

SCIENCE FICTION: A HISTORY OF THE FUTURE

Nicoleta MEDREA

Abstract

The excitement of the science fiction writers of the late fifties into the sixties was that of a time when just about anything seemed possible. New routes of human experience were mapped, bypassing people's preconceptions. However, in time, this process was followed by a decline of interest in space and concerns moved from outer to inner space, from technology mad optimism to planet-related pessimism. The Golden Age of galaxy- spanning future histories faded into the more cynical and skeptical New Wave and, later, cyberpunk.

We have always been curious about the unknown times and worlds given our in-built need to explore new places. Science fiction is the genre that offers us the field for this exploration, it gives us the possibility to view the past, present and future like no other type of fiction does.

People's attitude toward this genre was mainly shaped throughout the last century, one of revolutionary changes. To quote Fredrik Pohl: "The foremost reality that SF deals with is change, which could be the reason for the growing interest in the 20th century when the world has experienced more change than ever before". Technology and all of human knowledge were growing faster and faster. Man learned how to fly and sixty years later he was on the moon. The earth has survived two grueling wars and an atomic age, which started only a few decades later. Compared to the period before the industrial revolution when great inventions were at such intervals that it was not possible for one man to see much change during his lifetime, as soon as the industrial revolution came, changes could be witnessed in a one man's life. Accordingly, writers began to explore new avenues and everything was probed for the possibility of being a new revelation in human history.

A popular idea of science fiction is that it is, in general, attempting to predict the future. Some went so far as to attempt to judge the success of a work of science fiction on its accuracy as a prediction. However it is not the job of art- even SF- to predict. It just helps us put things into perspective. Even though the forecasts proved wrong, or all of the fancy toys we were promised are imperfections left unsolved, we should continue to consider science fiction as one of the genre that explores the entire range of human experience, the good, the bad, the perverse, the hopeful, the sad...everything that makes us human. SF affords us so many perspectives and nourishes our basic need to explore and discover even now when the distances between the present and future are narrowing and turning almost imperceptible.

Every type of SF has a motif of "What if...", "If only...", or "If this goes on...". It exploits both the future and the results of human acts and inventions. According to F. Hart "science fiction is a type of fiction that is based on either actual or imagined discoveries of science. It is distinguished from other tales of the fantasy or the supernatural because SF is somewhat grounded in science having also philosophical and sociological implications". And indeed the industrial revolution with its abundance of

inventions and influential human acts created the perfect background for the birth of this new genre.

Stories of J. Verne were the first “true” science fiction tales, although that appellation was still nearly a century away. His first science fiction novel “Five Weeks in a Balloon” was published in 1863, soon followed by works such as “A Journey to the Center of the Earth”(1864) and “Twenty Thousand Leagues Under the Sea”(1870). These stories were written with an optimistic tone, with inventions such as the submarine; man was going to the center of the earth or was travelling to the moon - common dreams of the mid 19th century writers in this Age of Optimism. Another fascination was with aerial warfare. In his book “Clipper in the Clouds”, J. Verne describes a huge airship armed with cannons and guns, a dangerous menace, capable of silent movement across country borders. Verne brought up the fact that if a city or a military base was attacked by an airship like this then there would be no way for it to defend itself. Some years later such prediction were no longer fiction but fact, bringing respect to the genre, giving impetus to its development.

Other precursors of the genre, such as Mary Shelley’s Gothic novel “Frankenstein, or the Modern Prometheus”(1818) and Robert Louis Stevenson’s “The Strange Case of Dr. Jekyll and Mr. Hyde” (1886) plainly are SF. These writers created early examples of a standard SF theme: the obsessed scientist whose discoveries worsen a bad circumstance. SF has always been concerned with the great hopes people place in science, but also with their fears concerning the negative side of technological development. However the writer most responsible for creating the narrative approaches upon which modern literary SF is based is H.G. Wells with his groundbreaking novella “The Time Machine” (1895). He pulled together previously elements such as the utopian speculations of Thomas More, the social satire of J. Swift, the cautionary fables of Mary Shelley and the fantastic voyages of J. Verne in a modern narrative entity called SF.

Following the line of history, soon the Industrial Revolution gave rise to social problems and as a result the Age of Optimism faded away into pessimistic views which slipped back into the society’s mind frame.

At the turn of the 20th century, tension was increasing up to the First World War, creating a pessimistic world. H.G. Wells was the promoter of this early twenty-century pessimism. His books such as “War of the Worlds” presented Martians invading the Earth, or in “The Island of Dr. Moreau”- insane scientists manipulating life. Another writer Karl Capek wrote in his book- “Rossum’s Universal Robots”- about mass production of robots which finally bring an end to humanity. The previously mentioned subject of aerial attack, dealt by J. Verne, was also addressed by H.G. Wells. His books “The World Set Free” and “The War in the Air” focused on aerial warfare and predicted social collapse and political disorganization caused by the fictitious aircraft. These books drew even the attention of a military lieutenant who invited Wells to a organizational meeting for discussing military tactics. “The World Set Free” written in 1914 foresaw the development of the nuclear bomb: “This (bomb) would destroy city after city without mercy”. Such ideas seemed outrageous and horrific at the time they were written, but within few years (7) man learned to fly tactically and the stories were coming true.

Once the First World War was over, people drifted back into being more optimistic. Speculative fiction and fantasy became very appealing to people and together with its time this type of fiction came to be called “sense of Wonder”. As Norman Spinrad defined the term “Sense of Wonder was a throwback to the basic appeal of speculative fiction that had been dominant before the Age of Reason repressed the

external expression of the internal human landscape, and was an early forerunner of the new style of consciousness that would come into full flower in the 1960s“ (Modern Science Fiction).

This optimistic attitude led to the publication of the first real SF magazine called *Amazing Stories* (publisher- Hugo Gernsback) and it was here that the term “science fiction” grew out. A successful imitation of this magazine was *Astounding Stories* put out by John Campbell. For a long time such American magazines hosted stories which were synonymous to SF. Jack Williamson, Robert Heinlein, Edgar Rice Burroughs, Isaac Asimov, Ray Bradbury, all wrote to fill up the hungry pages of these magazines. Most SF “novels” from this period were published in book form years later and it was in this short fiction that new ideas and voices pushed the genre forward. The new themes exploited were robots, alternate worlds, faster than light travel, seeding galaxies by humans and/or aliens and in the 1940s the whole range of topics presented by nuclear power. This period between the 1930s and the 1940s is known as the pulp era and the sub-genre describing the literature of that time was the so-called “Space Opera”. The story was an adventure where the hero in a space suit and cruiser would destroy alien worlds to save the universe and rescue the beautiful space maiden. By no means these themes were being modeled on the pattern given by the scientific and social background of that time. As the scientific writer W. Gibson said, “(SF is) a realistic view of the present. I don’t think of myself as a futurist. I think I am someone who inhabits a baffling, and in many cases, terrifying present. SF is about the year in which it is written.” Undeniably science fiction is mostly about current problems and about the way people react to them. Or as the publisher of the *Astounding Stories*, J. Campbell stated “(SF) is a form of literature that creditably shows the effects of technology and scientific advance on individuals”. And the beginnings of the 20th century came with great advances in hard sciences, especially physics and astronomy- Einstein’ Relativity (1905) and Hubble’s discovery of other galaxies (1924). This esoteric character of science was counterbalanced in science fiction by an almost exclusively soft social commentary (“ A Trip To The Moon” by H.G. Wells, 1901) and adventure (“Under The Moons of Mars” by E. R. Burroughs). Writers had less interest in science. SF’s only goal was to entertain. Burroughs and a waning H.G. Wells peppered the pages of SF magazines with fantastic tales.

In the following years science became the servant of the people, producing electric razors, penicillin, and nylon. SF continued to produce soft, cautionary tales, warning about the implications of new technology (“Brave New World” by A. Huxley, 1931). It was the time of the Great depression. Science had to become practical in a world that could no longer afford luxuries. The hunger for cheap entertainment led to a boom in pulp publishing; the poor pay rates for authors made the low quality of the fiction inevitable. A leading literary figure of this period, the editor of *Amazing Stories*, Hugo Gernsback devised the first formula for SF writing: 75% adventure sugar-coating, 25% scientific education. The characters of the early years after a triumphant war were aliens which were seen as pure good or pure evil (E.E. Smith’s “Triplanetary”). This lasted until 1933 when the Nazis came to power in Germany and when one could not talk of inferior or superior beings without being branded a Nazi. Therefore SF came to portray vastly different intelligences and ways of understanding between them as is the case of “A Martian Odyssey” by Stanley Weinbaum (1934). The time was also one of predictions in SF which shortly after became scientific facts. To give an example it is sufficient to refer to the personality of Gernsback and to place ourselves in 1926 and the years following when he dreamt about the possibility of having television by publishing the first TV

magazine ever. On the cover of these magazines he had a picture of a family sitting in the living room, enjoying a TV sport, because Gernsback felt that sports would glue viewers to the screen. In 1929, he had the ideas about sending radio waves to the moon predicting it would take 2.4 seconds and then less than twenty years later the scientists were to discover that the time it took was only one tenth of a second off of Gernsback's prediction. Microfiche, tape recorders, solar power, holograms, fax machines and even tethered space walks were predicted by the editor of the *Amazing Stories*. The concept of radar was actually conceived by Gernsback and the inventor even credits Gernsback for part of the idea. In 1929 he spoke about an orbiting satellite, then in 1957 the first was launched, in the same matter as predicted by him. People's dreams were coming true stirring their imagination and their hunger for going further and further into the future perspective. Inventions such as the atomic and hydrogen bombs, transistors, compact electronic devices, pocket-sized radios, jet planes were predicted in the "pulp novels". Again science fiction was becoming science fact. Many of the SF tales dealt with the energy crunch, overpopulation, mutations and the new technique of organ transplanting. The uranium fission was discovered and this prompted stories about atomic bombs and its effects.

Then came the Second World War with its aftermath. Science and morality were divorced and the incredible destruction of the atomic bomb made the hard sciences- physics and chemistry fade from public view. Their practitioners refused to get into the topic of long-range implications of their research. The softer studies such as psychology and sociology saw a renaissance and gained popularity. In SF the non-human intelligencies were not aliens any more: they were robots. Jack Williamson's classic *Humanoids* ("With Folded Hands") were a direct response to the atomic bomb. They were machines with built-in morality. People began dreaming about the possibility of creating androids and their relationship to humans or they imagined corrupt societies ruled by dictators. Many also wrote about the inevitability of technological holocaust where man would be destroyed by his inventions. I. Asimov with his robot stories – "Liar"- or with his "Foundation Trilogy" came to complete the SF picture of that time.

So far we have mapped what the SF critic John Clute called a flourishing "Agenda SF" from its beginnings to the late 50s. All in all, its future was bright. Although inevitably tracking the vicissitudes of boom and the world wars, and encompassing many developments of literary style and scientific/ technological speculations, SF retained its coherence as an ongoing project of humanity's advance. This Future history included first the exploration, then the colonization of the solar system; gigantic interstellar arks were launched, generations were living and dying en route to Alpha Centauri. Some future Edison/ Einstein would crack the problem of light-speed limit and open the way to the stars for human pioneers that were to swarm across the galaxy and be finally unified into an Empire which would inevitably Decline and fall... and then new heights would rise. This was the grandeur and ambition of SF by the 60s, one which can still be inspiring. However SF was to follow its destiny in its turn. John Clute dates its decline from Sputnik, the moment when it seemed that "Agenda SF" had been telling the wrong story, that the space age had arrived and it was more complicated, messy and political than its predictions had suggested. The real change came in the 1960s that saw the rise of the New Wave in science fiction. News broke out about the orbiting steel ball containing radio transmitter and batteries, called Sputnik. The Space Age started and became a central element in the rivalry between the two countries during the Cold War. The

Americans and the Soviets were leapfrogging each other in a competition with the psychological benefit of raising morale.

The American public, initially discouraged and frightened by Sputnik became captivated by the American projects that followed. School children followed the succession of launches, and building new replicas of rockets became a popular hobby. President Kennedy gave speeches encouraging people to support the space program. To be the first was a must: "Everything we do ought to really be tied in to getting on the moon ahead of the Russians..." He tried to overcome the skepticism of many who felt that the millions of dollars could better go on building stocks of proven, existing armament, or on fighting poverty. While the Soviets beat the Americans to most of the Space Race's initial firsts (Laika- the first living creature in space, Yuri Gagarin- the first human in space, Alexei Leonov- the first space walk), they failed to beat the U.S. Apollo program to land a man on the moon.

It seemed that the grand adventure started again and science became popular. As expected science fiction turned soft, it became sociological and was shying away from technology. New Wave science fiction grew out of the realization that the decadent future societies previously glanced at, had already arrived. Sex and drugs and rock and roll, the Vietnam War, the strange 1960s notion that linked the birth-control pill to fears of overpopulation, all these became more important in SF than the expensive bureaucratic manned space program. We witness a switch in concerns from outer to inner space. Society and psyche became the grounds for exploration. The former technological mad optimism is replaced by planet related pessimism. The Golden Age of SF unfolding future galaxies falls into the skeptical New Wave. Writers like J.G. Ballard, M. Moorcock, M. John Harrison, Norman Spinrad, Ursula LeGuin, Philip K. Dick, rejected then-existing SF with its unthinking optimism, its cardboard characters and its blindness to what was actually going around it. And indeed how could anyone write tales of colonial conquest in space when a real dirty colonial war was being fought by the very country which was considered the model for the whole humanity!? Reference to this is made in one of Ballard's short stories- "The Killing Grounds"- where the British are fighting the US occupiers in a world which has become a global insurrectionary torch, a world Vietnam. This time SF lived a time of radicalism and literary experimentation which was the best thing to happen to SF since H.G. Wells and actually the New Wave was more faithful to Wells' spirit of political and social engagement and literary boldness. It was a time of experimentation but also of pessimism. People were fearful because of the Vietnam War and looked to themselves for restraint, comfort and love. They felt that the government was controlling, forcing them to go to war for a cause they didn't believe in. Frank Herbert's well-known fiction novel, "Dune" addresses this issue along with others such as free will, destiny, social control, the relationship between man, technology and the environment all of which were fears and dreams of the people at the time it was published in 1965.

Philip K. Dick, another SF writer of the 1960s approaches a new aspect that of the ability to distinguish between reality and illusion. His characters argue against the use of drugs, saying that they damage the mind by distorting natural perception ("The Three Stigmata of Palmer Eldrich", or "A Scanner Darkly"). At that time many people were dying after experimenting hallucinogenic drugs and by writing these books the author was trying to make an open statement about the impact of these drugs.

Ursula K. LeGuin also a SF writer of the 1960s makes use of sociological theories as starting points for her tales with civilizations inhabited by androgynous creatures where ambassadors of humanity such as Envoy from her novel "The Left Hand of Darkness"

(1969) have to bring the lost planet back to the world of reason after millenniums have passed.

Just before the year Apollo 11 landed on the Moon, a movie (directed by S. Kubrick) and a book (by Arthur C. Clarke) came out like manna from the sky. It was "2001: A Space Odyssey" (1968). It combines high levels of scientific and technical realism with transcendental mysticism. The story begins with an ancient and unseen alien race that investigates worlds all across the galaxies, encouraging developments of intelligent life. Then the action leaps the millennia to the year 2001 showing humans travelling to the Moon, investigating a magnetic anomaly. A crew of astronauts mans the ship together with an on-board computer called Hal 9000, designed to function as an artificial intelligence that speaks with a human-like voice. The humans suspect the machine of malfunctioning and strangely enough the machine has a nervous breakdown, refusing to let Bowman, the captain, enter the ship. However Bowman manages to outwit him and undergoing several experiences such as the travel through the star gate and the transcendence, he closes the story as a "star child" with something of a god-like power. According to Kubrick he is reborn, a star child, an angel, a superman who returns to earth prepared for the next leap forward of man's evolutionary destiny. The story unfolds a love-hate relationship with technology, combining optimism and pessimism. What Clarke suggested in "2001" was that had no hope of transcending the mire of the past by ourselves. Transcendence must come from some kind of external intervention and if this was not coming from old time religion than it seemed possible to hope for delivery by kindly creatures from the sky. The promethean visions of "2001: A Space Odyssey" fed the hunger for the outer space, and its gray-blue-modern imagery was the only gift that generation received until the end of the 1968 when the space program delivered the greatest art work in history- the image of Earth floating a blue oasis in the desert of space.

Other developments such as the rise of hard science fiction failed to re-ignite the genre's engines. As soon as the recession was over, industry paid off in a financial and services boom followed by a proliferation of computer/communication technology. SF response to this was "cyberpunk", first written by William Gibson in the 1980s. The classical example for this genre is considered his novel, "Neuromancer" (as a curiosity the recent Matrix movies fell mostly into the same category).

Gibson knew almost nothing about computers, but he wrote about them the way their actual users- and especially their programmers thought about them. Inner space joined outer space as backdrop. The characters are generally affectless. The real action is inside the information networks, in ...cyberspace. It is a world of megacorporations where government is irrelevant and the environment a lost cause. "Neuromancer's first line introduces us into this subject from the very beginning: "The sky above the port was the color of television, tuned to a dead channel." This is the world of the cyberpunk writers who are the first generation of writers to have grown up in a truly "science fictional" world where microwaves, radar detectors, cordless phones and even personal computers are part of their everyday "reality matrix". Technology no longer has a positive or negative connotation. It has become inevitability not a probability. It is the information society where tangible goods have been replaced with images and abstractions, a society where the accelerated rate of technological development has altered the way humans perceive themselves in the world. In this post-industrial world the human has, in a sense, been dehumanized and turned into another commodity of mass-consumption. These "ordinary people" are dominated by a system enhanced by certain technologies- such as "information technology" (computers, mass media). Often this technological system

extends into its human components by implants, cloned or genetically engineered organs. Humans themselves become part of the “Machine”. Gone are the Galactic Empires and consequently the aggressive alien and the confused ET’s. They are replaced by a universe of synthesis, full of peripheral cyborgs. SF used highly imaginative space colonies and flying spacecraft. This new SF is different. It has lost interest in the space. It incorporates present global, social and technological situations to help induce the future of the world. Gibson uses the present issues of government and nuclear tension to predict society’s future. In *Neuromancer* this results in a world ruined by nuclear war. Nevertheless, people continue to survive in this world for personal benefit or just for the sake of living. Other writers such as Bruce Sterling, Rudy Rucker, John Shirley and Lewis Shiner approach the same problem of a deteriorated environment caused by drastic global change which can be connected to the present issue of the ozone layer or pollution. To sum up, there are three main aspects referred to by cyberpunk writers, namely: the high-technology, ruined cities and tarnished global environment. Even though Gibson was not much knowledgeable of computers at the time he wrote *Neuromancer* (on a manual typewriter) his cyberspace is reaching a wider audience today through the over- expanding use of the Internet, and specifically of the World Wide Web. Although it allows a worldwide access to data, it is actually a rather primitive representation of the landscape Gibson hypothesized, due mainly to the limitations of the computer/human interface.

We can continue the argument with the question: “Where are all the flying cars, immortality pills and the space liners to the balmy Venus we were promised? What about the space hotels or elevators? Human landing on Mars? Teleportation? These questions still hold there in the realm of SF. But what is actually frustrating is the fact that while life’s tempo has quickened, the basic patterns differ little from the previous century. Technical progress coexists uneasily with social stagnation. Progress doesn’t always go the way we expect it to. It is sometimes wiser than we are. So the problem in the real world remains one of human agency. There are no saviors from above, no angels or aliens to save us. And for sure there are none behind the computer screen. Probably the only thing left for us as we turn away from the past and face the future is the road ahead which remains long, hard and murky. And even though SF reflects a stalled and fragmented world, a future that is already gone, it should continue to give us glimpses of a world beyond our reach, intriguing and stirring our thinking of the future and opening new routes for imagination.

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