Teaching Science Fiction by Women

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Teachers of high-school students might imagine that teaching science fiction would make female students feel excluded, since anthologies and histories make the genre look like one written exclusively by and for middle-class white males. On the contrary, women have participated vigorously in the writing of science fiction throughout its two-hundred-year history, and many have written with adolescent readers as their audience.

A History of Women and Science Fiction

Most historians of science fiction credit Mary Wollstonecraft Shelley with founding the genre. Although her book was not called "science fiction" until the 1920s, when the term was invented, her Frankenstein; or, the Modern Prometheus (1981 ed.), originally published in 1818, was the first novel to center on a problem of science, in her case, the ethical question of scientifically creating life. In 1826, Shelley published a second novel in the genre, The Last Man (1965 ed.), which draws on her contemporaries' fear of cholera to depict a future world where a plague kills all humans.

Although a century elapsed before science fiction was recognized as a separate genre, it was anticipated in the many technological utopias written by women in the nineteenth and early twentieth centuries. In 1836, American writer Mary Griffith published Three Hundred Years Hence (1975 ed.), a work that imagines a future Philadelphia in which a woman has discovered a new form of power to surpass steam, where women have property rights and access to college, and where cooking is done in community centers. In 1880-81, Mary Bradley Lane depicted in Mizora: A Prophecy (1975 ed.) a country at the North Pole populated entirely by women, whose utopia was founded on the wonders of science (especially the new areas of home economics—nutrition and chemistry), and who had perfected chemical substitutes for food and had professionalized all household tasks. In 1915, in Herland (1979 ed.) Charlotte Perkins Gilman created another all-woman society, this one full of the new achievements in genetics (Herlanders have cats that do not kill birds and only trees for crops, ones that produce nutritious nuts and fruits). These scientific feminist utopias did not simply die out but, instead, influenced women writers for the early pulp magazines: in 1929, Amazing Stories included "The Moon Woman," a utopia by Minna Irving about a world transformed by angelic moon beings; and in 1930, Science Wonder Quarterly included Lilith Lorraine's "Into the 28th Century," a story of a utopian future molded by feminists, socialists, and radical scientists, whose inhabitants have discovered time travel.

The first story by a woman in the science-fiction pulps, however, was not a utopia. In a 1927 short-story contest, Clare Winger Harris won third place and $100 for "The Fate of the Poseidonia," a space opera about evil Martians stealing Earth's water to irrigate their arid planet (and who also steal the young male narrator's girlfriend). Harris contributed many other stories during the 1920s, despite the comment by her editor, Hugo Gernsback, that "as a rule, women do not make good scientifiction writers, because their education and general tendencies in scientific matters are usually limited" (Harris 245). Many women followed Harris into the pulps, and this same editor later advised his readers that "it speaks well of the times in which we are living, when women authors such as Lilith Lorraine have the vision to take science fiction seriously enough to make extended studies of it" (Lorraine 251). But the times when such visions...
were welcomed did not last; at least in Amazing Stories and in Wonder Stories, the women virtually disappeared by the mid-1930s. I think that editorial policy, or simply civic pressure on the women, kept their stories from earning money that could go, instead, to a man supporting a family during the Depression.

Through such a temporary economic displacement, the idea that women did not belong in science fiction became entrenched, and after economic sanctions were lifted, women writers returned to the genre almost entirely under male pseudonyms: Leslie F. Stone in the 1930s and C. L. Moore in the 1930s and 1940s published many short stories in the pulps; in the 1940s Leigh Brackett and in the 1950s Andre Norton and J. Hunter Holly published many novels. These writers specialized in adventure stories with strong, young, male heroes. After World War II, occasional women returned to the pulps under their own names: Margaret St. Clair in fantasy science fiction and Judith Merril in near-future fiction are examples. Frederick Pohl (1984), editor of Galaxy and If during the 1950s and 1960s, thinks that editors superstitiously believed that women's names on stories lowered sales to adolescent males.

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With the arrival of the 1960s, however, women wrote under women’s names and, more and more often, featured women heroes: Naomi Mitchison, Ursula K. Le Guin, Joanna Russ, and many others began their science-fiction careers in the 1960s. Marion Zimmer Bradley has argued that the Star Trek television series developed an audience among girls for science fiction in 1960s. Reasons that scientists and educators have suggested for these differences between female and male participation include overt discrimination, lack of encouragement from parents and teachers, scarcity of role models, and teaching methods uncongenial to female students (Kahle 1985; Harding 1986). Teaching science fiction by women, then, offers a counterbalance to these causes of girls’ lack of interest in science: worlds in which men and women participate equally in scientific discovery; role models in the portrayals of women scientists; and a mode of arousing interest in science, through literature, that is traditionally more congenial to female students. It is important, then, for teachers to encourage students to discuss the careers of the characters and to explore the kinds of science that the writer makes central to the novel: A. M. Lightner is an entomologist, for example, and Le Guin, whose father was an anthropologist and whose mother wrote about American Indian culture, has also studied anthropology.

Benefits of Teaching Science Fiction by Women

Although women made up 45% of the work force in the United States in 1983, they represented only 13% of the science and engineering jobs. In 1984, women comprised 20% of the scientific staff in medical research, 9% of the academic appointments in chemistry, and less than 5% of doctorates in engineering (Pfafflin 1984; Moody 1989). In 1988, Carolyn Merchant estimated that of United States degrees in science, women numbered 10-30% in the life sciences, 5-15% in the physical sciences, and 1-6% in engineering. Reasons that scientists and educators have suggested for these differences between female and male participation include overt discrimination, lack of encouragement from parents and teachers, scarcity of role models, and teaching methods uncongenial to female students (Kahle 1985; Harding 1986). Teaching science fiction by women, then, offers a counterbalance to these causes of girls’ lack of interest in science: worlds in which men and women participate equally in scientific discovery; role models in the portrayals of women scientists; and a mode of arousing interest in science, through literature, that is traditionally more congenial to female students. It is important, then, for teachers to encourage students to discuss the careers of the characters and to explore the kinds of science that the writer makes central to the novel: A. M. Lightner is an entomologist, for example, and Le Guin, whose father was an anthropologist and whose mother wrote about American Indian culture, has also studied anthropology.

Using women writers in a science-fiction unit also allows female students (not just males) to see war, imperialism, and the misuse of the ecosystem. Judith Merril was one of the most important editors of this revolution in style in science fiction, and Pamela Zoline (1988) contributed a classic short story about inner space, “The Heat Death of the Universe.” Feminist utopias (for example, Russ’s Female Man [1975], Le Guin’s Left Hand of Darkness [1976], Marge Piercy’s Woman on the Edge of Time [1976], and Joan Slonczewski’s Door into Ocean [1986]) have been so popular in science fiction during the 1970s and 1980s that they constitute a sub-genre. By 1980, Donald Wollheim, publisher of DAW Books, admitted that “two out of three of the best new writers [in science fiction] turn out to be female” (Bradley 8).
themselves as potential writers. Increasingly, research on women students' achievement suggests that subtle cues in our education discourage females from academic distinction. (See Hall 1982.) One way to give a mixed message about capabilities is to require writing from all students but to teach only men as models, implying that only male writers can achieve quality writing. To overcome such bias, we can ask students to read paired stories by a man and a woman and then to try their own hands at writing science fiction; or we can ask students, after reading a utopia, to write one utopia for women and one for men, afterwards discussing the differences as results of either gender stereotyping, or of an understanding of the different experiences of men and women in our culture. As the science-fiction writer Joanna Russ has pointed out in numerous essays, writing science fiction allows women to develop their visions in ways gender roles may otherwise restrict (1972; 1985). Another way to encourage all students to think of themselves as writers is to ask students to keep reading journals, giving their own responses (not only formal analysis) to the readings each day, and then to have students exchange journals in class and write a response to the original writer's entry. If formal essays are required as part of the unit, teachers may assign groups of four to produce individual science-fiction magazines, complete with art work; such groups allow students to work together as editors of each other's work, as well as on producing the magazine. When the magazines are finished, they can be left on a shelf to be read by all the class members.

Finally, including science fiction by women also highlights issues that otherwise would not be available for discussion. Male science-fiction writers are notorious for neglecting to picture women and children. Male science-fiction writers are notorious for neglecting to picture women and children.

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**Recommended Short Stories**

The five short stories that I recommend for high-school students offer a history of style in science fiction as well as of women writers. C. L. Moore's "No Woman Born" (1976), originally published in 1944, is classic Golden Age science fiction. In this future world, Deirdre, a singer-dancer with a worldwide audience, has been destroyed in a fire, except for her brain, and has had her body re-created by the scientist Maltzer. The scientist thinks he has created a monster, a being who will become more and more inhuman; Deirdre returns to the stage, proving her ability to overcome the limitations of her mechanical body, and thinks of herself as a superhuman; Harris, Deirdre's agent who narrates the story, is undecided. This story re-creates the themes of Shelley's *Frankenstein* for a modern audience, with even more ethical ambivalence, since Deirdre is not evil. It also pits male against female perceptions, since the men doubt Deirdre's humanity, while Deirdre thinks of herself as superior to the men.

Merril's "That Only a Mother" (1960), first published in 1948, gives us science fiction after World War II, in a story reflecting post-war concerns about radiation, as well as a new, more realistic style. In this story, while her husband is away at war, a mother has a baby who is precocious. We become increasingly uneasy about the idyllic relation between mother and child the more we learn
about the background of the war, about news of deformed children and infanticides, about the child’s early speech and cheerful intelligence, and about the father’s eventual return. The ending is not explicit, but implicit is an abnormal baby, a mother who has refused to recognize her baby’s difference, and a father, recovering from shell-shock, returning home only to kill the baby. The story is one of the first to dwell on the damaging effects of radiation, and it is also a telling explication of the separation of nurturing maternal and violent paternal worlds in our culture.

Anne McCaffrey’s “Ship Who Sang” (1961), first published as a short story and later as a novel, recalls the adventure science fiction of the 1950s, except that her protagonist is a cyborg and a woman. Born deformed, Helva is given, instead of her abnormal human body, a mechanical shell that will allow her capabilities beyond those of humans. As well as the normal education, she chooses as a hobby singing, unusual for shell people since they have atrophied larynxes and speak artificially—Helva’s range encompasses bass through soprano. After her training, she becomes a spaceship, linked to all the electronic, mechanical, and computer parts, herself the center of the operating computer. We follow Helva as she chooses her partner, Jennan, because he appreciates her and her singing. They accomplish their first several missions, taking medicine to a plague planet, rounding up a narcotics ring, and last, rescuing settlers from a planet whose sun has gone nova. At the last, Jennan is killed when the settlers delay and there is an accident in the airlock. The story ends with Helva’s grief, the comfort of an older shell ship who once partnered with Jennan’s father, and Helva’s decision not to go rogue but to stay in service. Besides the adventures and the central scientific premise of cyborgs used to humanize technology, this story is also a telling exploration of gender roles, since the ships are female and the partners, or “brawns,” are male: Helva, born deformed, represents the status of females in our culture; she spends the rest of her life serving and healing to make up for her deformity; and independent life is looked on as psychological deviance—going rogue—so that what is left for Helva after Jennan’s death must be only the choice of which man to serve.

Pamela Zoline’s “Heat Death of the Universe” (1988), first published in 1967, is a classic New Wave story, which treats inner space and the events of ordinary existence from the alienating perspective of science fiction. In addition, style, rather than plot, becomes the center of interest. In this New Wave story, Sarah Boyle, a California suburban housewife, feeds her children, shops and cleans for a birthday party, listens to her mother-in-law, and cleans up after the party. While she goes through these tasks that she has already done countless times before, she recounts the laws of thermodynamics to herself and reflects on entropy, the impulse to disorder of the universe. Her own self, repressed by her role as a housewife, breaks through at the supermarket, where she buys one of each kind of cleaning agent, and again after the party, when she despairs at the perpetual cleaning and starts throwing food and dishes on the floor. This presentation of a woman’s nervous breakdown, then, is a natural re-
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—men.

Mrs. Parsons is hoping that the beings will return to pick her up. When they do return, they are not guerrillas or smugglers, as Fenton feared, but aliens. Mrs. Parsons convinces them to take herself and her daughter with them. Having lived under the control of an alien species all their lives—men, the Parsonses take their one chance to see if they can live with another alien species in a more equitable relation. This story is a wonderful comment on Hemingway, as well as a modern version of the first contact story.

Recommended Novels

The five science-fiction novels that I recommend for high-school students span the entire history of science fiction. Mary Shelley's *Frankenstein* has remained popular because it seems to embody a cultural myth about our fears of monstrosity, of being monstrous. In her novel, Robert Walton, an arctic explorer, rescues Frankenstein from the sea and hears his story of dreadful creation: deserting his family and childhood sweetheart Elizabeth for the university and the secrets of science, Frankenstein creates life and is so appalled at the monstrous creation that he abandons it; the monster chases him and begins killing his family and friends; we hear the monster's story from himself—his education in evil by humans and his resolve to have either a mate or revenge; Frankenstein refuses to create the mate, and so the monster kills Elizabeth on their wedding night; Frankenstein ends his life pursuing the monster in the frozen wastes, and the novel ends with the monster's promise to kill him—
self. Discussion classes work well with this novel, since the ethical questions raised (the human creation of life, Frankenstein's refusal to help the monster by creating a mate, the monster's revenge as just or unjust) can be endlessly debated. (See EJ November 1989, 28-33.)

A. M. (Alice Martha) Lightner, a black author, has written mainly for juveniles. The Day of the Drones (1970) echoes in reverse many 1960s cultural themes: in a post-holocaust world, Amhara, the black heroine, grows up in Africa in a society that teaches strict limits on technology and discrimination against the white people who destroyed the earth; she helps her almost-white cousin N'Gobi learn about science since he has been denied college, and they eventually join an exploring expedition in a helicopter; they find in England a white civilization mimicking bee society, oppressive of males; they rescue one boy and barely escape from the angry tribe of whites. The novel raises hard questions about racial and sexual prejudice and about the danger of nuclear arms, but despite the plot, its answers are hopeful, even for technology.

Ursula K. Le Guin's novella The Eye of the Heron (1978) brings two very different future cultures into conflict: Luz, from a town populated by descendants of Hispanics, chafes in her restricted gender and class roles (she is the daughter of a town leader) and hates the thought of her promised marriage; she becomes friends with Lev, a boy from a town populated by descendants of a multi-ethnic peace movement; she runs away to his town, but he is killed in a demonstration during the conflict between towns; she deserts her family to lead the young people of her adopted town into the wilderness, away from danger. This novella raises interesting questions about world revolutions, for it draws heavily on the nonviolent philosophies of Gandhi and Martin Luther King, Jr., as well as on the history of the American Revolution. It also raises questions about the difficulty of maintaining cultural identity while forming relations across cultural boundaries and about the inevitability of assuming one's parents' social and gender roles.

Canadian Monica Hughes writes especially for adolescent audiences. In The Keeper of the Isis Light (1984), she addresses the adolescent fear of being different. The novel centers on the sixteen-year-old orphan, Olwen, raised by a robot, who must aid a ship of settlers arriving on her planet. We see through her perspective and so think of her as a normal, beautiful person, but when she meets Mark, who rejects her, we gradually learn of her difference: because the robot has adapted her surgically to the planet, she seems monstrous to the newcomers. In this romance, we expect Mark to come to his senses after she saves his life, to love her as she loves him, and to validate her beauty and worth by marrying her; instead, she rejects him because she learns to value herself. This novel raises important issues: prejudices resulting from physical differences; the ethics of surgery and medical technology; and the relation of love to one's inner resources in the definition of identity.

In Vonda McIntyre's Barbary (1988), written...
Resources
There are many resources for teaching science fiction by women writers. For short stories and novels, I give publication information separately, but science fiction does not stay in print: the best source for many works will be used bookstores and public libraries. Once you have a copy, you can locate the holder of the copyright to secure permission for educational use. In some cases, you may be asked to pay a copyright fee; you can ask students to help pay this fee. Having secured permission, you then can have local photocopy stores reproduce the novels. Reference works, on the other hand, can be easily found in public libraries. Biographies of writers are most accurate in Peter Nicholl's *Science Fiction Encyclopedia* (1979) and Sharon K. Yntema's *More than 100: Women Science Fiction Writers* (1988), which includes a list of writers of juveniles (168). The best history of women writers is Pamela Sargent's introduction to *Women of Wonder* (1974). More short stories are provided in anthologies edited by Carol Farley Kessler (1984), by Vonda McIntyre and Susan Anderson (1976), by Jessica Amanda Salmonson (1979), by Pamela Sargent (1974; 1978), and by Virginia Kidd (1979). Essays by women writers are collected by Denise DuPont (1988); *Le Guin's Language of the Night* (1979) and *Russ's Magic Mommas, Trembling Sisters, Puritans and Perverts: Feminist Essays* (1985) are also extremely helpful. Of the three books on women's science fiction—by Natalie Rosinsky (1984), Marleen Barr (1987), and Lefanu (1989)—Lefanu's is the most comprehensive. There are also collections of essays on women writers edited by Tom Staicar (1982), by Barr (1981), by Barr and Nicholas Smith (1983), and by Ruby Rohrlich and Elaine Hoffman Baruch (1984). More recent interpretations of individual authors are available in *Extrapolation* and *Science Fiction Studies*.

for juveniles, a street-wise girl, Barbary, is brought to the space station *Einstein* to live with her dead mother's friend and his family. Unwilling to give up the one being she loves, a Manx cat named Mick, she smuggles Mick up to the station and soon has joined forces with the fragile daughter of the family, Heather. Involved in many scrapes on the station because of Mick, Barbary is supported and advised by the station director, the black female astronaut and astrophysicist, Jeanne Velory. When the first aliens enter our solar system, Mick is accidentally sent on an observation unit to meet them, and Barbary and Heather follow to rescue him. Thus, they are the first humans to encounter the aliens and ironically make most successful ambassadors. This novel emphasizes the adolescent sense of being an outsider, and it holds up intelligence, empathy, and communication instead of aggression or rebellion as means of resolving problems (Smith 1989).

I have listed only a few of the science-fiction works by women which enrich science-fiction units. As Lefanu suggests, women writers draw upon the "subversive, satirical, and iconoclastic" (4) in science fiction to offer "freedom . . . from the constraints of realism" and "a means of exploring the myriad ways in which we are constructed as women" (5).

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Scholarly Works Cited


Recommended Short Stories


Recommended Novels


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