"normal." The relative paucity of famous homosexual scientists probably stems from the fact that one does not have much information on the affective lives of investigators of natural phenomena, because such aspects are thought irrelevant to the "objectivity" of science. Yet, as indicated at the outset, the older picture of science as a seamless web of dispassionate inquiry is yielding to a more nuanced picture, in which science draws closer to the arts. As this newer approach takes hold, one may expect to learn more about the emotional commitments of individual scientists and the way in which these commitments in turn interacted with their creativity and the larger world in which they live.

Richard Dey

## SCIENCE FICTION

Although the definition of "science fiction" has eluded any real consensus either inside or outside the field, for present purposes science fiction will be treated as a literary (and lately, cinematic, television, and musical) genre which either speculates on life in the future (or "alternative universes" of the present or past) or in which the extrapolated or speculated effects of advances (or declines) in science and technology are important elements to the story. With this definition the article excludes the major genres of fantasy and horror.

General Considerations. Sometimes called "speculative fiction," "sf" (as it is commonly referred to) is a genre of the modern age of science, though some would trace its roots back to such "fantasy travel" writers as the second-century (A.D.) Greek Lucian, whose True History takes him to a homosexual kingdom on the moon. A wider circle of opinion credits Mary W. Shelley's Frankenstein (1818) with being the first sf work, showing a genuine concern for the effects of science on humanity. Jules Verne (1828–1905) and H. G. Wells (1866–1946) are other oft-cited founders of the genre.

As a self-conscious body of literature, sf arose in the Anglo-American world in the 1920s and 1930s, when it found a vehicle for short stories in pulp magazines and an audience among male adolescents. As such sf "predictions" as the atomic bomb became reality in the 1940s, the genre became increasingly respectable, developed an adult readership, and became able to economically sustain booklength works by talented writers. This expansion continued at a slow but steady pace into the 1960s, when an explosion of interest in space travel (accompanying the moon landing program) and science in general raised interest in sf to the point where it became a major part of popular culture, generating films of mainstream circulation (such as 2001: A Space Odyssey), television series (such as "Star Trek"), and scholarly scrutiny. Today it is one of the most popular genres of fiction in the English-speaking world, has spread to many other languages (notably Russian), and is the subject of hundreds of academic courses. Sf also boasts a highly organized and very vocal fandom constituting what almost amounts to a subculture in itself.

By its nature, sf tends to posit alternatives to contemporary societies, their assumptions, and their mores, while remaining rooted in the cultures of its writers and readers. It should not be surprising, then, that sf has on the one hand dealt imaginatively with issues of sexuality, sexism, and sexual orientation, portraying contemporary assumptions about these topics as time-and-culture-limited rather than universal, and on the other hand has had its share both of invisibility for non-heterosexual characters and of homophobic stereotypes. Since the 1970s, the former tendency has become dominant, aided by a good number of acknowledged gay, lesbian, or bisexual writers; it is not too much to say that in the 1980s, homophobia is no longer considered "good form" in sf.

Historical Development. During the "pulp period," sexuality in general was

largely neglected, the subject not being considered suitable for adolescent literature, and the magazine editors serving as effective censors. As the demographics of the readership broadened, it became possible to include characters who were more or less undisguised homosexuals, but these, in accordance with the attitudes of the times, tended to be villains: evil, demented, or effeminate stereotypes. The most popular role for the homosexual was as a decadent slaveholding lordling whose corrupt tyranny was doomed to be overthrown by the young male heterosexual hero. Lesbians for good or bad remained nearly invisible.

It fell to Theodore Sturgeon, one of the most noted sf writers of the 1950s, to provide the first positive portrayal of homosexuals in a 1953 story "The World Well Lost," published in the June issue of Universe. Coming at the height of the homophobic hysteria of the McCarthyite period, this story featured a pair of homosexual-androgynous aliens who, exiled from their homeworld, arrive on earth. At first their gender remains unknown and Earth's population fawns on them, dubbing them "lovebirds," but when the truth is discovered they are sent back where they would face execution. In the end, however, the pair is rescued by a spaceman who is a closet homosexual. This landmark story is typical sf in criticizing contemporary mores (here, homophobia) while undermining the threat to the reader (and the current censors) by recasting the protagonists as aliens.

A step backwards to homophobic attitudes was Charles Beaumont's 1955 story "The Crooked Man," a Playboy piece which inaugurated a long line of stories in which homosexuality is portrayed as the social norm for one reason or another. Sturgeon came back in 1957 with "Affair with a Green Monkey," examining social stereotyping of homosexuals (again with an alien as the subject).

By 1960 Pyramid was ready to publish the book-length Venus Plus X, in

which Sturgeon posits a one-gender society; the homophobic attitudes of a heterosexual male brought into this society are unfavorably depicted.

There matters rested until 1967, when Samuel R. Delaney, a black gay writer and winner of four Nebula Awards and one Hugo Award, started playing with alternative sexuality in his Ace novel The Einstein Intersection (using semi-alien, semi-human hermaphrodites] and the Nebula-winning short story "Aye, and Gomorrah," which posits the development of neutered human "spacers" and then depicts the "frelks"—people who become sexually oriented toward the spacers. In this work the concept of sexual orientation is examined with the desired distance attained by imagining a new one.

Delaney followed this in November, 1968, with the dazzling Hugo- and Nebula-winning short story, "Time Considered as a Helix of Semi-precious Stones." This picaresque tour de force featured two human males, H. C. E. and the teenage sexually masochistic singer Hawk, who are still friends after having once been intimates.

Enter Ursula K. Le Guin, a mildly feminist writer, who in 1969 startled the sf world with her Ace-published novel *The Left Hand of Darkness*. This book, which won both major awards and quickly gained the stature of an all-time classic of the genre, broke all previous molds in depicting a planet whose people are sexually neuter most of the time, but who randomly turn male or female for a few days each month.

After Le Guin's searching examination of sex roles and orientations, the field was wide open for further exploration; the coming of the "gay liberation" period starting with the 1969 Stonewall Rebellion led to a relative flood of works looking at unconventional sexualities.

It remained only for Delaney to break the last barrier, depicting homosexual lovemaking on the part of his bisexual male hero, the Kid, in his 1975 Bantam novel, *Dhalgren*.

In the cinema, where science fiction has been flourishing commercially since at least 1969, the absence of homosexuality has been nearly complete. Logan's Run (1976), depicting a future city in which homosexuality is casually accepted, stands out as an exception.

Authors. A number of the most prominent writers working in the field of sf have been publicly identified as gay, lesbian, or bisexual. Two of these, William S. Burroughs and Gore Vidal, made their reputations in mainstream literature but have contributed important novels to the genre, such as Burroughs' The Wild Boys (1971) and Vidal's Kalki (1978). Writers working primarily in sf who have reached the very top of their field include Marion Zimmer Bradley (b. 1930, prolific author of the Darkover series of novels and also a frequent contributor to gay and lesbian periodicals), Samuel R. Delaney (b. 1942 in Harlem, author of the Neveryon series and a frequent writer on gay themes), and Joanna Russ (b. 1937, a radical lesbian feminist and occasional contributor to lesbian and gay journals). Edgar Pangborn (1909-1976) wrote a number of widely read works and consistently dealt with same-sex love. Less well known are Nikos A. Diaman, the Englishman Henry Fitzgerald Heard, Elizabeth A. Lynn, Tom Reamy, Sally M. Gearhart, and (in this field) the Frenchwoman Monique Wittig.

There is also a body of gay male pomography with sf settings; authors in this area include Felix Falkon, Dave Garrett, Peter Harnes, Peter Hughes, Rex Montgomery, Charles Platt, and the more widely known Larry Townsend.

Novels of Interest. A large number of sf novels are of substantial gay or lesbian interest. The largest category of these are works in which the hero(ine) or a major protagonist is either homosexual or bisexual, usually males; books of particular interest to women are so noted. These works include Marion Zimmer Bradley's

Darkover books The Heritage of Hastur (1975) and The Forbidden Tower (1977), which link homosexuality to telepathy; William S. Burroughs' The Wild Boys (1971) and Blade Runner (1979); the classic sf writer Arthur C. Clarke's Imperial Earth (1975), in which the hero brings back from Earth a clone of his lost lover; Joan Cox's Mindsong (1979); Delaney's hallucinogenic Dahlgren (see above); Thomas M. Disch's On Wings of Song (1979); Zoe Fairbairns' Benefits (1979), a feminist work set in Britain; M. J. Engh's Arslan (1976), in which the title character, a modern Alexander the Great, is bisexual and develops a longlasting affair with a schoolboy; Sally M. Gearhart's The Wanderground (1978), a set of feminist stories with a common background; David Gerrold's The Man Who Folded Himself (1973), in which the hero uses time travel to make copies of himself which turn out to be ideal lovers; Leo P. Kelley's Mythmaster (1973), whose bisexual protagonist opts for heterosexuality; Elizabeth A. Lynn's A Different Light (1978), in which another bisexual protagonist opts this time for homosexuality, and The Dancers of Arun (1979), which features fraternal incest complicated by telepathy; a set of novels by Michael Moorcock: The Final Programme (1968), featuring a bisexual hermaphrodite, The English Assassin (1972), whose female characters are lesbian or bisexual, Breakfast in the Ruins (1972) about a gay male, and The Adventures of Una Persson and Catherine Cornelius in the Twentieth Century [1976], two bisexual lesbians; George Nader's Chrome (1978), the first sf novel published by a major house (Putnam) specifically geared for the gay male market; Frederick Pohl's Gateway (1977), a Nebula and Hugo winner about a repressed homosexual; Thomas N. Scortia's Earthwreck! (1974); popular writer Robert Silverberg's The Book of Skulls (1972), in which two of the four heroes are gay; the great of philosopher Olaf Stapledon's Odd John (1936), whose hero goes through a homosexual phase shortly after puberty; best-selling sf writer John Varley's The Ophiuci Hotline (1977), whose heroine is bisexual, and his Gaia series starting with Titan (1979) and continuing with Wizard (1980) and Demon (1984), featuring a pair of women, one bisexual and one lesbian, who become closer and closer lovers as the trilogy progresses; Paul Welles' Project Lambda (1979), depicting concentration camps for male homosexuals in a police-state United States; and John Wynne's The Sighting (1978), a coming-out story.

Homosexual villains can be found in numerous books; an interested reader might consult Barry Malzberg's The Sodom and Gomorrah Business and Tactics of Conquest (both 1974), Fred M. Stewart's Star Child (1975), or Kate Wilhelm's Hugo-winning Where Late the Sweet Birds Sang (1976).

Novels set in worlds which accept homosexuality as a normal and integrated part of the environment, but without a focus on a major character, include John Brunner's multiple award-winning (Hugo, British Science Fiction Award, Prix Apollo classic Stand on Zanzibar [1968]; Delaney's Babel-17 (1966) and Triton (1976); Marta Randall's Journey (1978) and Dangerous Games (1980); and John Varley's "Eight Worlds" series of books. The paucity of novels projecting homosexuality as a not-very-remarkable, accepted part of the landscape, is noteworthy; authors seem either to make homosexuality a major element of their story or to omit it altogether.

A significant number of novels posit a world or society in which homosexuality is the only option, there being but one gender present. The feminist vision of a world without males has no doubt inspired several of these; in short-story form they are represented by James Tiptree's (pseudonym of Alice Sheldon) Hugo-winner "Houston, Houston, Do You Read?" (1976), in which a plague has wiped out men and three male astronauts hurled into the future have to deal with the situation. Novels in this category include Suzy

M. Charnas' Motherlines (1978), in which women have set up societies completely outside of the men's world, the novel containing no male characters; Charles E. Maine's Alph (1972), showing a future Earth in which men have been extinct for half a millennium and civil war erupts over a plan to bring back males; Joanna Russ' The Female Man (1975), where the all-woman world is called Whileaway; Joan Slonczewski's Door Into Ocean (1986). where an all-female race on a water planet must deal with male invaders: the Frenchwoman Monique Wittig's Les Guerillères (1969) and The Lesbian Body (1973), which posit all-female lesbian societies; her collaboration with Sande Zeig, Lesbian Peoples (1976), which does the same in the far future; and Donna J. Young's Retreat: As It Was! (1979), which has an entire lesbian galaxy subjected to warfare by an unknown species: men.

All-male environments have been a staple since the pulp days of sf, but these have usually been limited situations such as spaceships rather than entire cultures. Novels which depict entire all-male societies include: A. Bertram Chandler's False Fatherland (1968), in which the arrival of a mixed-crew spaceship precipitates a miraculous conversion to heterosexuality; Auctor Ignotus' AE: The Open Persuader (1969), in which gay men have set up their own society; and the Italian Virgilio Martini's homophobic The World Without Women (1969), where gay men invent a disease which kills off all the females.

Theodore Sturgeon's oft-cited Venus Plus X (see above) sets out a single-sex world which is defined as neither male nor female, while Philip Wylie's The Disappearance (1951) separates males and females into two parallel worlds, each of a single gender, where homosexuality is adopted out of necessity.

Another large category of stories involves societies in which both sexes are present but homosexuality is either compulsory or socially favored. These works

could be written out of an author's desire to hold a satirical mirror up to the homophobia of his culture, but in practice seem to reflect the writer's own paranoia about homosexuality. The classic tale of this type was the short story by Charles Beaumont, "The Crooked Man" (see above). In this story, however, the "genuine" homosexuals are cruel and depraved. Novels dealing with this theme include Anthony Burgess' The Wanting Seed (1962), in which homosexuality is required for official employment in Britain and violent warfare breaks out between the sexes, while Nature goes on strike: crops fail and animals will not reproduce; Suzy M. Charnas' Walk to the End of the World (1974), which sets out an Earth of sexual apartheid and the subjugation of females; the Frenchman Robert Merle's The Virility Factor (1974), in which men are hit by a disease which leaves a despotic lesbian tyranny in charge and the remaining men become second-class citizens; Naomi Mitchinson's Solution Three (1975), basically an expansion of the Beaumont setting; and Eric Norden's The Ultimate Solution (1973), in which homosexuality is the social norm in a Nazi America.

Settings in which sexuality involves more than two genders have been presented in the venerable Isaac Asimov's The Gods Themselves (1972), which depicts a three-sexed race, two of whom are more or less male; Samuel R. Delaney's seminal The Einstein Intersection (1967), also trisexual; and John Varley's Gaia series, in which the native intelligent species undergoes extremely complex patterns in order to reproduce.

A final major category of novels does away with gender distinctions altogether, presenting worlds of androgyny. Ursula Le Guin's The Left Hand of Darkness (see above) is the classic of this type. Other novels in this area include the legendary Robert Heinlein's I Will Fear No Evil (1970), which puts a man's brain into a woman's body through a transplant operation; Robert Silverberg's Son of Man

(1971), where the inhabitants of a future Earth can change sex at will; Frederick Turner's A Double Shadow (1978), whose hero is a hermaphrodite; and John Varley's "Eight Worlds" series, in which human beings can and do change gender as easily as haircuts.

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## SCIENTIFIC-HUMANITAR-IAN COMMITTEE

The Wissenschaftlich-humanitare Komitec, the world's first homosexual rights organization, was founded in Berlin on May 14, 1897, the twenty-ninth birthday of Magnus Hirschfeld (1868-1935), a physician of Jewish origin who became the leading authority on homosexuality in the first third of the twentieth century. Under the pseudonym of "Dr. Ramien," Hirschfeld had in 1896 published a book entitled Sappho und Sokrates, oder wie erklärt sich die Liebe der Männer und Frauen zu Personen des eigenen Geschlechts! (Sappho and Socrates, or How Is the Love of Men and Women for Persons of Their Own Sex to Be Explained?). Moved by the suicide of a young homosexual officer on the eve of a marriage into which his family had pressured him, Hirschfeld went on to create an organization that would campaign for legal toleration and social acceptance for what he called the third sex.

Writing in an era when biology and medicine uncritically accepted the notion of "inborn traits" of all kinds, Hirschfeld maintained that homosexuals were members of a third sex, an evolutionary intermediate (or intergrade)