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COMMENTARY

From Ideal to Future Cities: Science Fiction as an Extension of Utopia

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Abstract The future is not a new idea. The philosophers of the Enlightenment freed it of the historic wrappings of Christian eschatology and the notion of Providence itself by rationalising the idea of progress, the possible improvement of Mankind and the terrestrial city that stemmed from it. Making use of the Renaissance, the utopian authors transformed spiritual preparation for the end of time into a view of material, earthly delight made possible by science and scientific research. This ideal was certainly embodied in Francis Bacon's New Atlantis, although Thomas More was the first of all. In passing from work on consciousness to that of the spirit, the utopians of the eighteenth century espoused Reason and soon turned the future into something much more than critical discourse: It became social opportunity, a new political framework. Audaciously shifting the utopia of "elsewhere" (*u-topos*) to "the future" (*u-chronos*) in the manner of Louis-Sébastien Mercier or Marquis de Condorcet, the utopians pursued a programme relying on scientific promise: Identify the technological processes of the transformation of reality and spread the word, an aim which would give birth to a new, less discursive, more popular genre—science fiction.

Keywords Science Fiction · Utopia · Future · Citizenship

1 Introduction

The future is not a new idea. The philosophers of the Enlightenment freed it of the historic wrappings of Christian eschatology and the notion of Providence itself by

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rationalising the idea of progress, the possible improvement of Mankind and the terrestrial city that stemmed from it. Making use of the Renaissance, the utopian authors transformed spiritual preparation for the end of time into a view of material, earthly delight made possible by science and scientific research. This ideal was certainly embodied in Francis Bacon's *New Atlantis* (Bacon 2014), although Thomas More was the first of all (More 2012). In passing from work on consciousness to that of the spirit, the utopians of the eighteenth century espoused Reason and soon turned the future into something much more than critical discourse: It became social opportunity, a new political framework. Audaciously shifting the utopia of "elsewhere" (*u-topos*) to "the future" (*u-chronos*) in the manner of Louis-Sébastien Mercier or Marquis de Condorcet, the utopians pursued a programme relying on scientific promise: Identify the technological processes of the transformation of reality and spread the word, an aim which would give birth to a new, less discursive, more popular genre—science fiction (Aldiss 1975; Clute and Nicholls 1995; Dozois and Strahan 2007; Jameson 2007; Sadoul 1975; Versins 1972).

Thus, from the critical discourse to the popular novel, the theme of the future city unfolded, nourished by modern and contemporary representations of the ideal city, vigorously re-forging them in the crucible of unbridled popular imagination. The hypothesis that this paper intends to put forward is above all the continuity, if not identification, between utopias and science fiction from the origins of the genre in Europe until its most recent, most brilliant expressions in literature, art and film. It is this historical and methodological link that enables science fiction to rediscover, under the evocative power of futuristic and spatial imagination, the two functions of utopia in past centuries: the critical and the programmatic.

In writing on the needs of a visual encyclopaedia of science fiction in 1977, Frederik Pohl describes the great diversity of forms of society in the cities and civilisations of science fiction, pointing out that some suggest better ways of living that can be ours if we so choose. [1] The most surprising cities in science fiction, whether sprawling, subterranean, planetary, orbital, extra-terrestrial, or stretched across hundreds of entire solar systems, are not so distant from the ones—happy islands or surrounded by insurmountable mountains—that are described in utopian texts. It is through the study of the political representations underlying the works called up here, from Wells to Robinson, or from Verne to Lehman, and the urban institutions that set their scenes, that the figure of the future city will be investigated. Artists' visions, whether architectural or pictorial, will also be shown in support of my ideas.

The study will examine, in three time periods (*tomorrow, yesterday, today*), the way in which early science fiction first hurled the perfect cities of utopia into the future, respectfully following the trajectory calculated by the utopians ("Tomorrow, the Perfect City" section) before giving in to anxiety, to the negation of the ideal that paralysed the programmatic function and marked a withdrawal into the critical function of utopia during a large part of the twentieth century ("Yesterday, Cities of Anxiety" section). Finally, a new generation of authors, enamoured with distant horizons but always attentive to the scientific substratum of their stories, offers a Renaissance of the Elsewhere, uniting the present of new cities all planned and reconnected with Nature ("Today, Achievable Utopias" section). Although it no longer takes discursive form, science fiction seems to solve the utopians' equation.

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[1] Brian Ash, ed., *The Visual Encyclopedia of Science Fiction*, London: Pan Books Ltd, 1977.

1.1 Tomorrow, the Perfect City

Thomas More had identified the just laws that upheld utopia and guaranteed social happiness. These laws came from the knowledge of Nature and a division of labour so that each utopian was in turn both farmer and citizen. However, science—and the know-how that arose from it—did not yet have the institutional role that it was to play later. There was no future on the horizon for the chancellor who was to spend long months of confinement in the Tower of London. More's city was only a useful discursive tool that did not represent an alternative to Tudor politics, but rather a means to spur King Henry VIII so that he might institute reform. The future, as a space to achieve political ideas of a Europe that was still in search of its destiny, did not appear until the eighteenth century. It is first the invention of a man, then a shared political dream, before becoming the narrative tool of an emerging genre in the nineteenth century. Enthusiasm and confidence are the hallmark of these authors and philosophers who target the future and its social hypotheses.

1.2 Utopians Who Target the Future

Although Sir Francis Bacon is undoubtedly responsible for laying the scientific and technical groundwork in 1627, the true inventor of futuristic utopia is Louis-Sébastien Mercier, with *L'An Deux Mille Quatre Cent Quarante. Rêve s'il en fut jamais*, published in London in 1772 (Mercier 1999). The narrator emerges from a long artificial sleep in Paris in the future, enlightened and virtuous. In Chapter XXXI, entitled "Le cabinet du roi", Louis-Sébastien Mercier describes a veritable academy of sciences transformed into a government body, which is a blatant echo of Salomon's House in Bacon. Mercier's future city is monarchical and industrial: The kings of France are the ones who have promoted, funded and facilitated advances in technology so as to better ensure civil peace. From his pen, the future opens the way to investigation and to societal opportunities that will become those of the uchronias of the nineteenth century, and of science fiction later. At the same time, the work of Mercier prolonged the critical function of utopia: the bantering, sometimes biting remarks on the administration of justice, the errors of philosophy and the aberrant tax system of the eighteenth century are too numerous to ignore the fact that the text first of all attacks the vicissitudes of its time.

A completely different approach is taken by Marie Jean Antoine Nicolas de Caritat, Marquis de Condorcet, who transforms the ideal city into historical emergence: Barely entering the Académie, Condorcet intends to unite the scholars of the world in a universal republic of the sciences (de Caritat and de Condorcet 2014). Most importantly, his *Outlines of an historical view of the progress of the human mind* (1795) made him a champion of the future. In his tenth epoch, Condorcet shows how science will free humanity from all of its passions. He bases this rational eschatology on observation, and not on a critique of the present or simple moral circumstances. The future, from this point on, is a scientific promise (Baczko 2001).

In *The Theory of the Four Movements* (1808), Charles Fourier, prolongs the work of transformation of the utopian impulse (Fourier 1996). Inspired, by analogy, by the law of universal gravitation, his law of passionate attraction is so strong that it enables each individual to strive to the utmost of his talents for the advancement of Phalanstère, the

commune-cooperative where the members are co-owners or shareholders. After a few intermediary stages like guarantism, sociantism and associationism, humanity will finally form an immense, single *phalanstère* which, like Salomon's House, will help to carry out great projects, like the construction of the Suez and the Panama Canals, the development of the Great Lakes in Canada and the terracing and fertilisation of the Sahara, for the general good of mankind. The future will be industrial or there will be none at all.

However, targeting the future is sometimes very harsh. The hypothetical bullets of Jules Verne in 1865 and Herbert George Wells in 1895 that would later punctuate the birth of science fiction did not arrive at its destination due to an excess of enthusiasm and scientistic blindness (Verne 2011). By dint of considering the Machine as the only key to the future city, to the detriment of human beings and institutions, the utopians began to get a glimpse of the dangers of excessive mechanisation, including in particular having, as citizens, only robots, human operators of all-powerful machines that would repeat the same gestures endlessly, without being aware of the artificiality of their happiness. This risk would be evaluated more fully by later—or simply more circumspect—utopians like Samuel Butler (*Erewhon*, 1872) and William Morris (*News from Nowhere or An Epoch of Rest*, 1890) (Butler 2008; Morris 2009). Their texts, embracing the codes of the novel and taking a distance from the purely discursive character of the first uchronias, can logically be placed at the crossroads of utopia and science fiction.

In *Erewhon* (clearly an anagram of "nowhere", but perhaps also a message for those living in the "here" and "now"), Samuel Butler wonders about the way in which technological progress alters the sociability of citizens. By analogy, he applies the Darwinian theory of evolution to the technological objects that humans are equipped with. In his future city, which his narrator discovers, the anti-machinists have prevented human domination by machines: "I learnt that about 400 years previously, the state of mechanical knowledge was far beyond our own, and was advancing with prodigious rapidity, until one of the most learned professors of hypothetics wrote an extraordinary book proving that the machines were ultimately destined to supplant the race of man. So, convincing was his reasoning, or unreasoning, to this effect, that he carried the country with him; and they made a clean sweep of all machinery". In England, Butler opened the way to social science fiction and gave utopia, which had already forgotten its origins, the full amplitude of its critical function. In *News from nowhere or An Epoch of Rest*, which came out in 1891, William Morris, Samuel Butler's contemporary, is even better at going back to utopia's first love in advocating the repopulation of the countryside, founded as it is on the harmony between cultures, production and agricultural land use. Morris turns England into an extraordinary garden, with pretty meadows dotted with nice, amply spaced homes, an ideal that would be taken up by the author Isaac Asimov, in one of his best science fiction novels, *The Naked Sun* (1957) (Asimov 1993a). With a slightly different approach, we should equally mention the underground utopia of Edward Bulwer Lytton, *The Coming Race*, in 1871 (Bulwer-Lytton 2011). The highly advanced civilisation of the Vril-ya, which he describes, is founded on a form of energy situated halfway between electricity and magnetism, making it possible to fly, light up caverns and even control the climate. However, disillusionment awaits: Life for Vril-ya citizens is so boring that they come to the surface, preferring to confront Nature rather than the absolute boredom that their machines offer them.

Thus, science fiction's city of the future, if based on scientific research and technological advances on Bacon's model, cannot be the exclusive place for a naïve idolatry of the Machine, at risk of negating itself. Nevertheless, when science fiction—especially American science fiction—arrives with the birth of specialised popular magazines, the increasing number of cities of the future does not all renounce excess and overenthusiasm—far from it.

1.3 Future Cities "Designed" by Science Fiction

In Europe, the cities of the future espouse the nascent science fiction in the "scientific romances" by the Englishman Herbert George Wells. *The Time Machine* (1895), *The Sleeper Awakes* (1899) and *A Modern Utopia* (1905) all assume their utopian parentage while resolutely plunging the reader into the twistings and turnings of the future city (Wells 2011; Wells 2005a, b): This is truly the birth certificate of science fiction, after Jules Verne's *Voyages extraordinaires*, which is far more concerned about enchantment with technical objects than about social problems. In *A story of the days to come* (1897), Wells shows how two lovers who venture outside the city of the future's walls are confronted by a Nature that is so harsh and savage that they are forced to retrace their steps (Wells 2014). Wells knows how to give his readers believable, moving, open futures. His future cities are founded on a technical extrapolation of the means of transport and communication, which "*would necessarily concentrate mankind in cities of unparalleled magnitude and work an entire revolution in human life (…) in all England only four towns remained, each with many millions of people*". However, the critical function of the narrative is not eradicated, and Wells shows that social inequalities rapidly surface in favour of the triumph of vertical architecture: "*In the twenty-second century, however, the growth of the city storey above storey, and the coalescence of buildings, had led to a different arrangement. The prosperous people lived in a vast series of sumptuous hotels in the upper storeys and halls of the city fabric*". The film version of his text, *Things to Come*, produced by Alexandre Korda and directed by William Cameron Menzies, is set in the future city "Everytown", where everyone has a flying car and enjoys highly advanced communications technologies, but where at the same time, the fear of war spoils the happiness of its citizens. After a phase of chaos, a "Dark Age" during which everything is destroyed, humanity manages to lift its head again, and on the ruins of the old megacity, a group of engineers creates "New Everytown", prototype of closed underground cities, founded on the massive use of practically unlimited electrical energy furnished by giant machines. The tone is set, and on the other side of the Atlantic, authors of an American science fiction still in its infancy embark upon the assault of the city of the future.

From the very first issues of *Amazing Stories*, the first inexpensive popular magazine (pulp) publishing so-called "scientifiction" narratives under the aegis of Hugo Gernsback (Gernsback 2008; Moskowitz 1959), a naturalised American citizen from Luxembourg, to the blazing success of John W. Campbell's *Astounding Stories*, cities of the future multiplied, and more importantly, they were on the covers. Frank R. Paul's particularly suggestive illustrations, for example, are representations of idealised future cities, showing transportation networks and generators supplying unlimited energy for millions, even billions of city dwellers

(Canto and Faliu 1993; Korshak 2010). The very structure of these cities of the future irresistibly evokes the perfectly geometric, often circular or grid form of the ideal cities of the ancient world or the utopias of modern times. At times, the agglomerations of the future resemble egalitarian hives where each citizen/worker has his own cell and ungrudgingly performs his social function in exchange for his share of light or heat, without expecting anything in return. Likewise, certain cities of the future are even "nomad" and "utopian" in the literal sense, floating above the continents of the Earth and not belonging to any State, as on the cover of *Air Wonder Stories* (Fig. 1), another pulp publication edited by Hugo Gernsback, for the issue of November 1929. The response of science fiction to the economic crisis of the same year seems to project the possibilities of technological civilisation into a more or less distant future. And, it is actually American authors like Jack Williamson or Edmond Hamilton who take the lead, as can be seen in their texts in the table of contents of that issue.

When the golden age of science fiction occurs (Westfahl 1996), three of the greatest authors of the genre prove, each in his own way, that the city of the future is indeed a narrative variation of the ideal city of the utopians of times past. In *The Caves of Steel* (1954) (Asimov 1993b) (Fig. 2) and the whole of the *Foundation* series (Asimov 1987), Isaac Asimov portrays Trantor, the planet-capital of an agonizing galactic empire that is saved thanks to psychohistory, a uchronic science that shows the way to a possible better future for mankind. The city is subterranean, buried in the depths of
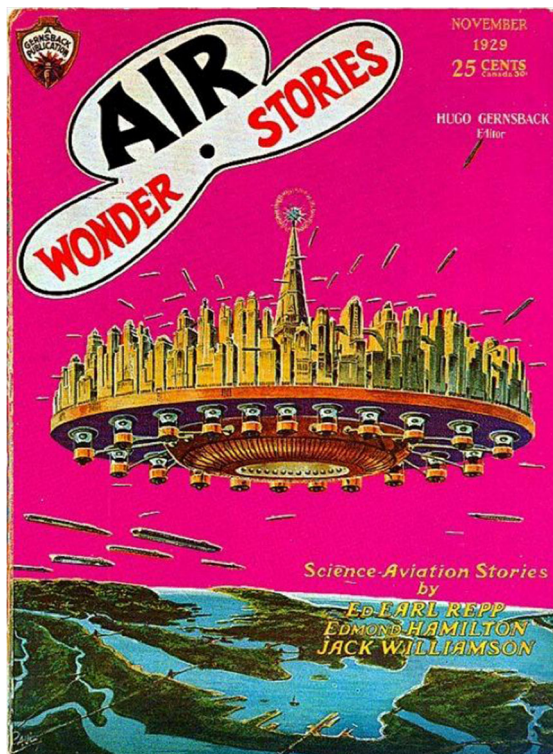
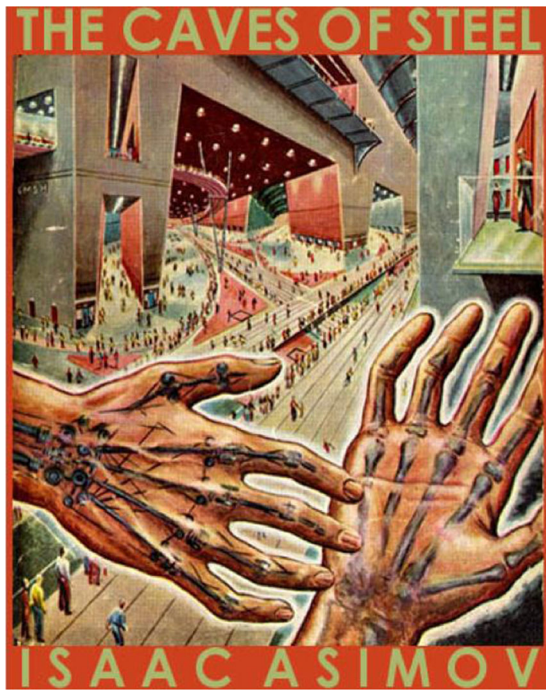

Fig. 1 Air Wonder Stories cover

Fig. 2 The Caves of Steel cover

the planet, and is home to millions of citizens distributed in giant blocks where resources are pooled. Asimov provides a detailed timeline of the planet-city, starting with the Earth, after a nuclear war that it was logical to fear in 1954:

> More and more the villages, towns, and "cities" of Earth died and were swallowed by the Cities. Even the early prospects of atomic war only slowed the trend. With the invention of the force shield, the trend became a headlong race. City culture meant optimum distribution of food, increasing utilization of yeasts and hydroponics. New York City spread over two thousand square miles and at the last census its population was well over twenty million. There were some eight hundred Cities on Earth, average population, ten million. Each City became a semiautonomous unit, economically all but self-sufficient. It could roof itself in, gird itself about, burrow itself under. It became a steel cave, a tremendous, self-contained cave of steel and concrete.

> It could lay itself out scientifically. At the center was the enormous complex of administrative offices. In careful orientation to one another and to the whole were the large residential sections connected and interlaced by the expressway and the localways. Toward the outskirts were the factories, the hydroponic plants, the yeast-culture vats, the power plants. Through all the melee were the water pipes and sewage ducts, schools, prisons and shops, power lines and communication

beams. There was no doubt about it: the City was the culmination of man's mastery over the environment.[2]

The description irresistibly evokes the giant cities, or "arcologies" of the Italian architect Paolo Soleri, buried deep in the soil and precisely organised into different residential, manufacturing and recreational "sectors".[3] In his masterful *Future History*, Robert A. Heinlein describes Luna City (Heinlein 1987), the capital city sunk under the lunar regolith; this also happens in his short story *The Menace from Earth* (1947), in which very strict rules of civility, dictated by the dangerousness of the lunar environment which neither forgives nor forgets errors, are applied. Heinlein comes back to Luna City in *The Moon is a Harsh Mistress*, a novel of 1966, and he creates a libertarian utopia, made possible at the cost of its citizens' constant vigilance (Heinlein 2015). One again finds this idea in the highly educational *Red Planet* (1949), a work for young people, where life on Mars is represented as a combination of frugality and committed citizenry, which refers to the ancient ideal of the well-ordered city and the necessary participation of everyone in public life. Finally, one of the oldest texts by this author, *The Roads Must Roll* (1940), focuses on the economic and political dimension of means of transportation and communication, and strongly recalls the social dimension of *Looking Backward* by Edward Bellamy (Bellamy 2015) (a novel which admired Heinlein). The third author who cannot be overlooked in terms of the cities of the future is the Englishman Arthur C. Clarke, who, with *The City and the Stars* (1956) describes the last terrestrial city of the future, Diaspar, which houses a closed rigid society in which the population protects itself behind defensive barriers and fears the return of an invisible enemy, as opposed to the rest of humanity, which is scattered among the stars. This novel, the original idea of which goes back to 1948, the same year as Orwell 1984, announces the trend of future cities closed in on themselves, stagnant, evolved into cities of anxiety:

> Like a glowing jewel, the city lay upon the breast of the desert. Once it had known change and alteration, but now Time passed it by. Night and day fled across the desert's face, but in the streets of Diaspar it was always afternoon, and darkness never came. The long winter nights might dust the desert with frost, as the last moisture left in the thin air of Earth congealed-but the city knew neither heat nor cold. It had no contact with the outer world; it was a universe itself.[4]

Narratives featuring cities of the future in which there is no way out, neither elsewhere nor in the future, become widespread in the ensuing decade, marking the return of the resurgence of the critical function of utopia in science fiction. The only escape lies, it seems, in revisiting the past, albeit fantasised, of uchronia.

1.4 Yesterday, Cities of Anxiety

When we reach the dystopian "moment" of science fiction, which reappeared during most of the twentieth century, from 1914 to 1984, Demètre Ioakimidis's preface to the

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[2] Isaac ASIMOV, *The Caves of Steel*, Garden City, NJ: Doubleday, 1954. http://www.ebooktrove.com/Asimov,%20Isaac/Asimov,%20Isaac%20-%20Robot%201%20-%20The%20Caves%20of%20Steel.pdf
[3] Paolo SOLERI, *Arcology: The City in the Image of Man*, Cambridge, MA: MIT Press, 1969.
[4] Arthur C. CLARKE, *The City and the Stars*, London: Frederick Muller Ltd., 1956.

volume *Histoires de demain* of *La Grande Anthologie de la science-fiction* is both justified and cleverly formulated. He says that the genre allows custom-made worlds to be conceived, that is to say, social cadres: human and non-human groups, communities, cities, planets and galaxies. And since they are tailor-made, they conform exactly to the author's intention.[5]

Actually, no author of science fiction has ever dipped his quill in the black ink of dystopia with the ambition of truly "describing" the future, or even predicting it: Their aim, namely the critique of the present deviant world, has largely determined the form and matter of imaginary worlds. Neither the authors of pure dystopias nor the authors of negative uchronias—even the most biting—have adopted the tones of the "cyberpunk" movement, which chooses to describe gloomy societies of the near future, in which the technology of networks has considerably worsened inequalities nor did they present themselves as prophets, or futurists. Their futures are essentially closely connected to that of Louis-Sébastien Mercier: a not very credible imaginary time that will never happen but that will serve as a narrative landscape for the political and social intention of the author.

1.5 When the Critical Function Strikes Back

In the twentieth century, the programmatic dimension of the first scientific utopias of the industrial age seems to be abandoned once and for all. This dark age is symbolically inaugurated in the Russian writer Yevgueny Zamyatin's *We* (1921) (Zamyatin 1993), a novel that was banned in Stalinist USSR and published in English 4 years later. Here, he describes a totalitarian society in which the individual is literally absorbed by the social body and—through law and education—kept from having any inkling of personal opinion. The citizens (constantly under control) are prisoners inside panoptic cities with walls of glass. Beyond its critical dimension, Zamyatin's counter-utopian novel takes utopia back to its spatial dimension, since it begins with the description of a giant vessel, a sort of flying city meant to explore other worlds in order to subjugate other civilisations to Reason. The space islands, in the guise of expanding counter-utopias, have replaced those established in the unexplored folds of the map. And, the city becomes the privileged setting of a nightmare. *Brave New World* (1931) and *1984* (1948) have become all-time classics. Aldous Huxley and George Orwell, again two British authors, understand the counter-utopian message from the East: The city of the future, in the guise of a fulfilled utopia, can only display the "end" of the individual (Huxley 1946). Here, we must also mention *Fahrenheit 451* (1953) by the American author Ray Bradbury (Bradbury 1999), who goes back to the technique of inversion that was so dear to Marivaux. The firefighters burn books to prevent people from developing the aesthetic sensibility and critical mind that would call the regime into question.

The science fiction of the 1960s and 1970s develops the entire range of anxiety, brandishing the city of the future, oppressive sum of all fears and ideal melting pot of all alienation, both mental and physical. Here, the Machine becomes the instrument of absolute dehumanisation. In *The Joy Makers* (Gunn 1963), written by James E. Gunn,

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[5] Demètre IOAKIMIDIS, *Histoires de demain. La Grande Anthologie de la science-fiction*, Livre de Poche, Paris, 1974, p. 15 : "*Science fiction authors like to create complete, custom-fit worlds: with human or non-human groups, with communities, cities, nations, planets and galaxies. Custom-fit means that they are made exactly how the author wants them to be, so as to best explain or show his purpose.*"

human beings have been confined in individual cells and dream of artificial happiness in a vegetative state, thus prohibiting any form of violence. The movie trilogy *Matrix* by the Wachowski brothers echoes this view. Very rapidly, the city of the future no longer has a sky or avenues. It folds in on itself, is buried, crouches in the shade of doubt and revels in crime. Some counter-utopias sometimes clothe themselves in supreme irony, in the glow of the ideal, as in Michael Anderson's film *Logan's Run* (1976), inspired by the series of science fiction novels by William F. Nolan and George Clayton Johnson, publication of which began in 1967 (Nolan and Johnson 1967). In the work, an ideal city of the future is described. It is 2274, and machines allow the citizens to live a pleasant life despite limited resources. But, here, youth is the main part of the citizenry, and the human lifespan is limited to 30 years. "Sandmen" are responsible for tracking and killing those who will not submit to the ritual of the crystal.

From Harry Harrison's *Make Room! Make Room!* (1966), where overpopulation forces the less wealthy citizens to sleep on stairwells and feed on recycled corpses (Harrison 2009), to Walter Tevis's *Mockingbird* (1980), where robots allow humans to live in a state of indolence that deprives them of any ability to build an alternative when the machines break down (Tevis 2007), including Robert Silverberg's *The World Inside* (1971) (Silverberg 2010), cult novel in which 75 billion individuals live in opulence without taboos in thousand-storey buildings under a dictatorial regime, John Brunner's dystopic novels that foreshadow the cyberpunk movement and Ursula Le Guin's undisputed classic of counter-utopia science fiction, *The Dispossessed* (1974) (Le Guin 2015), which represents two twin city planets described as if one was the dystopia of the other, dystopias swallow up the field of science fiction and cordon off the imaginary world of the future city. The best texts are not always the longest: Certain dystopic short stories can capture the reader's heart.

In *The Eight Billion* (1965), the American author Richard Wilson describes a 20-s century ruled by an absolutist monarchy (winking at Louis-Sébastien Mercier). When the king of Manhattan takes his annual walkabout in the shade of thousand-storey downtown buildings announcing great news to his people, composed of bare-footed, starving ragged poor, he notes that the opinion polls had yielded results and that there was certainly room outside for the teeming population of grey troglodytes living in caves in the Earth's interior.

Dystopian short stories often focus on the administration of justice in what reveals the totalitarian dimension or the oppression of the society that sets it up. In *To See the Invisible Man* (1970) by Robert Silverberg, the most dreaded criminal penalty is again invisibility, applied with severity that borders on absurdity: The culprit is literally negated or "made invisible" through everybody else's refusal to see him or look at him (Silverberg 2012). The mark on his forehead reminds the other citizens that they could also suffer the same punishment if they do not take it into account. Thus, the city of the future becomes mute because "the penalty for speaking to an invisible man is invisibility". The fact that one can kill the invisible man without being punished, and that it is strictly prohibited to give him assistance, adds to the evocative force of this powerful story. Finally, only one step separates an unsustainable future from the absence of a future, and the cyberpunk movement takes that step.

1.6 The Technological Impasse of Cyberpunk

In the 1980s, the cyberpunk movement was born of the disillusioned writing of two high-profile authors of science fiction, William Gibson and Bruce Sterling, who both

simultaneously identified an explosive, pessimistic narrative cocktail bordering on counter-utopia and disenchanted rebellion. They are inspired by the "no future" rallying cry of the punk generation, creating a link with the satire of the eighteenth century, against the backdrop of urban advances and technological acceleration. In the worlds with no futures that this movement of science fiction creates, there are no heroes or conquests, and the human beings are pressed, if not by totalitarian states, at least by the multinational companies obsessed with commercial competition and ready for every kind of subterfuge in order to conquer new sectors of the market. The consumption of psychotropic drugs and the escape to a virtual reality are the cyberpunk equivalent of Aldous Huxley's Soma in *Brave New World*. In the guise of infinite material pleasures, the human being loses the quintessence of his freedom. And, he practically never regains it.

The canonical novel of this resolutely dystopian movement is *Neuromancer* (1984) by William Gibson, which announces the arrangement of a world network and imagines its social consequences (Gibson 1995). Of course, the text is dated, and some of its conclusions may bring smiles to its readers' faces today. But, the future city that it represents, drunk with electric lights and economic mirages, leaves a lasting image in the eye of today's modern reader, marked by the worldwide economic crisis and the drift toward ultra-liberalism. By his own admission, William Gibson was influenced by Philip K. Dick's novel *Do Androids Dream of Electric Sheep?* (1968) (Dick 2010) and above all by its film version *Blade Runner* (1982) directed by Ridley Scott.

As a matter of fact, from the point of view of the city of the future, *Blade Runner* is the perfect model for future dystopia: an alienated city where—and this is highly symbolical—the sun never shines. Here, citizens live under incessant acid rain; their pale faces illuminated by the neon lights of exceedingly huge commercial billboards; their thoughts interrupted by the insistent calls from agencies offering a no-return voyage to colonise and cultivate far-away planets where they might have the chance to start anew. Here, a nod to the old-fashioned dream of a land of milk and honey is mixed with the omnipresence of machines, the most worrisome of which are, of course, the Nexus-6 androids that perfectly—or almost perfectly—ape the hopes and fears of humans to the point of seeming *More Human Than Human*, as in Docteur Tyrrell's motto (Fig. 3), to reinvent the critical function of utopia to its very roots. It is undeniable that, more than the novel, the film arouses, or at least speeds up, the formalisation of the cyberpunk movement, especially in the USA.

From the point of view of the continuity of science fiction and utopia—an assumption of this text—the cyberpunk movement powerfully and unexpectedly can take credit for renewing this Elsewhere—both inaccessible and invisible—that early utopias had given rise to. The city of the future, when it becomes a virtual city, is literally a "u-topia", cast out of reality through the magic of networks. It is not accessible, except through the intervention of a computer connection that recalls the power of imagination at the time of Sir Thomas More. In both cases, the physical and material body must remain behind, and the future city of anxiety can only be reached through the spirit, as if in a dream, or after a long sleep, in the nineteenth century. Essentially, the cyberpunk movement, through its denial of every form of future potential, its mocking the new horizons of space and its aggressive search for the threads of a worldwide network, is the most viscerally utopian example of all science fiction. Essentially critical, provocatively anti-

Fig. 3 More Human Than Human cover

programmatic, it reminds us in the right place and at the right time that a real society could never be happy as a mere mixture of consumer goods and moral people.

1.7 Today, Achievable Utopias

The methodological negativity of the "cyberpunks" at the end of the twentieth century had a ricochet effect and once again opened the way to rational "thought experience" borrowed from the very first uchronias. The famous "and if" that rediscovers the new generation of science fiction authors firmly situates the city of the future in a purely speculative, imaginary universe, and suddenly, authors are definitively freed of every demiurgical or legislative temptation to plan its becoming reality, or simply postulate that possibility. Therefore, the city of the future becomes "conceivable" as an aesthetic object in which beauty and harmony are offered to the imagination. Then, provided that one does not forget that the present condemns it to non-fulfilment, the city of the future again becomes "thinkable", that is to say "usable" as a horizon for reflection on our actual state of sociability and its mutations.

Today, what can be described as achievable utopias, in the precise sense of cities that can be built one day, provided that the future itself comes about, is better reflected in architectural firms than in the pages of science fiction magazines. Thus, the third movement of the continuous symphony is neither critical, nor programmatic, nor even

syncretic. It is "other" and proves that science fiction, like utopia, has never ceased to investigate the frontiers of reality. Here and now, like elsewhere and tomorrow, the city is primarily a matter of humanities.

Two orientations are traced out: Go far from Earth to rediscover the absolute of the utopian Elsewhere (and the recent discoveries of large numbers of exoplanets can only entice the imagination of authors and incite them to populate the space of planetarian utopias), or stay closer to Earth (and give "green" utopias a last saving chance for revenge in renewing the canonical work of the chancellor of England, who had never wanted utopia to be so far from Nature, or even that it return, but simply that it be inspired by her, and thus find the just laws that would guarantee the city's continuity and stability for the happiness of all its citizens.

1.8 Far from Earth: Rediscovering the Utopian Elsewhere

The pulp genre invented the spatial epic; the cyberpunk movement, to some extent, denied it. The so-called new space opera that clearly indicates a third stage of science fiction is actually already old. The term was already in use at the time when the cyberpunk movement seduced those who became its syco-phants, to indicate the new space adventure stories that would not be affected by the naivety, however touching, of the old space-opera of the golden age stories written by authors who would not, so to speak, accept the inheritance of their fathers and grandfathers without checking the will. Thus, they chose to keep only the art of disorientation, associating it with a much higher ambition, claiming on the one hand philosophical reflection on alterity, and on the other a form of political, if not anthropological, discourse on the forms and institutions of the future city, however spatial it might be. On the occasion of an epony-mous anthology directed by Gardner Dozois and Jonathan Strahan, Joe Haldeman said this about the *New Space Opera*: "It's no longer the old-fashioned space opera. With their new sensibilities and brand new themes, twenty-first century authors prove that science fiction has not lost its sense of wonder".[6]

After all, is it not simply what the utopians did in their time, when they defined themselves as the heirs of Thomas More? To borrow (from him) his elsewhere, his unknown island, his impetus to the ideal and his questioning the political reality of his time, while leaving to him the purely critical dimension and an overly discursive form, in order to dedicate themselves freely to the territories of the future and give them all the originality they needed so as to capture the reader's interest through narration and the dramatic tension of an adventure story? Indelicacy is not sufficient to establish a solution of continuity in a centennial tradition, and in this way, the so-called new *space-opera* is no longer excluded from such communication.

However, beyond the similarity of continuity between utopia and science fiction, there are two more crucial reasons. The first regards the intellectual context which the cities imagined by the authors are part of; the second is

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[6] Gardner DOZOIS & Jonathan STRAHAN, *Le Nouveau Space-Opera*, Paris: Éditions Bragelonne, 2009, (translation CZ).

bound to the utopian dimension which the cities revive, showing positive futures in both the figurative and literal sense.

First of all, the intellectual context must be recalled. By the end of the 1970s, the dream of spatial conquest gradually changed into a reflection on the possibility of a space habitat. Gerard K. O'Neill, an American physicist, imagined "orbital cities" or "cylinders", and in the September edition of *Physics Today*, he stated:

> How can colonization take place? It is possible even with existing technology, if done in the most efficient ways. New methods are needed, but none goes beyond the range of present-day knowledge. The challenge is to bring the goal of space colonization into economic feasibility now, and the key is to treat the region beyond Earth not as a void but as a culture medium, rich in matter and energy (O'Neill 1977).

O'Neill's cylinders were to have a strong impact on the authors of space opera, especially the Americans who, thanks to the scientific fantasy deployed in these objects, went beyond the traditional model of an orbital station as immortalised in Stanley Kubrick's *2001 A Space Odyssey* (1969). And, the stories describing huge space habitats, whether close to Earth or far away from it, would multiply. The most renowned is probably *The Ringworld Engineers* by the American author Larry Niven. In a series of novels, he describes the exploration and the cartography of an artificial planet. Fruit of extraordinarily innovative extraterrestrial engineering, in the shape of a ring covering the extent of a solar system, rotates around its star and provides millions of square kilometres of living area.

But, here, a work that is closer to us as well as infinitely more ambitious from a societal point of view must be mentioned: prematurely deceased Scottish author Iain M. Banks's series, *The Culture* (Banks 1988), in which orbital cities entirely managed by artificial intelligences offer mankind of the future a sort of "computer assisted utopia". As it happens, "Mindsets" guarantee a stable artificial environment for millions of human beings, but above all, they forge and maintain a political framework, offering humans the hedonism they have always dreamt of, a sort of anarchical and libertarian utopia. Yannick Rumpala says that, according to Banks, the development and widespread presence of artificial intelligences have disrupted not only political functioning but also the very conception of politics since an organised world is created in which, thanks to artificial intelligences and the absence of any need to worry about material needs or energy, humans have been replaced in administration. In this model, there are no longer any real political decisions (like allocation of resources) to be made because they can all be resolved by phenomenal computing power. Likewise, abuses of power would no longer need to be feared, since the artificial intelligences to which it has been granted are above all that, so such temptations would be meaningless.[7]

Iain M. Banks's work thus seems to correspond to that third age of utopia, when it shields itself from science fiction: Neither critical nor programmatic, the society portrayed in *The Culture* goes beyond the societal problem of utopia, solving the impossible utopian equation between elsewhere and "tomorrow". It is neither in our future nor far from Earth, but only a future prediction aimed at asking us about our own

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[7] Yannick RUMPALA, "Quelques notes (techno-politiques) sur les Mentaux de la Culture", On-line available for consultation article here: http://www.actusf.com/spip/Quelques-notes-techno-politiques.html

aspirations, in particular political. Shall we, as children of democracy, wish for more participation or more representation? Do we want, after all, to enjoy the benefits that the artificial, well-organised city in space offers us? Or would we rather control its transformations and manage its updating, at the risk of making mistakes that a rational and cautious machine would not let happen? In conclusion, is the city of the future the result of human intelligence, or just its protective case? The question, as asked in Banks's work, echoes throughout the new space opera, which is still a long way from showing its full utopian capacity.

However, the renewed utopia is not only celestial and ultra-technological. It can be every bit as terrestrial, and rediscover the just laws of Nature, which will offer to a mankind reconciled with its roots a renaturing process having unexpected social effects.

1.9 Close to Nature: When "Green" Utopias Return

There are not so many "eco-cities" in science fiction, and very often, authors put into the works dramatic staging between the power of the city-machine and the omnipotence of Nature. Rare are the texts like Brian Aldiss's *Hothouse* (1962), which manage to go beyond this dichotomy, at the price—and rightly so—of a leap into the very distant future, or even to the end of time. However, in this case, Aldiss's novel is off topic, since humanity has regressed to the rank of prey and no longer looks for social happiness but mere individual survival in a forest that extends all the way to the Moon.

In architecture, on the other hand, the "green" cities of the future have acquired a very significant place that, perhaps in the manner of O'Neill's cylinders, would eventually trigger the imaginations of a completely new generation of authors. Here, it is necessary to evoke the masterwork, fed by utopia and science fiction yet still close to the material conditions of realisation, of the brilliant young Belgian architect, Vincent Callebaut (Callebaut 2014). In particular, because it is concerned with the current problem of global warming and its various social consequences, I must mention here the Coral Reef project (Fig. 4), conceived to serve the island of Haiti, which was ravaged on one side by a violent earthquake in 2010. Composed of ecologically "passive" habitats (that is to say, which produce no waste that is not recyclable) and largely founded on a modularity and standardisation of the habitat that makes all of its housing units equal, Coral Reef irresistibly evokes the autarchy made reality of the city-States of Ancient Times, while giving the future a credible form directly inspired by the form of coral, which, in imitation of Nature, facilitates the circulation of air, water, life and exchange, incessantly renewed, between shadow and light, warmth and coolness. Coral Reef is not just a post-modern look at the bitter lessons that Nature has recently taught humanity. It is more like a proposal, but not yet a programme; a societal step towards mankind's adaptation of a new type of environment—and indirectly of urban organisation—that would more rationally and more effectively take into account environmental restrictions which are also its own, and foresee, wherever possible, their intensification.

To conceive of eco-responsible, ecologically neutral cities that do not increase alterations that the environment has already undergone are for Vincent Callebaut's team of architects' and engineers' point of departure, and not an end result, and the lesson also applies to science fiction writers, or at least to those who identify with the utopian dynamics of the genre. It is not enough to orchestrate a durable, credible utopia
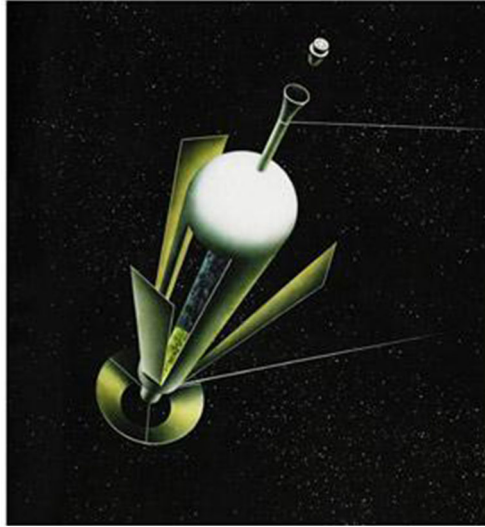
Fig. 4 Physics Today review, September 1974 issue

that is in line with natural laws. The message of the construction or of the narration is not only educational. In order to fully enter into the future, it is necessary to "fix" errors

Fig. 5 Coral Reef, by Vincent Callebaut

that have been made and "clean up" accumulated waste without sacrificing, at any moment and at any price, the freedom of Mankind. To the proponents of a vengeful naturalism, or of a normative concern for the environment, Callebaut offers instead humanism reconciled with Nature, which opens, incontestably, a door to new political forms and, of course, excites science fiction (Fig. 5).

Kim Stanley Robinson's *Mars Trilogy* is an obvious example of the ability of science fiction to scientifically and rationally re-examine the close link between new forms of habitat and new political organisation, but it is still very isolated (Robinson 2009a, b, c). Although identified, the route to renewal, and of the reconciliation of the City and Nature, has still not been sufficiently travelled down, perhaps because it also presupposes the invention of a new form of writing which, while remaining resolutely utopian, would be neither discursive nor narrative, but a hybrid, making the novel not a mere indicator but the trigger to a total change in our understanding of the world.

The utopia of the day after tomorrow is then fed on formal and substantial excesses. From then on, will machines no longer be the alternative to a life close to Nature but rather the building blocks of a pragmatic, open society—at times "green" and "human"—where we will all benefit from artificial regulation destined to save the only planet that we occupy to this day? Then, if "physiotopia" is implemented, it might be enough for us to plunge back into insouciance in the course of a few generations and become like the Eloi amusing themselves in the well-designed meadows of a mechanically conducted Nature. Herbert G. Wells sets his future in the year 802 701. This leaves us a comfortable margin.

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