

Article

Urban Futures: Utopia and the alchemy of science fiction

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Abstract

The paper examines if our raison d'être stood to interrogate the world of the built environment through a rich alchemy of science fiction, might our urban futures take alternative forms to build a fundamentally different idea of society? Science fiction and utopia are about the 'other' and occupy an indeterminate state beyond our consciousness. The guiding light and dare of uncertainty are crammed with spatially suggestive concepts and intensity that in provoking political commentary, also ignites our imagination. Its speculative nature consistently presents the world anew with re-invigorated critical faculties, and perhaps a greater perception of the incongruity of our society, cities and infrastructures in the age of pandemic, protests and politics. The perfect world, in the case studies, is far more imperfect than is at first seemed, where the understanding and sympathies for existing traditions of protection, provision and participation are turned upside-down.

Keywords

alchemy, cities, infrastructure, speculative, society, urban futures, utopia.

'A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing. Moreover, when Humanity lands there, it looks out and, seeing a better country, sets sail. Progress is the realisation of utopias.'

Oscar Wilde, The Soul of Man Under Socialism, 1891

Imagining 'The Perfect World' is usually the central trait of theological thinking: Elysium is home to gods and heroes, the Garden of Eden is green and plentiful, and the inhabitants of the Gardens of Jannah are clothed in luxury materials residing in palaces built from gold and silver bricks. However, some concepts of religious belief are more concerned with the liberation of the soul from torment rather than the paradise of an afterlife. Nirvana is the final release from a cycle of birth, death and re-birth; in Buddhism, the religious scripture cannot fully-pre-

scribe the journey to that emancipated state; individuals must proceed on their own, in a search.

The search for utopia has been immortalised not only in the temples and pyramids of ancient architecture but in the great literature of the ages. Often the interesting part of utopia is the search itself – the epic Greek poem 'Argonautica' by Apollonius Rhodius epitomises the heroic voyage. Jason and his great companions 'Argonauts' must complete the quest to retrieve the mythical Golden Fleece that would ensure his rightful ascent to the throne of lolcus. That tradition is passed to the next generation – the seminal period of the science fiction (SF) genre, where Jules Verne sets out on his 'Journey to the Center of the Earth' (1864).

L. Frank Baum gave us 'The Wonderful Wizard of Oz' (1900); the journey of Dorothy, Toto, Scarecrow, Tinman and Lion converge along the Yellow Brick Road. With each of the protagonists determined to find their

own personal utopias, whether it be wit, courage or an emotion-giving heart. In the end, it was the somewhat perilous journey, and not the destination that had fulfilled their desire - for Dorothy, utopia is simply to return home. Evidenced only in works of literature, so we might assume to be mythical, the golden city of El Dorado has inspired many real-world quests. The search for the legendary gold drew the attention of renowned Spanish conquistador, Gonzalo Jimenez de Quesada in 1537, where he and his army of nearly 1000 men searched throughout Peru and the Andes. Half a century later, the English explorer Sir Walter Raleigh set sail on two separate occasions for Guyana, following treasure maps to El Dorado. There was a geopolitical aspect to his voyage as he was supposed to establish English colonies in South America to rival the Spanish - however, unable or unwilling to avoid conflicts with the Spaniards, he saw Raleigh beheaded upon his return to England.¹ The romantic view of Raleigh's demise would be that he was executed because he failed to find the gold of El Dorado.

Mention of architectural utopia might at first conjure images of a retro-future landscape peaked with tall towers, flying vehicles and ground dominated orthogonal infrastructures, as in 'Broadacre City' or the 'Mile High' glass skyscraper by Frank Lloyd Wright. However, a technocratically perfect and totally egalitarian society might not be the only path or type of utopia. Furthermore, history would see to it that one of Bruno Taut's smallest buildings would be imbued with the greatest sense of utopia – the 'Glass Pavilion', exhibited at the Cologne Deutscher Werkbund Exhibition in 1914, was a tangible artefact in the transcendental qualities of glass to emerge from the architect's radical search.

The majesty of glass is inseparably linked with utopia in architectural history, whether for its use in depictions of the supernatural, when installed into cathedrals as stained glass windows, or whether it signified the epitome of future technology and engineering when placed in the hands of the builder of 'Crystal Palace', Sir Joseph

1 - W Drye, 'El Dorado Legend Snared Sir Walter Raleigh', National Geographic [http://science.nationalgeographic.com/ science/archaeology/el-dorado/], retrieved 20 October 2021 Paxton. As capitalism gets comfortable in its throne, the dominant religion of our age is worshipped in glass cathedrals, whether it be small chapels such as the 'Fifth Avenue Apple-Store' by Bohlin Cywinski Jackson, Renzo Piano's 'Shard' rising out of south London's skyline with the same imposing presence of medieval 'Notre Dame de Paris', or Skidmore Owings & Merrill's colossal capitalist temple - the 'Burj Khalifa' in Dubai.

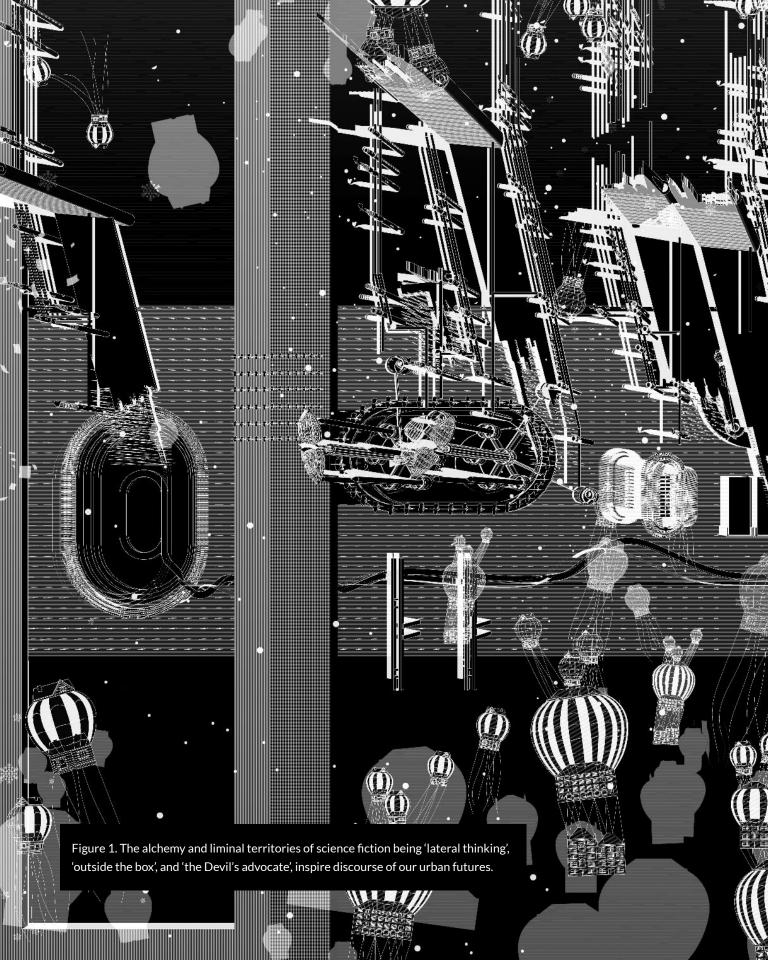
In 1889, Gustav Eiffel positioned his ambition vertically on La Tour de 300mètres (the Eiffel Tower); it was to become the tallest infrastructure in the world for 41 years and an instantly recognisable icon for Paris. Originally constructed as the entrance to the World Fair, the vertical utopia contained a theatre, restaurants, laboratories and a private apartment for Monsieur Eiffel. The Fair had a long reputation of showcasing advancements in technology; the futuristic inhabitable communications infrastructure was archetypal and sensational, but was also crucially paired with the utopian ideals, artworks and manifestoes of the age. However, 10 years prior, at the Paris Exposition Universelle 1878, Eiffel's plans for an extraordinary 130 meters inhabitable bridge installed above the existing Pont d'Iéna were rejected.²

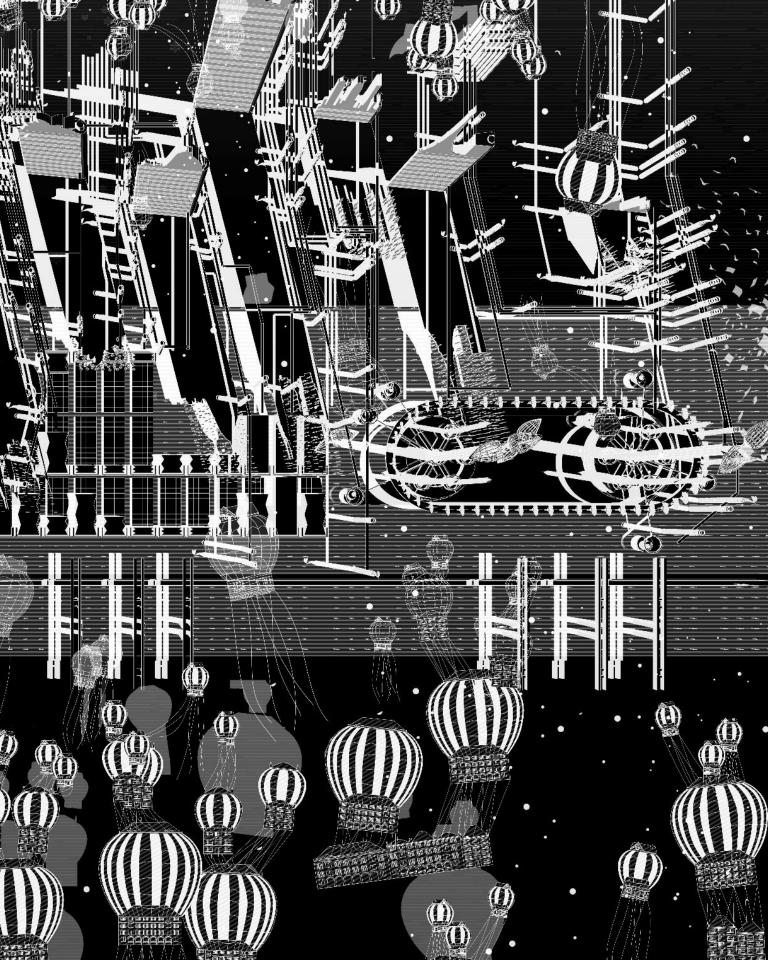
Historically the tradition of utopia is seen not just conquering vertically but also horizontally. One of the greatest typologies for urban speculation has been the inhabitable bridge. The 'Old London Bridge' (1209) hosted over two hundred buildings of up to seven stories high; the ultimate demise of the notorious inhabitable infrastructure followed the Great Fire of 1666, and is immortalised in the nursery rhyme 'London Bridge is Falling Down'. The infrastructural and technocratic nature of a bridge implies industry and grand ambition, and inhabitation under these conditions becomes rather eccentric.

Ponte Vecchio in Florence is a surviving example of the lengths people will go to achieve a dense centre to their economically booming but spatially constrained city.

^{2 -} B Lemoine, 'La Tour De 300 M mètres', Taschen, Cologne, 2006, p.152

^{3 -} S Burgess, 'Famous Past Lives', O-Books, Winchester, 2011, p.130





The bridge has a route running through its centre and is built upon either housing or shops. Paris also witnessed many such structures over the centuries, notably the bridges spanning onto the Île de la Cité, including Pont Neuf, Pont Au Change and Pont Notre Dame. A bridge is a symbol of modernity and a conqueror of nature's obstacles. When faced with the immense issues of the 21st century, the visceral image of great engineering in the inhabitable bridge can catalyse discussion, as the visionaries of the past once did.

The typology of the inhabited bridge has been widely used across the globe and throughout history. Japanese examples can be seen in the artworks of Hiroshige and Hokusai in their depictions of Edo period cities. The Metabolists made several proposals for bridges and bridging structures, which were partially inspired by historical examples. In the 20th century, there was a renaissance of visionary infrastructures by Konstantin Melnikov, Hugh Ferriss, Kenzo Tange, to Constant Nieuwenhuys' anti-capitalist 'New Babylon' (1959-74) and Yona Friedman's 'Spatial City' in the 1960s. Zaha Hadid, in 1977, designed one of her seminal works around the theme of an inhabitable infrastructure by applying Malevich's Tektonik over the Hungerford Bridge on the Thames. Ivan Leonidov proposed his 'Linear City Magnitogorsk' (1930), taking inspiration perhaps from Arturo Soria y Mata's 'Cuidad Lineal, Madrid' (1882); he increased the scale of the infrastructure to intensify the vision of the city, against the notion of sprawl. Alan Boutwell and Mike Mitchell's 'Continuous City for 1,000,000 human Beings' (1969) is a vast infrastructure elevated on hundred-meter pillars that act to span the multifarious terrain of North America in a straight line.4 OMA's 'Exodus, or the Voluntary Prisoners of Architecture' and the 'Continuous Monument' by Superstudio exemplified the hard-edged utopias of the 1970s. Both projects dealt with expansive infrastructural cities that are, at times, uncompromising to context and existing city fabric. The radical proposals have portions of marching linear structures that permit the continued existence of certain microcosms of the city.

The reason for the fascination with SF and utopia is about the 'other'; it always lies just beyond our consciousness or discoveries - explorers, historically, would voyage to what they thought would be the ends of the earth. In 'Searching for Utopia: The history of an idea' (2011), Gregory Claeys explains that voyages are 'a mixture of fantasy, anticipation and delight in the discovery', which is why utopian thinking gravitates towards moments in time where new explorations are made visible, glamorised and discussed. The search of utopias has extended its interest to space-travel, inspired by the post-nuclear age of World War II and the Cold War. Claeys retells 'the period of the first serious exploration and subsequent conquest of the new world... follows the mythic voyage and precedes the age of modern travel. Henceforth the imaginary would fall increasingly by the wayside, and the anthropomorphic would come to the fore'.5 Whether an island can retain its utopian identity after it has been visited or colonised by explorers is another question.

Christopher Columbus, in 1492, described the natives of the new world to be gentle and without the knowledge or the inclination to kill or to steal. What Columbus was perhaps romanticising in his 'discovered' civilisation was that the uncorrupted innocence of mankind could offer more wisdom than advanced cities and technology. The New World might claim to be 'The Land of the Free, Home of the Brave'; however, if we look critically at the USA today, do we see any remaining traces of that noble wisdom in its advanced capitalism? Or instead, do we see a conspiring and convoluted system of big business, political power and mass media that, as political theorist/philosopher Noam Chomsky described as, determined to 'manufacture consent' for their own agendas.

In 'News From Nowhere' (1890), William Morris unveils a paradise-found, a utopian landscape where there are no big cities, private property, money, prisons or class systems. Here, pleasure and wellbeing are both found in nature. Nonetheless, the contradictions of urban utopia and societal perfection are explored in Ian M. Banks'

^{4 -} S Ley & M Richter, 'Megastructure Reloaded: Visionary Architecture and Urban Planning of the 1960s Reflected by Contemporary Artists', Hatje Cantz, Berlin, 2008, pp. 165-168

^{5 -} G Claeys, 'Searching for Utopia: The history of an idea', Thames & Hudson, London, 2011, pp.71-75

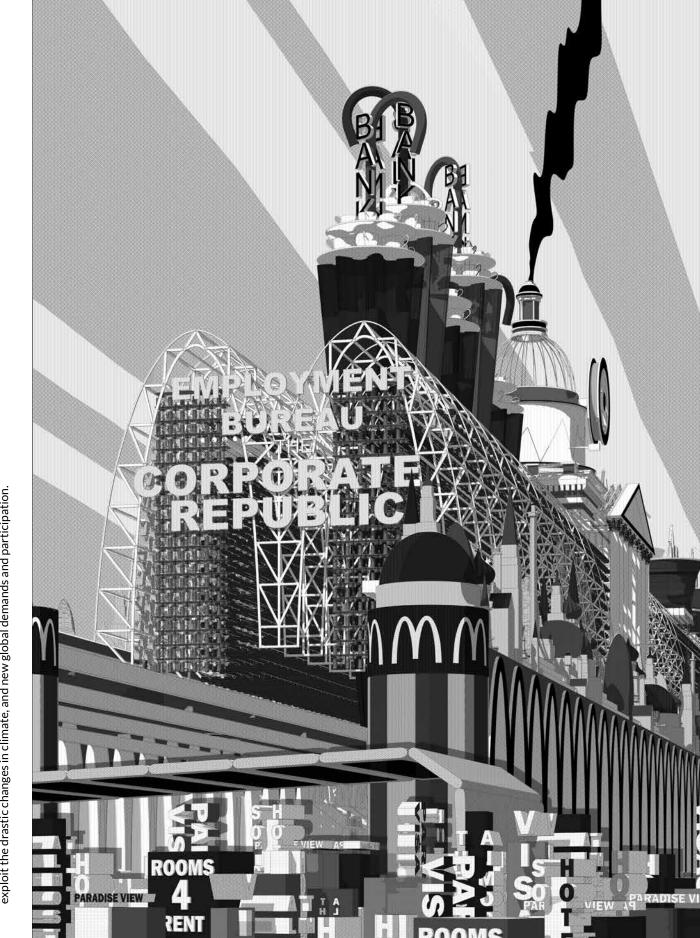


Figure 2. The Corporate Republic is located along the equator – the ideal site to exploit the drastic changes in climate, and new global demands and participation.



'The Player of Games' (1988); everything has already been fulfilled, sickness has been overcome, and nobody ever dies. Unlike the author of the book, the inhabitants of this world never explore anything new – utopia is not searched for hungrily; instead, it is the sloth and sluggishness gained from overconsumption. 'It is reasonable to suggest that the age of the unrestrained pursuit of happiness, defined in terms of egotistical consumption, has now passed... utopia and dystopia march ever more closely hand in hand'. So we might be prudent to keep checks on those who are striving to build the next utopia or who are insisting that we need to return to it in acts of misleading quasi-nostalgia.

All of the world's major deserts are expanding and at an alarming rate. Global warming is just one reason for a compounded problem. But there is evidence to suggest that with the advent of climate change, the equator itself might actually become an increasingly stormy and rainy environment. Conversely, it might well be that the equator remains the only inhabitable region long into the ecological cataclysm. Revolutionary capitalists are predicted to venture across the seas to seek out the opportunity at the equator. In this scenario, economic enlightenment would require water to become a vital resource and a new form of currency.

Global crisis, fear, and uncertainty create market opportunities for products that promise safety or escape. With that in mind, the equator is the ideal site to exploit the drastic changes in priorities and daily habits of global citizens, and to attract private investments and restructure business models that adapt to new demands and participation. What will a business look like in the era of the 'Equatorial Movement'? If today's capitalism flourishes on the thrivalist, what does neo-capitalism look like if it is depended upon for survival? And if capitalism is given full rein, what is its potential?

Figure 3. (previous page) With extreme weather conditions at the equator, the sun-screen bars dominate the McMega Malls of the Corporate Republic.

^{6 -} G Claeys, 'Searching for Utopia: The history of an idea', Thames & Hudson, London, 2011, p.207

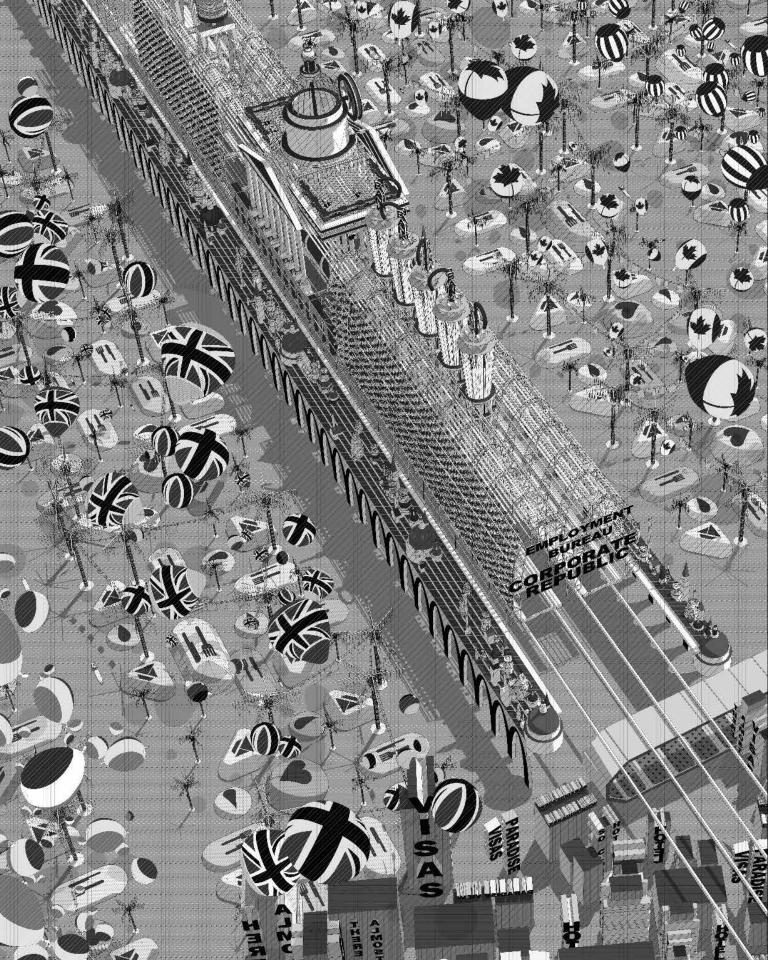


Figure 4. (previous page) The equatorial market is monopolized by the Corporate Republic – a future capitalist community eager to do business with any Equatorialite with entrepreneurial spirit.

The 'Corporate Republic' (2017) by CJ Lim/Studio8 Architects defines a form of government where the political structure and all civil workers are replaced with corporate leaders and a capital-driven business. All public sectors, education, healthcare, military, police, and welfare are privatised. Inspired by SF and company towns such as Boulder City in the USA, Bournville in the UK, and Wolfsburg in Germany, the primary market of the monopoly is its own workers. The conglomerate forms a paternal relationship with its workers by providing all required systems, infrastructure and facilities to increase productivity and fulfil their consumerist hungers.

The Pledge: It is a declaration that compels The Corporate Republic to provide its Workers with a life ample with desire, leisure, and freedom; demonstrates The Corporate Republic's commitment to the Company's way of business. The Pledge stands as a testament of responsibility and respect towards the Workers, and identifies the core values of The Corporate Republic.

Utopia by Desire: Aspiration is the foundation for all that we do, material or otherwise. It includes gluttony, competitiveness, and relentlessness. Building on the values, The Corporate Republic provides members of the Company with a high standard of living. Working in the Company fulfils the promise of equal opportunity to a high standard of living for all Workers of every branch.

Mass Consumption: Commercial exuberance is necessary if all Workers in the Company are to have a high standard of living. What is more important, participation in mass consumption is necessary to support mass production in a corporate economy.

Availability of Employment: Mass Consumption cannot exist without mass distribution of purchasing power, which is achieved through mass employment. Employment in the Company is granted to every member that is most fit for the position.

Freedom from Toil: The accumulation of purchasing power grants the Worker the freedom from toil and engages in activities of leisure and amusement. The difference between efficiency and productivity is the key to accumulation. The Worker is recognised as an individual and is entitled to and compelled to gain personal capital. The secret formula to this happy capitalist state is attributed to the personal gain of the individual Worker and abstaining from idle members in the Company.

Corporate Identity: In a general sense of wellbeing that the Company shares and attributes to the form of capitalism, The Corporate Republic is united, that socialism is the antitheses of the Equatorial way, that it infringes on the pursuit of human freedom and happiness, and that it should be avoided at all costs.

By occupying territory across the entire circumference of the Equator, The Corporate Republic can exploit the rotation of the globe and travel against its spin. The world's non-migrant population is fixed to the globe and experiences day and night, restricted by a trend that promotes a reduction in the working hours, due in part to limitations enforced by union laws and federal regulations and in part to traditional notions of day and night. The fixed way of life becomes a hindrance to any attempt to increase production time. Instead, The Corporate Republic races around the equator at 1675kph, so maintaining a fixed relationship with the sun (as of 2016, the fastest manned air-breathing vehicle was the Lockheed SR-71 Blackbird, with a top speed of over 3,500kph⁷). The Corporate Republic remains perpetually within the hours of nine to five.

The Golden Arches, the 'M', a globally recognised symbol of corporate dominance, gluttony, and excess, is adapted as the new emblem for The Corporate Republic. Its profile is extruded along the equator, spanning the full

^{7 -} Historical Programs, 'Creating The Blackbird', Lockheed Martin Official Website [http://www.lockheedmartin.com/us/ 100years/stories/blackbird.html], retrieved 22 October 2021

length of the company's infrastructure for community participation. Its continuity symbolises the monopolise market and its reluctance to acknowledge the sensitive context that it infiltrates. The 'M' is obtrusive, ubiquitous, and relentless.

Comfort, luxury, and excess are something that The Corporate Republic offers to all of those that contribute to its production of a high standard of living. To make the citizens more comfortable during the process of consumption, the M-Mega-Mall has been designed as an automated environment, one capable of efficiently delivering goods and services through various pipelines and conveyor systems. Surreal participation of indulgence of The Corporate Republic is sunscreen, pumped out of barrels and passed over the counters of numerous bars, pubs and off-licences.

The major crops of The Corporate Republic are cacti species and tropical palms; there is a plethora of products derived, ranging from oils to aloe. The Corporate Republic primarily cultivates cacti species for healthcare, food, and clean water – the cactus' thick and bulbous forms hold vast volumes of water, and its hairy filaments collect dew from air or fog. With all the stresses and strains of the capitalist life on the equator comes the requirement for decadence, excess and intoxicated escapism. Whilst water remains the most expensive and desired commodity, the citizens who consume the psychoactive plant, Peyote cactus and Tequila made from the succulent Blue Agave, claim that the products deliver 'deep introspection and insight', an infamous 'Wolf of Wall Street' business model.

Despite initial perceptions of The Corporate Republic as the capitalist infrastructure of greed, it is important to realise the generosity, albeit commercial, that the enterprise offers. Due to the expanded scale of the construction work, there is a good argument for using recycled and reclaimed materials in the construction of The Corporate Republic's structures. Post-industrial detritus

found in contaminated seas is the first to be floated towards the equator for recycling; the Great Pacific Garbage Patch will no longer be an ecological disgrace of the 21st century. Non-recyclable garbage can be cleaned of toxins and compressed into sustainable and robust building blocks. ¹⁰ The seas and natural habitats of non-equatorial regions have a great burden removed, and there is a good opportunity for people living in polluted areas to become entrepreneurs turning trash into cash.

The CEO and the selected Chairmen head the Corporate Republic – there is a division of labour, but everyone seeks promotion in the strictly hierarchical economy. The members are the primary regulators of the 'rate of employment', the 'standard of living', and oversee all production and profit. The importance of their task is represented by the building they inhabit, a replica of the American Capitol Building. Reminiscent of the cloud from the Italian cult film 'Fantozzi' (1975), the members consume large quantities of water currency to create small shading clouds that hover above their building, such that they can enjoy the outdoor environment in comfort. The management division is located between 12:00 noon – 2:00 p.m. As a result, they are always out on a business lunch.

As the new linear metropolis begins to establish itself as a dominant global power and the world's cities decant towards The Corporate Republic at the equator, the abandoned planet can breathe a sigh of relief. Climate change will not be reversed and the damage will not be undone, but nature will take over the concrete jungles and its biological systems will begin to reinstate, revive and re-invent themselves. Is it communal symbiosis, economic autonomy or the search for the utopia that will determine the shape of things to come?

Figure 5. (next page) The Corporate Republic is a mobile industry that keeps pace with the movement of the sun as a way to comply with international labour laws. Working hours have been surreptitiously extended into one ceaselessly ongoing process.

⁸ - T Mace & S Mace, 'Cactus and Succulents', Hamlyn, London, 1998, p.12

^{9 -} J Belfort, 'The Wolf of Wall Street', Bantam Books, New York, 2007

^{10 -} Staff, 'How to Make Eco-Bricks Out of Garbage', Utne Reader, November/December 2012 [http://www.utne.com/ environment/eco-bricks-zm0z12ndzlin.aspx], retrieved 2 November 2021



With the same intensity of JG Ballards 'Crash' (1973), The Corporate Republic races along its track, the infrastructural embodiment of utopia is freedom – free from day and night, from geographical history or contexts, and refusing to accept defeat or lose a penny of profit in the face of climate change.

Whether it is grand sea voyages, private islands, or a space exploration program, there is an undeniable relationship between capitalist strength and the search for utopia. The USA has a tradition of radical utopianism (and its latent opposite). Over the course of its history, wealthy capitalists were inspired either by utopian politics, profit-motives or spiritual ideologies to construct company towns for their workers. A remake of society in miniature, the neo-feudal model of participation, was replicated throughout the country. There were thousands of planned community infrastructures in which the one employer company owns practically all housing, stores, and facilities. At the beginning of the 1820s, there was Lowell in Massachusetts; the textile manufacturing planned community was a demonstration of righteous living and a morally uplifting American capitalist utopia.11

More symbols of the Pilgrim's ideal 'city on a hill' rapidly followed – Pullman, Illinois by the railroad-car maker; the lumberjack haven Scotia, California; and Hershey, Pennsylvania founded by chocolate magnate Milton S Hershey. Dearborn, Michigan, the quintessential company town – the Ford Motor Company owned one-fourth of the city's land, including the Fairlane residential estate and Greenfield Village, the Ford Airport, the Henry Ford Museum, and Fairlane Center, a hotel-shopping-campus complex and headquarters of the company.¹²

Companies like Google and Facebook have plans to build

all-encompassing infrastructures for their employees' participation. As reported by Newsweek in 2011, "Google is set to offer on-site employee housing – 120,000 square feet of it, slated for construction on NASA land near Mountain View, California. That's enough for approximately 60 midsize homes, or 400 dorm rooms. Employees enjoy the services of a dry cleaner, hairstylist, massage therapist, and chefs who whip up three meals a day. They commute on company buses, nap in company 'pods', and shoot pool in company parlor rooms''. At the forefront of corporate paternalism, Facebook is planning to create a 'small-community feel' for its 79-acre campus.¹³

Company towns will not be the past phenomena as long as we are willing to trade enforced moral codes, lack of independence and uniformity of living standards for employment. Isolated utopias for workers are settings rife for speculative fiction and has all the elements one can find in the works of SF authors, such as Edward Bellamy, George Orwell, Aldous Huxley and more recently in Margaret Atwood's 'The Heart Goes Last' (2015). The latter is a moral tale – those who sign up for a neat suburban house and full employment in the utopian town of Positron/Consilience have no guarantee of a happy ending.

Hadley's Hope (Aliens, 1986), Delta City (Robocop, 1987) and Freya's Prospect (Aliens vs. Predator, 2004) are examples of SF company town infrastructures imagined for the silver screen. Weyland-Yutani Corporation builds a large storm wall to shield Hadley's Hope on LV-426 and directly links it to the Atmosphere Processor via an underground tunnel. Later the Corporation expanded onto BG-386 with Freya's Prospect, a vast housing infrastructure with extensive recreational facilities including a small strip club called 'Club Eden' – time has certainly redefined acceptable morality since Lowell! And finally, corporatocracy has fully privatised crime-ridden Detroit, Michigan into Delta City – the eventual bankruptcy of the Motor City in 2013 was prophesied in the 1987 film.

^{11 -} N Partyka, 'The Bosses' Utopia: Dystopia and the American Company Town', The Hampton Institute: A working class think tank, 20 May 2016 [http://www.hamptoninstitution.org/the-bosses-dystopia.html#.V8LK2kv8zfM], retrieved 2 November 2021

^{12 -} G Galster, 'Driving Detroit: The quest for respect on the motor city', University of Pennsylvania Press, Philadelphia, 2012, p.55

^{13 -} T Dokoupil, 'The Last Company Town', Newsweek: World, 2 March 2011 [http://europe.newsweek.com/last-company-town-68763?rm=eu], retrieved 27 May 2016

All discussions about the future are, by definition, fictional; they concern the act of imagining. Events and inventions can be predicted, in both the short and long term. When the author's imagined world enters the realms of realisation, the work makes the shift from science fiction (SF) to 'prophetic'. Jules Verne's 1865 prediction of moon landings in 'From the Earth to the Moon' were realised by NASA just over a century later in 1969, and Edward Bellamy's 1888 prediction of credit cards and centralised banking in 'Looking Backwards: 2000-1887' are two good examples of writers' foresight. What were once-quintessential fantasy gadgets, in a matter of decades, have become real and widespread - the internet, wireless electronics, video calls and miniaturised computers all featured in popular SF such as 'Star Trek' and '2001: A Space Odyssey'. Once an idea enters the industrious minds of technological innovators, they are quickly realised, often pushed ahead by military funding or commercial sectors. In fact, the classic gadgetry of the space-obsessed generation now seems mundane compared with what is available in reality; technology has become a ubiquitous and invisible infrastructure - the 'Cloud'. Of course, we are still searching; the pursuit of the unknown is never-ending. We are now asking different questions of the future, speculations that deal more with the ideas of how we will live rather than transposing our current lifestyle into a more technically proficient age, as 'The Jetsons' had done by simply juxtaposing 1950's domesticity with a city in the sky.

While the 'Theory of Everything' completes and consolidates the fragments of understanding we gained from 'General Relativity' and 'Quantum Field Theory' to enlighten us of the exact origins of the universe, SF occupies an indeterminate state; those who traverse liminal territories and interdisciplinary grey-areas stumble upon them, and they see uncertainty as a guiding light and dare - as if to venture to blind into an abyss. They are crammed with spatially suggestive concepts and intensity that in provoking political commentary, also ignites our imagination. SF consistently presents the world anew with re-invigorated critical faculties and perhaps a greater perception of the incongruity of our society, cities and infrastructures. The perfect world, in SF, is far more imperfect than it is at first seemed, where the understanding and sympathies for existing traditions of protection, provision and participation are turned upside-down. By presenting a marginal take on any given scenario, SF is 'lateral thinking', 'outside the box', and 'the Devil's advocate', and can inspire debates of our urban futures.

If our raison d'être stood to interrogate the world of the built environment through the rich ingredients of speculative fiction, how then would our future cities take form? Ancient and medieval civilisations held strong beliefs in the powerful work of alchemists. According to legend, the processes of alchemy ultimately led to the discovery of the philosopher's stone, a potent object able to transform lead into gold and create an elixir of eternal life. Formulas produced by alchemists are often secrets and non-consistent. In search of 'Urban Futures' (2014), CJ Lim/Studio 8 Architects offers a process to follow and correct amounts of ingredients to use:

Firstly, two equal portions of Aldous Huxley's 'Brave New World' (1931) and George Orwell's 'Animal Farm' (1945) to accommodate the themes of equality, freedom, utopia, the perfect world and the role of politics.

Then add the primary energy source and the building material extracted from Richard Brautigan's 'In Watermelon Sugar' (1968). This is spread neatly across the pre-prepared ground surface, a great expanse of saltwater (the pool of tears), from Lewis Carroll's 'Alice's Adventures in Wonderland' (1865).

Carefully add China Miéville's 'The City & The City' (2009). If applied correctly, this has the effect of separating the mixture, and there should be two distinct territories: one of light and one of shadow.

Next, the collection of tangible and intangible infrastructures from Italo Calvino's 'Invisible Cities' (1974) should permeate the porous urban-mix. A generous sprinkling of Diana Wynne Jones' 'Howls Moving Castle' (1986) provides the means for the inhabitants to migrate to this city-like construct.

We animate the mixture with Andrew Niccol's 'In Time' (2011), and with the understanding that cur-

rencies from the world's existing corrupt and fragile economies would be useless in the alchemy of the SF city. Here time itself becomes currency – slowness and old age are celebrated as community and leisure activities.

Finally, season with noir comic book motifs and keep stored in a cool dark place until life resembles JG Ballard's 'The Burning World' (1964).

Whether or not the practice of alchemy produced a single drop of the elixir is less important historically than what actually was achieved. The same could be true of an SF city experiment? Alchemists, like druids before them, conducted scientific research in medicines, chemistry and natural sciences; as a result, they were considered to be men of knowledge and held in extremely high esteem by both monarchies and the populous. Alchemy had a powerful influence on the development of Chinese culture, the Islamic world, and the renaissance in Europe. Isaac Newton is known to have practised alchemy for many years, although best remembered as the father of modern physics. Newton was a polymath who had the vision to drive the human race forward and perhaps to ask questions that had not been posed. 'In an age when there were no microscopes to penetrate living cells and no understanding of the nature of atoms and molecules, the alchemists were not misguided so much as misinformed, doing their best to make sense of a world they could not see. That they understood as much as they did is the real marvel: in pursuing what today seems like little more than witchcraft, the alchemists were in fact laying the foundation for modern experimental science'.14

'It was better to live with disappointment and

frustration than to live without hope'

Robert A Heinlein, 'Waldo', 1942

^{14 -} J Bosveld, 'Isaac Newton: World's Most Famous Alchemist', Discover Magazine, 28 December 2010 [http://discover-magazine.com/2010/jul-aug/05-isaac-newton-worlds-most-famous-alchemist], retrieved 29 July 2016