American science fiction films that could serve as excellent examples of narratives of American mythology that are more than juvenile or childish. Three subgenres of the science fiction film

are especially illustrative: men (specifically men) in space films, aliens among us films, and imagined (or back to the) futures films.

The rocket and spaceman have been synonymous with science fiction films from Méliès' *A Trip to the Moon* (1902) through *Flash Gordon* serials to *2001: A Space Odyssey* and the *Star Wars* trilogy. A simple reading of these films might suggest pure escapism, a boys-just-want-to-have-fun genre in which the astronauts, like Huck Finn, light out for the territory to avoid the adult problems of civilization and sexuality. In fact, many of the films in this subgenre are just that, juvenile and escapist. *The Black Hole* and *The Last Starfighter* (1984) are two recent examples. Perhaps the most recent and serious such failure is the 1997 adaptation of Robert Heinlein's novel *Starship Troopers*. Other recent films are more complex, however, and by looking at the conventions of the genre, attentive critics can discover a great deal about our cultural assumptions. Vivian Sobchack, in "The Virginity of Astronauts," argues articulately that "Human biological sexuality and women as figures of its representation have been repressed in male-dominated, action-oriented narratives of most American science fiction films from the 1950s to the present" (*Shadows* 41). Using Freudian, semiotic, and feminist approaches, Sobchack sees eroticism and libido absent in most science fiction because they are perceived as threats to "cool reason and male comradery" (48). In fact, Sobchack observes that "women pose a particular narrative threat to science fiction heroes and their engagement with technology" (48). When they appear in science fiction films, women usually represent the mother or the other, figures who stand in opposition to a "conquering, potent, masculine and autonomous technology that values production over reproduction" (48). Rather than being simplistic or childish, the genre transmits a complex message about sexual repression in American culture. For example, although both *Forbidden Planet* and *2001: A Space Odyssey* appear to be narratives of autonomous technology, both suggest an ambivalence toward sexuality and technology that is neither simplistic nor childish.

Looking at the same issue from a different perspective, I have written elsewhere about Puritan ideology in science fiction films ("Pilgrims in Space"). In looking at such films as *Forbidden Planet*, *2001: A Space Odyssey*, *Star Wars*, and *Outland* (1981), for example, one can see a deliberate metaphoric use of the journey. The space trip is part of a larger design and used in ways culturally consistent with metaphoric journeys created by other American artists. Traditional Puritan conventions appear throughout these and similar films. The Puritans saw their passage through life as part of a larger design. Using a typological paradigm, the Puritans saw the passage of the Children of Israel out of Egypt prefiguring Christ's leading all men out of the bondage of sin; this, in turn, foreshadowed the Puritans' own pilgrimage from the Old World to the New, a macrocosmic parallel to the microcosmic movement of the individual soul from damnation to salvation. Different films emphasize different elements of the metaphoric journey, of course. *Forbidden Planet* stresses the promise and problems of the new land with an ambivalence similar to the Puritans' view of the new world, perceived as both garden and wilderness; *2001* emphasizes rebirth

and conversion, the possibility of radical transformation; and *Star Wars*, with the Force and Darth Vader, stresses the eternal struggle with evil. Nevertheless, the makers of these films are telling versions of a culturally significant story using the conventions of a particular genre. Not all space trips are archetypal journeys providing viewers with images of personal and cultural significance; some escapes from earth are simply escapes. It would be a mistake to miss the meaning because of the genre conventions, however.

A second subgenre that is often dismissed is the aliens-among-us film, which is related closely to the horror film. In fact, the two genres, horror and science fiction, are often confused, and most works of science fiction criticism spend considerable time drawing distinctions between the forms. While there is no clear boundary between science fiction and horror, most critics agree that science fiction films emphasize the elements of science and technology, while horror emphasizes the creature. This distinction, while simple, is useful to a degree, although more complex films, such as *Alien* and *Invasion of the Body Snatchers*, can be approached usefully from both perspectives. The popularity of this subgenre can be seen in the phenomenal success of both *Independence Day* (1996) and *Men in Black* (1997).

We all know the creatures we select to frighten us tell us a great deal about ourselves. Rather than focusing on the often appalling special effects of giant ants from Mars or two-headed Venutians, genre-sensitive critics have begun to look at the nature of the alien and its relationship to us. For example, in "Pods, Blobs, and Ideology in American Films of the Fifties," Peter Biskind divides the 1950s science fiction film into two categories, centrist and radical. Centrist science fiction, he argues, "adopted an Us/Them framework, whereby that which threatened consensus was simply derogated as 'Other.' The Other was indeed communism, but also everything the center was not" (59). Using such films as *Them* (1953), *Forbidden Planet*, and *The Thing*, Biskind argues persuasively that the genre provided a perfect outlet for the culture's fears. Such other films as *It Came from Outer Space* and *The Day the Earth Stood Still*, on the other hand, are examples of left-wing films in which the alien "was neutral, benevolent, superior, or victimized" (70). The very conventions of the genre allow filmmakers to imbed political ideology within a conventional narrative. And Vivian Sobchack, in the second edition of *Screening Space: The American Science Fiction Film*, uses a similar fruitful approach as she argues that the "cute aliens" of such recent films as *Star Wars*, *Close Encounters of the Third Kind*, and *E.T.* reflect a new "cultural humanism" which believes that "aliens are just like us" (293). Again, it is the genre convention, this time the figure of the alien, that provides careful viewers with a valuable insight into the nightmares of the culture. Especially interesting here is *Alien* and its equally effective sequel, *Aliens*. In both films, images of asexual birth and rapacious, monstrous children who devour their parents appear. Lurking behind these images is the concept of the destruction that comes from within the individual, suggesting plague, deterioration, and death. In an age of cancer and AIDS, such notions are not just for juveniles, and in like

manner both *The Terminator* and *Terminator II* (1991) portray a fear of death from within.

The third subgenre that demonstrates the capabilities of science fiction is utopian (often dystopian) film. From *The Time Machine* and *Metropolis* to *Logan's Run* (1976) and *Escape from New York* (1981), the imagined future has been a staple of science fiction filmmakers. Like our aliens, our futures tell us much about ourselves and our culture. Futures films spring from a dissatisfaction with the present, and the popularity of these films may well be a barometer of the culture's emotional stability. Few futures films are utopic; tranquility and order make for uneventful narratives. *Things to Come* (1936) is perhaps the prime example. The only dramatic interest in the film is the war that leads up to Utopia. Once the perfect society has been created, narrative ceases. Perfection, by definition, is static. Utopias may be boring; dystopias are more interesting, and more varied. Science fiction films that present futures that do not work have been the rule. Filmmakers have delighted in creating a variety of apocalyptic terrors in a variety of settings. In *A Clockwork Orange* (1971), for example, urban violence and Pavlovian conditioning are depicted as the norm, while in *Zardoz* (1974) the world is divided between an impotent, telepathic elite and a brutish, superstitious mass. *Soylent Green* (1973) depicts a New York City of the future as part of a world dying of ecological suicide, and *Fahrenheit 451* (1966) posits a society run by the censors and the thought police.

The changing nature of the depicted futures reflects the concerns of the times when the various films were created. The fear of technology, subversion, and the police state, standard elements of 1950s films, have remained, but the nature of the technological disaster has changed with the times. Atomic fears have given way to visions of ecological, environmental, and economic disaster, and in some of the more recent films, such as *The Terminator* and *Terminator II*, extinction is suggested as a possibility. The popularity of this subgenre of film can be seen in a number of recent films, including *Sleeper* (1973), *Blade Runner* (1982), *Dune* (1984), and *Star Gate* (1994).

The future can be frightening, and so some filmmakers turn to the past for solace in such films as *Back to the Future*, which Vivian Sobchack calls the "most explicit representation of SF's new conservative nostalgia," a nostalgia based not on real time but on consumer products (*Screening Space* 274). That a mythical American small town of the 1950s could be presented as Eden should surprise no one. It exists eternally on cable TV as a place where we all liked Ike, where father, Robert Young, knew best, and where mom was Donna Reed. Going back to the ancient past of the 1950s to empower such icons as rock and roll and convertibles is simply the contemporary example of placing the values of the culture—family, youth, innocence, loyalty, and security—in a past that never existed. The film succeeded so well that it, too, spawned sequels, *Back to the Future II* (1989) and *Back to the Future III* (1990); and in those films as well, American mythology serves to counter the fears of the present. In a related pair of films, *Bill and Ted's Excellent Adventure* (1989) and *Bill and Ted's Bogus*

Journey (1991), a similar story is told: the present is less than it should be, but time travel offers solutions. Excellent.

The American science fiction film—often politically conservative, often poorly made, often aimed at the prime audience of fourteen- to eighteen-year-olds—is finally not for children only. In its conventionalized narrative structure, characters, and settings, the science fiction film may tell us more about the dreams and nightmares of American culture than any other genre.

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FILMOGRAPHY

James Craig Holte and Marjorie McKinstry

A complete list of all science fiction films or television programs would be so large as to be useless, a mere long list of unusual titles. Students of science fiction films have a number of excellent sources available to them, and those interested in more complete information should consult such works as Vivian Sobchack's *Screening Space: The American Science Fiction Film* (New York: Ungar, 1987); John Brosnan's *Future Tense: The Cinema of Science Fiction* (New York: St. Martin's, 1978); A. W. Strickland and Forrest J. Ackerman's *A*

Reference Guide to Science Fiction Films (Bloomington, IN: T.I.S., 1981); and George Slusser and Eric Rabkin's *Shadows of the Magic Lamp* (Carbondale, Ill.: Southern Illinois UP, 1985). Even a short, representative list presents problems for the filmographer. Should Mexican robot versus mummy films be included? Should all animated short features set in space be included? What are the boundaries between science fiction and horror, science fiction and comedy? What to do with *Attack of the Killer Tomatoes*? In the end, we have decided to provide a short list of available films that illustrates the history of science fiction on both large and small screens. Films are listed by title, date, and director; television programs are listed by title and date of initial showing.

Science Fiction on Film

- The Adventures of Buckaroo Banzai* (1984), W. D. Richter
Alien (1979), Ridley Scott
Aliens (1986), James Cameron
Alien 3 (1992), David Fincher
Back to the Future (1985), Robert Zemeckis
Back to the Future: Part 2 (1989), Robert Zemeckis
Back to the Future: Part 3 (1990), Robert Zemeckis
Bill and Ted's Excellent Adventure (1989), Stephen Herek
Bill and Ted's Bogus Journey (1991), Pete Hewitt
The Black Hole (1979), Gary Nelson
Blade Runner (1982), Ridley Scott
Bride of Frankenstein (1935), James Whale
Close Encounters of the Third Kind (1980), Steven Spielberg
Cocoon (1985), Joel Zwick
Cocoon: The Return (1988), Ron Howard
Conquest of the Planet of the Apes (1972), J. Lee Thompson
Crack in the World (1965), Andrew Marton
Cyborg 2087 (1966), Frank Adreon
Daleks—Invasion Earth 2150 A.D. (1966, British), Gordon Flemyng
Dark Star (1975), John Carpenter
The Day the Earth Caught Fire (1962, British), Val Guest
The Day the World Ended (1955), Roger Corman
Demon Seed (1977), Donald Cammell
Der Tunnel (1933, German), Curtis Bernhardt
Destination Moon (1950), Irving Pichel
Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb (1964, British), Stanley Kubrick
Dr. Who and the Daleks (1965, British), Gordon Flemyng
Dune (1984), David Lynch
Escape from New York (1981), John Carpenter
E.T. (1982), Steven Spielberg
Fahrenheit 451 (1966, British), François Truffaut
Fantastic Voyage (1966), Richard Fleischer
Fire-Maidens of Outer Space (1955, British), Cy Roth
Flash Gordon: Spaceship to the Unknown (serial, 1936), Frederick Stephani

Flash Gordon (1980), Mike Hidges
Flash Gordon Conquers the Universe (1940), Gord Beebe and Ray Taylor
Flesh Gordon (1974), Howard Ziehm and Michael Benveniste
Forbidden Planet (1956), Fred McLeod Wilcox
Frankenstein (1931), James Whale
Frankenstein—1970 (1958), Howard Koch
Frankenstein's Daughter (1959), Richard Cunha
Have Rocket Will Travel (1959), David Lowell Rich
Homunculus/Homunculus der Führer (1915, German; serial), Otto Rippert
Honey, I Shrank the Kids (1989), Joe Johnston and Rob Minkoff
The Incredible Melting Man (1978), William Sachs
The Incredible Shrinking Man (1957), Jack Arnold
Independence Day (1996), Roland Emmerich
Invasion of the Body Snatchers (1956), Don Siegel
Invasion of the Body Snatchers (1978), Phillip Kaufman
It! The Terror From Beyond Space (1958), Edward L. Cahn
The Last Starfighter (1984), Nick Castle
The Little Prince (1974), Stanley Donen
Logan's Run (1976), Michael Anderson
Mad Max (1979, Australian), George Miller
Mad Max 2/The Road Warrior (1982, Australian), George Miller
Mad Max 3/Beyond the Thunderdome (1985, Australian), George Miller
Marooned (1969), John Sturges
Men in Black (1997), Barry Sonnenfeld
Metropolis (1926, German), Fritz Lang
1984 (1956, British), Michael Anderson
1984 (1984, British), Michael Radford
The Omega Man (1971), Boris Sagal
Outland (1981), Peter Hyams
Panic in the Year Zero (1962), Ray Milland
Planet of the Apes (1968), Franklin Schaffner
Robinson Crusoe on Mars (1964), Byron Haskin
Robocop (1987), Paul Verhoeven
Robocop II (1990), Irvin Kershner
Rocket Attack, U.S.A. (1960), Barry Mahan
The Rocky Horror Picture Show (1975), Jim Sharman
Rollerball (1975), Norman Jewison
Saturn 3 (1980, British), Stanley Donen
Shape of Things to Come (1979, Canadian), George McCowan
Silent Running (1971), Douglas Trumbull
Sleeper (1973), Woody Allen
Soylent Green (1973), Richard Fleischer
Spaceballs (1987), Mel Brooks
Star Trek: The Motion Picture (1979), Robert Wise
Star Trek II: The Wrath of Khan (1982), Nicholas Meyer
Star Trek III: The Search for Spock (1984), Leonard Nimoy
Star Trek IV: The Voyage Home (1986), Leonard Nimoy
Star Trek V: The Final Frontier (1989), William Shatner
Star Trek VI: The Undiscovered Country (1991), Nicholas Meyer
Star Trek Generations (1994), David Carson

Stargate (1994), Roland Emmerich
Starship Troopers (1997), Paul Verhoeven
The Stepford Wives (1975), Bryan Forbes
Terminator (1984), James Cameron
Terminator II: Judgement Day (1991), James Cameron
Things to Come (1936, British), William Cameron Menzies
This Is Not a Test (1962), Frederic Gadette
THX 1138 (1971), George Lucas
The Time Machine (1960), George Pal
A Trip to the Moon (1902, French), Georges Méliès
Tron (1982), Steven Lisberger
20,000 Leagues Under the Sea (1916), Stuart Paton
20,000 Leagues Under the Sea (1954), Richard Fleischer
2001: A Space Odyssey (1968), Stanley Kubrick
2010: The Year We Make Contact (1984), Peter Hyams
Voyage to the Bottom of the Sea (1961), Irwin Allen
Waterworld (1995), Kevin Reynolds
Weird Science (1985), John Hughes
Westworld (1983), Michael Crichton
When Worlds Collide (1951), Rudolph Mate
Zardoz (1974, British), John Boorman

Science Fiction on Television

The Adventures of Superman (1953)
Aquaman (1970)
The Atom Squad (1953)
Battlestar Galactica (1978)
The Bionic Woman (1976)
Buck Rogers in the 25th Century (1950)
Buck Rogers in the 25th Century (1979)
Captain Midnight (1954)
Captain Video and His Video Rangers (1949)
Captain Z-Ro (1955)
Commander Cody (1955)
Dr. Who (1966)
The Fantastic Four (1967)
Fantastic Voyage (1968)
Far Out Space Nuts (1975)
Fireball XL-5 (1963)
Flash Gordon (1953)
The Gemini Man (1976)
The Incredible Hulk (1977)
The Invaders (1967)
The Invisible Man (1975)
The Jetsons (1962)
Johnny Cypher in Dimension Zero (1967)
Johnny Jupiter (1953)

Josie and the Pussycats in Outer Space (1972)
Journey to the Center of the Earth (1968)
Land of the Giants (1968)
Land of the Lost (1974)
Lost in Space (1965)
Lost Saucer (1975)
The Man from U.N.C.L.E. (1964)
Men into Space (1959)
Mork and Mindy (1978)
My Favorite Martian (1963)
My Favorite Martians (1973)
The New, Original Wonder Woman (1976)
Operation Neptune (1953)
Out There (1951)
The Outer Limits (1963)
Planet of the Apes (1974)
Planet Patrol (1963)
The Prisoner (1968)
Return to the Planet of the Apes (1975)
Rocky Jones, Space Ranger (1954)
Rod Brown of the Rocket Rangers (1953)
Science Fiction Theater (1955)
The Six Million Dollar Man (1973)
Space Angel (1959)
Space Ghost (1966)
Space Giants (1969)
Space Kidettes (1966)
Space 1999 (1975)
Space Patrol (1950)
Star Trek (1966)
Star Trek (Animated) (1973)
Star Trek: The Next Generation (1987)
The Starlost (1973)
The Time Tunnel (1966)
Tom Corbett, Space Cadet (1950)
The Twilight Zone (1959)
U.F.O. (1973)
Voyage to the Bottom of the Sea (1964)
The Wild, Wild West (1965)

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Science Fiction in Comic Books: Science Fiction Colonizes a Fantasy Medium

Donald Palumbo

Science fiction concepts, icons, and clichés are ubiquitous in the pages of the American comic book. Aliens visit Riverdale in *Archie Comics*, Donald and his nephews accompany Scrooge McDuck on interplanetary adventures in *Scrooge McDuck*, and *The Enterprise* has gone far beyond where it has ever gone before in comic book adaptations of *Star Trek* published by Gold Key, Marvel Comics, and (in all its classic, Next Generation, and sequential film avatars) Detective Comics. Also, Marvel published more than a hundred issues of *Star Wars* from 1977 through 1986; Classic Comics and Classics Illustrated published numerous editions of *The Mysterious Island*, *Twenty Thousand Leagues Under the Sea*, *From the Earth to the Moon*, *The War of the Worlds*, *The Time Machine*, *A Journey to the Center of the Earth*, *The First Men in the Moon*, *Off on a Comet*, *The Invisible Man*, *The Food of the Gods*, and *Master of the World* from the late 1940s through the early 1970s; and Innovation has recently begun publishing comic book adaptations of such contemporary science fiction (SF) masterpieces as Gene Wolfe's *The Shadow of the Torturer* and Joe Haldeman's *The Forever War*.

Yet, although some original comic book material is science fiction (or close enough to it), comic books characteristically employ the trappings and concepts associated with science fiction to develop narratives and narrative worlds that are essentially fantastic. Their science fiction components are usually only a superficial guise for fantasy, as comic book narratives generally exhibit no interest in extrapolating from—or basing their worlds' divergences from reality upon—any sound, organized body of scientific knowledge or principles; rather, they use “science,” not to explain, but to explain away. Thus the comic book's primary interface with science fiction is that of a fantasy medium that contains numerous—in fact, myriad—science fiction elements, but the extraordinary ex-

tent to which science fiction elements have colonized this principally fantasy medium should be recognized.

Illustrations drawn from Marvel Comics, the world's most commercially successful comic book publisher, can demonstrate the extent to which science fiction concepts, icons, and clichés have colonized a medium that deals primarily in the related but distinct genre of fantasy. Marvel Comics, like superhero comic books generally, is to fantastic narrative what rock and roll is to popular music: a vehicle capable of incorporating into itself all the myriad elements of existing genres—in this case fantasy, horror, mythology, fable, legend, utopian/dystopian fiction, and science fiction—and fusing them together. Superpowerful microtransistors animate Iron Man's armor, gamma rays transform Bruce Banner into the Hulk, cosmic rays create the Fantastic Four, the bite of a radioactive spider turns Peter Parker into Spider-Man, genetic mutations produce the hundreds of superpowered heroes who populate such teams as the X-Men and the New Mutants, and prehistoric experiments conducted by extraterrestrial beings like the Kree and the Celestials yield numerous quasi-human species; these are but a few examples of the superficial accidents of science fiction turned to fantastic ends. Marvel Comics' characters possess abilities and wield artifacts that can most accurately be described as magical, despite the ostensibly "scientific" origins of many of them. Many are explicitly magical, and all these powers and mechanisms operate mystically rather than scientifically—and within a fantasy universe in which not only does any kind of "science" work, but all known forms of magic work too, and all the mythological characters of all this world's cultures actually exist.

One measure of science fiction's colonization of the comic book world is the high incidence of allusion to science fiction literature and film in comic books that are not themselves adaptations of such materials. More overt and even more pervasive—to an extent that would make encyclopedic discussion tedious, if not impossible—is the ubiquitous appearance in these comics of such icons of science fiction as, for example, the robot, the sentient computer, the extraterrestrial, the spaceship, the dystopian future society, the beneficial or the monstrous mutation, or the artificially enhanced human. Prominent too in Marvel Comics is extensive use of such science fiction concepts as time travel, alternate realities, higher dimensions, and pocket universes—and the often ingenious reference to popularizations of contemporary scientific hypotheses in cosmology, particle physics, and astrophysics, such as Stephen Hawking's writings on time or string theory, to explain away the characters' abilities to traverse time, space, and higher dimensions.

Marvel Comics liberally seeds its stories with allusions to the Bible, Western and non-Western mythology, Arthurian and other folk legends, historical and contemporary events, Shakespeare's plays and other literary classics, Gothic and fantasy literature, and the other popular culture genres—film, television, popular music, advertising, and (of course) the comics, in addition to science fiction and popular science. But science fiction references are a substantial part of this inadvertent reflection of our culture, and they are exceeded in fre-



Figure 1

quency only by allusions to fantasy literature, mythology, and Shakespeare. For example, a grotesque band of mutants living in a forgotten network of subway tunnels beneath New York City call themselves “morlocks—after the characters in H. G. Wells’ classic novel *The Time Machine*” (*X-M* 240:19). And in a time-travel adventure, Spider-Man becomes involved in a second, future invasion of Earth by Martians firing death rays from lumbering, tripod war machines identical to those described in Wells’ *The War of the Worlds* (*MT-U* 45:6–7)—which is itself often referred to as a factual account of the “first” Martian invasion, particularly in a twenty-two issue, mid-1970s “War of the Worlds” feature in *Amazing Adventures* (18–39, Fig. 1) that is explicitly “based on concepts created in the prophetic novel by H. G. Wells” (*AA* 18:cover).

Often, as in these examples, Marvel’s SF allusions identify their sources. A mad villain will pause “to note to himself, with a giggle of sagacious delight, like the supercomputer Shalmaneser in John Brunner’s classic *Stand on Zanzibar*: ‘Cripes, what an imagination I’ve got!’” (*EXC* 27:1), or the reader will be told that the starship *Starjammer*’s sentient computer, Waldo, is named “after a character in a science fiction story by Robert Heinlein” (*OHMUII* 12:45). More often, however, the source of the allusion will be subtle or unrevealed—as when an incidental character investigates a reported UFO landing while carrying a copy of E. E. “Doc” Smith’s *Galactic Patrol* in his back pocket (*DSSS* 3:18), when the line “‘Repent, Harlequin—said the Ticktockman.’ Seems to me I read that someplace” appears in a story written by Harlan Ellison (*HULK* 140:11), or when mutant/rock star/teleporter Lila Cheney (who inhabits her own Dyson sphere) gives her boyfriend’s mother a “singing crystal from Ballybran—out of the Killishandra Range, near Dragonhold” (*NM* 42:12), a densely packed reference to Anne McCaffrey’s *Crystal Singer*.

In addition to Wells, other well-known SF writers and their works are alluded to repeatedly. West Coast Avenger Hawkeye advises a tattoo-covered villain to “crawl back . . . into some book by Bradbury” (*AWC* 74:9), a reference to *The Illustrated Man*. Various Marvel Comics issues have been titled “Something Evil This Way Comes” (*AVNG* 190), “Something Dire This Way Comes” (*ROM* 47), “Something Wicked This Way Kills” (*MT-U* 108), and (finally) “Something Wicked This Way Comes” (*X-M* 139). And The Doctor, a time lord, stumbles onto an alternate reality in which outcasts from a repressive society, living in the wild, have each “chosen one emotion, to practice it and keep it alive for the day we conquer the city of the cursed and our people can learn to feel again” (*MP* 59), a variation on the living books of *Fahrenheit 451*.

“City of the Cursed,” the title of this issue, is itself a variation on the title of the 1960 SF film *Village of the Damned*. And Marvel’s myriad allusions to science fiction often appear, and are often similarly corrupted, as issue titles—as the three permutations of Bradbury’s *Something Wicked This Way Comes* illustrate. Further examples are issues titled “Brave New World” (*JUSTICE* 1), an allusion to Aldous Huxley’s novel; “Honey, I Shrunk the Non-Mutant Super Hero” (*AS-M Annual* 24) and “Honey, I Shrunk the Hyperatomic Anti-Proton Cannon” (*AWC Annual* 5), both parodies of the 1989 film title *Honey, I Shrunk*

the Kids, and "Stranger in a Strange Man" (AVNG 138), "Danger in a Strange Land" (DEF 71: cover), and "Stranger and Stranger in a Strange Land" (DEF 71:1)—all variations on Robert Heinlein's *Stranger in a Strange Land*. Moreover, the title "The Sirens of Kronos" (GR 52) is an unusually intricate allusion to Kurt Vonnegut's *The Sirens of Titan*; "Love Is the Spell, the Spell Is Death" (DSSS 1) refers to James Tiptree, Jr.'s "Love Is the Plan, the Plan Is Death"; and "The Left Hand of Silence" (DEF 89), as the editors had to explain to their perplexed and inquiring readers in a subsequent issue's letters page (DEF 91), alludes to Ursula K. Le Guin's *The Left Hand of Darkness*. Of course, each novel, story, or film so alluded to is relevant to some aspect of the issue the reference entitles. For instance, a piece entitled "Seconds" (SOLO 16) recapitulates the ironic use of the death and rebirth motif developed in the 1966 John Frankenheimer film of the same name starring Rock Hudson.

As these examples indicate, allusions to SF films occur about as often as do allusions to SF literature. For example, parodies of the title character in *ET: The Extraterrestrial* (SS-H 11:16-17, Fig. 2) also appear in these comics, as do refer-

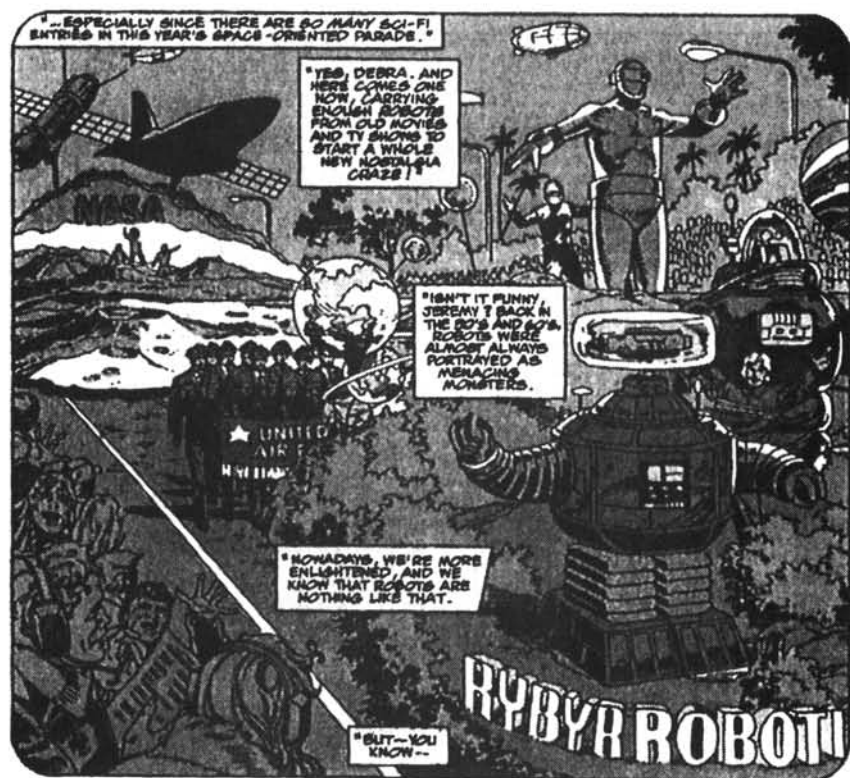


Figure 2

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ences by title to *The Stepford Wives* (WS-M 46:2), *Close Encounters of the Third Kind* (WS-M 46:3), and *Star Trek II: The Wrath of Khan*—as when Ben Grimm (The Thing) attributes a congressional subcommittee witness' assertion that “the needs of the many outweigh the needs of the few” to his having “seen *Star Trek II* too many times” (FF 335:17). An avid television viewer as well as a film buff, Grimm, in a single issue (MT-O 69:3, 6, 8) alludes to *Star Trek*, *Lost in Space*, *My Favorite Martian*, and *The Twilight Zone*—television programs to which these comics refer repeatedly (e.g., AVNG 201:18, FF 302:5, NM 63:14).

Events in a recent issue occur during a Rose Bowl Parade that features “many sci-fi entries,” including floats that contain facsimiles of both the *Lost in Space* and the *Forbidden Planet* versions of Robby the Robot as well as of *The Day the Earth Stood Still*'s Gort (AWC 68:17, Fig. 3).



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Figure 3

And when the latter facsimile runs amok, Iron Man suggests that “it’ll take more than saying ‘Klaatu barada niku’ to stop” it (AWC 68:20). References to *Lost in Space* (i.e., NFASII 3:27) and, even more so, to *Forbidden Planet* are especially

frequent. For example, both “Robby the Robot” and “Cruiser C570” are among the artifacts that appear in the New York City bookstore “Forbidden Planet” when it is once magically transformed onto the surface of “Altair-IV” (*EXC* 7:16), and Robby also turns up in the storage hold of an alien spacecraft (*SFM* 7:17, Fig. 4).



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Figure 4

In another issue, a character notes that an alien substance impervious to heat is “like Krell metal,” in the movie *Forbidden Planet* (*X-M Annual* 11:16), and yet another issue’s title, “Monster . . . From the Ego” (*SSII* 22), refers to that film’s infamous monsters from the Id.

Another SF film alluded to frequently in these comics is *Alien*. A character who has an *Alien* movie poster above his bed is stalked by the title monster from that film in his dreams (*NGHT* 3:11, 15–16). When a similar creature stalks Shadowcat through the X-Men’s mansion (fig. 5), she thinks, “Too bad I don’t have some king-sized flame-throwers handy! They used them to fight the monster in that movie! It didn’t work though—but I remember what did!” And she finally fries the creature in the exhaust of the X-Men’s jet (*X-M* 143:23, 26). Another issue parodies *Alien*’s ad campaign in noting that “in a spaceship, everyone can hear you scream” (*MMCD* 3:18); and a villain who had previously alluded to this film (*X-M* 251:6) complains in yet another issue that his leader’s fear of the hero pursuing them makes him act as though “this town’s the



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Figure 5

Nostramo, we're the crew . . . an' he[the hero]'s the 'Alien'" (*X-M* 252:6). Other films repeatedly alluded to both by title and through reference to plot, setting, dialogue, and even casting include *Back to the Future* (*IM* 227:2; *AVNG* 302:30) and, particularly, the *Star Wars* trilogy (*MT-U* 73:2; *NM* 56:8; *X-M* 236:29; *SSII* 36:22; *FF* 340:2; and *HD* 22 & 23).

In fact, the central characters in Marvel Comics' *Micronauts* series are strikingly similar to the *Star Wars* heroes and villains. *Micronaut* arch-villain Baron Karza, for example, is a replica of *Star Wars*'s Darth Vader—who is in turn, ironically, a variation of Marvel's original, premiere arch-villain, Dr. Doom (Fig. 6). And the first *Micronaut* saga (*MICRO* 1–11) borrows both a basic premise and its pivotal plot twist from two SF classics, David Lindsay's *Voyage to Arcturus* and Alfred Bester's *The Stars My Destination*, respectively. More important, however, the conceptualization of the *Micronauts* series' primary setting—a "subatomic universe"—demonstrates both Marvel's reliance on science fiction concepts and its willingness to revise its appropriation of those concepts to keep pace with the contemporary popularizations of science on which science fiction is based.

For twenty years, up to the mid-eighties, Marvel Comics clearly conceived of its various "subatomic universes"—for example, Bast (*IM* 51), K'ai (*HULK* 140), the Microverse (*MICRO* 1), Sub-Atomica (*FF* 16), and Terragonia (*HULK* 201)—as being literally smaller than the atom. Through shunting most of their mass into an extraphysical dimension, characters could travel to a subatomic universe by shrinking to the appropriate size and merely "falling" into one (Fig. 7). While this concept is based on the fanciful analogy that the atom is like a miniature solar system, it is, even so, not adequate to explain how a character could, by shrinking again, and often from a different earthly location, return to the same sub-atomic universe he had visited previously, or how two different characters could ever happen upon the same one.

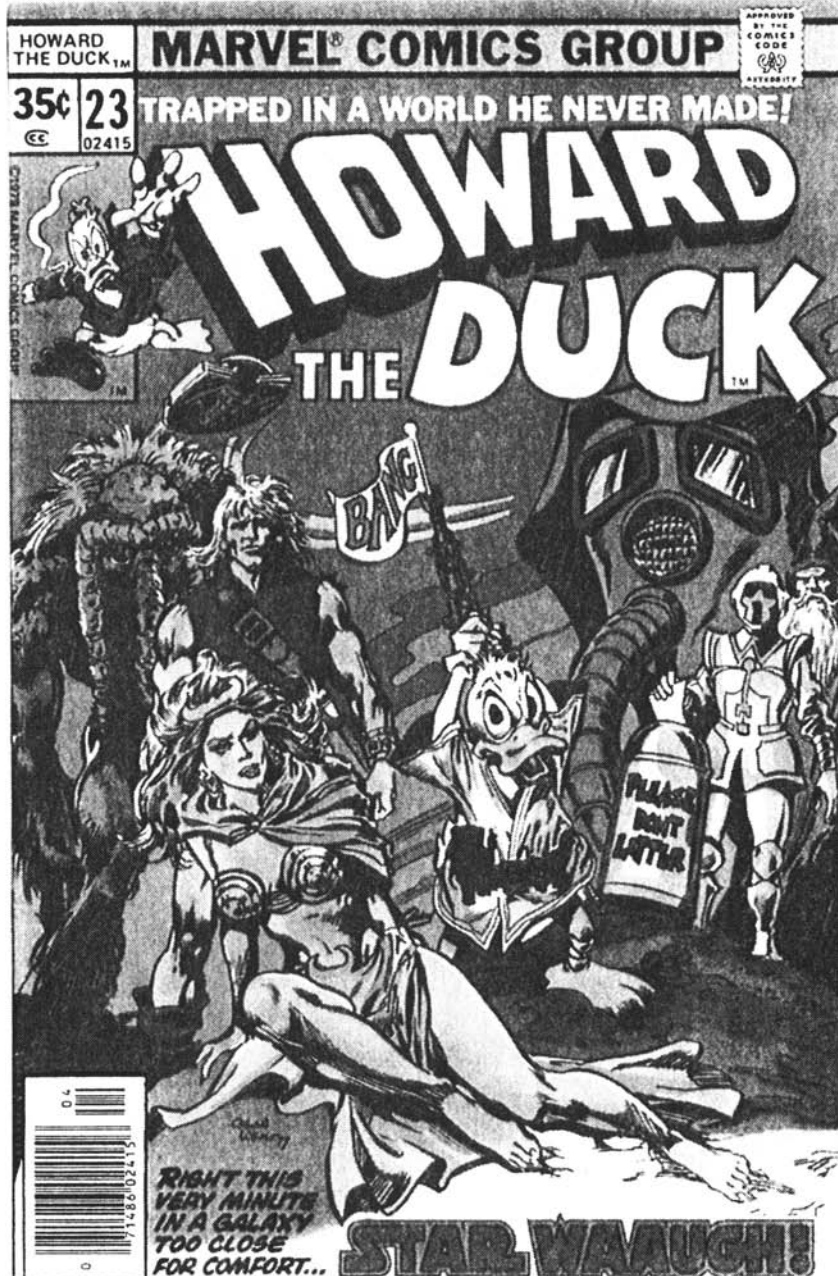


Figure 6

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Figure 7

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However, in 1985 Marvel's creators announced that:

When the space between atoms of physical matter is reduced to a certain point, that matter may exit this reality altogether. At one time it was thought that microversal worlds existed within the atoms of our own universe, but it now seems that this is not the case. Rather, the *access points* between dimensions are microscopic in size, not the worlds themselves. Thus, it is possible to travel to the same "microverse" on more than one occasion even if the journeys begin at two different locations. (*OHMUII 5*, Alternate Dimensions Appendix)

and that "When 99.99+ per cent of an organism's mass is extradimensionally shunted, the organism is automatically sent into a 'subatomic universe,' one of countless alternate universes accessible to Earth only by the mass-shunting process" (*OHMUII 1:20*). This revisionist attempt to explain scientifically how travel to "subatomic universes" occurs is impressive, not only in itself, but particularly in light of the fact that the theory proposed is consistent with the contemporaneous (1984) reconsideration of string theory as a hypothesis that would unify all theories of physics (Hawking 156–62).

To unify successfully all theories of physics, however, string theory assumes the existence of either ten or twenty-six dimensions, not four, and posits that those dimensions we do not notice are invisible because they "are curved up into a space of very small size, something like a million million million million millionth of an inch" (Hawking 163). Hawking, referring to the science fiction idea that extra dimensions might provide shortcuts through space that could make interstellar travel practical, concludes that this "spells bad news for would-be space travelers: the extra dimensions would be far too small to allow a spaceship through" (163). But this theory is great news for would-be travelers to "subatomic universes," for it explains precisely how shrinking can be a method of traveling to other dimensions: these extra dimensions provide the "access points," shortcuts to myriad additional dimensions, and precisely by becoming small enough to go through them can these characters travel transdimensionally. As if to acknowledge the source of these ideas, a "particle-wave theory" physicist named "Stephen Hawking" is mentioned in a 1990 issue (*SS-M 166:19*). Moreover, Marvel's readers are specifically referred to other such pop science tomes as Julian Jaynes' *The Origins of Consciousness in the Breakdown of the Bicameral Mind* (*MICRO 29:10*) and Carl Sagan's *Murmurs of Earth* (*FF 230:28*) to read more about the concepts employed in these comic books that are based on those writers' concepts.

While their numbers alone are "countless," however, "subatomic universes" or microverses are far from the only type of alternate dimension in the Marvel universe. In fact, as only five have yet been visited in these comics, they are among the more rare types. While there is only one known antimatter universe, the Negative Zone (*FF 51*), only two known Astral Realms, and only five known alternate dimensions that are categorized as Interdimensional Spaces, far more numerous are those dimensions categorized as Mystic Realms, Alien Worlds (not to be confused with the numerous extraterrestrial worlds that exist in this

dimension), and Alternate Earths. A brief overview of Marvel's other dimensions provides a particularly useful illustration of the way in which these comics mix science fiction with magic in their formula (or is that "spell"?) for an essentially fantastic reality.

While all five of the microverses are usually reached through the "scientific" means of shrinking to pass through the transdimensional aperture, travel between them and our dimension can also be effected through magic; and magic rather than science is the dominant "technology" in two of them, K'ai and Terragonia, while science dominates in the remaining three. The Negative Zone is a science-concept alternate universe composed entirely of antiparticles (commonly referred to as antimatter). On the other hand, an astral dimension contains ectoplasm and astral space rather than physical matter or space. The only two known astral realms are the Death Dimension (*MFF* 6), a way-station for souls of the dead that have not yet gone to their permanent afterlives (usually in a mystic realm), and the Dream Dimension (*ST* 110), a manifestation of mankind's collective unconscious in which archetypes and dreams assume independent (but noncorporeal) existence. While death is the only access to the Death Dimension, the Dream Dimension can be accessed either by dreaming or through astral projection.

Interdimensional spaces exist "between" dimensions and possess less structural integrity than a dimension. One example, the Realm of Morgan Le Fey (*AVNG* 240), can be accessed only through magic or physical death and is an ethereal (but nonastral) "space" between life and death in which a spirit of sufficient mystic power can maintain a noncorporeal existence. Subspace (*FF* 37), however, is a science-concept interdimensional space, accessible through vibrational attunement, in which distance is enormously compressed. By "warping" into subspace, moving through it, and then warping out again, faster-than-light travel in our dimension can be achieved without direct violation of the theory of relativity; most space travel in Marvel Comics occurs through subspace, sometimes called "hyperspace." Limbo-Rom (*ROM* 1) and the Un-Place (*HULK Annual* 1) are science-concept interdimensional spaces to which renegade beings and criminals are banished (like Detective Comics' Phantom Zone); and the Quasi-Universe (*MT-U* 99), although discovered by and accessed through scientific means, is an interdimensional space in which magic works.

The Marvel Comics "multiverse" also contains more than forty known mystic realms, more than seventy known alien worlds, and well over one hundred described alternate Earths. On the whole, mystic realms are clearly governed by magic, and alien worlds are other dimensions governed principally by science. Alternate Earths are all much like our own, but in some way different; all are either divergent Earths, in which a specific historical event transpired differently to create a divergent present, or parallel Earths, in which the differences have not been traced to a specific incident. Alternate Earths can be created as side-effects of time-travel adventures; but there are an infinite number of them, and many of those documented in these comics have not been traced to a time-travel incident. While all mystic realms are accessed through magic or death, the means of ac-

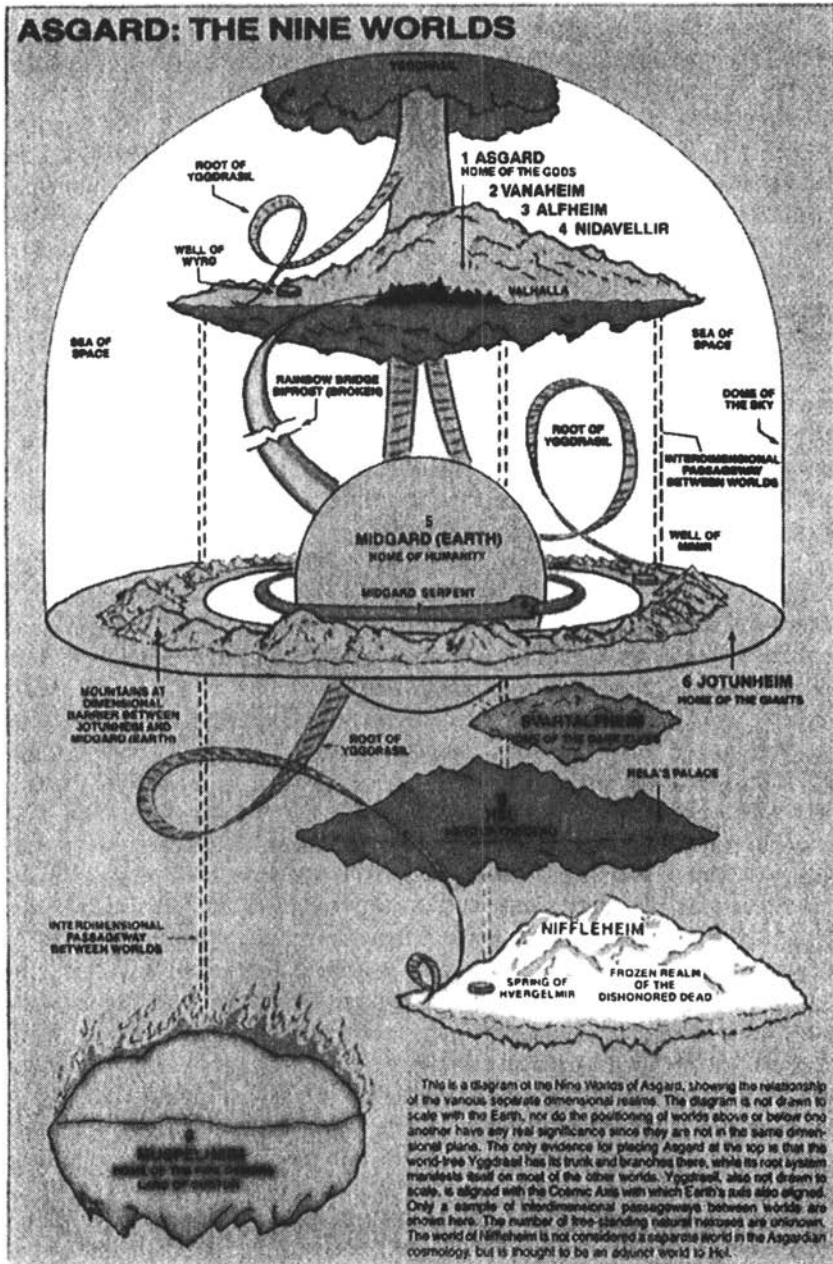


Figure 8

cess to an alien world or an alternate Earth can be either magic or the scientific process of vibrational attunement.

Nearly all mystic realms are “pocket dimensions,” universes of finite size, unlike Earth’s seemingly infinite universe. Prominent among the mystic realms are the abodes of the gods of all Earth’s pantheons, including Heliopolis (Egyptian mythology; *THOR* 240), Nirvana (Hindu mythology; *THOR* 301), Olympus (Greek mythology; *JIM Annual* 1), Ta-Lo (Chinese mythology; *THOR* 301), and the mystic realms of Norse mythology (Fig. 8)—Asgard (home of the Norse gods; *JIM* 85), Alfheim (land of the “bright elves”; *THOR* 277), Hel (land of the dead; *THOR* 176), Jotunheim (land of the giants; *JIM* 112), Muspelheim (land of fire demons), and Svartalfheim (land of the “dark elves”). Other mystic realms are legendary locales such as Avalon (*FF* 54) or, like Hel, such netherworlds as Feng-tu (Chinese legend; *DHK-F* 19), Hades (Roman mythology; *THOR* 130), and several different versions of the Christian Hell (*SSI* 3), each ruled by a different demonic entity. Most of the remaining mystic realms are dimensions usually visited by Marvel’s Sorcerer Supreme, Dr. Strange. Chief among these is the sinister and chaotic Dark Dimension (*ST* 126), ruled by Dormammu or his sister Umar, Dr. Strange’s arch-foes, and more recently by Umar’s daughter, Clea, Dr. Strange’s lover and former disciple.

Examples of especially interesting alien worlds are K’un-L’un, “Here” and “There,” Limbo, and Saku. K’un-L’un (*MP* 15), accessible through magic, is misnamed after an abode of the Chinese gods, but its humanoid inhabitants are actually descendants of an alien race stranded there long ago, and the dominant life form is a sentient species of plant. “Here” and “There” (*DEF* 115), accessible by vibrational attunement, is populated by characters and contains terrain, vegetation, and architecture that parody Dr. Seuss’ children’s books. Limbo (*AVNG* 2), also accessible by vibrational attunement, is a timeless realm in which all events happen simultaneously and nothing ever changes; from Limbo, one can travel to any time period in any dimension or alternate reality, and nearly all time travelers pass through Limbo in the process of going from one time to another. The exceptions are those time travelers who visit Saku (*Giant-Sized AS-M* 3), another alien world accessible by vibrational attunement, in which our dimension of time corresponds to a linear dimension; anyone entering Saku, traversing its space, and reentering our dimension would reemerge at some other time, either in the past or the future, than the time at which he left. It is worth noting that the concept of Saku is almost identical to that of Madregot, the brook beyond Briah, in Gene Wolfe’s *The Urth of the New Sun* (286–88): by taking seven strides downstream along the bank of Madregot, and then three steps to the side, Wolfe’s Severian travels into the future; had he walked upstream, he would have traveled into the past.

Most of the Alternate Earths described in Marvel Comics have resulted from specific variations of crucial events in the plots of these comics themselves (and which are primarily detailed in *What If?*, a magazine devoted exclusively to describing such dimensions), but there are still numerous Alternate Earths that are more broadly variations on Earth as we know it. The most interesting of



Figure 9

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these are Dinosaur World (*DINO* 1), accessible via vibrational attunement, in which dinosaurs never became extinct and human civilization was slow to evolve; Duckworld (*HD Magazine* 6), accessible via magic, where waterfowl instead of primates developed intelligence; Earth-Squadron (*AVNG* 85), accessible via vibrational attunement, in which the superheroes and their milieu are parodies of the most prominent Detective Comics heroes and settings; Other-Earth (*FF* 19; *FF* 272), also accessible via vibrational attunement, in which the Dark Ages were averted and science is now a thousand years farther advanced than in our reality; Rome-World (*Dr.S* 46), accessible via magic, in which the Roman Empire never fell and, while the level of technology is similar, the present-day political situation is consequently very different; and a world in which the Germans won World War II and superheroes are agents for the present-day Nazi state (*EXC* 9). Members of the superhero team Excalibur (Fig. 9) stumble into this last alternate reality after passing through a transdimensional gateway activated by an alien artifact they were studying—and spend the next fourteen issues on a “cross-time caper,” lost among the infinite number of alternate Earths and visiting one alternate reality after another in an attempt to find their way back to the “home” reality in which they originated. Among the alternate realities they visit during this protracted adventure is one in which England’s social structure and fashions are still medieval (*EXC* 12); one in which all life has been destroyed (*EXC* 14); one in which civilization developed first in America and then spread to a still-wild, untamed Europe (*EXC* 15); one in which Earth is inhabited by numerous alien species (*EXC* 16); one in which the environment is horribly polluted and a fascistic government has outlawed the possession of superpowers (*EXC* 23); and several others impossible to describe in a single phrase. The members of Excalibur are finally arrested by the “immigration” service of a bureaucracy that maintains order across the various alternate realities—and that finally returns them to their own dimension to prevent them from further disrupting the cross-time continuum (*EXC* 24).

Other Marvel Comics characters have had similar difficulties finding their reality of origin after time-travel excursions, and the conceit of a bureaucracy that manages alternate realities (although not always the same bureaucracy, apparently) sometimes turns up again in the context of these stories. For example, the Fantastic Four once return from a time-travel adventure, not to their own present, but to an alternate Earth in which a robot duplicate of Dan Quayle is president—and in which the United States is embroiled in a nuclear war with a Soviet Union ruled by a robot duplicate of Joseph Stalin (*FF* 343–44). And they are later arrested for various infractions of statutes governing time travel by the “Time Variance Authority”—which has, among its other duties, the responsibility for deciding when to “split” a time line into divergent alternate realities (*FF* 252–53). The TVA operates from a “null-time zone,” yet another dimension outside of time, and has placed a “time bubble” around the early twenty-first century that prevents time travel to or within the fifteen-year period contained in the bubble—a period in which time-travel incursions had become so frequent that they had threatened the stability of the space-time continuum. Both the



BUT THE HEART OF OUR ORGANIZATION IS THROUGH THE PORTAL ABOVE US, IN THE HALL OF CHRONOMETRY.

HERE TIME IN THE OMNIVERSE IS MEASURED, CHARTED, RECORDED... AND ULTIMATELY JUDGED.

WATCH YOUR STEP.

OH, MY STARS AND GARTERS!

PLEASE, KEEP YOUR VOICE DOWN. WE DON'T WANT TO DISTRACT THE CHRONOMONITORS. EACH OF THEM MONITORS AND DIRECTS A TIME LINE.

WHEN A SIGNAL EVENT OCCURS WITHIN A TIME LINE, THE OBSERVING CHRONOMONITOR CALCULATES ITS IMPORTANCE.

AND IF WARRANTED, SPLITS THE TIME LINE AT THAT POINT, TO FOLLOW THE VARIOUS PROBABLE CONSEQUENCES OF THE EVENT.

THIS ARE FUTURES CREATED, AS WE SAY AT THE TVA, "THE BUCK BIFURGATES HERE."



ALL POSSIBILITIES ARE BEFORE THEM, ALL ACTUALITIES BEHIND THEM. THEY ARE THE ARBITERS OF CHRONOMETRY.

THE ROWS SEEM ENDLESS. HOW FAR DO THEY ACTUALLY EXTEND?

HOW LARGE IS THE OMNIVERSE? MATHEMATICALLY, I'M TOLD IT'S IMPOSSIBLE TO SAY PRECISELY.

AS OLD TIME LINES BIFURGATE AND NEW ONES ARE ESTABLISHED, NEW DESKS AND NEW CHRONOMONITORS ARE AUTOMATICALLY CREATED TO MONITOR THEM.

Figure 10

TVA's out-of-time location and its proscriptive measures are reminiscent of the Eternity in Isaac Asimov's *The End of Eternity* and, somewhat less so, of the setting in Fritz Leiber's *The Big Time* (Fig. 10).

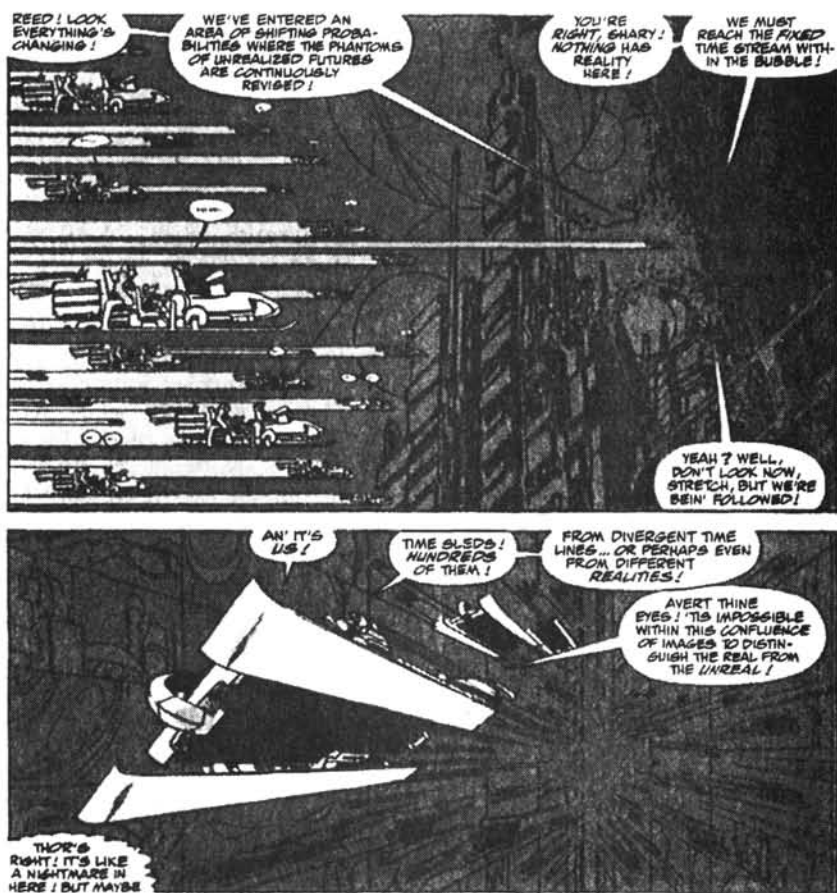
As this discussion of other dimensions indicates, both space travel and time travel—like transdimensional travel—are commonplace in Marvel Comics as well. It is the rare Marvel Comics hero who has never been to another planet, and most have been to scores of them. In fact, more than 150 extraterrestrial species inhabiting other planets in this dimension alone—most of them humanoid and most of them with more advanced technologies than Earth's—have appeared in Marvel Comics. While there is not space to say much about any of them here, among the most prominent of these species are the Brood (*X-M* 155), Alien-like space-faring insectoids that lay their eggs in living host bodies; the Celestials (*ETRN* 2), two-thousand-foot-tall humanoids of incalculable power that had conducted genetic experiments on humanity's ancestors (as well as on those of many other extraterrestrial species) in the prehistoric past, and who return periodically to judge their handiwork; the Skrulls (*FF* 2), a warlike humanoid species of shape-shifters, the result of another genetic experiment conducted by the Celestials, that have created a vast and ancient interstellar empire in the Milky Way Galaxy; Dire Wraiths (*ROM* 1), a deviant Skrull race also created by the Celestials, and thus possessing a similar ability to mimic the appearance of other creatures, that once tried to infiltrate Earth; Galadorians (*ROM* 1), a humanoid species that repulsed a Dire Wraith invasion two hundred years ago; the Kree (*FF* 65), a militaristic humanoid species, constantly at war with the Skrulls, that has created a vast but aging and moribund interstellar empire in the Greater Magellanic Cloud; the Cotati (*AVNG* 133), an intelligent and telepathic plant species spread throughout the universe by the Kree; Rigellians (*THOR* 130), semihumanoid colonizers that have established a huge but nonmilitaristic interstellar empire in the Milky Way Galaxy, the Andromeda Galaxy, and other nearby galaxies; the Shi'ar (*X-M* 97), an avian-mammalian species that is expanding its young interstellar empire in the "Shi'ar" Galaxy; and the Badoon (*SS II*), a reptilian-mammalian species that fails to conquer the Earth in the twentieth century but succeeds in a thirty-first century alternate future.

Just as the planets all these extraterrestrial species inhabit are in this dimension, and are thus distinct from "alien worlds" that exist in other dimensions, so too are there an infinite number of alternate futures accessible through time travel that—while they no doubt will exist in other, separate dimensions in the future (when the TVA bifurcates the time lines)—are distinct from "alternate Earths," which exist now in other dimensions contemporaneous with our own. The thirty-first century dystopia in which the Badoon conquer the Earth is such an alternate future, and most alternate futures revealed in Marvel Comics are similarly dystopian. Among the many other prominent dystopian alternate futures is a late twentieth century in which a malevolent military-industrial complex has seized power after a devastating global war (*AT* 33); a twenty-first century in which the Martians succeed in their second attempt to invade the Earth (*AA* 18); a twenty-first century in which America is ruled by ruthless corporate

interests (*MM* 1); a twenty-first century in which mutants, considered to be a dangerous subspecies to be hunted and killed without mercy, have been almost completely exterminated (*X-M* 141); an antithetical twenty-first century in which mutants have seized power and oppress the human majority (*NM* 49); a twenty-third century of the United Sisterhood Republic, in which women have seized power and oppressed men, natural childbirth has been replaced by test-tube reproduction, and men are raised by the ruling Femizons only as servants, entertainers, and breeding stock (*FF* 153); an antithetical twenty-third century in which men have overthrown this oppression, enslaved the women, and formed the republic of Machus, from which they launch an attack on the Femizons' dimension (*FF* 151); and a forty-first century of ceaseless warfare (*HULK* 286).

Of course, not all alternate futures are so bleak. There are, for example, utopian versions of the twenty-first (*IM* 250) and the thirty-first centuries (*FF* 273:22; *Giant-Sized AVNG* 3), as well as a rollicking twenty-fourth century in which Hercules has a series of comic adventures (*HPP* 1). In fact, Marvel Comics' most important time traveler, Immortus, goes back to 2950 BC, where he rules ancient Egypt as Rama-Tut (*FF* 19), to escape the boredom of this utopian thirty-first century. Eventually he conquers innumerable eras in a variety of other personae, including Kang the Conqueror (*AVNG* 8) and the Scarlet Centurion, and creates countless divergent selves and alternate realities in doing so. He finally becomes ruler of Limbo and tries to correct the mess he and his divergent alter-egos have made of time through their indiscriminate use of time travel. The antithetical, dystopian thirty-first century in which the Badoon conquer the Earth is the major setting for one of Marvel Comics' most science-fictionlike magazines, *The Guardians of the Galaxy*. In addition to nearly all the members of this team (*MS-H* 15, 16, 18; *DEF* 27), several other important characters—such as Deathlock (*AT* 25), Phoenix (*X-M* 141), and Thundra (*FF* 129)—have also entered the present, “mainstream” Marvel reality from various dystopian alternate futures. And two relatively short-lived Marvel Comics magazines (both 1984–86)—*Doctor Who*, a science-concept version of the British TV series in which The Doctor travels in time via his TARDIS, and *Timespirits*, in which an American Indian shaman and his apprentice travel through time via magic—are exclusively devoted to time-travel adventures.

Thus, like travel between dimensions—and, for that matter, like space travel, which can be effected by magic as well as by space vessel or some scientific mode of teleportation—time travel can be accomplished through either magical or scientific means. Yet all time travel *works* like magic. One of the six enchantments that empower his Uru hammer Mjolnir enables Thor to use Mjolnir to traverse dimensions, and another of these enchantments allowed him (until recently) to travel in time. Dr. Strange uses magic spells to traverse both time and other dimensions. Yet the various machines developed by Dr. Doom, Reed Richards, or Kang—a time platform, time sled, and time-ship, respectively—are no less mysterious or miraculous, and the gobbledygook Reed Richards sometimes spouts to “explain” the scientific aspects of time travel (Fig. 11) have no more substance than an incantation.



TM

Figure 11

To detail the thousands of specific space travel, time travel, and transdimensional adventures chronicled in these comic books would take several encyclopedias—and that would still leave undescribed the robots, androids, cyborgs, genetic mutations, enhanced humans, death rays, antigravity devices, spaceships, ESP machines, battlesuits, jetbelts, and so on that fill these comic book pages. But this brief discussion should indicate that the stuff of science fiction is a dominant presence in comic books—but not the defining presence, which is the stuff of fantasy.

ABBREVIATIONS FOR THE COMIC BOOK SOURCES CITED

AA	<i>Amazing Adventures</i>
AS-M	<i>Amazing Spider-Man</i>
AT	<i>Astonishing Tales</i>
AVNG	<i>Avengers</i>
AWC	<i>Avengers West Coast</i>
DEF	<i>Defenders</i>
DHK-F	<i>Deadly Hands of Kung-Fu</i>
DINO	<i>Devil Dinosaur</i>
Dr.S	<i>Dr. Strange, volume 2</i>
DSSS	<i>Dr. Strange, Sorcerer Supreme</i>
ETRN	<i>Eternals</i>
EXC	<i>Excalibur</i>
FF	<i>Fantastic Four</i>
GR	<i>Ghost Rider</i>
HD	<i>Howard the Duck</i>
HPP	<i>Hercules, Prince of Power</i>
HULK	<i>The Incredible Hulk</i>
IM	<i>Iron Man</i>
JIM	<i>Journey Into Mystery</i>
JUSTICE	<i>Justice</i>
MFF	<i>Marvel Fanfare</i>
MICRO	<i>Micronauts</i>
MM	<i>Machine Man</i>
MMCD	<i>Mutant Misadventures of Cloak and Dagger</i>
MP	<i>Marvel Premier</i>
MS-H	<i>Marvel Super-Heroes</i>
MT-O	<i>Marvel Two-in-One</i>
MT-U	<i>Marvel Team-Up</i>
NFASII	<i>Nick Fury, Agent of Shield, volume 2</i>
NGHT	<i>Nightmask</i>
NM	<i>New Mutants</i>
OHMUII	<i>Official Handbook of the Marvel Universe, volume 2</i>
ROM	<i>Rom</i>
SFM	<i>Strikeforce Morituri</i>
SOLO	<i>Solo Avengers</i>
SSI	<i>Silver Surfer, volume 1</i>
SSII	<i>Silver Surfer, volume 2</i>
SS-H	<i>Sensational She-Hulk</i>
SS-M	<i>Spectacular Spider-Man</i>
ST	<i>Strange Tales</i>
THOR	<i>Thor</i>
WS-M	<i>Web of Spider-Man</i>
X-M	<i>The Uncanny X-Men</i>

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Hawking, Stephen W. *A Brief History of Time: From the Big Bang to Black Holes*.

Introduction by Carl Sagan, illustrations by Ron Miller. Toronto: Bantam, 1988.

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PART III
Bibliography

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Science Fiction for Children and Young Adults: Criticism and Other Secondary Materials

Michael M. Levy

It is the purpose of this bibliography to provide the reader with a source of information on every author who has published children's or young adult science fiction of consequence. Some such writers, Madeleine L'Engle and Robert A. Heinlein, for example, have been widely written about. Others, of lesser but still considerable importance, for example, Alexander Key and Diana Wynne Jones, have received scant critical attention. For authors about whom little has been written, the most complete discussion of their work is frequently found in reference books, either those specializing in children's literature or those specializing in science fiction, so I have often directed the reader to such works. A list of the most important reference volumes in children's literature and science fiction will be found in Section A.

A note is perhaps necessary on the criteria used to decide who was or was not to be included in this bibliography. In general, fantasy writers have been excluded, even writers who have done adult science fiction, but whose books for children and young adults are fantasy, for example, Ursula K. LeGuin and C. S. Lewis. A number of writers have been included, however, whose work for children rides the borderline between science fiction and fantasy, for example, L'Engle, Anne McCaffrey, and William Mayne. Materials about authors who write primarily for an adult audience, Isaac Asimov and Robert Silverberg, for example, are included only to the extent that they make direct reference to the author's work for children, consider the appropriateness of the author's adult work for children, or survey the author's entire career. Children's writers known primarily for their non-science fiction, Frank Bonham and K. M. Peyton, for example, are included, but mentioned only briefly. It is occasionally debatable as to whether a certain work or body of work is aimed primarily at an adult or juvenile audience, and I have had to make a number of judgment calls, decisions with which other critics or users of this bibliography may or may not agree. Wells and Verne, for example, have

been excluded, while Burroughs has been included.

The bibliography is in five sections: A. General Reference Works; B. Critical and Historical Works; C. Teaching and Library Resources; D. Science Fiction in NonBook Media; and E. Author Studies. In some cases it was not entirely clear in which section a given article belonged and, again, judgment calls have had to be made. The author entries include cross-references to sections A–E whenever possible. Section E also includes nonauthor entries for popular series written by multiple authors using house names, for example, the Frank Reade and Tom Swift books; these are marked with an asterisk (*). Such series have had a substantial impact on science fiction for children and young adults, but cannot be neatly categorized by author. Cross-referenced with these, however, are further entries on actual authors, for example, Edward Stratemeyer and Luis P. Senarens, and on the house names such as Victor Appleton and Roy Rockwood.

Entries have been annotated as needed. Some titles are self-explanatory and require no comment, while others are followed by a concise summary. Particularly helpful or well-done books and articles have been noted. Works that are important enough to warrant inclusion in this bibliography, but that have some serious flaw, are also noted. In some cases I have included entries for material that I have found reference to in one or more sources but have not actually seen myself. Finally, those entries added late have a lower-case letter following the number in order to preserve the initial cross referencing.

A. GENERAL REFERENCE WORKS

The following is a list of standard reference works in both children's literature and science fiction. Information on most authors of science fiction for children will be found in one or more of these volumes.

1. *American Writers for Children 1900–1960*. Dictionary of Literary Biography, vol. 22. Ed. John Cech. Detroit: Gale, 1983.
2. *American Writers for Children Since 1960: Fiction*. Dictionary of Literary Biography, vol. 52. Ed. Glenn E. Estes. Detroit: Gale, 1986. Entries on several major authors of science fiction for children.
- 2a. *Anatomy of Wonder 4: A Critical Guide to Science Fiction*. Ed. Neil Barron. New York: Bowker, 1995. Most recent edition of a standard reference volume.
3. *Beacham's Guide to Literature for Young Adults*. Science Fiction, Mystery, Adventure, and Mythology, vol 4. Ed. Kirk H. Beetz and Suzanne Niemeyer. Washington, DC: Beacham Publishing, 1993. Extended entries on major works of young adult science fiction.
4. *Children's Literature Review*, vol 1, ed. Ann Block and Carolyn Riley; vol. 2, ed. Carolyn Riley; vols. 3ff., ed. Gerard J. Senick. Detroit: Gale, 1974–93. This on-going series has now reached at least twenty volumes. As well as general material about the authors, it features reviews of each major work.

5. Doyle, Brian. *The Who's Who of Children's Literature*. New York: Schocken, 1968. This volume is dated, but it gives more space to a number of earlier writers than do more recent reference works.
6. Eiss, Harry Edwin. *Literature for Young People on War and Peace: An Annotated Bibliography*. Westport, CT: Greenwood, 1989. Contains brief discussions of a number of novels and picture books set during or after a nuclear war.
7. *Fifth Book of Junior Authors and Illustrators*. Ed. Sally Holmes Holtze. New York: Wilson, 1983.
8. *Fourth Book of Junior Authors and Illustrators*. Ed. Doris De Montreville and Elizabeth D. Crawford. New York: Wilson, 1978. Earlier volumes in this series may also be relevant.
9. Helbig, Alethea K., and Agnes Perkins. *Dictionary of American Children's Fiction, 1859–1959: Books of Recognized Merit*. Westport, CT: Greenwood, 1985.
10. ———. *Dictionary of American Children's Fiction, 1960–1984*. Westport, CT: Greenwood, 1986.
11. Lynn, Ruth Nadelman. *Fantasy Literature for Children and Young Adults: An Annotated Bibliography*. 4th edition. New York: Bowker, 1995. Detailed bibliography covers more than three thousand fantasy novels and collections, including a number of works on the borderline between fantasy and science fiction. A fine piece of work.
12. *More Junior Authors*. Ed. Muriel Fuller. New York: Wilson, 1963. Dated, but contains information on earlier young adult writers not covered in more recent volumes.
13. *The New Encyclopedia of Science Fiction*. Ed. James Gunn. New York: Viking, 1988. This volume, intended to replace the Nicholls encyclopedia (A18), has been widely criticized, but it is still one of the most up-to-date reference sources in the field of science fiction. With the exception of a few individual entries for major writers like Heinlein, Norton, and L'Engle, most discussion of children's and young adult science fiction occurs in an entry entitled "Children's Science Fiction."
14. *The Oxford Companion to Children's Literature*. Ed. Humphrey Carpenter and Mari Prichard. New York: Oxford UP, 1984.
15. Pflieger, Pat. *A Reference Guide to Modern Fantasy for Children*. Westport, CT: Greenwood, 1984. Primarily devoted to fantasy rather than science fiction, this book contains useful material on writers who either wrote in both genres or whose work straddles the line between the two, most notably L'Engle, O'Brien, Mayne, and Cameron.
16. *Readers Guide to Twentieth-Century Science Fiction*. Ed. Marilyn P. Fletcher. Chicago: American Library Association, 1989. This reference book has received somewhat mixed reviews and features a particularly unreadable typeface.
17. *Science Fiction & Fantasy Book Review Annual*. Ed. Robert A. Collins and Robert Latham, 1988–91; Robert A. Collins and Michael M. Levy, 1991 to

date. Westport, CT: Meckler, 1988–89; Westport, CT: Greenwood, 1990 to date. Reviews a wide variety of young adult science fiction novels and a smaller quantity of children's science fiction. A review article entitled "The Year in Young Adult Fiction" and a recommended reading list, both by Muriel Rogow Becker, began with the 1990 volume. An article entitled "The Year in Children's SF" and a recommended reading list by Jill May began with the 1991 volume.

18. *The Science Fiction Encyclopedia*. Ed. Peter Nicholls. London: Roxby, 1979; New York: Doubleday, 1979. Dated, but still the best science fiction reference book ever assembled. The new edition, out in 1993, supersedes the Gunn volume (A13).
19. *Science Fiction Writers*. Ed. Everett F. Bleiler. New York: Scribner's, 1982. Detailed discussions of a relatively small number of writers.
20. *Something About the Author*. Ed. Anne Commire. Detroit: Gale, 1971–90. Ed. Donna Olenorf, 1991 to 1992; Edited subsequently by Diane Telgen, Diane Telgen and Kevin Hile, and Kevin Hile. This on-going series has now reached more than seventy-two volumes and contains valuable information on most authors of science fiction for children and young adults.
21. *Survey of Science Fiction Literature*. 5 vols. Ed. Frank N. Magill. Englewood Cliffs, NJ: Salem, 1979. Extended entries on several hundred science fiction novels, including a number that are considered classics of young adult science fiction by writers like Norton, Heinlein, and Panshin.
22. *Twentieth-Century Children's Writers*. 3rd edition. Ed. Tracy Chevalier. D. L. Kirkpatrick, consulting editor. Chicago: St. James, 1989.
23. *Twentieth-Century Science Fiction Writers*. 2nd edition. Ed. Curtis C. Smith. Chicago: St. James, 1986. After the Nicholls encyclopedia (A18) this is probably the best of the many science fiction reference books on the market. A third edition, edited by Noelle Watson and Paul Schellenger, came out in 1991.

B. CRITICAL AND HISTORICAL WORKS

1. Antczak, Janice. *Science Fiction: The Mythos of a New Romance*. New York: Neal-Schuman, 1985. Although it has been criticized for an overly rigid use of Northrop Frye's theories, this volume, the most ambitious study of children's science fiction yet published, contains much that is valuable.
2. Barr, Marleen S. *Alien to Femininity: Speculative Fiction and Feminist Theory*. Westport, CT: Greenwood, 1987. Barr is primarily interested in adult science fiction, but deals extensively with Pamela Sargent's young adult novel *Watchstar*, as well as with novels by other authors who have done young adult fiction such as Vinge, Mayhar, and Van Scyoc.
3. Bell, John. "Time Voyageurs: An Annotated Checklist of Juvenile Books Involving Fantastic Journeys in Canadian History." *Canadian Children's Literature* 38 (1985): 26–28.

4. Bleiler, Everett F. *Science Fiction: The Early Years*. Kent, OH: Kent State UP, 1991. In this fine and lengthy study (nearly 1,000 pp.), Bleiler discusses virtually every science fiction writer of any importance up to about 1930.
5. Bosmajian, Hamida. "Conventions of Image and Form in Nuclear War Narratives for Young Readers." *Papers on Language and Literature* 26 (1990): 73–89.
6. ———. "Narrative Voice in Young Readers' Fictions About Nazism, the Holocaust and Nuclear War." *The Voice of the Narrator in Children's Literature*. Ed. Charlotte F. Otten and Gary D. Schmidt. Westport, CT: Greenwood, 1989. This excellent study discusses several novels that qualify as science fiction.
7. Brians, Paul. "Nuclear Fiction for Children." *Bulletin of the Atomic Scientists* (July/August 1988): 24–27. By the author of the much-praised *Nuclear Holocausts: Atomic War in Fiction, 1895–1984* (Kent, OH: Kent State UP, 1987). Points out that much of the fiction for children that describes nuclear war tends toward unrealistic happy endings.
8. ———. "Nuclear War Fiction for Young Readers: A Commentary and Annotated Bibliography." *Science Fiction, Social Conflict and War*. Ed. Philip John Davies. Manchester: Manchester UP, 1990. 132–50. Expansion of Brians' earlier article in the *Bulletin of the Atomic Scientists*.
9. Butts, Dennis. "The Adventure Story." *Stories and Society: Children's Literature in Its Social Context*. Ed. Dennis Butts. New York: St. Martin's, 1992. 65–83. This excellent article traces the gradual development of the adventure story for children from the eighteenth century to the present, with an emphasis on the ways in which such stories reflect and sometimes criticize the society in which they appear. It deals with a number of stories that skirt the borders of science fiction, including the work of H. Rider Haggard and P. F. C. Westerman. In his conclusion Butts links contemporary science fiction directly to the flying stories so popular in the earlier part of the twentieth century and comments on the connection between adventure fiction and the work of such writers such as John Christopher, Robert Westall, Jan Mark, and Monica Hughes.
10. Cameron, Eleanor. *The Green and Burning Tree: On the Writing and Enjoyment of Children's Books*. Boston: Little, Brown, 1969. Contains a classic discussion of children's time-travel fantasy. Includes some material on science fiction, though Cameron does not have much good to say about the genre.
- 10a. Clareson, Thomas D. *Understanding Contemporary American Science Fiction: The Formative Period (1926–1970)*. Columbia, SC: U of South Carolina P, 1990. Discusses science fiction for children.
- 10b. Collins, Paul, ed. *Australian Science Fiction and Fantasy*. Melbourne: Melbourne UP, 1998. Includes writers of science fiction for children and young adults.
11. Crew, Hilary. "From Labyrinth to Celestial City: Setting and the Portrayal of the Female Adolescent in Science Fiction." *Journal of Youth Services in*

- Libraries* 2.1(1988): 145–48. Examines fourteen novels, some by young adult authors such as H. M. Hoover, Louise Lawrence, and Robert C. O'Brien, others by authors writing for an adult audience, such as Vonda McIntyre, Joanna Russ, and Kate Wilhelm.
12. Crouch, Marcus. *The Nesbit Tradition: The Children's Novel in England, 1945–1970*. Totowa, NJ: Rowman and Littlefield, 1972. Contains chapters on space travel and time travel that analyze the work of Norton, L'Engle, and others. Crouch particularly praises Norton.
 13. Deane, Paul. *Mirrors of American Culture: Children's Fiction Series in the Twentieth Century*. Metuchen, NJ: Scarecrow, 1991. Deane argues that an examination of such series fictions as the Hardy Boys, Tom Swift, and Nancy Drew can give valuable insight into the attitudes and prejudices of America. He considers a number of series with science-fictional content, including the three Tom Swift series, the Rick Brant books, and the Doris Fein books.
 14. ———. "Science and Technology in the Children's Fiction Series." *Lamar Journal of the Humanities* 16.1 (1990): 20–32. A somewhat different version of this article appears as a chapter in Deane's *Mirror of American Culture*. Most of the science fiction series demonstrate an antihumanities bias.
 15. Dowd, Frances A., and Lisa C. Taylor. "Is There a Typical YA Fantasy? A Content Analysis." *Journal of Youth Services* 5 (Winter 1992): 175–83. Examines a variety of recent fantasy novels to determine similarities in subgenre, characters, theme, setting, and so on. Several of the works discussed are borderline science fiction.
 16. Du Mont, Mary J. "Images of Women in Young Adult Science Fiction and Fantasy, 1970, 1980, and 1990: A Comparative Content Analysis." *Voice of Youth Advocates* 16 (December 1993): 11–15, 21. Female characters have become increasingly well represented over the past two decades. In 1970 only 34 percent of all characters in a typical cross section of young adult science fiction were female, but by 1990 it was up to 44 percent. In 1970 only 3 of 15 protagonists were female, but by 1990 it was up to 9 of 15. Female characters are becoming more active, intelligent, and independent. They are also being given more responsible occupations. This change may in part be due to the increase in women writers in the field.
 17. Egoff, Sheila. *Thursday's Child, Trends and Patterns in Contemporary Children's Literature*. Chicago: American Library Association, 1981. Several chapters of this excellent general study contain material on science fiction.
 18. ———. *Worlds Within: Children's Fantasy from the Middle Ages to Today*. Chicago: American Library Association, 1988. Although primarily concerned with fantasy literature in this study, Egoff discusses a number of science fiction works by L'Engle, McCaffrey, and others.
 19. Engdahl, Sylvia. "The Changing Role of Science Fiction in Children's Literature." *Horn Book* 42 (1971): 449–55. Rpt. in *Children's Literature: Views and Reviews*. Ed. Virginia Haviland. Glenview, IL: Scott Foresman, 1973. 250–55. A major author of science fiction for children argues that it has

become increasingly important to write books that will help young people prepare for change.

- 19a. ———. "The Mythic Role of Space Fiction." *Work and Play in Children's Literature: Selected Papers from the 1990 International Conference of the Children's Literature Association*. Ed. Susan R. Gannon and Ruth Anne Thompson. New York: Pace University, 1992. 14–19. Engdahl argues that science fiction has replaced myth in contemporary culture.
20. Epstein, Connie C. "Young Adult Books." *Horn Book* 63 (1987): 774–77. Young adult literature as a genre shares a number of similarities with science fiction, for example, an interest in topics not relevant to the mainstream.
21. Esmonde, Margaret P. "After Armageddon: The Post-cataclysmic Novel for Young Readers." *Children's Literature* 6 (1977): 211–20. Early survey of the subgenre by an important critic.
22. ———. "Children's Science Fiction." *Children's Literature Association Quarterly* 5 (1981): 1–4. Introduction to the *Quarterly's* first special issue on science fiction.
23. ———. "From Little Buddy to Big Brother: The Icon of the Robot in Children's Science Fiction." *The Mechanical God: Machines in Science Fiction*. Ed. Thomas P. Dunn and Richard D. Erlich. Westport, CT: Greenwood, 1982. 85–98. Science fiction stories for children that contain robots almost invariably turn on matters of heart and conscience.
24. Evans, Gwyneth. "Pseudoscience and Children's Fantasies." *Alternative Library Literature, 1986/87. A Biennial Anthology*. Ed. Sanford Berman and James P. Danky. Jefferson, NC: McFarland, 1988. 146–50. The depiction of psychic phenomena in children's literature can be useful, but it can also be harmful to younger readers if the story implies that such phenomena are a part of ordinary reality.
25. Fortuna, MaryAnn. "A Descriptive Evaluative Study of Children's Modern Fantasy and Children's Science Fiction Using a Well-Known Example of Each." Ed.D. diss. Temple University, 1988. DAI 49:1696A. Principles established by Charlotte Huck are applied to C. S. Lewis' *The Lion, the Witch, and the Wardrobe* and Madeleine L'Engle's *A Wrinkle in Time* to determine whether or not children's science fiction can be classified as a subcategory of children's fantasy. The author concludes that although the genres share several characteristics, they are indeed separate.
26. Glazer, Joan I. "Nuclear Holocaust in Contemporary Children's Fiction: A Surprising Amount of Agreement." *Children's Literature Association Quarterly* 11 (1986): 85–88. Recent young adult fiction on nuclear war concentrates on how such a war might be prevented and, failing that, survived.
27. Greenlaw, M. Jean. "A Study of the Impact of Technology on Human Values as Reflected in Modern Science Fiction for Children." Ph.D. diss. Michigan State University, 1970.
28. Hannigan, Jane Anne. "Youth and Future Studies: Science Fiction Visual Images as a Source for Change." *Frontiers of Library Service for Youth*. New York: Columbia University in the City of New York School of Library

- Service, 1979. 43–56.
29. Hartwell, David G. "The Golden Age of Science Fiction is 12." *Top of the News*, 39 (1982): 39–53. Rpt. in *Age of Wonders, Explaining the World of Science Fiction*. New York: Walker, 1984. 3–24. One of the science fiction field's finest editors discusses the genre and the interest it holds for adolescents.
 30. Hollindale, Peter. "The Darkening of the Green." *Signal* 61 (1990): 3–19. On the environmentalism in much children's literature from the 1930s onward and the influence of the Robinsonnade form. On why Lucy Boston's fantasy *A Stranger at Green Knowe* may be the "outstanding children's book of modern times." On why most post-holocaust science fiction is misguided.
 31. James, Edward. "Yellow, Black, Metal and Tentacled: the Race Question in American Science Fiction." *Science Fiction, Social Conflict and War*. Ed. Philip John Davies. Manchester: Manchester UP, 1990. 26–49. Discusses the treatment of race and racism in the work of a number of writers, including Asimov, Burroughs, and Heinlein.
 32. Kennedy, DayAnn M., Stella S. Spangler, and Mary Ann Vanderwerf. *Science and Technology in Fact and Fiction: A Guide to Children's Books*. New York: Bowker, 1990. Although primarily concerned with the use of science and technology in nonfiction and realistic fiction, this volume also covers science fiction works by a number of writers, including A. M. Lightner, Jay Williams, and Jane Yolen. It is particularly valuable because it concentrates on picture books and works for preteens, many of which are not discussed in other sources.
 33. ———. *Science and Technology in Fact and Fiction: A Guide to Young Adult Books*. New York: Bowker, 1990. Discusses the use of science and technology in fiction by Asimov, Heinlein, Hoover, L'Engle, Norton, Sleator, and others.
 34. Ketterer, David. *Canadian Science Fiction and Fantasy*. Bloomington: Indiana UP, 1992. Includes a chapter on writers for children, with special emphasis on the work of Monica Hughes. A major work.
 35. Kies, Cosette. *Presenting Young Adult Horror Fiction*. New York: Twayne, 1992. Most of the authors covered in this study write primarily for an adult audience but are also very popular with younger readers. Several, most noticeably Dean Koontz and Stephen King, produce horror fiction that also qualifies as science fiction. Written for a teenage audience, the book does little more than summarize plots.
 36. Lee, Patrick. "Space Opera for Children." *Vector* 140 (1987): 9–10. Not seen.
 - 36a. Lenz, Millicent. "Am I My Planet's Keeper? Dante, Ecosophy, and Children's Books." *Children's Literature Association Quarterly* 19 (Winter 1994–95): 159–64. A study of ecological fiction, some of it science fiction.
 37. ———. "Danger Quotient, Fiskadoro, Riddley Walker, and the Failure of the Campbellian Monomyth." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 113–20. Fine study of three novels set after the nuclear holocaust, although only *Danger Quotient* is

clearly intended for a young adult audience.

38. ———. *Nuclear Age Literature for Youth: The Quest for a Life-Affirming Ethic*. Chicago: American Library Association, 1990. The most recent and most detailed study of children's literature about nuclear war. A superb piece of work.
39. Levy, Michael. "Selected Bibliography of Criticism." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 205–6.
40. Lowentrou, Peter M. "The Influence of Speculative Fiction on the Religious Formulation of the Young: A Preliminary Statistical Investigation." *Extrapolation* 28 (1987): 345–59. Younger readers of science fiction are more likely to believe in psychic phenomena than are their non-science-fiction-reading peers. Interest in both science fiction and psychic phenomena may well be related to the increased secularization of modern society. An excellent essay.
41. ———. "The Rags of Lordship: Science Fiction, Fantasy, and the Reenchantment of the World." *Mythlore* 41 (1985): 47–51, 57. Not seen.
42. Lynn, Elizabeth. "Women in, of, and on Science Fiction." *Top of the News* 39 (1982): 72–75. Brief discussion of women and science fiction by a major science fiction writer.
43. Maguire, Gregory. "Belling the Cat: Heroism and the Little Hero." *The Lion and the Unicorn* 13.1 (1989): 102–19. The concept of heroism seen in terms of Aesop's fable. Examines works by Langton, O'Brien, and L'Engle.
44. Mahon, R. L. "The Epic Tradition in Science Fiction and Fantasy." *Teaching English in the Two-Year College* 14 (1987): 47–51. Not seen.
45. Massart, Pierre. "Literature and Paraliterature: Writings for Children and Young People." *International Social Science Journal* 28 (1976): 161–83. Examines the social and political factors governing the production and consumption of literature for children.
46. May, Jill, and Perry Nodelman. "The Perils of Generalizing about Children's Science Fiction." *Science-Fiction Studies* 39 (1986): 225–29. May's piece is a response to Nodelman's article in the November 1985 issue of *Science-Fiction Studies* (A57). Nodelman answers her response.
47. Milosh, Joseph E., Jr. "Reason and Mysticism in Fantasy and Science Fiction." *Young Adult Literature: Background and Criticism*. Ed. Millicent Lenz and Ramona M. Mahood. Chicago: American Library Association, 1980. 433–39.
48. Molson, Francis J. "Children's and Young Adult Science Fiction." *Anatomy of Wonder. A Critical Guide to Science-Fiction*. 4th edition. Ed. Neil Barron. New York: Bowker, 1995. 393–454. This excellent, brief survey of the field puts heavy emphasis on Heinlein's influence. Molson and Miles provide a selective but heavily annotated bibliography of the major works of children's and young adult science fiction.
49. ———. *Children's Fantasy*. Mercer Island, WA: Starmont House, 1989. Concerned primarily with fantasy literature, this fine study includes discussion of a number of borderline science fiction works by L'Engle, Yep, Steele,

and others.

50. ———. "Children's Fantasy and Science Fiction." *The Science Fiction Reference Book*. Ed. Marshall Tymn. Mercer Island, WA: Starmont House, 1981. 19–32.
51. ———. "Juvenile Science Fiction, 1975–1976." *Children's Literature* 6 (1977): 202–11. Survey of young adult science fiction published over a two-year period.
52. ———. "The Winston Science Fiction Series and the Development of Children's Science Fiction." *Extrapolation* 25 (1984): 34–50. In 1952 Winston began publishing hardcover young adult science fiction by Heinlein, Poul Anderson, and others. The series was instrumental in gaining the genre acceptance within the mainstream of children's literature.
53. ———. "Writing for the 'Electric Boy': Notes on the Origins of Children's SF." *Children's Literature Association Quarterly* 5 (1981): 9–12. This article discusses early science fiction written expressly for children, including the work of Baum and the Stratemeyer Syndicate.
54. Morgan, Argiro L. "The Child Alone: Children's Stories Reminiscent of *E.T.: The Extra-Terrestrial*." *Children's Literature in Education* 16.3 (1985): 131–42. Discusses the work of Anne McCaffery and other writers.
55. Muller, Al. "Doomsday Fiction and the YA Reader." *ALAN Review* 16.1 (1988): 42–45. Examines the continuing appeal that such novels as Pat Frank's *Alas, Babylon* and Robert C. O'Brien's *Z for Zachariah* have for the young adult reader.
56. Nimon, Maureen. "Living With Ourselves: Recent Australian Science Fiction for Children and Young People." *Children's Literature Association Quarterly* 15 (1990): 185–89. Work published between 1979 and 1989 by such writers as Lee Harding and Gillian Rubinstein tends to stay close to home, dealing with such specifically Australian concerns as the treatment of native peoples, isolation from other societies, and the impossibility of feeling fully at home in one's own land.
57. Nodelman, Perry. "Out There in Children's Science Fiction: Forward into the Past." *Science-Fiction Studies* 12 (1985): 285–96. This important article discusses the many children's science fiction novels that move from an enclosed space, a sealed community after an atomic war, for example, to an open space, often a wilderness or the world at large. See Jill May's response (A46).
58. Nutz, Walter, and Volker Schlogell. "Die Heftroman-Leserinnen und -Leser in Deutschland. Beiträge zur Erfassung populärkultureller Phänomene." *Communications* 16 (1991): 133–235. The authors evaluated questionnaires filled out by more than 6,000 German-language readers of dime novels, including romances, westerns, science fiction, horror, and mysteries, to assess their sociodemographic characteristics, lifestyles, and reading behaviors.
59. Panshin, Alexei. "A Critical Examination of Science Fiction for Young People." M.A. thesis, University of Chicago, 1966. Early opinions of a major

science fiction writer and critic.

60. Roberts, Thomas. "Science Fiction and the Adolescent." *Children's Literature* 2 (1973): 87–91. Dated but worthwhile early essay by the author of the more recent *The Aesthetics of Junk Fiction*.
61. Sammons, Martha C. "A Better Country": *The Worlds of Religious Fantasy and Science Fiction*. Westport, CT: Greenwood, 1988. Sammons primarily deals with such writers of fantasy as Tolkien, McDonald, and, Lewis, but also discusses L'Engle and other science fiction writers as well.
62. Schwarcz, H. Joseph. "Machine Animism in Modern Children's Literature." *A Critical Approach to Children's Literature*. Ed. Sara Innis Fenwick. Proceedings from the Thirty-first Annual Conference of the Graduate Library School, 1–3 August 1966. Chicago: U of Chicago P, 1975. 78–95. The author claims that the popularity of animated machines in children's literature, even when those machines are benevolent, is a result of the adult author's repressed anxiety about technology. Exposure to too many such stories is not good for children.
63. Shinn, Thelma. *Worlds Within Women: Myth and Mythmaking in Fantastic Literature by Women*. Westport, CT: Greenwood, 1986. The title of this thought-provoking study is self-explanatory. Shinn discusses the work of a number of young adult science fiction and fantasy writers, including Norton, Sargent, Van Scyoc, and Vinge.
64. Shippey, Tom. "The Golden Bough and the Incorporation of Magic in Science Fiction." *Foundation* 11/12 (1977): 119–34.
65. Spinrad, Norman. "Science Fiction and the Transformation Crisis." *Quantum* 39 (1991): 5–7. Transcript of a speech delivered at the annual Paris conference on children's books, the Salon du Livre de Jeunesse, 30 November 1990. Spinrad addresses the radical change currently going on in our society and its significance for children and educators.
66. Sullivan, C. W. III. "Real-izing the Unreal: Folklore in Young Adult Science Fiction and Fantasy." *Literature for Children: Contemporary Criticism*. Ed. Peter Hunt. London: Routledge, 1992. 141–55. Discusses various uses of folklore by such writers as Heinlein and Tolkien.
- 66a. ———. *Science Fiction for Young Readers*. Westport, CT: Greenwood, 1993. Collection of critical essays covering a wide range of science fiction for young adults. Each essay has received an individual entry in this bibliography.
67. Svilpis, Janis. "Authority, Autonomy, and Adventure in Juvenile Science Fiction." *Children's Literature Association Quarterly* 8 (1983): 22–26. Science fiction, even that ostensibly written for adults, has traditionally dealt first and foremost with the most pressing concerns of adolescent boys.
68. Swinfen, Ann. *In Defense of Fantasy*. London: Routledge & Kegan Paul, 1984. Although primarily concerned with fantasy fiction, this book contains valuable discussion of science fiction works by Christopher, Langton, L'Engle, Mayne, Norton, and O'Brien.
69. Townsend, John Rowe. *A Sense of Story: Essays on Contemporary Writers for*

- Children*. Philadelphia: Lippincott, 1971. Essays on a variety of fantasy and science fiction writers, including Christopher, L'Engle, Mayne, and Norton.
70. ———. *A Sounding of Storytellers: New and Revised Essays on Contemporary Writers*. Philadelphia: Lippincott, 1979. A fine critic discusses the fantasy and, to some extent, the science fiction of Hamilton, Dickinson, and others.
71. Webb, Hanor A. "Science Fiction Writers: Prophets of the Future." *Library Journal* 80 (1955): 2884–85.
72. Weber, Thomas J. "Children's Science Fiction." *The Twentieth Century*. Ed. William T. Moynihan and Mary E. Shaner. Vol. 8. *Masterworks of Children's Literature*. New York: Stonehill, 1986. General survey of the high points in the field.
73. Wehmeyer, Lillian B. "The Future of Religion in Junior Novels." *Catholic Library World* 54 (1983): 366–69. Examines the work of Engdahl, Hoover, and others.
74. ———. *Images in a Crystal Ball. World Futures in Novels for Young People*. Littleton, CO: Libraries Unlimited, 1981. The first book-length study of children's science fiction, this somewhat dated, but still useful volume concentrates on how such works portray the future and on their suitability for use in the classroom. Contains an index of common themes and motifs. The bulk of the volume consists of detailed plot summaries with brief analysis. Best books are starred.
75. Whitehead, Winifred. *Old Lies Revisited: Young Readers and the Literature of War and Violence*. London: Pluto, 1991. A study of children's literature concerning war which focuses on both "the macho images which are encouraged in readers and also the grimmer realities which lie behind such images and behind the idealisation and social approval of both violence and war." The book covers an impressive range of historical and contemporary fiction, as well as science fiction.
- 75a. Wiseman, Gillian. "Visions of the Future: The Library in Science Fiction." *Journal of Youth Services in Libraries* 7 (Winter 1994): 191–98. Examines descriptions of libraries in twenty three young adult science fiction novels.
76. Wolf, Virginia L. "Feminist Criticism and Science Fiction for Children." *Children's Literature Association Quarterly* 7 (1982–83): 13–16. This essay applies the criticism of Ursula K. Le Guin and Pamela Sargent to both adult science fiction read by children and science fiction specifically written for children.
77. Yep, Laurence. "Fantasy and Reality." *Horn Book* 54 (1978): 137–43. A successful young adult writer discusses how these two concepts interact in his own work and that of other science fiction writers.
78. Zipes, Jack. "The Age of Commodified Fantasticism: Reflections of Children's Literature and the Fantastic." *Children's Literature Association Quarterly* 9 (1984–85): 187–90. Argues that all fantasy literature involves an implicit sociopolitical critique of the real world and that the popularity of fantasy is in part a sign of current dissatisfaction with our world. Among the works

discussed is John Christopher's *Winchester Trilogy*.

C. TEACHING AND LIBRARY RESOURCES

1. Adair, Susan Anderson. "Science Fiction in Elementary Science Education: A Content Analysis of the Quality and Validity of Scientific Referents in and the Readability of Selected Science Fiction Literature for Children Published between 1940–1959 and 1960–1980." Ed.D. diss. Temple University, 1983. DAI 44:68A.
2. Adams, John. "Linkages: Science Fiction and Fantasy." *School Library Journal* 26 (1980): 23–28. Survey of the field to 1979. Aimed at school and children's librarians.
3. Antczak, Janice. "Future Tense: Science Fiction Confronts the New Science." *School Library Journal* 36 (1990): 29–32. An excellent brief survey of recent young adult science fiction novels that make use of up-to-date scientific materials. Antczak discusses books by Sargent, Yep, Lawrence, and others.
4. Aukerman, Charles W. "SF in the Classroom: Developing a High School Reading List." *Extrapolation* 18 (1977): 155–61.
5. Banks, Michael. *Understanding Science Fiction*. Needham Heights, MA: Silver Burdett, 1982. A general introduction to the genre, aimed at high school teachers. The material is dated, but a number of useful activities are recommended.
6. Barra, Paul A. "It Was a Dark and Stormy Chemistry Class . . . ; How One Teacher's Class Turned Fact into Fiction." *The Science Teacher* 55 (88): 33–36. Students in a ninth grade science class write science fiction stories based on the scientific principles they have learned.
- 6a. Barron, Daniel D. "Books and Cyberspace: Celebrations of Tradition and Innovation in the School Library Media Program." *School Library Media Activities Monthly* 9 (November 1992): 47–50. Discusses applications of virtual reality and cyberspace to school media programs. Includes examples of science fiction dealing with this topic.
7. Becker, Muriel. "Ideas and Activities for Teaching of Science Fiction and Fantasy." *Media and Methods* 16 (1979): 36–37, 52–55. Suggests learning activities for the elementary and secondary classroom.
8. Belden, Elizabeth A., and Judith M. Beckman. "Dragons, Dystopias, and Time Travel: Fantasy and Science Fiction for Everyone." *English Journal* 80 (1991): 78–81. Annotated bibliography of twelve excellent fantasy and science fiction works for adolescents.
9. Bell, Robert, and Dorothy Zjewin. "Try Sci Fi for Reading That's Out of This World!" *Instructor* 92 (1983): 2–34, 36–37, 39. Books based on successful science fiction movies such as *E.T.* and *Star Wars* can be used to promote reading.
10. Bereit, Virginia F. "Genre of Science Fiction." *Elementary English* 46 (1969): 895–900.

- 10a. "Best Science Fiction, Fantasy and Horror." *Voice of Youth Advocates* 17 (April 1994): 7-10, 19. Recommendations for young adult readers.
11. Bick, Ilsa J. "Aliens Among Us: A Representation of Children in Science Fiction." *Journal of the American Psychoanalytic Association* 37 (1989): 737-59. Discusses adult fears concerning children as the other, particularly as such fears manifest themselves in the work of Ray Bradbury.
- 11a. Bushman, John H., and Kay Parks Bushman. "Out of This World Literature for the Young Adult." *English Journal* 82 (January 1993): 78-80. Best young adult science fiction.
12. Caywood, Carolyn. "Close Encounters of the Committee Kind." *School Library Journal* 37 (1991): 49. How the ALA selection committee chooses science fiction.
- 12a. ———. "Computers in Fiction." *Voice of Youth Advocates* 16 (December 1993): 275-78, 281. Update of a 1995 article and annotated bibliography.
13. Chang, Margaret. "Fantasy Literature: Encounters in the Globe of Time." *School Library Journal* 36 (1990): 163. A discussion of time travel stories, mostly fantasy, but some science fiction.
14. Collins, Robert A. "Extrapolation: Going Beyond the Present." *Media and Methods* 16 (1979): 22-25. Understanding how extrapolation works can sharpen the young reader's appreciation of how science fiction is created.
15. Cook, John T., Jr. "Student Attitude: A Comparison of Science Fiction Literature and Reading Values." Ed.D. diss. Brigham Young University, 1979. DAI, 40:3931A.
16. Coville, Bruce. "About Tomorrow. Learning with Literature." *Instructor* 101 (1992): 20, 22-23. A successful young adult science fiction writer argues that science fiction is a valuable teaching tool in the elementary school classroom. Includes a sample science fiction unit and lists of recommended books and activities.
17. Cox, Mitch. "Engendering Critical Literacy through Science Fiction and Fantasy." *English Journal* 79 (1990): 35-38. Describes a nine-week mini-course on science fiction and fantasy for secondary schools that was used to teach critical thinking skills.
- 17a. Davis, James C., and Alison Smalley. "Attracting Middle School Readers with William Sleator's *Strange Attractors*." *English Journal* 82 (February 1993): 76-77.
18. Deane, Paul. "A Century of Xenophobia in Fiction Series for Young People." *Journal of Youth Services in Libraries* 3 (1990): 117-27. Series such as Tom Swift have traditionally portrayed non-Americans as inferior, engaging in the worst kind of racial and ethnic stereotyping.
19. Dobrowoiski, Ryszard. "Self-Acceptance and Psychosemantic Text Representation." Trans. H. Grzegolowska-Klarkowska. *Polish-Psychological Bulletin* 20 (1989): 95-102. Examines the effect of self-acceptance on psychosemantic text representation among secondary students. Text used was an example of science fiction.
20. Dohner, Jan. "Literature of Change: Science Fiction and Women." *Top of the*

- News* 34 (1978): 261–65. Brief survey article with a list of science fiction works with strong female characters. Strong emphasis on juvenile titles and in particular Andre Norton.
21. Donawerth, Jane. "Teaching Science Fiction by Women." *English Journal* 79 (1990): 39–46. Discusses the history of science fiction written by women and the value of teaching such works to high school students.
 22. Dorrell, Larry D., and Carey T. Southall. "Captain America: A Hero for Education?" *Clearing House* 55 (1982): 387–88. Comic books serve a purpose in promoting literacy.
 23. Dubeck, Leroy W., et al. "Science Fiction Aids Science Teaching." *Physics Teacher* 28 (1990): 316–18.
 24. ———. *Science in Cinema: Teaching Science Fact Through Science Fiction Films*. New York: Teachers College P, 1988.
 25. Eaglen, Audrey B. "Alternatives: A Bibliography of Books and Periodicals on Science Fiction and Fantasy." *Top of the News* 39 (1982): 96–102. Somewhat dated but still worth consulting.
 26. Farrer, Claire R. "Honors Anthropology and the Four Rs." *Anthropology and Education Quarterly* 21 (1990): 134–40. Science fiction by Le Guin and Herbert is used to make material in an honors anthropology course relevant.
 27. Ferns, Chris. "Where Do We Go after *Star Wars*? Recent Children's Science Fiction." *Canadian Children's Literature* 33 (1984): 81–85.
 28. Fraknoi, Andrew. "Science Fiction Stories with Reasonable Astronomy." *Mercury* 19 (1990): 26–30. A "resource list" of stories with accurate material on such topics as antimatter, black holes, comets, the planets, supernovae, and so on.
 29. Freedman, R., and W. Little. "Physics 13: Teaching Modern Physics Through Science Fiction." *American Journal of Physics* 48 (1980): 548.
 30. Freer, Arlie. "Fetching the Future: Librarians and Science Fiction." *Emergency Librarian* 17 (1989): 21–25. Because of its value to young readers, librarians must overcome any prejudice they may have against science fiction and provide it as part of a well-balanced curriculum.
 31. ———. "Science Fiction for Children and Youth of the 80s: Trying the Future on for Size." *School Libraries in Canada* 4 (1984): 9–12.
 32. Friend, Beverly. "Turning Readers into Fans." *Media and Methods* 16 (1979): 36–37, 53–55.
 33. *Getting Hooked on Science Fiction* (filmstrip-cassette). White Plains, NY: Guidance Associates, 1976. An introduction to science fiction that uses works by Cameron, Christopher, Clarke, Del Rey, Engdahl, Verne, Nourse, Norton, L'Engle, and O'Brien.
 34. Goldbort, Robert C. "Literature, Science and Liberal Education: Toward Integrative Studies." *Teaching English in the Two-Year College* 18 (1991): 121–25. Fiction about science can help students integrate scientific and humanistic studies.
 35. ———. "Science in Literature: Materials for a Thematic Teaching Approach." *English Journal* 80 (1991): 69–73.

36. Goodwin, Pearl. "Elements of Utopia in Young Adult Literature." *English Journal* 74 (1985): 66–69. Discusses utopian elements primarily in nonscience fiction, but also examines works by Heinlein and Silverberg. The study of utopias will help students learn how to strive to improve their lives.
37. Gough, Noel. "An Accidental Astronaut: Learning with Science Fiction." *Reflections from the Heart of Educational Inquiry: Understanding Curriculum and Teaching through the Arts*. Ed. George Willis and William H. Schubert. Albany: SUNY P, 1991. 312–20. A science teacher discusses how reading science fiction helped form his worldview.
38. Grady, Joan B. "Science Fiction: The Future in the Classroom." *Reading Horizons* 19 (Spring 1979): 193–96. Suggestions for activities.
39. Grant, Nigel. "Education for A.D. 2001: Science Fiction, Futurology and Educational Planning." *Scottish Educational Review* 13 (1981): 91–104. Science fiction has value as a guide to possible future educational needs in Scotland's secondary schools.
40. Green, Roland J. "Modern Science Fiction and Fantasy: A Frame of Reference." *Illinois School Journal* 57 (1977): 45–53. Brief history of the two genres by a veteran writer. Includes a bibliography of recommended works.
41. Greenlaw, M. Jean. "Science Fiction as Moral Literature." *Educational Horizons* 65 (1987): 105–6. Science fiction can be used in the classroom to encourage children to consider important moral issues.
42. ———. "Science Fiction: Images of the Future, Shadows of the Past." *Top of the News* 39 (1982): 64–71.
43. ———. "Science Fiction: Impossible! Improbable! or Prophetic?" *Elementary English* 47 (1971): 196–202.
44. ———. "A Study of the Import of Technology on Human Values as Reflected in Modern Science Fiction for Children." Ph.D. diss. Michigan State University, 1970. Shows that children's science fiction does indeed teach values.
45. Gunn, James. "A Basic Science Fiction Library." *Library Journal* 15 (1988): 25–31. A noted scholar and science fiction author's annotated bibliography of one hundred classic science fiction volumes.
46. Harris, June. "How to Tell the Schlock from the Good Stuff in Science Fiction." *The ALAN Review* 19 (1992): 38–40. Suggestions for teachers on selection.
47. Haynes, Carol. "The Explanatory Power of Content for Identifying Children's Literature Preferences." Ed.D. diss. Northern Illinois University, 1988. DAI 49:3617A. The author examined the reading preferences of a large sample of fourth-grade boys and girls. Her conclusions: girls tend to prefer mystery, suspense, realistic fiction, and fantasy; boys tend to prefer mystery, suspense, science fiction, and science. Further, children do not differentiate in their preferences between reading and film or TV.
48. Henly, Carolyn Powell. "Escape from the Twilight Zone: Reading and Writing with 'At Risk' Students." *The ALAN Review* 19 (1992): 31–37. Why fantasy and science fiction work for "at risk" readers.
49. Hickerson, Benny. "Fantasy and Satire: Imaginative Literature." *The ALAN*

- Review 12* (1985): 16–19. Classroom units for teaching Douglas Adams' *The Hitchhiker's Guide*, as well as *The Little Prince* and *Alice's Adventures in Wonderland*.
50. Hollister, Bernard C., and Deane C. Thompson. *Grokking the Future: Science Fiction in the Classroom*. Dayton, OH: Pflaum/Standard, 1973.
 51. Hughes, Monica. "Demystifying and Using Science Fiction in the Classroom." *Bookquest* 10.3 (1987): 7–13. A noted author of young adult science fiction discusses various classroom approaches to the genre.
 52. Hunter, C. Bruce. "Science: Fiction for Teachers." *Science Activities* 17 (1980): 9–12. Describes the use of science fiction in the classroom to help introduce science concepts.
 53. Jacobs, Leland B. "Science Fiction for Children." *Instructor* 70 (1970): 71–72.
 54. Jorgensen-Esmaili, Karen. "Making the Reading, Writing, Social Studies Connection." *Social Studies and the Young Learner* 2 (1990): 20–22. Article suggests incorporating other learning activities within the context of literature, including science fiction.
 55. Kafka, Janet. "Why Science Fiction?" *English Journal* 65 (1975): 46–53. Rpt. in *Young Adult Literature in the Seventies. A Selection of Readings*. Ed. Jana Varlejs. Metuchen, NJ: Scarecrow, 1978. 313–26.
 56. Kamerman, Sylvia, ed. *Space and Science Fiction Plays for Young People*. Boston: Plays, Inc., 1981.
 57. Kay, Andrea L., and Michael Golden. "Science Fiction Across the Curriculum." *Learn* 91 20 (1991): 40–43. Various activities for the elementary school classroom. How to integrate science fiction with language arts, science, social studies, math, and so on.
 58. Klaus, Annette Curtis. "Booktalking Science Fiction to Young Adults." *Journal of Youth Services* 3 (1990): 102–16. Identifies the specific elements in science fiction that appeal to young adults. Includes an extended bibliography of science fiction works.
 59. ———. "A Hitchhiker's Guide to Science Fiction." *School Library Journal* 35 (1988): 120–23. A general survey of adult science fiction that will appeal to younger readers. Discusses several young adult science fiction novels, particularly those of Patricia McKillip.
 60. Komatsu, Lloyd K. "Children's Reasoning About Social, Physical, and Logical Regularities: A Look at Two Worlds." *Child Development* 57 (1986): 413–20. Six-, eight-, and ten-year-old children were interviewed about the possibility of change in social conventions, physical laws, and logical necessities, both in our world and on another world. Boys were found more willing to accept the possibility of change, perhaps because of a stronger interest in science fiction.
 61. La'Faille, Eugene. "Computers in Science Fiction." *Voice of Youth Advocates* 8 (1985): 103–6. This is primarily an annotated bibliography of science fiction about computers, most, though not all, of which will be of interest to young adult readers.

62. ———. "Science Fiction: Top Guns of the 1980s." *Wilson Library Bulletin* 65 (1990): 33–39. Discusses the best science fiction published between 1980 and 1989, with particular emphasis on fiction appropriate for high school students. Includes a bibliography.
63. Lerner, Fred. "The Libertarian Ideal in Science Fiction." *Voice of Youth Advocates* 13 (1990): 17–18. Lerner does a regular short column in *VOYA* on science fiction topics of interest to teachers.
64. MacRae, Cathi. "Timescapes in Cambridge." *Wilson Library Bulletin* 64 (1989): 22–25. Discusses the "Travelers in Time: Past, Present and to Come" summer institute held at Cambridge University in August 1989 which involved a number of major children's writers, including Cameron, Maguire, and Townsend.
65. Marks, Dorothy. "When Children Write Science Fiction." *Language Arts* 62 (1985): 355–61. Teaching creative writing to fourth graders.
66. Marks, Gary H. "Teaching Biology with Science Fiction." *American Biology Teacher* 4 (1978): 275–79. Contains a bibliography.
67. Marshall, David F. "That Great Curriculum in the Sky." *Colloquy* (May 1971): 32–33. Rpt. in *Young Adult Literature in the Seventies. A Selection of Readings*. Ed. Jana Varlejs. Metuchen, NJ: Scarecrow, 1978. 327–30.
68. Martin-Diaz, M. J., et al. "Science Fiction Comes into the Classroom: 'Maelstrom II.'" *Physics Education* 27 (1992): 18–23. The author suggests that physics teachers should take the science in science fiction seriously and examine it critically in order to increase the motivation of students to learn scientific concepts. Uses Arthur C. Clarke's "Maelstrom II" as an example.
69. McGhan, Barry. "Whither High School Science Fiction." *English Journal* 71 (March 1982): 54–55. Defense of science fiction as an elective in the high school English curriculum.
70. Michalsky, Walt. "Manipulating Our Futures: The Role of Science Fiction in Education." *Clearing House* 52 (1979): 246–49.
71. Muller, Al, and C. W. Sullivan III. "Science Fiction and Fantasy Series Books." *English Journal* 69 (1980): 71–74. Lists the major genre series and briefly discusses the popularity of series work.
72. Myers, Alan. "Science Fiction in the Classroom." *Children's Literature in Education* 9 (1978): 182–87. Using a cross-disciplinary approach to science fiction.
73. *Outer Space . . . Calling All Readers*. 1991 Summer Reading Program Manual. Raleigh: NC State Department of Cultural Resources, 1990. Guidelines for librarians planning a summer reading program.
74. Payson, Patricia. *Science Fiction: Self-Directed Study Units for Grades K–3 and 4–8, Gifted*. Tucson: Zephyr, 1982. This short volume contains two interdisciplinary reproducible units on science fiction designed to emphasize the use of higher order thinking skills and suitable for any classroom.
75. Pell, Sarah-Warner J. "Asimov in the Classroom." *Journal of Reading* 21 (1977): 258–61. Examines the use of Asimov's fiction in the classroom and suggests appropriate grade levels for various works.

76. Pierce, Meredith Ann. "Out of This World: Science Fiction Booktalks for the Adolescent as Public Library Sponsored Programs in the School." *Voice of Youth Advocates* 14 (1991): 148–58. A noted fantasy writer makes some very specific suggestions for booktalks.
77. Prothero, James. "Fantasy, Science Fiction, and the Teaching of Values." *English Journal* 79 (1990): 32–34. Discusses the seriousness of modern science fiction and argues that the genre is an appropriate vehicle for teaching values.
78. Reynolds, John. "Teaching Socialization through Science Fiction." *Clearing House* 56 (1983): 404–7. Provides a rationale for using science fiction to teach socialization skills. Gives a list of resources.
79. Rubba, Peter A. "Science Fiction and High School Students' Attitudes toward Science." *Hoosier Science Teacher* 7(February 1982): 85–88.
80. Sampson, Roger. "Science Fiction in the Classroom." *English in Education* 6 (1972): 55–58. Ideas for the secondary school classroom.
81. Schlobin, Roger C. "Preparing for Life's Passages: How Fantasy Literature Can Help." *Media and Methods* 16 (1979): 26, 29, 50–51. Due to its archetypal nature, fantasy and science fiction can help students gain insight into their own lives.
82. Schmidt, Stanley. "SF in the Classroom: Science Fiction and the High School Teacher." *Extrapolation* 17 (1976): 141–50. Advice from a noted science fiction editor and writer.
83. Schwartz, Sheila. "Science Fiction as Prophecy." *Teaching Adolescent Literature. A Humanistic Approach*. Rochelle Park, NJ: Hayden, 1979. 181–98. The article surveys a wide range of science fiction and the ways in which these works deal with such topics as nuclear holocaust, overpopulation, and thought control. Suggestions are provided for students studying these works.
84. Shackelford, L. "Science Fiction and Fantasy Books Prepare Teens for Life's Realities." *Unabashed Librarian* 70 (1990): 9–11. A list of science fiction novels particularly suited to young adults.
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86. Spencer, Pam. "Easy Talking: Science Fiction." *Voice of Youth Advocates* 13 (1990): 19–20.
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88. Stevens, Carol D. "SF in the Classroom." *Children's Literature Association Quarterly* 5 (1981): 16–20. This article surveys a number of textbooks on science fiction published between 1972 and 1980.
- 88a. Strickland, Diana, et al. "Favorite Writers in Science Fiction and Fantasy." *English Journal* 82 (October 1993): 83–85. Gives responses of six teachers

- to the question: "Who is your favorite writer of science fiction or fantasy?"
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 92. Tymn, Marshall B. "A Guide to AV Resources in Science Fiction and Fantasy." *Media and Methods* 16 (1979): 41-43, 55-59.
 93. ———. "Science Fiction: Coping with Change." *Media and Methods* 16 (1979): 18-20. Why science fiction is not escapist.
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science fiction and realistic literature and describes several science fiction-based writing assignments.

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D. SCIENCE FICTION IN NONBOOK MEDIA

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2. Baron-Carvais, Isabelle. "Superheroes to America's Rescue; Les Super-Héros au secours de l'Amérique." *Raison présente* 64 (1982): 49–59. Superheroes such as Superman, Batman, and Captain America are used to help young readers make sense of contemporary society and to reinforce middle-class American ideology.
3. Bentham, Jeremy. *Doctor Who: The Early Years*. London: W. H. Allen, 1986.
4. Benton, Mike. *Science Fiction Comics: The Illustrated History*. Dallas: Taylor, 1992. Benton is a fan writing for fans. His book is entertaining but not that reliable, and his critical instincts are not always to be trusted.
5. ———. *Superhero Comics of the Golden Age: The Illustrated History*. Dallas: Taylor, 1992. A companion to D4. Same strengths and weaknesses.
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7. Brandt, Pamela Robin. "Infiltrating the Comics." *Ms.* 2 (1991): 90–92. Discusses recent changes in superhero comics. Many of them now examine such previously taboo topics as sexism, abortion, environmentalism, and gay and lesbian rights.
8. Carter, Steven. "Avatars of the Turtles." *Journal of Popular Film and Television* 18 (1990): 94–102. Examines the gradual change in our attitude toward technology as typified in a number of science fiction films and television shows, most recently the Ninja Turtles.
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 21. Haining, Peter, ed. *Doctor Who: A Celebration*. London: W. H. Allen, 1983. Miscellaneous collection of pieces on the long-running children’s science fiction series. Aimed at fans.
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 28. Kuiper, K. “Star Wars: An Imperial Myth.” *Journal of Popular Culture* 21.4 (1987): 77–86.

29. Lang, Jeffrey S., and Patrick Trimble. "Whatever Happened to the Man of Tomorrow? An Examination of the American Monomyth and the Comic Book Superhero." *Journal of Popular Culture* 22.3 (1988): 157-73.
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- 30a. Latourette, Debra Jane. "Doctor Who Meets Vladimir Propp: A Comparative Narrative Analysis of Myth/Folktale and the Television Science Fiction Genre." Ph.D. diss. Northwestern University, 1990. DAI 51:1817A.
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31. Lenz, Millicent. "E.T.: Cosmic Myth for Space-Age Children." *Children's Literature Association Quarterly* 8 (1983): 3-5. Examines the film's heavy use of myth. Fine article.
32. Levy, Michael M. "Who, What, and Why? Character Motivation in *Doctor Who*." *Children's Literature Association Quarterly* 10 (1985): 76-79. Argues that the characters of Doctor Who, his assistants, and adversaries are used to symbolize various positive and negative contemporary attitudes toward technology.
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34. Lowentroun, Peter M. "*Batman*: Winging through the Ruins of the American Baroque." *Extrapolation* 33 (1992): 24-31. The author argues that the film is "a late Baroque parable of the ambivalence and limits of power" that "finally affirms life and the hope of love" as the "only, if uncertain, solution to the problems which beset us." A well-done article.
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 45. Pearson, Roberta E., and William Uricchio, eds. *The Many Lives of the Batman. Critical Approaches to a Superhero and His Media*. New York: Routledge, 1990. Collection of serious and generally well-done academic essays.
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65. Wick, Joseph Patrick. "Stranger and More Thrilling than Fiction: Comic Books as History." Ph.D. diss. Vanderbilt University, 1988. DAI 50:688A
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E. AUTHOR STUDIES

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(See also A13, A16, B33, C49, C76)

Anderson, Poul

2. Benson, Gordon, Jr. *Poul Anderson: Myth-Master and Wonder-Weaver*. 5th edition. San Bernardino: Borgo, 1990. Short study.
3. Miesel, Sandra. *Against Time's Arrow: The High Crusade of Poul Anderson*. San Bernardino: Borgo, 1978.
(See also A13, A16, A18, A20, A23, B8, B48, B51–52, B54, B74, C21, C30, C46, C90)

Anthony, Piers

4. Collings, Michael R. *Piers Anthony*. Mercer Island, WA: Starmont House, 1983. Early study of a popular writer.
(See also A13, A18, A23, B48, C48)

Appleton, Victor

- (See A18, A20–21, B13–14, B17, B48, B52, B72, C18, E249–261)

Asch, Frank

- (See A20, A22, B32)

Asimov, Isaac

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7. Fieldler, Jean, and Jim Mele. *Isaac Asimov*. New York: Ungar, 1982. Brief study.
8. Gunn, James. *Isaac Asimov: The Foundation of Science Fiction*. New York: Oxford UP, 1982. Contains some discussion of the Lucky Starr books.
9. Hassler, Donald M. *Isaac Asimov*. Mercer Island, WA: Starmont House, 1991.
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11. Patrouch, Joseph F., Jr. *The Science Fiction of Isaac Asimov*. Garden City, NY: Doubleday, 1974. Dated but useful survey of Asimov's fiction. Strong on the

Lucky Starr books.

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- (See also A3, A13, A16, A18, A20–21, A23, B23, B29, B33, B48, B67, B73, C5, C17, C30, C41–42, C74, C84, C90, E15)

Baird, Thomas

(See B16, C8)

Baum, L. Frank

15. Abraham, Paul M., and Stuart Kenter. "Tik-Tok and the Laws of Robotics." *Science-Fiction Studies* 5 (1978): 67–80.
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 17. Hearne, Michael Patrick. "L. Frank Baum." *Writers for Children*. Ed. Jane M. Bingham. New York: Scribner's, 1988. 37–48.
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- (See also A1, A4, A20, B23, B48, B53, B62)

Bear, Greg

(See A20)

Beatty, Jr., Jerome

(See A20, B1, B48)

Beauchamp, Suzanne

(See B34)

Belden, Wilanne

(See A20, C41)

Bell, Clare

(See A13, B15, B20, B48)

Bellairs, John

(See B36)

Benford, Gregory

(See A13, A18, A23, B48)

Bethancourt, T. Ernesto (Thomas Paisley)

(See A4, A20, B1, B13, B48, C18)

Biemiller, Carl L.

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(See also A13, A20, B1, B8, B48, B74)

Biggle, Lloyd

(See A20)

Bishoff, David

(See B75)

Blackwood, Gary L.

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(See also A20)

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Blumenfeld, Yorick

(See B38)

Bond, Nancy

(See A13)

Bonham, Frank

(See A22, B33, B48, B74, C42)

Bouchard, Guy

(See B34)

Bova, Ben

(See A4, A13, A18, A20, A23, B1, B16, B21, B48, B51, B74, C5, C42, C96)

Bradbury, Ray

(See A3, A16, A18, A20–21, A23, B33, C11, C17, C30, C51, C57, C77, C84, C90)

Briggs, Raymond

22. Cech, John. "Some Leading, Blurred, and Violent Edges of the Contemporary Picture Book." *Children's Literature* 15 (1987): 197–206. Cech reviews a number of recent picture books, including two with science fiction content: *The Butter Battle Book* by Dr. Seuss and *When the Wind Blows* by Raymond Briggs.

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(See also A13, B38, B75, C96)

Brin, David

(See A20)

Brink, Carol Ryrie

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(See also A20, B23, B62)

Brochu, Yvon

(See B34)

Brooks, Bruce

25. Marcus, L. S. "PW Interviews: Bruce Brooks." *Publishers Weekly* 237 (27 July 1990): 214–15.

(See also A4, A20)

Bunting, Eve

(See A6, A20, B23)

Burnford, Sheila

(See B34)

Burroughs, Edgar Rice

26. Clareson, Thomas D. "Lost Lands, Lost Races: A Pagan Princess of Their Very Own." *Many Futures, Many Worlds: Theme and Form in Science Fiction*. Ed. Thomas D. Clareson. Kent: Kent State UP, 1977. 117–39. Excellent discussion of the themes of Burroughs' Mars books.
27. Flautz, John T. "An American Demagogue in Barsoom." *Journal of Popular Culture* 1.3 (1967): 263–75. Burroughs' Mars books as a reflection of contemporary American culture.
28. Holtzmark, Irving. *Edgar Rice Burroughs*. Boston: Twayne, 1985. Solid academic study.
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chapbook contains a number of interesting essays, including one by George T. McWhorter, curator of the Burroughs Collection at the University of Louisville.

(See also A3, A13, A16, A18, A20–21, B1, B31, B67)

Cameron, Eleanor

40. Cameron, Eleanor. "Art and Morality." *Proceedings of the Seventh Annual Conference of the Children's Literature Association*. Baylor University, March 1980. Ann Arbor, MI: Children's Literature Association, 1982. 30–44. Rpt. in *Festschrift: A Ten Year Retrospective*. Ed. Perry Nodelman and Jill P. May. West Lafayette, IN: Children's Literature Association, 1983. 28–35.

41. ———. "Fantasy, SF and the Mushroom Planet Books." *Children's Literature Association Quarterly* 5 (1981): 1, 5–9. Rpt. in *Signposts to Criticism of Children's Literature*. Ed. Robert Bator. Chicago: American Library Association, 1983. 294–300; also rpt. in *The First Steps*. Ed. Patricia Dooley. West Lafayette, IN: Children's Literature Association, 1984. 55–57. Cameron discusses how the Mushroom Planet books came to be written and examines the difference between fantasy and science fiction.

42. Nodelman, Perry. "The Depths of All She Is: Eleanor Cameron." *Children's Literature Association Quarterly* 4 (1980): 6–8. A brief but well done survey of Cameron's fiction, including the Mushroom Planet books.

(See also A2, A13, A20, A22, B1, B10, B34, B48, B67, C33, C63, C89)

Capon, Paul

(See A18, A23, B48, B52)

Carlson, Dale

(See A20, B48, B74)

Carter, Alden

(See A4, A20)

Carter, Bruce (Richard Hough)

(See A20, A22, B1)

Cassutt, Michael

(See A20)

Charnas, Suzy McKee

43. Charnas, Suzy McKee. "A Case for Fantasy." *The ALAN Review* 19 (1992): 20–22. Charnas is a noted author of adult science fiction, but her young adult books have all been fantasy. She explains why.

Cherryh, C. J.

(See B16)

Chetwin, Grace

(See C8)

Christopher, John (Christopher Samuel Youd)

44. Bailey, K. V. "Masters, Slaves, and Rebels: Dystopia as Defined and Defied by John Christopher." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 97–112. Much of Christopher's fiction involves a rebellion against authority and therein lies much of his popularity with teenagers.

45. Gough, John. "An Interview with John Christopher." *Children's Literature in Education* 15 (1984): 93–102.
46. Milner, Joseph O. "Oathkeepers and Vagrants: Meliorist and Reactive World Views in Science Fiction." *Children's Literature Association Quarterly* 10 (1985): 71–73. This article discusses Christopher's work and that of Sylvia Engdahl in terms of its tendency toward optimism or pessimism about the future. It also briefly discusses the science fiction of Monica Hughes, William Sleator, and Robert C. O'Brien.
47. Newsinger, John. "Rebellion and Power in the Juvenile Science Fiction of John Christopher." *Foundation* 47 (1989/90): 46–54. Covers Christopher's use of the themes of rebellion, power, and male friendship. Argues that he is the most important current author of young adult science fiction in Great Britain.
48. Stephensen-Payne, Phil. *Christopher Samuel Youd: Master of All Genres*. 2nd edition. San Bernardino: Borgo, 1990. Short study.
49. ———. *Christopher Samuel Youd, Master of All Genres: A Working Bibliography*. 2nd rev. edition. Leeds: P. Stephensen-Payne, 1992. Not seen; may be the same as the above.
50. Williams, Jay. "John Christopher: Allegorical Historian." *Signal* 4 (1971): 18–23.
(See also A3, A4, A13, A18, A20, A22–23, B1, B9, B12, B16–17, B19, B21, B24, B30, B46, B48, B55, B57, B68–69, B72, B74, B78, C33, C46, C83, C89, C96, D38)

Clarke, Arthur C.

51. Hollow, John. *Against the Night, the Stars: The Science Fiction of Arthur C. Clarke*. Rev. edition. Athens: Ohio UP, 1987. Discussion of Clarke's juveniles is dispersed throughout the book.
52. Rabkin, Eric S. *Arthur C. Clarke*. 2nd edition. San Bernardino: Borgo, 1980. Brief discussion of the juveniles.
53. Samuelson, David N. *Arthur C. Clarke: A Primary and Secondary Bibliography*. Boston: G. K. Hall, 1984.
54. Slusser, George Edgar. *The Space Odysseys of Arthur C. Clarke*. San Bernardino: Borgo, 1978. Early study by a major critic.
(See also A13, A16, A18, A20–21, A23, B1, B17, B48, C5, C17, C30, C33, C37, C68, C84, C90, C103, D38)

Clarke, Joan

(See A13)

Clason, Clyde B.

(See B8)

Cook, Paul

(See A6, B8, B38)

Corlett, William

(See A20, A22, B17, B48)

Cormier, Robert

(See B30)

Corriveau, Monique*(See B34)***Cosgrove, Edmond***(See B34)***Cote, Denis***(See B34)***Coville, Bruce***(See A20, B13–14, B33, C16)***Craigie, David** (Dorothy M. Craigie)*(See B12, B17, B48)***Crichton, Michael***(See B16)***Cross, John Keir***(See A18, A23, B48, C42)***Crowley, John***(See A20)***Curtis, Philip***(See C54)***Danziger, Paula***(See A4, A20, A22)***De Haven, Tom***(See A20)***Delany, Samuel**

55. Edelstein, Arnold. "Identity and Utopia in *The Fall of the Towers*." *Literature and Hawaii's Children. Imagination: A Bridge to Magic Realms in the Humanities*. 1988 Proceedings: Fourth Biennial Conference on Literature and Hawaii's Children. Honolulu, 23–25 June 1988; Kamuela, 27–28 June 1988. Ed. Cristina Bacchilega and Steven Curry. Honolulu: Literature and Hawaii's Children, 1990. 57–61. Considers Delany's trilogy as young adult literature. Uses the system of A. J. Greimas to discuss the topic of possession and its opposite, the quest for freedom, in the novel.

*(See also B72)***Del Rey, Lester***(See A13, A16, A18, A20, A23, B1, B23, B48, B52, B62, B67, B74, B77, C5, C33)***Dereske, Jo***(See A20)***DeWeese, Gene***(See B32)***Dickinson, Peter**

56. Alderdice, Kit. "Peter Dickinson: Notes from a Crossover Novelist." *Publishers Weekly* 239 (11 May 1992): 29–30. Recent interview.

57. Dickinson, Peter. "The Burden of the Past." *Innocence and Experience: Essays and Conversations on Children's Literature*. Ed. Barbara Harrison and Gregory Maguire. New York: Lothrop, Lee and Shepard, 1987. 91–101.

58. Hutchison, Joanna. "Peter Dickinson Considered, In and Out of the Class-

room." *Children's Literature in Education* 17 (1975): 88–98. This essay centers on the *Weathermonger* trilogy, a fantasy series with notable science fiction elements.

59. "Peter Dickinson: SF Without the Science." *Locus* 22 (1989): 5, 75. Interview.

60. Rees, David. "Plums and Roughage—Peter Dickinson." *Painted Desert, Green Shade. Essays on Contemporary Writers of Fiction for Children and Young Adults*. Boston: Horn Book, 1984. 153–67. Discusses the *Weathermonger* trilogy.

61. Williams, Jay. "Very Iffy Books: An Interview with Peter Dickinson." *Signal* 13 (1974): 21–29.

(See also A8, A13, A18, A20, A22, B1, B12, B17–18, B24, B48, B70, B74)

Dicks, Terrance

(See A3, D21–23, D32, D41a, D58)

Dickson, Gordon R.

62. Benson, Gordon. Jr. *Gordon Dickson*. San Bernardino: Borgo, 1990. Short study.

63. Dickson, Gordon R. "Plausibility in Science Fiction." *Science Fiction Today and Tomorrow*. Ed. Reginald Bretnor. New York: Harper and Row, 1974. 295–308.

64. Thompson, Raymond H. *Gordon R. Dickson: A Primary and Secondary Bibliography*. Boston: G. K. Hall, 1983.

65. ———. "Gordon R. Dickson: Science Fiction for Young Canadians." *Canadian Children's Literature* 15/16 (1980): 38–46.

(See also A13, A18, A23, B48, B51, B74, C21, E88)

Dorman, Sonya

(See B74)

Earnshaw, Brian

66. Earnshaw, Brian. "Planets of Awful Dread." *Children's Literature in Education* 14 (1983): 237–42. Earnshaw, the author of the *Dragonfall Five* series and himself an English teacher, discusses his own somewhat cynical attitude toward writing science fiction for children.

(See also A18, B51, B74)

Engdahl, Sylvia

67. Engdahl, Sylvia. "The Mythic Role of Science Fiction." *Work and Play in Children's Literature: Selected Papers from the 1990 International Conference of the Children's Literature Association*. Ed. Susan R. Gannon and Ruth Anne Thompson. Pleasantville, NY: Pace University, 1992. 14–19. Speech made upon acceptance of the Phoenix Award for her novel *Enchantress from the Stars*.

68. ———. "Perspective on the Future: The Quest of Space Age Young People." *School Media Quarterly* 1 (1972): 27–35. Rpt. in *Only Connect: Readings on Children's Literature*. Ed. Sheila Egoff et al. 2nd edition. Toronto and New York: Oxford UP, 1980. 370–81.

69. ———. "Why Write for Today's Teenagers?" *Horn Book* 48 (1972): 249–53. On why Engdahl writes the best books she can write without worrying about

catering to a teen audience per se.

(See also A3–4, A13, A18, A20, A23, B1, B16–17, B19, B48, B72–74, B77, C20, C33, C89, D38, E46)

Fairman, Paul

(See A18, B48, B74)

Falkner, Frederick

(See B43)

Fezandie, Clement

(See A18, B53)

Fisk, Nicholas

70. Fisk, Nicholas. "One Thumping Lie Only." *The Thorny Paradise: Writers On Writing for Children*. Ed. Edward Blishen. Harmondsworth: Kestrel, 1975. 117–22.

71. ———. *Pig Ignorant: A Teenage Memoir*. London: Walker, 1992. Autobiography of the writer written specifically for young adults.

(See also A13, A20, A22, B1, B17, B48, B74)

Forman, James D.

(See A6, A20, B8, B38, B48)

Forrester, John

(See C3)

Foster, Alan Dean

(See A20)

Frank, Pat (Harry Hart)

(See A16, A18, A21, B38, B55, C17, C90)

Frank Reade, Jr.*

(See A18, A23, B72, E249–261)

Franklin, Cheryl J.

(See A20)

Gagnon, Genevieve

(See B34)

Gagnon, Maurice

(See B34)

Gaskin, Carol

(See B33)

Gear, W. Michael

(See A20)

Gerrold, David

(See A20, C56)

Gilliland, Alexis

(See A20)

Gingras, Lucien

(See B34)

Gladstone, Herbert

(See C57)

Godfrey, Martyn

(See B34)

Goldsmith, Howard

(See B32)

Guppy, Pauline Dorgan

(See C57)

Hamilton, Virginia

72. Apseloff, Marilyn F. "A Conversation with Virginia Hamilton." *Children's Literature in Education* 14 (1983): 204–13.
73. ———. *Virginia Hamilton: Ohio Explorer in the World of Imagination*. Columbus: State Library of Ohio, 1979. Fine early study of Hamilton's work.
74. Dressel, Janice Hartwell. "The Legacy of Ralph Ellison in Virginia Hamilton's Justice Trilogy." *English Journal* 73 (1984): 42–48.
75. Hamilton, Virginia. "Ah, Sweet Rememory!" *Innocence and Experience: Essays and Conversations on Children's Literature*. Ed. Marbara Harrison and Gregory Maguire. New York: Lothrop, Lee and Shepard, 1987. 6–12.
76. ———. "Writing the Source: In Other Words." *Horn Book* 54 (1978): 609–19. Includes a discussion of the Justice trilogy.
77. Rees, David. "Long Ride Through a Painted Desert—Virginia Hamilton." *Painted Desert, Green Shade. Essays on Contemporary Writers of Fiction for Children*. Boston: Horn Book, 1984. 168–84. Excellent discussion of the Justice trilogy.

(See also A2, A4, A8, A13, A20, A22, B1, B8, B17–18, B48, B70, C96)

Harding, Lee

78. Stephens, John. "Post-Disaster Fiction: The Problematics of a Genre." *Papers: Explorations into Children's Literature* 3 (December 1992): 126–30. Discusses Harding's *Waiting for the End of the World*.

(See also A18, A22, B48, B56)

Harris, Christie

(See B34)

Harris, Rosemary

(See A8, A20, A22, B17)

Harrison, Harry

(See A13, B48, C5)

Heinlein, Robert A.

79. Erisman, Fred. "Robert Heinlein's Case for Racial Tolerance, 1954–1956." *Extrapolation* 29 (1988): 216–226. Although his early fiction featured stereotypical portrayals of minorities, Heinlein's young adult novels argued for racial tolerance and featured a number of important and nonstereotyped minority characters.
80. ———. "Robert Heinlein, the Scribner Juveniles, and Cultural Literacy." *Extrapolation* 32 (1991): 45–53. Although set in the future, Heinlein's juveniles are rich in references to American history, the sort of cultural information that Heinlein, like E. D. Hirsch, sees as necessary for responsible citizenship.
81. Franklin, H. Bruce. *Robert A. Heinlein: America as Science Fiction*. New

- York: Oxford UP, 1980. This fine survey of the author's work devotes a chapter to the young adult novels.
82. Heinlein, Robert A. "On the Writing of Speculative Fiction." *Turning Points*. Ed. Damon Knight. New York: Harper, 1977. 199–204.
83. ———. "Ray Guns and Rocket Ships." *Readings About Children's Literature*. Ed. Evelyn R. Robinson. New York: David McKay, 1966. 368–71. Heinlein on writing science fiction for children.
84. ———. "Science Fiction: Its Nature, Faults and Virtues." *The Science Fiction Novel*. Ed. Basil Davenport. Chicago: Advent, 1959. 17–63.
85. Heinlein, Virginia, ed. *Grumbles from the Grave*. New York: Del Rey, 1990. This collection of correspondence, primarily between Robert A. Heinlein and his agent, Lurton Blessingame, contains a substantial amount of material on Heinlein's early juveniles.
- 86a. Ormes, Marie Guthrie. "Robert A. Heinlein: A Bibliographical Research Guide to Heinlein's Complete Works." Ph.D. diss. (Kentucky) 1994, DAI vol. 54, no. 11, 1994.
87. Panshin, Alexei. *Heinlein in Dimension*. Chicago: Advent, 1968. Somewhat dated but still enormously readable study of Heinlein's early work, particularly the juveniles.
88. Sammons, Todd H. "Literary Tradition and Male Rites of Passage in Robert A. Heinlein's *Starship Troopers* and Gordon R. Dickson's *The Final Encyclopedia*." *Literature and Hawaii's Children. Imagination: A Bridge to Magic Realms in the Humanities*. 1988 Proceedings: Fourth Biennial Conference on Literature and Hawaii's Children. Honolulu, 23–25 June 1988; Kamuela, 27–28 June 1988. Ed. Cristina Bacchilega and Steven Curry. Honolulu: Literature and Hawaii's Children, 1990. 44–51. Compares two military science fiction novels, both of which have teenaged protagonists. The Heinlein is clearly a young adult novel, whereas the Dickson is not, but both books deemphasize sexuality, preferring to center on the romance of the military.
89. Samuelson, David N. "The Frontier Worlds of Robert A. Heinlein." *Voices of the Future*. Ed. Thomas D. Claeson. Bowling Green: Bowling Green UP, 1976. 104–52. Major early study.
90. Sanders, Joe. "Breaking the Circle?: Robert A. Heinlein's *The Door into Summer*." *The New York Review of Science Fiction* 60 (August 1993): 1, 10–13.
91. Sarti, Ronald. "Variations on a Theme: Human Sexuality in the Work of Robert A. Heinlein." *Robert A. Heinlein*. Ed. Joseph D. Olander and Martin Harry Greenberg. New York: Taplinger, 1978. 107–36. Discusses Heinlein's use of sexual themes in both the juveniles and later work.
92. Showalter, Dennis E. "Heinlein's *Starship Troopers*: An Exercise in Rehabilitation." *Extrapolation* 16 (1975): 113–24.
93. Slusser, George E. *Robert A. Heinlein: Stranger in His Own Land*. 2nd edition. San Bernadino: Borgo, 1977. Short but frequently perceptive study by a noted critic.

94. Stover, Leon E. *Robert Heinlein*. Boston: Twayne, 1987. Recent but seriously flawed study.
95. Sullivan, C. W. III. "Heinlein's Juveniles: Growing Up in Outer Space." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 21–36.
96. ———. "Heinlein's Juveniles: Still Contemporary After All These Years." *Children's Literature Association Quarterly* 10 (1985): 64–66. Because of the solid writing and a strong mix of action, sociology, and technology, Heinlein's young adult novels still stand as among the best ever written.
97. Williamson, Jack. "Youth Against Space: Heinlein's Juveniles Revisited." *Robert A. Heinlein*. Ed. Joseph D. Olander and Martin Harry Greenberg. New York: Taplinger, 1978. 15–31. Williamson argues that Heinlein's juveniles are his best work, far superior to his later, more didactic fiction.
- (See also A3, A13, A16, A18, A20–23, B1, B8, B12, B17, B19–20, B31, B33, B48, B50, B52, B66, B67, B72, C5, C17, C30, C42, C46, C48, C89–90, C103)

Hendrick, Paula

(See B1, B74)

Henstell, Diana

(See B33)

Herbert, Frank

(See A3, C5, C46)

Hildick, E. W.

(See A5, A8, A20, B1)

Hill, Douglas A.

98. Hill, Douglas A. "Science Fiction for Young Readers." *Writer* 97 (1984): 15–18.

99. Jenkinson, D. H. "Portraits: Douglas Hill." *Emergency Librarian* 12 (1985): 49–51.

(See also A6, A20, A22, B7–8, B34, B48, C27)

Hoban, Lillian

(See B32)

Hooker, Ruth

(See B1, B74)

Hoover, H. M.

100. Antczak, Janice. "The Visions of H. M. Hoover." *Children's Literature Association Quarterly* 10 (1985): 73–76. Although set in the future, Hoover's novels center on issues young readers will find relevant today.

101. *The Delikon: A Teacher Reference Guide*. Clovis, CA: Clovis Unified School District, 1986. Materials designed to aid the eighth-grade teacher of Hoover's novel.

102. Dunn, Thom, and Karl Hiller. "Growing Home: The Triumph of Youth in the Novels of H. M. Hoover." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 121–32.

103. Hoover, H. M. "Details, Details." *Horn Book* 64 (1988): 590–92. Why

historical fiction is more of a challenge to the writer than is science fiction.

104. ———. "The Face of a Spider." *Innocence and Experience: Essays and Conversations on Children's Literature*. Ed. Barbara Harrison and Gregory Maguire. New York: Lothrop, Lee and Shepard, 1987. 191–94.
105. ———. "SF—Out of This World." *Language Arts* 57 (1980): 425–28.
106. ———. "Where Do You Get Your Ideas?" *Top of the News* 39 (1982): 57–61.
- (See also A7, A13, A20, A22–23, B1, B11, B16, B18, B30, B33, B38, B48, B57, B72–73, C20, C42, C96)

Huddy, Delia

(See B48)

Hughes, Monica

107. Ellis, Sarah. "News from the North." *Horn Book* 60 (1984): 661–64. Discusses the early novels of Monica Hughes and the ways in which her fiction is specifically Canadian.
108. Fondse, Christine Heather. "The Writings of Monica Hughes: Implications for the Middle School." Ph.D. diss. Ohio State University, 1987.
109. Hughes, Monica. "Confessions of a Science Fiction Reader: Notes Upon Values Taught to Adolescents by Fantasy and Science Fiction." *Reaching Young People Through Media*. Littleton, CO: Libraries Unlimited, 1983. 69–80.
110. ———. "Science Fiction as Myth and Metaphor," *The ALAN Review* 19 (1992): 2–5. On where she gets her ideas.
111. ———. "The Writer's Quest." *Canadian Children's Literature* 26 (1982): 6–25.
112. Jenkinson, Dave. "The Image of the Prairies in Contemporary Canadian Juvenile Fiction." *Children's Literature Association Quarterly* 15 (1990): 201–05. Although primarily concerned with realistic fiction, this article does discuss Hughes' science fiction novel *Beyond the Dark River*.
113. Jobe, Ronald A., and Wendy K. Sutton. "Beyond Munsch: Canadian Literature for Children and Young People." *Reading Teacher* 45 (1992): 634–41. Discusses the work of Monica Hughes as well as that of a number of other Canadian children's writers.
114. Jones, Raymond E. "The Technological Pastoralist: A Conversation with Monica Hughes." *Canadian Children's Literature* 44 (1986): 618.
115. ———. "True Myth: Female Archetypes in Monica Hughes' *The Keeper of the Isis Light*." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 169–78.
116. Rubio, Gerald. "Monica Hughes: An Overview." *Canadian Children's Literature* 17 (1980): 20–26.
117. Wytenbroek, J. R. "The Debate Continues: Technology or Nature—A Study of Monica Hughes' SF Novels." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 145–56. Argues that the need to balance technology and nature is one of the most important themes in Hughes' fiction.

(See also A4, A13, A20, A22–23, B9, B16, B23, B30, B34, B48, B74, C21, C41, C57, D38, E46)

Johnson, Anabel and Edgar

(See A20, A22, B8, B37–38, B48, B75, C3)

Jones, Diana Wynne

118. Alderdice, Kit. "Diana Wynne Jones." *Publishers Weekly* 238 (22 February 1991): 201–02. Recent interview.

119. "Diana Wynne Jones: Writing for Children." *Locus* 22 (1989): 5, 62. Interview.

120. Jones, Diana Wynne. "The Heroic Ideal—A Personal Odyssey." *The Lion and the Unicorn* 13 (1989): 129–40. On the author's ideas about heroism and how they evolved.

(See also A4, A7, A20, B1, B18)

Jones, Gwyneth

121. Jones, Gwyneth. "Perceptions of Children's Fiction." *Vector* 140 (1987): 11–12.

122. ———. "The Profession of Science Fiction, 38: Riddles in the Dark." *Foundation* 43: 50–59.

123. ———. "Writing Science Fiction for the Teenage Reader." *Where No Man Has Gone Before: Women and Science Fiction*. Ed. Lucie Armitt. London: Routledge, 1991. 165–77. Includes an excellent discussion of the use of female characters in young adult science fiction.

124. Lefanu, Sarah. "Sex, Sub-Atomic Particles and Sociology." *Where No Man Has Gone Before: Women and Science Fiction*. Ed. Lucie Armitt. London: Routledge, 1991. 178–85. Includes an extended discussion of Jones' adult science fiction novels that contains material relevant to her children's science fiction as well.

Jones, McClure

(See A20, B1, B48, B74)

Jones, Raymond F.

(See A13, A18, A23, B48, B52, B74)

Karl, Jean E.

125. Karl, Jean E., et al. "Profile: Jean Karl." *Language Arts* 65 (1988): 56–62.

Karl and a number of other writers discuss her career as an author and editor. (See also A13, A20, B1, B11, B16, B21, B32, B48, B74)

Kelleher, Victor

(See B56, B75)

Kesteven, G.R. (also Kestavan)

(See A20, B21, B48, B51, B74)

Key, Alexander

(See A20, A23, B1, B23, B48, B74, C89)

Killough, Lee

(See A20)

King, Stephen

(See B16, B35)

Klause, Annette Curtis

(See A20)

Koontz, Dean

(See B35)

Kotzwinkle, William

(See A20, C54)

Kroll, Steven

(See C54)

Kurland, Michael

(See B1, B48)

Lacerte, Rolande

(See B34)

Lackey, Mercedes

126. Taylor, Rebecca, et al. "Interview with Mercedes Lackey," *Voice of Youth Advocates* 15 (1992): 213–17. Lackey is primarily a fantasy writer but has produced several science fiction novels, including one in collaboration with Anne McCaffrey.

Laflamme, H.

(See B34)

Langton, Jane

(See A6, A22, B42, B68)

Latham, Philip (Robert Richardson)

(See A13, A18, A23, B48, B52)

Latimer, John

(See B34)

Lawrence, Louise (Elizabeth Wintle)

127. Apseoff, Marilyn Fain. "The British Science Fiction of Louise Lawrence." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 133–44.

128. Mitchell, Judith N. "Neo-Gnostic Elements in Louise Lawrence's *Moonwind*." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 179–86.

129. Parker, Judith. "Reading Against the Grain." *Young Readers, New Readings*. Ed. Emrys Evans. Hull, UK: Hull UP, 1992. 42–54. Criticizes Lawrence's *Children of the Dust* as overly optimistic.

(See also A6, A13, A20, A22, B1, B5–8, B11, B26, B30, B33, B38, B48, B75, C3, C41)

Lee, Tanith

(See A22)

Leeson, Muriel

(See B34)

L'Engle, Madeleine

130. Bishop, Rudine Sims. "Fifty Years of Exploring Children's Books." *Transactions with Literature: A Fifty-Year Perspective*. Ed. Edmund J. Farrel and James R. Squires. Urbana: NCTE, 1990. 1–9. Identifies L'Engle's *A Wrinkle*

in *Time* as one of a small number of "landmark" books that have become part of the school curriculum.

131. Blackburn, William. "Madeleine L'Engle's *A Wrinkle in Time*: Seeking the Original Face." *Touchstones: Reflections on the Best in Children's Literature*, vol. 1. Ed. Perry Nodelman. West Lafayette, IN: Children's Literature Association, 1985. 123–31. L'Engle's book must be judged by its success in revealing human nature and tackling issues of ethics. L'Engle partially fails to do this because she externalizes evil rather than showing it to be part of ourselves.
132. Brod, Sandra. *A Wrinkle in Time: Madeleine L'Engle*. Topeka, KS: Econo-Clad Books, 1990. Twenty-eight pages of stories and activities for fourth- to sixth-grade teachers. Part of the Story Strategies series.
133. Bugniagnet, Judith. "The Relationship Between Character, Writer and Reader: An Interview with Madeleine L'Engle." *The ALAN Review* 14 (1987): 45–47.
134. Carter, M. L. "The Cosmic Gospel: Lewis and L'Engle." *Mythlore* 8 (1982): 10–12.
135. Fisher, Leona W. "Mystical Fantasy for Children: Silence and Community." *The Lion and the Unicorn* 14 (1990): 37–57. Although primarily concerned with the work of Lewis, MacDonald, and Grahame, Fisher makes some interesting comments on *A Wrinkle in Time* as well, discussing the novel as "a collective journey toward visionary insight and self-discovery."
136. Friedland, Joyce. *A Wrinkle in Time by Madeleine L'Engle. Study Guide*. Roslyn Heights, NY: Learning Links, 1982. Part of the Novel-Ties study guide series.
137. Glass, Rona. "A *Wrinkle in Time* and *The High King*: Two Couples, Two Perspectives." *Children's Literature Association Quarterly* 6 (1981): 15–18. Rpt. in *The First Steps*. Ed. Patricia Dooley. West Lafayette, IN: Children's Literature Association, 1984. 119–21. Glass examines the effect of having a strong male-female relationship on the protagonists of these two novels.
138. Gonzales, Doreen. *Madeleine L'Engle: Author of A Wrinkle in Time*. New York: Dillon, 1991. Part of the People in Focus series, this short biography is basically aimed at a young adult audience.
139. Jones, Kellie Frances Corlew. "A Pentaperceptual Analysis of Social and Philosophical Commentary in *A Wrinkle in Time* by Madeleine L'Engle." Ph.D. diss. University of Mississippi, 1977. DAI 38:7325A.
140. Krueser, Carmela M. *A Wrinkle in Time: by Madeleine L'Engle*. St. Louis: Milliken, 1989. Fifty-eight page teaching unit. Part of the Exploring Literature series.
141. L'Engle, Madeleine. "Childlike Wonder and the Truths of Science Fiction." *Children's Literature* 10 (1982): 102–10.
142. ———. *A Circle of Quiet*. New York: Harper and Row, 1972. Autobiography.
143. ———. "Do I Dare Disturb the Universe?" *Innocence and Experience: Essays and Conversations on Children's Literature*. Ed. Barbara Harrison and Gregory Maguire. New York: Lothrop, Lee and Shepard, 1987. 215–23.

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145. ———. *Two-Part Invention: The Story of a Marriage*. New York: Farrar, Straus, and Giroux, 1988. Autobiography.
146. ———. "Understanding the New Universe." *The ALAN Review* 15 (1988): 1–3, 10.
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148. "Madeleine L'Engle: Out of the Pigeonhole." *Locus* 294 (1985): 4.
149. Patterson, Nancy-Lou. "Angel and Psychopomp in Madeleine L'Engle's 'Winds Trilogy'." *Children's Literature in Education* 14 (1983): 195–203.
150. Rausen, Ruth. "An Interview with Madeleine L'Engle." *Children's Literature in Education* 19 (1975): 198–206.
151. Rees, David. "Sunday School Teacher—Madeleine L'Engle." *What Do Draculas Do? Essays on Contemporary Writers of Fiction for Children and Young Adults*. Metuchen, NJ: Scarecrow, 1990. 47–63.
152. Roettger, Doris. *A Wrinkle in Time, Madeleine L'Engle: Teacher Guide*. Logan, Iowa: Perfection Form, 1989. Fifty-eight pages of materials for teachers. Part of the Reading Beyond the Basal Plus series.
153. Samuels, L. A. "Profile: Madeleine L'Engle." *Language Arts* 58 (1981): 704–12.
154. Schmidt, Gary. "See How They Grow: Character Development in Children's Series Books." *Children's Literature in Education* 18 (1987): 34–44. Characters in series work by L'Engle, as well as Susan Cooper and John Bellairs, change and develop from book to book. The series format allows the author to emphasize the cyclical and mythic elements of the story.
155. ———. "The Story as Teller: An Interview with Madeleine L'Engle." *The ALAN Review* 18 (1991): 10–14.
156. Schneebaum, Katherine. "Finding a Happy Medium: The Design for Womanhood in *A Wrinkle in Time*." *The Lion and the Unicorn* 14 (1990): 30–36. Although in some ways a precursor of feminism in its portrayal of female characters with high competence in the sciences, *A Wrinkle in Time* ultimately provides an ambiguous message about the role of women in society.
157. Smedman, M. Sarah. "The 'Terrible Journey' Past 'Dragons in the Waters' to a 'House like a Lotus': Faces of Love in the Fiction of Madeleine L'Engle." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 65–82. On the nature of love in L'Engle's fiction.
158. Stott, Jon C. "Midsummer Night's Dreams: Fantasy and Self-Realization in Children's Fiction." *The Lion and the Unicorn* 1 (Fall 1977): 25–39.
159. Troy, Anne. *A Wrinkle in Time: Madeleine L'Engle: Teacher Guide*. Palatine, IL: A. Troy, 1989. Nineteen pages of suggested activities to accompany the teaching of the novel.
160. Wolf, Virginia L. "Readers of Alice: My Children, Meg Murry, and Harriet M. Welsch." *Children's Literature Association Quarterly* 13 (1988): 135–

37. Interconnections between *A Wrinkle in Time*, *Alice in Wonderland*, Fitzhugh's *Harriet the Spy*, and their readers.

161. *A Wrinkle in Time* by Madeleine L'Engle. Norwood, MA: Christopher-Gordon, 1991. Part of the Book Wise Literature Guides series, this volume provides a variety of approaches to L'Engle's novel, including topics for discussion, exercises, and writing assignments. Aimed at students in grades four through six.

(See also A2–4, A13, A16, A20, A22, B1, B12, B16–18, B23, B25, B33, B43, B48–B49, B61, B68–69, B72, B77, C17, C33, C42, C84, C96, E123)

Leroe, Ellen

(See B33)

Lesser, Milton

(See A18, A23, B52)

Lightner, A. M. (Alice Martha)

162. Donawerth, Jane. "Utopian Science, Contemporary Feminist Science Theory and Science Fiction by Women." *NWSA Journal* 2 (1990): 535–57. A number of female science fiction authors are discussed in this article, Lightner being the only one whose work is primarily for a young adult audience. She and Octavia Butler are discussed together as the only two significant black female science fiction writers.

(See also A13, A18, A20, A23, B1, B8, B32, B48, B74, C20–21, C42)

Lyngseth, Joan

(See B34)

Lyon, David

(See B32)

Macaulay, David

(See B38)

Macdonald, Caroline

(See A22)

Mace, Elizabeth

(See A20, B17, B21, B48, B57, B74)

MacGregor, Ellen

(See A13, A20, A22, B1, B48, B74)

Maguire, Gregory

(See A22, B43, C64)

Manes, Stephen

(See C54)

Mark, Jan

163. Hunt, Peter. "Whatever Happened to Jan Mark?" *Signal* 31 (1980): 11–19.

164. Mappin, Alf. "Know the Author: Jan Mark." *Magpies* 4.1 (1989): 20–23. Interview.

165. Mark, Jan. "The Story of the Golem." *Innocence and Experience: Essays and Conversations on Children's Literature*. Ed. Barbara Harrison and Gregory Maguire. New York: Lothrop, Lee and Shepard, 1987. 184–88.

166. Rees, David. "There's No Such Thing As Fairness—Jan Mark." *Painted*

Desert, Green Shade. Essays on Contemporary Writers of Fiction for Children and Young Adults. Boston: Horn Book, 1984. 62–73. Discusses Mark's *Ennead* among other works.

167. Whitehead, Winifred. "Jan Mark." *Use of English* 33 (1982): 32–39. (See also A4, A7, A13, A20, A22, B9, B16, B30, B48, B74–75)

Marshall, James

(See B32)

Martel, Suzanne

(See B8, B34, B48, B57, B74, C27, C42, C89)

Marzollo, Jean

(See C54)

Mason, Anne

(See C42, C96)

Mayhar, Ardath

(See A20, B8, B15–16, B18, C3)

Mayne, William

168. Lurie, Alison. "Games of Dark: William Mayne." *Don't Tell the Grown-ups: Subversive Children's Literature.* Boston: Little, Brown, 1990. 178–88. Discusses Mayne's superior abilities as a stylist and his strong tendency to avoid simplistic endings.

169. Rees, David. "Enigma: Variations on William Mayne." *Children's Literature in Education* 19 (1988): 94–105; Rpt. as "Enigma Variations: William Mayne." *What Do Draculas Do? Essays on Contemporary Writers of Fiction for Children and Young Adults.* Metuchen, NJ: Scarecrow, 1990. 15–29. On the author's various strengths and weaknesses.

170. Whitaker, Muriel A. "'The Hollow Hills': A Celtic Motif in Modern Fantasy." *Mosaic* 13 (1980): 165–78.

(See also A4–5, A20, A22, B1, B10, B12, B17, B18, B24, B48, B68–70)

McCaffrey, Anne

171. "Anne McCaffrey: Life with Dragons." *Locus* 30 (1993): 5, 74. Profile of the author.

172. Arbur, Rosemarie. *Leigh Brackett, Marion Zimmer Bradley, Anne McCaffrey: A Primary and Secondary Bibliography.* Boston. G. K. Hall, 1981.

173. Barr, Marlene. "Science Fiction and the Fact of Women's Repressed Creativity: Anne McCaffrey Portrays a Female Artist." *Extrapolation* 23 (1982): 70–76. Study of the Harper Hall trilogy.

174. Barrett, David V. "Fire-Lizards Is Cats: Dragons Ain't Horses: Anne McCaffrey." *Vector* 121 (1984): 3–7.

175. Brizzi, Mary T. *Anne McCaffrey.* Mercer Island, WA: Starmont House, 1987. Standard full-length study of McCaffrey's work.

176. Fonstad, Karen Wynn. *The Atlas of Pern.* New York: Ballantine, 1984.

177. Harkins, Patricia. "Myth in Action: The Trials and Transformation of Menolly." *Science Fiction for Young Readers.* Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 157–66.

178. Heldreth, Lillian M. "Speculations on Heterosexual Equality: Morris,

McCaffrey, LeGuin." *Erotic Universe: Sexuality and Fantastic Literature*. Ed. Donald Palumbo. Westport, CT: Greenwood, 1986. 209–20.

179. McCaffrey, Anne. "On Pornography." *Algol* 16 (1979): 27–28. The origin of McCaffrey's dragons.

180. ———. "Retrospection." *Women of Vision*. Ed. Denise DuPont. New York: St. Martin's, 1988. 20–28.

181. ———. "Romance and Glamour in Science Fiction." *Science Fiction, Today and Tomorrow*. Ed. Reginald Bretnor. New York: Harper and Row, 1974. 278–94.

182. Nugent, Susan Monroe. "Quests for Self-Awareness." *The ALAN Review* 15 (1988): 43–44. The author discusses female characters in McCaffrey's Harper Hall trilogy, as well as in the fantasies of Susan Cooper, Patricia McKillip, and Robin McKinley.

183. Stephensen-Payne, Phil. *Anne McCaffrey: Dragonlady and More*. 3rd edition. San Bernardino: Borgo, 1990. Short study.

184. Vandergrift, Kay E. "Meaning-Making and the Dragons of Pern." *Children's Literature Association Quarterly* 15 (1990): 27–32. Reader-response study based on children's understanding of the dragons in the Harper Hall trilogy.

185. Wytenbroek, J. R. "The Child as Creator in McCaffrey's *Dragonsong* and *Dragonsinger*." *The Lion and the Unicorn* 16 (December 1992): 210–14.

(See also A7, A13, A16, A20–23, B1, B16–18, B33, B48, B51, B54, B74, C20–21, C58, C82, C84, C96, C103)

McCammon, Robert R.

(See B35)

McEvoy, Seth

(See B13–14)

McIntyre, Vonda

(See A16, A18, A23, B11, B38, C21, C103)

McKillip, Patricia A.

(See A7, A20, A22, B16, B48, C58–59)

Merle, Robert

(See B55)

Miklowitz, Gloria

(See A6, A20, B8, B26, B38, B48)

Miller, Jr., Walter M.

186. Ducharme, Edward. "A Canticle for Miller." *English Journal* 55 (1966): 1042–44. Despite *A Canticle for Leibowitz's* reputation as a difficult book, Ducharme believes it can be profitably taught as part of the high school curriculum. He suggests various approaches.

Montpetit, Charles

(See B34)

Montpetit, Claude

(See B34)

Morressy, John

(See A18, A20, B48, B74, C54)

Morris, Janet, and Chris Morris

(See A20)

Myers, Bernice

(See B32)

Nelson, O.T.

(See B55)

Niven, Larry

(See B16)

Norton, Andre (Alice Mary Norton)

187. "Andre Norton: Living Legacy." *Locus* 26 (1991): 4, 65. Norton discusses her current projects.
188. Bankier, Amanda. "Women in the Fiction of Andre Norton." *The Witch and the Cameleon* (August 1974): 3-5.
189. Benson, Gordon, Jr. *Andre Norton*. San Bernardino: Borgo, 1990. Short study.
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191. Brooks, Rick. "Andre Norton: Loss of Faith." *The Dimple Chronicle* 1 (1971): 8-11, 30. Rpt. in *The Many Worlds of Andre Norton*. Ed. Roger Elwood. Radnor, PA: Chilton, 1974. 178-200 and New York: DAW, 1975. 187-209.
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193. Henseley, Charlotta Cook. "Andre Norton's Science Fiction and Fantasy: An Introduction to the Topics of Philosophy, Reflection, Imaginary Voyages, and Future Prediction in Selected Books for Young Readers." Ph.D. diss. University of Colorado at Boulder, 1980.
194. Platt, Charles. *Dream Makers II: The Uncommon Men and Women Who Write Science Fiction*. New York: Berkely, 1983. 95-102. Intelligently conducted interview.
195. Schlobin, Roger C. *Andre Norton*. Boston: Gregg, 1979. Excellent study by a noted critic.
196. ———. *Andre Norton: A Primary and Secondary Bibliography*. Boston: G. K. Hall, 1979.
197. ———. "Andre Norton: Humanity Amid the Hardware." *The Feminine Eye: Science Fiction and the Women Who Write It*. Ed. Tom Staicar. New York: Frederick Ungar, 1982. 25-31. This excellent article argues that Norton is a writer of humanistic or social science fiction, skeptical of technology, though not antiscience, and that her work has much in common with that of Frank Herbert, Ursula K. LeGuin, and Gene Wolfe.
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199. Smith, Karen P. "Claiming a Place in the Universe: The Portrayal of

Minorities in Seven Works by Andre Norton." *Top of the News* 42 (1986): 165–72. This article is primarily bibliographic.

200. Spivak, Charlotte. "Andre Norton." *Merlin's Daughters: Contemporary Women Writers of Fantasy*. Westport, CT: Greenwood, 1987. 17–33. Primarily a discussion of Norton's Witch World novels.
201. Walker, Paul. *Speaking of Science Fiction: The Paul Walker Interviews*. Oradell, NJ: Luna, 1978. Contains an interview with Andre Norton.
202. Wolf, Virginia L. "Andre Norton: Feminist Pied Piper in SF." *Children's Literature Association Quarterly* 10 (1985): 66–70. Although she has rarely been recognized as a feminist writer because she seldom violates the explicit conventions of space opera, Norton's fiction often imparts an implicit feminist message through her use of androgenous characters.
203. Yoke, Carl. *Roger Zelazny and Andre Norton: Proponents of Individualism*. Columbus: State Library of Ohio, 1979. Pamphlet surveys the early careers of two popular Ohio-born writers.
- (See also A2–3, A13, A16, A18, A20–22, B1, B8, B12, B17, B19, B21, B23, B33, B48, B51, B57, B63, B68–70, B72, B74, C20, C33, C42)

Nourse, Alan E.

204. Hendrix, Howard V. "The Things of a Child: Coming Full-Circle with Alan E. Nourse's *Raiders from the Rings*." *Science Fiction for Young Readers*. Ed. C. W. Sullivan III. Westport, CT: Greenwood, 1993. 87–96. The only extended critical study of Nourse's science fiction.
- (See also A13, A18, A20, A23, B1, B8, B48, B52, C33)

Nowlan, Philip Francis

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- (See also A13, A18, A21, A23, C5, D25)

O'Brien, Robert C.

206. Friedland, Joyce. *Mrs. Frisby and the Rats of NIMH by Robert C. O'Brien: A Study Guide*. Roslyn Heights, NY: Learning Links. Part of the Novel-Ties study guide series.
207. Hales, Sheila. *Mrs. Frisby and the Rats of NIMH, Robert C. O'Brien*. Oxford: Heinemann Educational, 1989. Forty-eight pages of educational materials. Part of Teaching Strategies for Literature and Language series.
208. Haslam, Richard. *Robert O'Brien, Z for Zachariah*. Harlow: Longman, 1990. Part of the York Notes series. Sixty-four-page study guide.
209. Helbig, Alethea K. "Robert C. O'Brien's *Mrs. Frisby and the Rats of NIMH*: Through the Eyes of Small Animals." *Touchstones: Reflections on the Best in Children's Literature*, vol. 1. Ed. Perry Nodelman. West Lafayette, IN: Children's Literature Association, 1985. 204–11. A classic, the book is nonetheless marred by weak characterization and a climax that does not relate to the book's original theme.
210. Henke, James T. "Growing Up as Epic Adventure: The Biblical Collage in

Z for Zachariah." *Children's Literature in Education* 45 (1982): 87–94. O'Brien has intentionally used biblical allusions throughout his novel in order to invest his protagonist's experience with mythic quality.

211. Jackson, Lynn. *Mrs. Frisby and the Rats of NIMH* by Robert O'Brien. Norwood, MA: Christopher-Gordon Publishers, 1992. Part of the Book Wise Literature Guides series, this volume provides a variety of approaches to O'Brien's novel, including topics for discussion, exercises, and writing assignments. Aimed at students in grades four through six.
212. Morse, Brian. "The Novels of Robert C. O'Brien." *Signal* 40 (1983): 30–36.
213. O'Brien, Robert C. "Newbery Acceptance Speech." *Horn Book* 48 (1972): 343–48. The author discusses his award-winning *The Rats of NIMH*.
214. O'Brien, Sally. "Robert C. O'Brien." *Horn Book* 48 (1972): 349–51. (See also A4, A8, A13, A15, A18, A20, A22, B5, B8, B11, B17–18, B21, B30, B38, B43, B48, B55, B68, B74–75, C20, C33, C83, C89, C96, D38, E46)

Offutt, Andrew J.

(See A18, A23, B48)

Oliver, Chad

(See A13, A18, A23, B48, B52)

O'Neal, Kathleen

(See A20)

Oppel, Kenneth

(See B32)

Pacini, Kathleen

(See C57)

Packard, Edward

(See B33)

Panshin, Alexei

215. Jones, Anne Hudson. "Alexei Panshin's Almost Non-Sexist Rites of Passage." *Future Females: A Critical Anthology*. Ed. Marlene Barr. Bowling Green, OH: Bowling Green State UP, 1981. 26–33. A male writer's early attempt to produce a non-sexist female *bildungsroman*.

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(See also A13, A16, A18, A21, A23, B71, C103, E87, E123)

Paulsen, Gary

(See A4, A20, B1, B38)

Pausewang, Gudrun

(See B5–6, B8, B30, B38)

Pesek, Ludek

(See A13, A18, B48)

Peyton, K. M.

217. Peyton, K. M. "On Not Writing a Proper Book." *The Thorny Paradise*,

Writers on Writing for Children. Ed. Edward Blishen. Harmondsworth, England: Kestrel Books, 1975. 123–27.

(See also A20, B17, B69)

Pienkowski, Jan

(See B32)

Pinkwater, Daniel Manus

(See A4, A20, A22, B1, C54, C96)

Plante, Marie

(See B34)

Pohl, Frederik

218. Claerson, Thomas D. *Frederik Pohl*. Mercer Island, WA: Starmont House, 1987. Survey of Pohl's work by a distinguished scholar.

219. Pohl, Frederik. "Science Fiction for the Young (at Heart)." *Children's Literature* 10 (1982): 111–12.

(See also A13, A18, A20, A23, B16, B33, B67, C5, C30, C83, C90, E203)

Randall, Florence

(See A20, B1, B48)

Reade, Philip

(See E249–261)

Rockwood, Roy

(See A20, B48, B52–53, B69, E249–261)

Rubinstein, Gillian

220. Foster, John. "Your Part of This Adventure Is Over. You Have Lost': Gillian Rubinstein's Novels for Older Readers." *Children's Literature in Education* 22 (1991): 121–27.

221. Mappin, Alf. "Know the Author: Gillian Rubinstein." *Magpies* 4.3 (1989): 18–20. Interview

222. Mills, Alice. "Dancing in the Labyrinth: Gilliam Rubenstein's Gameplayers." *Papers: Explorations into Children's Literature* 2 (April 1991): 24–29.

(See also A22, B56)

Sadler, Marilyn

(See B32)

Sakers, Don

(See A20)

Sargent, Pamela

223. Elliot, Jeffrey M. *The Work of Pamela Sargent*. San Bernardino: Borgo, 1990. This study of Sargent's fiction includes considerable material on her young adult novels.

224. Morrissey, Thomas J. "Pamela Sargent's Science Fiction for Young Adults: Celebrations of Change." *Science-Fiction Studies* 16 (1989): 184–90. As do her adult novels, Sargent's young adult books center on the disruptive influence of technological change. Her fifteen-year-old, female protagonists are often more capable of dealing with such change than are the adults in their lives.

225. Sargent, Pamela. "The Profession of Science Fiction, 36: The Writer as

Nomad." *Foundation* 40 (1987): 5–11.

226. ———. "The Writer as Nomad." *Women of Vision*. Ed. Denise DuPont. New York: St. Martin's, 1988. 128–42.

(See also A13, A18, A20, A23, B2, B11, B48, B63, B74, C3, C96)

Saul, John

(See B35)

Schlee, Ann

(See A13, A20, A22, B16, B30, B48, B57, B75, C13)

Senarens, Luis P.

(See A13, A18, A23, B1, E249–261)

Senn, Steve

(See B16)

Sernine, Daniel

(See B34)

Service, Pamela

227. Service, Pamela F. "On Writing Sci Fi and Fantasy for Kids." *The ALAN Review* 19 (1992): 16–18. Service discusses the freedom that writing fantastic fiction gives her.

(See also A20, A22, B7–8, B16, B26, B38, C41)

Seuss, Dr. (Theodor Seuss Geisel)

228. Barone, Diane. "The Butter Battle Book: Engaging Children's Thoughts on War." *Children's Literature in Education* 24.2 (1993): 123–36. Dr. Seuss on nuclear war.

229. Mensch, Betty, and Alan Freeman. "Getting to Solla Sollew: The Existential Politics of Dr. Seuss." *Alternate Library Literature, 1986/1987. A Biennial Anthology*. Ed. Sanford Berman and James P. Danky. Jefferson, NC: McFarland, 1988. 151–60. Article contains a discussion of Dr. Seuss's most science-fictional work, *The Butter Battle Book*.

(See also B38, E22)

Sherburne, Zoa

(See B33)

Siegel, Barbara and Scott

(See B7–8, B38)

Silverberg, Robert

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(See also A13, A16, A18–20, A23, B1, B16, B33, B48, C5, C17, C53)

Simak, Clifford D.

(See B16)

Sleator, William

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234. Davis, Hazel, and James Davis. *Presenting William Sleator*. New York: Twayne, 1991. The first book-length study of a popular author of young adult science fiction.
235. Jenkinson, D. H. "Portraits: William Sleator, Stellar Science Fiction Author." *Emergency Librarian* 17 (1990): 65–71.
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237. Roginski, Jim. "William Sleator." *Behind the Covers*. Littleton, CO: Libraries Unlimited, 1985. 194–205. Interview plus introductory material and a bibliography.
238. Sleator, William. "Chaos, Strange Attractors, and Other Peculiarities in the English Classroom." *Authors' Insights: Turning Teenagers into Readers and Writers*. Ed. Donald R. Gallo. Portsmouth: Boynton/Cook, 1992.
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240. ———. "What Is It about Science Fiction?" *The ALAN Review* 15 (1988): 4–6.
(See also A3, A7, A22, B1, B17–18, B20–21, B23, B33, B46, B48, B74, C96, D38, E46)

Sloan, Carolyn

(See B32)

Slobodkin, Louis

241. Estes, Eleanor. "Louis Slobodkin." *Horn Book* 20 (1944): 299–306.
(See also A19, A22, B1, B48)

Slote, Alfred

(See A4, A7, A20, A22, B1, B21, B74)

Smith, E. E.

242. Ellik, Ron, and Bill Evans. *The Universe of E. E. Smith*. Chicago, Advent, 1966. Early study.
243. Sanders, Joseph. *E. E. Smith*. Starmont Reader's Guide 24. Mercer Island, WA: Starmont House, 1986. Survey of the author's work.
(See also A13, A16, A18, A21, A23, B67, C5)

Snyder, Zilpha K.

244. Karl, Jean. "Zilpha Keatley Snyder." *Elementary English* 51 (1974): 785–90. Early discussion of the work of a fantasy writer who has also done some science fiction.
245. Snyder, Zilpha K. "Alternate Worlds." *Innocence and Experience: Essays and Conversations on Children's Literature*. Ed. Barbara Harrison and Gregory Maguire. New York: Lothrop, Lee and Shepard, 1987. 189–90.
(See also A20, A22, B21, B48, B74)

Steele, Mary Q.

(See A20, A22, B46, B49, B57)

Stewart, George R.*(See B54)***Stone, Josephine Rector***(See A13, B16, B48)***Stoutenberg, Adrien***(See A13, A20, B1, B48, B57, B74)***Stratemeyer, Edward**

246. Soderbergh, Peter A. "The Stratemeyer Strain: Educators and the Juvenile Series Books, 1900–1973." *Journal of Popular Culture* 7.4 (1974): 864–72. Discusses the hostility of educators to such series works as Tom Swift.

247. Stillman, Terry A. "Edward Stratemeyer and His Boys and Series." *Newsboy* 26.5 (1988): 138–46.

248. Watson, Bruce. "Girls! Boys! It's Edward Stratemeyer!" *Smithsonian* 22 (October 1991): 50–61.

*(See also A20, B13–14, B17, B48, B52–53, E249–261)***Strete, Craig Kee***(See A18, A20, A22–23, B48)***Strieber, Whitley***(See A6, B5–8, B26, B38, B75)***Sutal, Louis***(See B34)***Sutton, Jean and Jeff Sutton***(See A23, B48, B74)***Swindells, Robert***(See A6, A13, A20, B5, B7–8, B26, B30, B38, B48, B75, C41)***Titus, Eve***(See B32)***Todd, Ruthven***(See A9, A11, A13, B1)***Tom Swift***

249. Billman, Carol. *The Secret of the Stratemeyer Syndicate: Nancy Drew, the Hardy Boys, and the Million Dollar Fiction Factory*. New York: Ungar, 1986. A detailed study of the publishing practices of Edward Stratemeyer, publisher of the pseudonymously authored Tom Swift series.

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Index

Note: Normally, in an index, I would list the authors and titles dealt with throughout the volume—as I did in the index to *Science Fiction for Young Readers*; however, all of the articles in this volume are survey articles and deal with hundreds of authors and titles—or more. To list them all would create an enormous index. Therefore, I have decided to limit the index to the major authors but not the titles of the fiction discussed and to also construct entries that focus on the topics each critic examines. CWS.

- Airship Boys series (Sayers), 10
American science fiction, 21–35; challenging ideas, 22, 31–32, 33n.5; dystopian fiction, 29–30; encounters with aliens, 30–31, 33n.3; Heinlein's legacy, 32–33; new influences on series fiction, 25, 34n.11; origin in 1947; post-1947 series fiction, 23–25; post-holocaust fiction, 28–29; problems in young adult science fiction 26–27; standards set by Heinlein, 21–23; young adult/adult reading matter, 25–26, 34n.12
Argus Control series (Sernine), 40
Asimov, Isaac, 2, 24
Asimov, Isaac, and Janet Jeppson Asimov, 24, 25
Australian science fiction, 85–95; connections to worldwide science fiction, 95; gradual initial development, 86–90; popularity of post-holocaust fiction, 90–91; pre-1945 science fiction, 85–86; recent growth of the field, 90–94
Baillie, Allan, 92–93
Baum, L. Frank, 8
Beast Master series (Norton), 2–3
bildungsroman, x; definitions, 99–102; for female protagonists, 104–17; for young readers, 99–117; from low tech to higher tech, 102–17, *passim*
Bouchard, Guy, 37
Boy Inventor series (Bonner), 10–11
Brandis, Mark (Nikolai von Michalewsky), 81
British science fiction, 56–71; adult/young adult reader, 55–57, 70–71; comic books, 68–70; hard (Vernian) science fiction, 59–60; origins in Victorian and Edwardian literature, 57–59; sociological (Wellsian) science fiction, 60–67; television, 67–68; time in, 63–

- 66; women writers of, 61–63
 Bronner, Richard, 10–11
 Bruckner, Winfried, 81–82
- Canadian science fiction, 37–53; award winners, 52n.15; dystopias, 49–50; French and English division of, 37–38; French-English/English-French translations, 51, 52–53n.16–18; inclusiveness of, 51n.1; quality of, 51; very short books, 52n.13
- Carmody, Isabelle, 92
 Champetier, Joël, 41
 Chetwin, Grace, 30, 32
 Christopher, John, 60
 comic books, x, 19, 25, 68–70 (English), 162–80; allusions to literature and film, 162–68; alternate Earths in, 174–79; mythological realms in, 174; science fiction comic books vs. science fiction in comic books, 162–63; string theory in, 171; subatomic universes in, 168–72
- Corriveau, Monique (Monique Chouinard), 43
 Cosgrove, Edmund, 37
 Côté, Denis, 42
 Craigie, David, 37
- Daibler, Albert, 75–76
 Darlton, Clark (Walter Ernsting), 79
Der Luftpirate series (Hoffman), 74–75
 Dickinson, Patrick, 63–64
 Dolezal, Erich, 80
- English-Canadian young adult science fiction, 44–51; generally mediocre field, 44–46; importance of Monica Hughes, 46–49; origins in the 1970s; youthful authors, 45
 extrapolation, 1–3
- Faulkner, Frederick, 37
 Fazakas, Alex, 93
 Ferzandie, Clement, 8
 films, x, 19, 22, 147–55; aliens in, 153–54; depiction of culture in, passim; dystopian themes, 154; juvenile market for, 149; Puritan ideology in, 152–53; solace in, 154–55; television and science fiction, 149–51
- Finlay, Roger T., 17–19
 French-Canadian young adult science fiction, 38–43, 51; children's and young adult stories, 38; French-Canadian settings of, 39; improvements in writing, 39–40
- Gagnon, Maurice, 38
 Garner, Alan, 63
 German science fiction, 73–82; adventure fiction, 74–78; best modern work (*Tötet ihn*), 81–82; censorship, 74, 77; current state of, 81–82; early, 73–74; English-language science fiction after World War II, 79; modern beginnings, 79–80; space travel theme, 78–79; value of technical information in, 77–80
- Gladden, Washington, 8
 Godfrey, Martyn, 44–45
 Goldman, E. M., 45–46
- Halam, Ann (Gwynneth Jones), 65–67
 Hall, Penny, 92
 Harding, Lee, 88, 89–90
 Harris, Christie, 44
 Heinlein, Robert, ix, x, 1–3, 19, 21–23, 31, 37, 79, 80, 85, 119–28, 135, 136; aliens in, 3, 22; American History in, 2; as storyteller, 22–23; association with Scribner's, 21, 23, 34n.10; juvenile series, 21–23, 25–26; male-female equality, 123–24; matriarchal societies, 22–23, 120–22; on writing sf for young readers, 1, 2; parents roles in, 127n.4; women in the juveniles, 119–28
- Heinlein, Virginia, 23
 Herbert, Frank, 2
 Hill, Douglas, 44
 Hoffman, Oskar, 74–75
 Holten, Fritz (Johannes Kaltenboeck), 78–79
 Hoover, H. M., 31, 32; as *bildungsroman*, 104–10
 Hughes, Monica, 44, 46–49; as *bildungsroman*, 110–14; major themes, 46
- Jeunesse-Pop series*, 38–39

- Jones, Diana Wynne, 62–63, 64–65
 Jones, Gwynneth (Ann Halam), 65–67
- Kaiser, Hans K., 80
 Katz, Welwyn Wilton, 46
 Kelleher, Victor, 91
 Kerr, Alvah Milton, 10
 Klein, Robert, 90
 Kraft, Robert, 74
- Lasswitz, Kurd, 73–74, 82n.1
 Last Legionary Quartet (Hill), 44
 Law, Winifred, 85–86
 Lawrence, Louise, 28–29, 31, 32, 33n.1, 61, as *bildungsroman*, 102–4
 Leeson, Muriel, 44
 L'Engle, Madeleine, 24–25
 Lensmen series (Smith), 24
 Lucky Starr series (Asimov), 24
- Macdonald, Caroline, 92
 Mader, Friedrich Wilhelm, 76–77
 Marsden, John, 93–94
 Martel, Suzanne, 37, 38
 Massé, Johanne, 40–41
 Matas, Carol, 44–45
 Mayne, William, 62
 Monpetit, Charles, 43
 Moore, Patrick 59–60
 Morphett, Tony, 90
- Norby series (Asimov and Asimov), 24, 25
 Norton, Andre, 2–3, 37
- O'Brien, Robert C., 28, 32
 Oppel, Kenneth, 45–46
- Park, Ruth, 92
 Parry, Anne Spencer, 88–89
 Patchett, Mary, 86–87
 Pausacker, Jenny, 93
 Pelletier, Francine, 39–40
- Rochon, Esther, 39
 Rubinstein, Gillian, 91
- Saylers, H. L., 10
 Scholes, Katherine, 93
 Scott Saunders series (Moore), 59–60
- series fiction, 7–20, 23–25, 34n.11
 Sernine, Daniel, author, mentor, and editor, 40
 Seuss, Dr., 134
 Shirrefs, Mark, 93
 Simon Black series (Southall), 86–87
 Simpson, Danielle, 39
 Skylark series (Smith), 24
 Sleator, William, 32, as *bildungsroman*, 103–6
 Slobodkin, Louis, 134
 Smith, E. E., “Doc,” 24
 Southall, Ivan, 86–87, 94
 Space Partisans (Weltraumpartisanen [Brandis]), 81
 Spencer, Beverley, 44
Star Trek, xi, 25, 150
Star Wars, xi, 25, 151, 152
 Stevermer, Caroline, 28, 29, 32
 Stratemeyer Syndicate, 9, 23–24
 Sturgeon, Theodore, 136, 145n.11
 Sutel, Louis, 38–39
 Swift, Tom, ix, 14, 19, 22, 23–24; as inventor, 9–10
 Swift, Tom, Jr., 19, 23–24
- technological science fiction, 7–20; airplane stories, 15–17; attraction of radio stories, 12–14; automobile stories, 14–15; failure of automobile stories, 15; invention as “wonder,” 18–19; inventor as hero, 9–12; popularity of series fiction, 9; publishing technological fiction 7–9;
 television, xi, 19, 25, 30, 67–68 (British)
 Thiele, Colin, 88–89
 Thomson, John, 93
 Time Traders series (Norton), 2–3
 Trowbridge, John, 8
 Trudel, Jean-Louis, 41
- Unipax series (Gagnon), 38, 51n.2
 Ure, Jean, 61–62
Utopia Zukunftsromane series, 79–80
- Verne, Jules, 37, 73–74
 Volpek series, 38, 51n.2
- war in science fiction, 131–45; aggressive masculinity and, 137; aliens as en-

- emy, 142–43; alternate history and time travel and, 137–38; as natural state, 136; cartoon depictions, 141; children's fears of, 133–34, 144; conflict and plot, 133–34; defining "war," 132–33, 144n.5; national interests and, 136; post-holocaust scenarios, 139–40; socioeconomic causes of, 136; technology as enemy, 143; Vietnam in science fiction, 132, 140–43; violent content of television and movies, 139
- Warnant-Côté, Marie-André, 39
- Wells, H. G., 22, 30, 37, 57–58, 73–74, 164
- Westall, Robert, 29–30, 32, 33; as *bildungsroman*, 102–4
- Williams, Ian, 56
- Wohl, Robert, 15–16
- Wonder Island Boys series (Finlay), 17–19
- Wrightson, Patricia, 87
- Wyndham, John, 60–61
- young adult and adult science fiction, distinctions between, 38, 51n.1, 70–71, 73
- young adult readers, adult reading patterns of, 25–26, 34n.12, 55–57

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