

Scientific Utopias

Andrew Hudson

In dealing with scientific utopias a definition is needed so we are sure of what we are talking about. A scientific utopia is an ideal society that is produced through the aid of science. According to Wikipedia "these are set in the future, when it is believed that advanced science and technology will allow utopian living standards, the absence of death and suffering changes in human nature and the human condition. These utopian societies tend to change what to be "human" is all about. Technology has affected the way humans have lived to such an extent that normal functions, like sleeping, eating or even reproducing, have been replaced by artificial means. Other kinds of this utopia envisioned, include a society where humans have struck a balance with technology so that it is merely used to enhance the human living condition (e.g. Star Trek). In place of the static perfection of a utopia, libertarian transhumanists envision an "extropia", an open, evolving society allowing individuals and voluntary groupings to form the institutions and social forms they prefer."¹ This effectively rules out utopias that are based largely on human institutions, where technology has not played a role. Moore differentiates between eutopic stories in which the society is in a different world and euchronic stories, which are set in the future. He argues that scientific utopias began when euchronic stories began to replace eutopic stories, although a future setting does not necessarily mean that it is a scientific utopia.²

My first reaction to the idea of scientific utopias is that there are numerous scientific dystopias, but very few utopias. The dystopias include George Orwell's 1984, Aldous Huxley's **Brave New World**, the film **Alphaville**, Ray Bradbury's **Fahrenheit 451** and numerous other stories. In the dystopias science assists in the process of making life unpleasant; they are not merely dystopias set in the future. The year 1984 has come and gone without Orwell's predictions being fulfilled, although there were parallels. Huxley, however, effectively introduced the term "Fordism" for the advent of mass production by its use as a replacement for the birth of Christ as a timescale.

In my teenage years, I held the view that science offered an idyllic future and was an avid reader of science fiction stories. I saw a future of peace and prosperity, space exploration, and atomic energy as the clean and cheap fuel of the future. Economic cycles of boom and bust belonged in the history books. Poverty and starvation would soon be a thing of the past and world government and an age of enlightenment when decisions were made by rational scientific planning lay in the not too distant future. This vision seems if anything further off.

One of the first scientific utopias is Sir Francis Bacon's **New Atlantis** which describes a society run by science and rationalism. Jules Verne's the **Floating Island** describes a micro-community of a self-propelled floating island equipped with electric power and all the latest inventions. It is a community restricted to the very well off and initially appears to be a perfect society. As with a lot of dystopic utopias, there is a strong element of satire and the island is destroyed by factions of equal strength being unable to agree on the course of the island.

H.G Wells was an advocate of world government and Fabian type planning. Although many of his works were pessimistic about the future, such as the **Time Machine** in which class distinction results in the human race evolving into two separate species (the Eloi and the Mortlocks) or continues as in his short story **a Story of the Days to Come**, he did write some scientific utopias. **Modern Utopia** is the best example. **The World Set Free** and the **Shape of Things** to come eventually result in a utopian society, but only after massive upheavals and wars. The utopia in **the Shape of Things to Come** only arrives through the Air Dictatorship and in **the World Set Free** after atomic warfare.

William Olaf Stapledon introduced the idea of a future utopia in his "future histories", **Last and First Men** and **Star Maker**. In the former, after many setbacks in which we are amongst the first men, the seventeenth to nineteenth men achieve a utopian society on Neptune and develop a form of collective mind that attempts to explore both the past and the universe. **Star Maker** is a history of the Universe and has been described as an atheist's creation story. However it is deistic rather than atheistic in that the central star maker creates numerous universes, but is not a personal interventionist god. At one stage of this universe, utopian societies start to evolve on several planets. However, they are not the only outcome of the application of technology. A number of insane

societies also evolve and attempt to impose their own order until the utopian worlds combine to defeat them. Ideas such as Dyson spheres (developed before Dyson invented the concept) and some of the ideas of J.D Bernal appear in the book. Stapleton denied that **Star Maker** was intended as science fiction, but it had a powerful influence on a lot of later science fiction writers and is well worth reading.

One writer influenced by Stapleton was Sir Arthur C. Clarke, whose first full length story the **City and the Stars** deals with a utopian society in which peoples' memories and genetic profiles are periodically stored in computers for regeneration. The story deals with the problem of dissidence and stagnation through the principal character Alvin, who has been programmed to prevent the communities of Lys and Diaspar from ossifying and he reunites them. Clarke also deals with a utopian society in **Childhood's End**, this time being imposed from without by the Overlords whose domination brings about a golden age of peace and prosperity. However, it is a preliminary to humans becoming part of a galactic overmind and not an end in itself.

Whilst Wells held a belief that if only the human race behaved like rational Fabians everything would work out all right, Clarke held the view that electronic intelligence would eventually take over and was the next stage of evolution.² This latter view is by no means restricted to Clarke. J.D Bernal suggested that eventually the mind would be the only thing left of human beings.³ The change is not always dystopic, as in Clarke's Hal in **2001. In Time Ships**, Stephen Baxter carried on the story of Wells' time traveller and envisioned a future in which robots maintained a benevolent control of humans. The idea of benevolent robots trying to seize power in a coup is developed in the film **I Robot** which bears little relation to Asimov's original robot stories, but is more an amalgam of several of his robot stories. The portrayal of the detective by Will Smith is one of the few things that does not conflict with the original story; although the reader assumes the detective is a white man, there is no actual description of the person's race in the book!

A lot of science fiction was not concerned with utopias and continued the cycles of empires and wars into space. Both Asimov's Foundation series and James Blish's Cities in Flight series are effectively cosmic versions of the decline and fall of the Roman Empire. Blish, however, does develop the idea of the Machiavellian city state in the form of trading cities that travel through space.

New York is run by the City Fathers that are a bank of computers, however society is far from ideal and they order the shooting a city manager who risks the cities finances. There is also the rogue city turned criminal in the Interstellar Master Traders.

Utopia is a perfect society and presents problems in Blish's novella **Case of Conscience**. Blish deals with an apparently perfect society on the planet Lithia. Peace logic and understanding are obtained without any deity. The principal character, a Jesuit priest, comes to the conclusion that this is too good to be true and that the planet has been created by the devil.

The problems presented by utopias are achieving them, boredom, dissent, and regeneration. Achieving utopia may well be impossible, in which case the other problems are irrelevant - although arguably they are factors that prevent achievement.

Several fictional utopias have been produced by force as in the case of **the World Set Free** and **the Shape of Things to Come**. Other stories involve the concept of an individual using advanced technology to bring about change, as in the case of Jules Verne's **Robor the Conqueror** - who attempts to end wars with his flying machine and bombs but fails. The idea of a super weapon or campaign of terror that will change the world is not new. Alfred Nobel invented dynamite in the hopes that its effects would be so terrible that countries would no longer go to war. John Holland was an Irish Nationalist who emigrated to New York and designed submarines in the hopes of challenging the might of the Royal Navy, rather akin to Jules Verne's Captain Nemo who turns out to be an Indian Nationalist in the sequel to **20,000 Leagues Under the Sea, the Mysterious Island**. Holland's design was eventually bought by the United States Navy and sold to Britain to be used in the Royal Navy's first submarines.

A Utopia achieved by force would almost certainly require force to be maintained and therefore would not be an ideal society. The danger lies in the efforts to enforce the utopia being worse than the conditions that existed beforehand - as dystopias acknowledge. In **the Shape of Things to Come**, the Socratic solution of poison is offered to opponents. Forgetting dissidence, there is always the problem of boredom in any ideal society. The exploration of space offers one possible solution and of those parts of the earth still unexplored. Stapledon has the collective mind exploring the universe and the past. Dealing with dissidence is another problem. In **Brave New World** dissidents are exiled

to Iceland. Channelling dissidence into productive channels is a challenge for any Utopia, as is the prevention of stagnation.

The biggest problem with scientific utopias is that they necessitate changes in human behaviour as well. And it is unlikely that scientific and technological changes will in themselves bring this about.

Over the past thirty years, there has been a growing belief that far from offering solutions to social problems, science is the cause of problems - particularly environmental ones. This is a dangerous delusion; it is not science that has created the problems, but the application of science. Human beings started to affect the environment towards the end of the Mesolithic, with the clearing of large areas of woodland for hunting and farming using the Stone Age technology of stone axes and controlled burning. This probably has had as great an impact on the environment as any recent technological development. In large parts of the world, the natural environment ceased to exist around 3000BC. There is no scientific consensus on the reason for the extinction of Neanderthal man and other species of the genus homo, but some theories place the cause as extermination by Homo Sapiens. If this is correct, the horrors of mass extermination do not require modern weapons. Genghis Khan managed without sophisticated weapons.

A variation on the scientific utopia theory that has become a cult book is **Ectopia**. It is set in an ecologist's paradise. Science is not the problem and there is no future in mystical mother earth mumbo jumbo which takes people back into the age before religions, such as Christianity. Ideas of earth and soil are found in the ideology of fascism. That is not to suggest that we should not develop renewable energy and sustainable technologies. But they require the development of technology. The world's population cannot be sustained on Stone Age technology. Not can we exist in an agricultural William Morris type pre mass industry economy, as described in **News from Nowhere**. There are amongst environmentalists some neo-Malthusians who call for a cull of the world's human population, including the late William Vogt. This cure is worse than the disease. Obviously there has to be a finite limit to the size of population that the planet can sustain, but there is no agreed size of it and it is dangerous to talk of ceilings. Whilst Malthus might have been correct in stating that there was a limit to the population that could be sustained, his essays advocated a political agenda that supported political economy and was used to justify concept

of the worthy and unworthy poor and engender a belief that the poor were largely feckless. This was used to bring in the workhouses and introduce the regimentation required for a mass production economy.⁴

Pure science is neutral, but its application is not and it should not be the slave to corporate interests. Science itself can be employed by the forces of reaction and is not necessarily on the side of progress, as Orwell warns in his essay "Wells Utopia and the World State".⁵ J.D Bernal effectively argues for an elitist government through scientific elite, not entirely dissimilar from the scenario in **Brave New World**. But he suggests that in a capitalistic state, a powerful independent scientific corporation would not be allowed to become wealthy and powerful.⁶ Sir Arthur C Clarke wrote a short story called **I Remember Babylon** in which a producer blacklisted in the McCarthy era plans to indoctrinate the world through Soviet Television satellites. Ironically, the vision came true. But it was not communism that was promoted, but capitalism through satellite TV. Information technology lies at the crux of the issue. Is it to be used for Google to spy on us? Or could its potential be developed for economic planning, so that the inefficiencies of planned economies become a thing of the past? And maybe a Wellsian type rational society can be feasible and not a utopian dream. The idea that electronic intelligence will take over as in Warwick Deepings **Computer One** as yet has no foundation. There are, however, dangers of computers effectively taking charge by default through over reliance on IT systems. Currently this scenario is beginning to develop through the robotic use target culture that has been foisted on the public services by new labour, where what was intended as a means to an end has often become an end in itself. This produces a meaningless set of statistics which people treat with scepticism whenever there is an example of a problem in a public service that affects them. It is effectively a form of **Alphaville**.

Science offers a means by which a utopia might be feasible, but it relies in the application of social sciences through democratic control to ensure that it is attained and that science is not employed for perverted ends.

1. <http://en.wikipedia.org/wiki/Utopia>

2. Manuel, Frank Edward **Utopias and Utopian thought** Boston Houghton and Mifflin 1966

2. Clarke Sir Arthur C **Profiles of the Future** Ch18 p193-206 Millennium edition Indigo 1999

3. Bernal J.D **The World the Flesh and the Devil** Jonathan Cape **1970** First published 1929

4. Wilson, Ben **Decency and Disorder: The age of cant 1789-1837** Faber and Faber 2007

5. Orwell, George "**Wells Utopia and the World State**" in Orwell, George **Collected Essays** Secker and Warburg 1961

6. Bernal J.D **The World the Flesh and the Devil**

FURTHER READING

Asimov, Isaac

Caves of Earth

I robot

Naked Sun

Baxter, Stephen

The Time Ships

Blish, James

A case of conscience

Clash of Cymbals

A life for the stars

They shall have stars

Earthman come home

Bradbury, Ray

Fahrenheit 451

Clarke, Sir Arthur C.

Childhood's End

I remember Babylon (short story)

The City and the Stars

Deeping, Warwick

Computer One

Huxley, Aldous

Brave New World

The Island

Karp, David

One

Morris, William

News from Nowhere

Stapledon, W Olaf

Last and First men

Last Men in London

Star Maker

Verne, Jules

Robur the Conqueror

Master of the Air

Propellor Island

Wells, H.G

A Story of the Days to come (novella)

Shape of Things to Come

The Time machine

World Set Free