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## THE CULT OF SCIENCE FICTION

DURING THE PAST DECADE SCIENCE-FICTION has established itself as a complex and popular literary phenomenon. At the same time, its dispersal through low-class movies and lower-class comic books and the obviously low quality of much of its material have tended to discourage critical consideration of its origins, evolution, and artistic merits. Rather than a thoughtless storehouse of adventurous "space travel" stories, science-fiction at its best offers its readers a remarkably rich and unique idiom and a wide gamut of mature and thought-provoking stories. Much of it is trifling, but a large part is created in compliance with certain literary principles and follows a long literary tradition, the nature of which may assure science-fiction a place as a valid means of artistic expression. A basis for this statement becomes clear only when one examines science-fiction with an eye to the *raison d'être* behind its content and diverse subject matter.

The genre known as "science-fiction" received its name in 1926 when Hugo Gernsbach, an American writer, published the first issue of *Amazing Stories*. *Amazing Stories* confined itself to what Gernsbach called "scientifiction", and reflected the interest of the 'twenties in a rapidly expanding technology and the advent of methods of mass-production. Gernsbach cared little for literary value and accepted atrociously conceived plots if they contained feasible extrapolations of current scientific ideas. Science-fiction has retained the principle, first formulated by Gernsbach, of a strictly scientific hypothesis logically expanded or extrapolated into the future; thus this first editor of *Amazing Stories* separated scientific fiction from the werewolves and ghosts of fantasy, which are not dependent upon the limits set by reason and the sciences. Gernsbach was greatly influenced by H. G. Wells and Jules Verne, who wrote with implicit compliance to the rules of science-fiction; indeed, pure "scientification" had antecedents within the realm of fantasy that stretched back to ancient Greece.

Lucian of Samosata, a Greek satirist who wrote the *True History* about 250 B.C., is commonly called the "father of science-fiction". Today the space voyageur bursts out into cold empty space when he has successfully overcome the gravitational pull of the earth; in Lucian's time a voyage beyond the Pillars of Hercules was a comparable feat. In the *True History*, Lucian's "spaceman", riding on the backs of six swans, is carried out over the Atlantic and on to the moon. There he encounters bald, bearded moon-people with stomach pouches and removable eyes, whose airborne cavalry fly into battle wearing giant pea-pods for helmets. Though he was oblivious to science, Lucian nevertheless uses this strikingly familiar science-fiction motif as a vehicle for his satire. The "trip-to-the-moon" theme also appears in the works of Cyrano de Bergerac, immortalized by Edmund Rostand. De Bergerac, in his "autobiography" (1659), straps two dew-filled vials to his wrists. After a long and chilly count-down which presumably lasts most of the night, dawn comes, the sun sucks the dew from the earth, and Cyrano's vials and himself are pulled up beyond the earth. On the way he encounters an even more dubious mechanism for space-travelling: the prophet Elijah, seated in a cast-iron chair, hurls above him a huge magnet which draws the chair upward and is then retrieved by Elijah for another toss.

Not only does the "space travel" motif appear in the history of literature; social satire in the form of Utopias and reverse-Utopias, abundant in contemporary science-fiction in carefully extrapolated future settings, is found everywhere in the history of literature. Plato's *Republic*, More's *Utopia*, Bacon's *New Atlantis*, and Swift's *Gulliver's Travels* had little influence upon Gernsbach's early publications, but they are almost archetypal of what was to appear when science-fiction had assumed its more modern form. The interest of the nineteenth century in the shape of the future was accompanied by an intense interest in the immediate applications of science; in 1865 appeared a rocket-managed *Voyage to Venus* by a Frenchman, Achille Eyraud, contemporaneous with Jules Verne's *From the Earth to the Moon*, which describes a moon-bound projectile shot out of a cannon with tons of gunpowder. Something more than local importance attaches to a novel describing a voyage to the South Pole written by James de Mille, an early Professor of English at Dalhousie University: *A Strange Manuscript Found in a Copper Bottle* (c. 1865) was of sufficient interest to be reprinted in 1910. In 1869 Edward Everett Hale published in America *The Brick Moon*, a description of the first artificial satellite, which is put into orbit by a marvellous arrangement of flywheels. Also contemporary is André Laurie's *Conquest of the Moon* (1889), which reverses the usual pro-

cedure and has a group of scientists magnetize a huge iron-ore mountain in the Sahara desert and draw the moon down towards the earth. Most important of these writers, however, was the prolific Verne, who did extensive scientific checking before he began any of his works; he was superseded by H. G. Wells, whose scientific romances tremendously influenced Gernsbach and faltering science-fiction writers for some years to come. Wells's *The Time Machine* (1889), evoking as it does an achingly eerie and detached future, millions of years hence, is still considered almost the finest time-travel story, and *The War of the Worlds* (1898) is archetypal of the theme of "invasion from outer space".

At first, Gernsbach and the readers of *Amazing Stories* were primarily concerned with the futuristic evolutions of current scientific fact and hypothesis. As a consequence, early science-fiction plots and characterization were thrown together rather carelessly; from this era date the intrepid spaceman and his powerful spaceship, the scantily-clad spacegirl in the cold vacuum of space, the faithful and intelligent robot, and the unimaginably hideous bug-eyed monster or "BEM", as he is affectionately called by the science-fiction fan. *Amazing Stories* soon had rivals, *Science Wonder Stories* appearing in June, 1929, and *Astonishing Stories* in January, 1930. During the 'thirties the treatment of science in science fiction became increasingly wilder, though Gernsbach still attempted to walk a narrow line. Some popular plots, all of which survive in bottom-rung work today, depict a shrunken man and a grown insect battling it out with one another, whole expeditions of Terran explorers being devoured by a living planetoid, or our entire universe being crushed by a cyclotron in the super-universe of which it is merely an atom.

A physicist, John W. Campbell Jr., became editor of *Astounding Science Fiction* (*Astonishing Stories*) in 1938. Campbell brought with him a feeling for the intricacies and details of science, and some sense of literary propriety. He singled out and counselled gifted new writers, and under his tutelage the magazine rose to an *avant-garde* position among its half dozen competitors. During the War, Campbell published well-written, scientifically accurate, and realistically conceived stories, so much so that, a year before Hiroshima, science-fiction writer Will F. Jenkins was visited by the FBI and asked if another of Campbell's writers had access to secret atomic information: that writer had published a story called *Deadline* that had anticipated the atomic bomb. The first anthology of science-fiction stories, *Adventures in Time and Space* (edited by Healey and McComas) was published in 1945, and the majority of its selections were drawn from *Astounding*.

Science-fiction expanded rapidly during the late 'forties and early 'fifties: the

number of magazines trebled; television and movies discovered the medium and exploited it unashamedly; and the quality of execution and the range of treatment developed immeasurably. Its writers were becoming more interested in the futuristic shape of economic and political man, and the social sciences now received as much emphasis as had the physical sciences. A great deal of extrapolation came to be modelled after the pattern of Huxley's *Brave New World* or Orwell's *1984*; though Huxley and Orwell had not intended it as such, their social and political satires fell completely within the definition of science-fiction. With the genre's growth there had developed a specialized fan-world which emerged full-blown about the time of the boom of the 'fifties. Taking their cue from the pluralization of *man* to *men*, the *fans* called themselves *fen*, and met at yearly conferences called *fanferences*. They published amateur magazines of criticism, gossip, and fiction, called *fanzines*, and avidly discussed and collected the fanzines' professional counterparts, the *prozines*. Aided by such correlating agents as the national newspaper of science fiction, *Fantasy-Times*, cultivation of the medium became a connoisseur's art, perhaps brought to its over-zealous extreme by one New Jersey fan who owns two rented garages stuffed with science-fiction, none of which he has had time to read. One must not undervalue, however, the sincerity of the millions of fans who exist in the vast science-fiction world of the 'fifties. The production of hard-cover books increased by geometrical proportion after 1948, as did the number of professional magazines, and much more science-fiction (called "stf" by the fen) resulted in an increase in bad stuff as well as the production of much more good material.

It would be relevant now to examine the literally vast range of science-fiction plot material as it has presented itself during this last decade. As stated before, the content of science-fiction expanded from hoary space-travel adventure to careful treatment of more provocative scientific fact and theory in the Campbellian era and to a very wide range of social and scientific themes in the 'fifties. Methods as well as subject matter have shown rapid development. Space travel is no longer a simple matter of trips to the moon. Journeys are now made from one rim of the galaxy to the other, into artificial worlds that breed generation after generation of humans who have almost forgotten their destination. Radio images of ships are caused to echo at three times the speed of light across the vaulted architecture of the universe, and space itself is folded in half so that two planetary systems are brought infinitely closer together. Ships are propelled not by simple jets but by thought waves or by total annihilation of their matter into energy. Time-travel has also come in for imaginative treatment. P. Schuyler Miller's *As Never Was* (*Astounding*, 1944) is

an outstanding example: the first time-traveller voyages one hundred years into the future and finds the earth desolated and lifeless, obviously the victim of a final suicidal war. Searching for an artifact, he selects from a shattered specimen case in a crumbled museum a strange, green-handled knife. He returns with the knife to the past, which is his present. The knife is examined (during the process a chip is removed from its hilt) and eventually is placed in a museum erected to commemorate this first time-traveller. After some years war comes, and all life is destroyed; the museum crumbles and lies in abject ruin until, after barren decades, a time-machine materializes out of nowhere and its occupant finds for the first time (or once again?) the knife. Now, of course, the hilt is whole, though a chip had been removed before it was placed in the case. One can only sum up the story by saying that the knife always was, though it never could have been. In science-fiction one also encounters variations on the theme of the time-traveller who meddles into the past (for example, by accidentally killing a butterfly in the Paleolithic Age) and irrevocably alters all history, or of the time-traveller who goes back, and then goes back again, meeting himself meeting himself.

These brief examples, however, scarcely do justice to the time travel motif in science-fiction, which may find entirely different expression today in stories that deal with space ships travelling close to the speed of light. At such speeds, according to contemporary physics, moments of time within the travelling object become enormously elongated as compared with external moments of time; and so the science-fiction writer gives us tales of explorers who cruise through space at close to the speed of light for hundreds of years (earth time) and return aged only a few months. But here the psychological factors involved assume importance, and space travel and the time theme also serve the functions of creating the mental states in the story. Robert A. Heinlein affords an example in *Time For The Stars*. In this novel, which merits praise if only for its remarkable treatment of this theme, he explores the fictional possibilities of telepathic communication between the occupants of a spaceship (travelling at 99% of the speed of light) and its agents at a home base on earth.

Science-fiction also makes good use of an "If" or "Parallel Worlds" motif. When anything happens, there pops into being another world "parallel" to earth (but on "a different plane of existence") upon which the event does not occur; and between this world and the ordinary Earth there suddenly exist an infinite number of planets upon which infinite variations of the event are enacted. When the Declaration of Independence was signed, an "If" world appeared where it *wasn't*

signed, plus an indefinite number of other "If" worlds—one, for example, where George Washington's pen nib broke. And all these worlds continue to evolve until we have an infinite number of utterly different Earths and, of course, an infinite number of utterly different sets of Earths. One also encounters in science-fiction "parallel worlds" with no relation to this Earth, where hideous monsters plot havoc against our planet with techniques similar to those of their more spatial Martian neighbours. Both treatments constitute rich and unusual plot material. Indeed, one could go on almost indefinitely through the unusual byways of science-fiction; telepathy, telekinesis (moving objects with one's mind), teleportation (moving oneself with one's mind), and all aspects of extra-sensory perception, appear with great regularity, and here the science-fiction writer draws extensively upon the findings of Dr. J. B. Rhine, professor of parapsychology at Duke University. Themes from advanced mathematics, like the "Moebius" strip (a strip of paper which is folded in such a way as seemingly to have only one side) and the Klein's bottle (a bottle with "only one side"), are used frequently. These last two devices, with their suggestions of odd dimensions and contortions, give rise to many unusual tales. To take a random sampling, we should not be surprised to find the protagonist of a story (a) stepping from one end of the galaxy to the other by walking through a faintly shimmering metal hoop, (b) opening a door into a room, and seeing himself, six feet ahead, opening a door into a room, or (c) occasionally discovering himself to be inside-out.

As has been intimated earlier, the social sciences are also offering rich plot material for science-fiction. Utopias and reverse-Utopias are a common motif; in Kornbluth and Pohl's novel *The Space Merchants* we are shown a society in which advertising has been extrapolated to its ultimate horrible extremes, and in Ray Bradbury's *Fahrenheit 451* the reader discovers that the final degradation of man's literary tastes is a mass book-burning at the temperature at which paper bursts into flame. Created for its readers are cultures in which eating in public is the most vulgar of all sexual acts, or in which Freud is God and his writings are dogma by which to live. In a psychological vein, we are shown the relations between man and woman when the womb of earth is removed from underfoot, and, rather than the mechanics of a robot as in earlier science-fiction, we read of the relations between man and robot, between human and non-human. To be recommended is *The Gulf Between* by Tom Godwin; at its conclusion a space-ship is speeding towards the stars, and its occupant lies in a state of suspended animation. Only the voice of his

personal robot can awaken him and prevent his sleeping forever, and, sometime in eternity, dying. But only the voice of the sleeping master can activate the robot.

Science-fiction, in short, now draws its material from every branch of speculative thought. Not only does it spread man with ingenuity throughout the planets and throughout time, but it speculates upon his spiritual and psychological reactions to these strange environments. Yet a richness of subject matter is not a full test of artistic merit: of much science-fiction it must be asked whether it is handled in such a way as to assure it of a position as a genre of literature?

When one considers the work of Ray Bradbury, the answer is yes. Bradbury blatantly disobeys the science-fictional criterion of logical extrapolation but mingles his science and fantasy with such skilful craftsmanship and poetic intensity that he constantly achieves art without departing from the genre. Bradbury is against the depersonalizing advance of modern science, and in *The Martian Chronicles* he contrasts the fragile beauty of a wise, ancient, and dying Martian civilization with the stupid yammering of Terran tourists who set up hot-dog stands and throw beer-cans from their rockets into the pale Martian ruins. None of his contemporaries appear to equal Bradbury, but Clifford D. Simak, in *City*, has to some extent captured the vastness and beauty of space and time and man's spiritual movement through it, though he has handicapped himself by creating almost no characterization. Arthur C. Clarke, a British writer, describes in *The City and the Stars* an earth millions of eons in the future where mechanization has reached an ultimate point and all creative impulses have been stifled. An artist is accidentally born, and he succeeds in re-awakening the imagination of the sleeping city. Clarke has also written *Childhood's End*, a novel that duplicates to a degree the mood created by Simak, creating in the process some semi-real characters and a host of almost too gaudy plot elements.

Some of the best writers of science-fiction—their stories have appeared in *Astounding*, *Galaxy*, and *The Magazine of Fantasy and Science-Fiction*, which are probably the three best contemporary science-fiction magazines—have succeeded in creating prose of a quality that is quite new in science-fiction. The imaginative works of Robert A. Heinlein, particularly the Future History series, are effortlessly evocative of realistic future ages, and the taut style and brilliant imagination of Alfred Bester, a television director, have made an original contribution to modern science-fiction. Bester, in *The Demolished Man*, creates Ben Reich, an evil cartel magnate who must murder in a society where a telepathic police force has rendered murder impossible. Reich, the symbol of eternal evil, is pitted against Powell, the telepathic police detective who symbolizes eternal good. At the end of the book

the world gradually winks out before Reich's eyes as his personality is demolished by waves of psychic force centralized and directed by the intellect of Powell. It is in *The Demolished Man*, and to a much lesser extent in Bester's later *The Stars, My Destination*, that one gets some inkling of the potentialities of science-fiction.

Formidable as are the explicit and implicit qualities of science-fiction, the genre is by no means always devoid of humour. The emotional reaction elicited by good science-fiction is not only a sort of cosmic awe characteristic of the novels of Simak and Clarke; it may be a spontaneous burst of laughter at the incongruity of puny man in infinite space. Frederic Brown and Robert Sheckley are two writers who make the most of this motif, and Brown's novel *Martians Go Home* is to be highly recommended. At the opposite end of the spectrum, effective science-fiction may elicit feelings of pity and terror, as exemplified by Judith Merrill's *Only That A Mother*, in which a mother discovers that her child is rather late in trying to walk because atomic radiation has caused it to be born without a backbone.

In spite, therefore, of its admitted weakness in plot and characterization, science-fiction conveys an awesome effect of terror or suspense, at times uniquely emphasized by irony or humour. A final aspect that remains to be discussed is its dependence for some of its content upon myth, legend, and fairy tale. One may encounter stories describing the Olympic Gods as super-human creatures who are forced down in their space-ships in the hills of Greece and set up a sort of kingship, travelling from place to place in anti-gravitational footwear resembling golden shoes and drinking distilled nutrients, the names of which are translatable as ambrosia and nectar. Under another writer's pen, Stonehenge becomes a launching rack built under the commands of an alien to raise his grounded space-ship. The loathly hag of Chaucer's *Wife of Bath's Tale*, when traced back through her endless analogues, could have been a hideous creature from another planet lost upon the planet earth. To be more specific, science-fiction offers a distinctively twentieth-century medium for a literary expression of man's aspirations, fears, and dreams. The spaceship is the materialistic descendant of the flying carpet, and telepathy, teleportation, and telekinesis are the imaginative descendants, respectively, of the magical ring which makes its owner understand all things, the brass horse or the seven league boots that will take their owner anywhere, and the magical sword that renders its wielder invincible. The wondrous genie of Arabian lore is recreated in the test tubes of the science-fiction writer's mind, and re-appears as the wondrous wise earthman of a million years hence, to whom all things will be possible.

Science-fiction, then, has unconscious roots in the deepest well-springs of



human experience, and the modern obsession with science has enabled a group of writers to give new forms to old truths. An intrepid spaceman battling against non-human beings on other planets is science-fiction's unique re-phrasing of those intimations which caused the Anglo-Saxons to create Beowulf battling against non-human monsters in the dark meres of Denmark. But the science-fiction writer should not be praised too highly, for he does not seem to understand completely his unusual genre. To quote Basil Davenport in his *Inquiry Into Science Fiction* (1955), "Though someday we may have a story of galactic warfare equal to the *Iliad*, or a journey to the stars which equals the *Odyssey* or even the story of Jason, we have not had them yet, and I should not like to stand on one leg until we have" (p. 71).

Within this statement lies a suggestion of the greatest weakness and the greatest strength of science fiction. As a unique vehicle for symbolic expression it may be used, as by Olaf Stapleton in *First And Last Men* (1935), to convey a vast sense of the movements of man's spirit through history, or, as in Bester's *The Demolished Man*, to create a telepathic mind (Powell's) which may symbolize the pervasive power of good over evil. The beauty of the medium is utilized to its fullest by C. S. Lewis in *Out Of The Silent Planet*, where the Fall of Man is skilfully allegorized against an interplanetary backdrop. Yet in a story like *As Never Was* the mind is kept from philosophic wonder because it cannot pass beyond the physical elements in the plot: surely the solution to the paradoxical green-handled knife lies in raising the story to the level of speculation about perception and knowledge, and in dissolving, rather than solving, the puzzle. Finally, if the implicit elements in science-fiction can be made explicit and arranged in patterns that do full justice to their ancestry and to the uniqueness of this modern literary idiom, the potentialities of science-fiction may begin to be realized.