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This article argues for the value of reading science fiction among architects and urban theorists, to reimagine and critically reconsider cities currently under construction.

'Endless forms, vistas and hues': why architects should read science fiction

Amy Butt

Most of an architect's life is concerned with that which has not yet taken place, both foreseeing the near future and expressing an intention of how this future world should be remade. However small the intervention, all design proposals are utopian works. With this in mind, this article is a celebration of the utopian potential of reading science fiction (SF); to make the familiar strange, to reveal fears about the future, to confront us with ourselves, and to shape the world we inhabit. It is an unabashed call from an architect and avid SF reader for architects to raid the bookshelves, find the most lurid cover and glaring font and lose themselves in the exuberant worlds of science fiction.

Introduction: 'a dignity befitting its role'

> *The meeting chamber, though its location was secret and it possessed neither door nor windows, had a dignity befitting its role.*[1]

The opening lines of this short story provide us with an imagined space to meet, a suitably otherworldly site to discuss architects reading SF. It is a room sealed within itself, defined by its startling lack of familiar features, yet requiring a memory or idea of 'dignity' to furnish it. In reading these two lines we are already engaged in a multitude of imaginative and critical practices; constructing a room, a city, a society, a world in which this space would exist, then holding it up to the light to see how it was made, picking out the joins where pieces of the street you live on or the office you work in have found their way into the fabric of this strange sealed room.

While some of these practices are shared with SF film, graphic novels, poetry, and literary fiction, they accumulate in SF literature to provide a unique set of overlapping tools and perspectives for architectural imagination and critical thought. This article brings together existing frameworks of thought, to consider the spatial disciplines alongside literary theory and criticism, science fiction studies, and utopian studies. Together these create an interdisciplinary overview of some of the many ways that SF can be read. Each section explores one approach in turn; reading the worlds constructed within SF as prediction, as inspiration, as reflection, and as critique. These approaches are modes of reading *into* and ways to read *from*; demonstrating the value of SF to architects by providing a way to interpret the world of the text and an opportunity to reflect on design practice. Throughout, quotes from a single SF short story, 'An Overload' by Barrington Bayley, introduce each section to provide a common narrative point of reference to frame and demonstrate the mode of reading under discussion.

'… to provide a unique set of overlapping tools and perspectives for architectural imagination and critical thought …'

This is an argument for broad engagement with the genre of SF as a whole and with the spaces in which these stories are set. As such, it will reflect on how these modes of reading can be applied to this single short story, a slim twelve pages which will stand as proxy for an entire genre and demonstrate the visceral and vital value of SF to the architect as reader. As an architect I acknowledge that I exhibit a professional bias and use the term to cover all those persons involved in the design and construction of the future city. While architects hold a privileged position in the material reconstruction of the city this reading of SF holds critical value for a much wider audience, as we are all intimately involved in the reimagining and remaking of our cities, the reading and writing of our built futures.

'An Overload' was written in 1973 by Barrington Bayley, an author well known in SF studies despite the wider impact of his work being 'seriously underestimated'.[2] The story was published in *New Worlds 6: The Science Fiction Quarterly* edited by Michael Moorcock with Charles Platt, the sixth in an eight-book run showcasing authors from *New Worlds* magazine during a hiatus in its publishing. This magazine and Moorcock's role as editor were

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seminal in the development of New Wave SF. Bayley was a prominent author in this movement which was concerned with the psychological or social impact of imagined worlds, what its most well-known author, J. G. Ballard, termed '"inner space", rather than "outer space"'.[3]

So, 'An Overload' is a story written by a respected but not widely celebrated author, part of a pivotal movement in SF but not its most well-known proponent, a representative but not seminal example of his work, published by an innovative magazine but not at the height of its influence, edited by a key voice in the field but shared in a short-lived anthology series, in a subgenre of SF where the built environment plays a supporting role. As a proxy text for all SF, it offers as much as any to the architect as reader.

Sadly, there is not space here to reproduce the story in full, so a précis will have to suffice. The plot follows the rise of a new political power within Megalopolis. A new challenger in a plutocratic democracy who attempts to break the stranglehold of the syndicate who govern the lower levels of Under-Megapolis. Through complex political machinations this radical politician obtains the right to use holographic technology to project himself into the rooms of the electorate as effectively as his opponents. Meanwhile his researcher and our protagonist Obsier has uncovered the dark secret that the personalities of the syndicate cartel share a startling resemblance to film stars of the 1920s. They realise the truth too late: in a city this complex the human leaders were long ago replaced by machines as the scale of this mass of humanity is simply too much for human consciousness to comprehend, and the political hopeful is irrevocably overwhelmed by the city.

> *And then the impressions began to hit him. It was merely a tidal wave at first and he was able to ride with it. But in the next few seconds it became stronger.*[4]

As radical imagination: 'Millions upon millions of scenes'

> *Millions upon millions of scenes, tens of millions of human consciousnesses, were forcing themselves into his consciousness, which like a balloon expanded, expanded, expanded* [...] [5]

The practice of architecture is reliant on imagination, an iterative creation of possible worlds and their refinement into possible realities. Perhaps the most fundamental thing SF can offer an architect then, is imaginative freedom. That is not to say that the escapism offered by SF does not adhere rigorously to the internal logics of the fictional world, but that this world can be radically different from the one we currently occupy. For SF and political theorist Frederic Jameson, this radical imaginative freedom is the critical factor that differentiates SF from other forms of literary expression. Jameson argues that this is rooted in the genre's 'para-literary' character, its self-definition as existing outside of literary fiction giving it the 'capacity to relax that tyrannical "reality principle" which functions as a crippling censorship over high art'.[6]

'The practice of architecture is reliant on imagination, an iterative creation of possible worlds and their refinement into possible realities. Perhaps the most fundamental thing SF can offer an architect then, is imaginative freedom.'

The radical freedom of SF allows authors to undertake expansive and exhilarating world-building, from the surreal tweaking of the disconcertingly familiar, to the construction of coherent universes. This is a space for architectural imagination to be unleashed, for new technologies to bend old rules.[7] It is a site for architects to stretch out into the breathtaking scope of all that can be imagined, beyond that which can be realised.

'An Overload' can be enjoyably read as sheer imaginative free fall and it offers the architect as reader the chance to be imaginatively enriched and expanded by its 'millions upon millions of scenes'. But while SF revels in its imaginative freedom, this single mode of reading as an entertaining escape overlooks the much greater potential for this genre to inform architectural thinking and design.

As inspiration: 'spreading up and out'

> *Perched above it, using it for a foundation, was SupraBurgh, spreading up and out like a great tree to glory in the sunlight that struck, to Obsier's mind, almost supernaturally out of a naked sky. Occasionally interstellar ships arrived to settle like birds in that tree.*[8]

Just as we escape into the worlds of SF, the imaginative visions conjured within SF worlds do not remain confined to the page. As urban theorists Stephen Graham and Lucy Hewitt have argued, SF images of the city have directly informed the design of the built environment.[9] So, the image of the Emerald City from *The Wizard of Oz* (1939) can be extracted from its plot and directly appropriated as an aesthetic for Burj Khalifa because the Emerald City *looks like* a utopian city on the hill.[10]

Certainly, the description of SupraBurgh offers aesthetic inspiration to the architect as reader. It is a city resonant with natural simile, a manmade tree with space-craft birds. Poetic language that implies a glittering tower in harmony with its environment, establishing an alluring image of the future.

Within the architectural profession, arguments for the value of SF have typically focused on its use as a source of aesthetic inspiration.[11] But, as described by architect Nic Clear, this process of aesthetic extraction replaces 'a vision of the future with an image of the future'.[12] While SF, and in particular, the visuals of SF film provide architectural readers with a rich source of aesthetic inspiration, this mode of reading overlooks the plot and as such provides only a context-less precedent study.

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As prediction: 'developing their own forms'

> *Long ago the two conurbations had gone by a single name, Megapolis. They had been governed as one super city by Central Authority. But gradually its functions had withered away. The upper and the lower parts of the super city had diverged in social and economic terms, developing their own forms of government, institutions, even languages, until now they were aliens to one another and forbore all contact except for a certain amount of trade.*[13]

As architects and urban planners are influenced by the images of science fiction, it seems almost self-fulfilling that SF should be read for predictions of the city yet-to-come. Within SF literature, the subgenre of what SF theorist and author Samuel Delany calls 'predictive tales' can provide thought experiments that directly extrapolate from the present to test out a possible future.[14]

For architects, this process of projection, of visualising the construction of a space in the future inhabited by imagined users is analogous to the process of architectural design itself. As such, SF offers architects an imaginative exercise to extend the line of extrapolation beyond the completion date for the architectural project, a space to dwell in the effect of architectural design far beyond any post-occupancy evaluation.

'… a space to dwell in the effect of architectural design far beyond any post-occupancy evaluation.'

A similar process of extrapolation is undertaken *within* the story of 'An Overload'. Bayley provides us with the city's own linear history, the gradual division of Megapolis into above and below. The upper section is the mega-city of SupraBurgh, while the lower half, UnderMegapolis, is self-contained and sealed from the outside world. Read in this way, Bayley starts his city history with the futuristic vision of the mega-city in a single structure and provides an extrapolation of a future far beyond that. Both cities are still contained within an indivisible architectural whole, but the small social and economic distinctions that were allowed to develop have split the city into two halves. While the initial jump to a future state is too abrupt for this to be a 'predictive tale', 'An Overload' offers a hypothetical extension of processes of urban segregation, a potential warning to resist the nascent signs of ghettoisation before they split our cities irrevocably.

In this way, the subgenre of 'predictive tales', which explicitly follow a rigorous process of extrapolation from the known circumstances of the present, can be usefully considered as a form of imaginative testing of possible urban futures. However, this extrapolative reading limits the potential of SF for architects as it suggests that the text becomes irrelevant once the circumstances that underpinned its imaginative construction are surpassed.

As reflection: 'a brief limbo-like transit'

> *As the vert tube dropped mile on mile the golden glitter of SupraBurgh vanished. After a brief limbo-like transit through the abandoned area of Central Authority, Obsier was plunged deep into the planet and entered UnderMegapolis.*[15]

A SF text does not have to directly follow on from our current situation for it to provide a useful source of reflection on reality. As Jameson describes, SF presents 'messages of otherness, but transmitted in the past' analogous to memory trace.[16] This idea extends the utility of extrapolative fiction beyond its contemporary moment, to provide fresh 'messages of otherness' in a changing present.

These qualities of alienation and estrangement, whereby fiction reveals truth by holding up a mirror to the world are not unique to genre fiction. But in SF, for literary critic Robert Scholes, estrangement is 'more conceptual and less verbal. It is the new idea that shocks us into perception, rather than the new language of the poetic text.'[17] Within the para-literature of SF, the literary quality of the text itself is secondary to the exploration of a critical idea and the reflection that this provides the reader on reality.

This tension between the 'idea' of the fiction and the fact of reality is described as the 'privileged site' of SF by geographers Rob Kitchin and James Kneale,[18] and the opportunities offered by the co-consideration of SF and contemporary urban theory are reflected within a growing field in geography, planning, and urban studies.[19] However, much of this work this remains focused on a 'canon of "approved" authors, novels and films', which centres on the work of H. G Wells, Philip K. Dick, J. G. Ballard, and William Gibson, and films such as *Metropolis* and *Blade Runner*.[20] While these texts have achieved their position through their originality and poetic clarity of expression, as well as their direct critical engagement with the built environment, urban studies theorists continue to call for an expansion of the current 'valid' sources of critique. There is a particular call for the extension of considerations of SF to study the 'vertical and volumetric nature of the urban environment',[21] as the prevalence of the trope of the vertical city within SF offers a rich site through which to reconsider the implications of vertical living.

There are notable examples of the vertical city throughout SF literature; from HG Wells's seminal novel *When The Sleeper Wakes* (1899) or Zamyatin's *We* (1921), through to more contemporary visions such as Paulo Bacigalupi's *The Windup Girl* (2009) or Robinson's *New York 2140* (2017). But it was a particularly prevalent as a trope in New Wave SF as a response to significant social and structural change within the fabric of the city. A by no means comprehensive list of novels that feature urban towers might include: *Beyond the Sealed World* (1965), *Make Room! Make Room!* (1966), *A Torrent of Faces* (1967), *Stand on Zanzibar* (1968), *Tower of Glass* (1968), *The City Dwellers* (1970), *The World Inside* (1971), *334* (1972), *The Castle Keeps* (1972), *Growing*

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up in Tier 3000 (1975), *High Rise* (1975), *Cinnabar* (1976), and *Catacomb Years* (1979). 'An Overload' was a product of this period, written by an English author confronted by the rapid proliferation of high-rise urbanism in the UK and as such it offers an estranged perspective on the experience of vertical living.

While our ability to visualise the city in 'An Overload' is shaped by its description as a 'great tree', its height is conveyed by Obsier's journey downwards. He travels in a 'vert-tube' allowing him to see the levels flash past for mile after mile. While heightening his vulnerability, his apparent free-fall downwards makes it difficult to imagine ascent through the same mechanism, his bullet-fast drop is more like an ejection or social rejection. This description reflects the lived reality within high-rise towers, where the social role of lifts has been studied by human geographers such as Donald McNeill[22] and the ability to ascend is historically associated with the ability to escape what travel writer Jonathan Raban terms 'the realm of failure and menace' which is life on street level.[23] 'An Overload' thus exaggerates the reality of what Hewitt and Graham call 'uneven social geographies of vertical mobility',[24] providing an estranged point of reflection on social structures within contemporary vertical urbanism where social exclusion is established through access to differentiated systems of vertical circulation.

This reading of the SF text as a site of estrangement widens its application to the architect as reader, beyond consideration as a *prediction* of the future, to a site for critical commentary on the changing present, a mode of reading it shares with literary fiction. However, this reading limits the scope of texts that might be considered useful to those that have some grounding in lived reality and potentially overlooks the sheer breadth of SF visions.

As critique: 'sunk by its own weight'

> *What once had been on ground level, was now half a mile into the earth. Megapolis was a great plug drilled into the planet's skin and it had sunk by its own weight. So close was the floor of UnderMegapolis to the floor of the Earth's crust that it was able to draw heat from the basaltic mantle beneath.*[25]

The seminal definition of SF provided by literary theorist Darko Suvin builds upon Scholes's identification of its estranging potential, defining it as the genre of 'cognitive estrangement'. For Suvin, the mirror held up to reality by genre fiction is 'a crucible'.[26] It does not reflect the world as it is, but a world made strange, a reflection where reality is re-forged. While this quality of strange – estrangement is present in much genre fiction, the quality of cognitive estrangement requires that it serves some critical purpose, differentiating SF from other genre fiction such as Fantasy. In this way, Suvin defines SF as a *process*; of detachment that makes both us and the world we occupy 'other', and reflection that allows us to view both the imagined and the real alongside one another, provoking a critical new perspective on reality.

'It does not reflect the world as it is, but a world made strange, a reflection where reality is re-forged.'

'An Overload' touches on many social and political themes that were prevalent in New Wave writing of this period, which aspired to use its critical voice to explore contemporary issues such as environmental damage and resource scarcity. In this light, Bayley's depiction of Megapolis can be read as a critical reflection on the pervasive popular concern regarding overpopulation. As the weight of the city above has pushed through the Earth's crust, it has physically submerged UnderMegapolis and it now moves at a geologically slow pace towards its own destruction.

When read as a predictive tale, this sinking city provides an estranged point of reflection on issues of population and subsidence affecting contemporary cities such as Venice. However, it also offers a critical perspective on the issues of global population by manifesting their tangible impact on an enclosed environment. SupraBurgh's indifference to the plight of UnderMegapolis becomes a critique on complacent attitudes towards over-population, accompanying resource scarcity, and the resultant suffering of those plunged under and unable to escape the impact of environmental change.

For the architect as reader, 'An Overload' reframes broader social issues within a single building, providing new ways of looking at contemporary concerns. It manifests Ally Ireson's and Nick Barley's contention that floors within towers should be considered as distinct contexts creating differing types of interaction.[27] By bringing the world inside the building walls, it provides an imaginary framework to discuss the spatialisation of hierarchies of power in contemporary multilayered cities.

This engagement with SF as the literature of cognitive estrangement allows architectural and urban theory to be brought to bear on abstract spatial issues made manifest in the worlds of SF. But, this mode of reading prioritises texts where cognitive estrangement is achieved through a *physical* world made strange. While these are critical to architects, it can overlook SF texts where the built environment plays a supporting role in social forms of cognitive estrangement.

As symbol: 'The dividing line between these two spaces'

> *The dividing line between these two spaces is the Central Authority; now abandoned it echoes a de-militarised zone or no man's land, but one formed by the establishment of barriers of privilege so impenetrable that two sections of society are formed.*[28]

As much as it is deployed through the estranging transformation of the built environment, the process of cognitive estrangement can also be undertaken through the transformation of a social, cultural, political, or economic framework.

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Writer and SF scholar Ursula K. Le Guin described SF as the genre of new metaphors[29] and that the landscapes and built environments of SF fiction often take on a symbolic role as representation of social structures,[30] economic systems, or even the collective psyche[31] of their inhabitants.

'For the architect as reader it also provides a glimpse into the symbolic impact of the built environment, a way to attend to the associations and implicit power relations established by common architectural tropes. This reading can be complemented by an appreciation of the built environment's role as an active narrative device.'

In 'An Overload', Obsier's struggle to challenge the dominant structures of power in UnderMegapolis has driven him upwards through the building, a transformative physical relocation to echo the political and social change he hopes for. But, he finds that the gulf of understanding between under and over cannot be reconciled, that the city has established an entrenched power imbalance with literal barriers of privilege. This physical city structure is also a metaphorical reflection of the political system within UnderMegapolis, which is the primary focus of the plot. The city above stands as distant as the controlling political elites, while the city below is symbolic of the voting population on a course to destruction. There is no subtle floor-by-floor gradation of society or class; there exists one single division between above and below, a dichotomy of sunlight and darkness. This could be interpreted as a literal transposition of our lived reality, of glittering towers on the skyline and the physical and social infrastructure that supports them, or, in a Marxist interpretation, the stark division of capital and labor.

'An Overload' is one of many texts that depict a vertical city as a symbol for concerns regarding social stratification or inequality.[32] This has been identified in SF film, where the vertical city is a representation of patriarchal systems of dominance or stratified social conflict.[33] While Hewitt and Graham have studied the seminal vertical city works of Ballard, Gibson, and Wells in terms of their metaphorical exploration of social and class inequalities.[34]

In this way, the built environment of SF literature can act as a spatial metaphor for dominant social or economic structures, it makes manifest the systems and influences that are present within the world of the text so that critical comparison can be drawn to those same systems less overtly present in existing reality. For the architect as reader it also provides a glimpse into the symbolic impact of the built environment, a way to attend to the associations and implicit power relations established by common architectural tropes. This reading can be complemented by an appreciation of the built environment's role as an active narrative device.

As plot device: 'it impressed him anew'

> *In a frightening, alien way SupraBurgh was stunning, but here in UnderMegapolis was the kind of immensity, the kind of power he was familiar with, and it impressed him anew to return to it this way, falling like a bullet in the v-tube. Here it was, deep thrusting place of hegemonies, below reach of the sun, ancient and yet eternally modern.*[35]

While the built environment can be effectively deployed as a symbol for the social or political complexities of the SF world, it is also the site within which that society must operate. As described by cultural theorist Vivian Sobchack, within SF the setting defines the constraints of the possible, providing the literal premises for narrative action.[36] This active role of the built environment in SF film has been explored by John Gold, for whom 'the city is more than just a back-ground, indeed it is often as much a part of the action as the actors themselves'.[37]

In 'An Overload' the built environment plays a pivotal role in the development of the plot. Obsier's journey back provides him with a literal change in perspective and prompts a shift in critical relationship to the space being surveyed, a psychological reaction to the view from above that reflects that noted by spatial theorists including Mark Dorrian[38] and Louis Marin.[39] From here, Obsier is able to comprehend the spatial, and by extension political, reality of his situation. The view from above both makes him an outsider, to provide the reader with an estranged perspective within the word of the text,[40] and also provides him with the perspective to transform it. In this way, the setting drives the plot forward, providing a critical vantage point that both directs the action and establishes the scope of possibility.

For the architect as reader, the active nature of the setting provides an insight into the imagined impact of the built environment. SF strips away the nuances of a multitude of influences that make architecturally deterministic readings of real space so problematic, to reveal commonly held assumptions about how space directs behaviour. Following utopian theorist Tom Moylan, SF contains the 'ability to register the impact of an unseen and unexamined social system on the everyday lives of everyday people'.[41] For the architect as reader, the active role of the setting

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'This reading of the setting as plot device can be extended with an appreciation of the emotional impact that the setting can have on its inhabitants as another form of narrative influence.'

offers the opportunity to register the unseen and unexamined impact of a *built environment* on the everyday lives of everyday people.

This reading of the setting as plot device can be extended with an appreciation of the emotional impact that the setting can have on its inhabitants as another form of narrative influence. As in literary fiction, the reader's empathetic engagement with the protagonists of a SF text is critical to understanding their emotional experience of place.

As enacted empathy: 'they've conditioned us to hate'

> *They're machines, imprisoned down here and keyed into this subterranean super city. So they hate the stars and the open sky. And that's why, over the generations, they've conditioned us to hate them too.*[42]

For Delany, the setting is the driving force behind the SF novel's creation, establishing social patterns and exerting influence which motivates the principal characters.[43] All of which is experienced by the reader through the protagonist's interaction with this space. As such, SF requires that the reader engage in empathetic imagination to interpret the reactions of the imagined inhabitants and appreciate the impact setting has on this imagined society.

Our capacity for empathetic engagement is biologically ingrained.[44] But watching something happen to someone else prompts a different set of cognitive responses to reading about an experience, as reading can cause emotions to be 'imaginatively enacted' by the reader.[45] In this enactivist conception, reading about the imaginary city not only causes the reader to empathetically relate to a character's emotional reaction, but also to undergo an embodied imaginative recreation of their experience. This process requires the reader to recollect and immediately re-live similar experiences to those being described, intertwining their emotional reactions to both real and imagined.[46] The engagement with the emotional impact of place possible through literature has been used in the field of geographies of emotion.[47] For example, planners Ansaloni and Tedeschi used J. G Ballard's *High Rise* as a narrative which 'closely tracks' the reality of socio-spatial division to discuss the emotional impact of these divisions in London housing developments. In particular, they examine the affect of 'poor doors': entrances that are segregated by tenure so that the perceived value of owner occupier properties is not reduced through association with social housing tenants, who in turn, are provided with a lower-quality spatial experience.[48] Ansaloni and Tedeschi present a methodology for the application of SF as a common ground to discuss the emotional impact of experiences of place, but one that could be extended beyond the limits of extrapolative SF.

In 'An Overload' the affective impact of the city is so entrenched, its physical form is so embedded in the worldview of its inhabitants, that contemplating space *beyond* provokes a physiological response:

> *'I saw an interstellar ship taking off once, just disappearing up and up into the blue sky without limit –' He broke off, attacked by sudden nausea.* [49]

Obsier is physically repulsed by the idea of the open sky, and he realises that the inhabitants of the city below have grown so accustomed to their subterranean life that their need to escape upwards cannot overcome their dread of the surface. This condition, which seems entirely unfathomable to the reader must also be empathetically understood in order to comprehend the story's wider critical commentary on the dangers of entrenched systems of power and control. We must feel as repulsed as Obsier by the notion of the surface to truly appreciate the devastating realisation of his triple confinement, within an enclosed physical structure, within an oppressive political system, and within his own psychological constraints.

'It enables us to inhabit impossible worlds, and to experience the emotional impact these might have on their inhabitants.'

'An Overload' asks the reader to inhabit a perspective where an emotional response to the environment is so ingrained that change is impossible. As with literary fiction, this empathetic engagement with the protagonist requires that we internalise and re-enact their responses as our own. This process enables us to better appreciate the emotional impact of the built environment, to viscerally experience the response it might provoke and to exercise the imaginative inhabitation that is such a critical requirement of considered architectural design. SF pushes this experience of inhabiting of another individual's perspective of place further than the reality principle of literary fiction would allow. It enables us to inhabit impossible worlds, and to experience the emotional impact these might have on their inhabitants.

As self-reflection: 'came to a halt'

> *The v-tube decelerated fiercely and came to a halt under the greenish radiance of serried strip lights that stretched away into the distance.*[50]

Imaginatively inhabiting the worlds of SF requires a reader to engage in a complex set of textual dynamics. The critical challenge for a SF author is to convey enough information to build this world in the reader's mind, so that we can appreciate its atmosphere as well as its implicit social, geographical, and temporal limitations, while still maintaining an entertaining narrative.

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SF theorist Kathleen Spencer describes this process of world building as something that is particular to SF.[51] For Spencer, the world of the novel exists as a whole behind the text of the novel, as an 'absent paradigm' and the reader is shown only fragments of this whole through description or the implied impact the environment has on the narrative. To form a complete setting the reader must construct their own image of this world from these glimpses, drawing on their own experience or imagination.

In 'An Overload' as Obsier returns to UnderMegopolis, there is only a sparse description of the setting, and we are forced to construct an entire city from these fragments. Bayley requires us as readers to provide memories of strip-lit spaces, to establish a collage of underground car parks and internal corridors, and to overlay onto these the knowledge that in this city there is no short walk back to the sunlight. In imagining this world, we bury ourselves in layers of remembered places, creating a landscape of endless corridors that never lead outside.

Rather than a passive reading that basks in the reflected imaginative freedom of the author, as readers of the SF text we are emotionally and imaginatively involved in its production, drawing on our experiences of the city to construct a highly personal vision of this imagined world. As architects, it is an opportunity to engage in an exercise of imaginative construction, to test our ability to visualise, populate, and inhabit entire worlds.

This also offers architects and readers of SF an opportunity to gain a critical distance from our own entrenched opinions and assumptions about the built environment. As our memory of a particular place is woven into the SF world, it is subject to the same mechanisms of cognitive estrangement as the rest of the text. We are able to draw direct comparisons between the world we inhabit and that we are visualising, to see our lived experience of a darkened underpass redrawn as a subterranean prison. It provides a critical perspective on our own perception of space, a process that opens our own environmental associations to estranged analysis.

As reality: 'it changes your outlook'

> *It makes me wonder – you know, everything's so different up above. If it changes your outlook at all when you come back?*[52]

As has been explored in this article, the act of reading a SF text can disrupt, distance, and critically reframe our perception of the built environment. In turn, it can also influence the ways in which we interpret our experience of reality, working 'in complex ways to effect the imagination, experience and construction of contemporary urbanism'.[53] As delineated by spatial theorist Henri Lefebvre in his trialectic of space, imagined spaces are integral to our experience and production of space as part of the 'spaces of representation'.[54] In this way, the perception of the real city that we inhabit, the way we react to and recreate this space, is informed and

'… an opportunity to gain a critical distance from our own entrenched opinions and assumptions about the built environment.'

influenced by the spaces of representation, of which SF is a critical element.

This relationship between the imaginary and the experience of reality can be traced in the depiction of the tower city in 'An Overload'. Within the imaginary spaces of SF, as in architecture or urban studies, the abstract idea of the 'city' forms part of a shared 'mega-text'[55] of the genre as a common conceptual language.[56] Within this, the vertical city is an identifiable trope, as described by Graham it is one that has 'so dominated science fiction as to be almost a cliché'.[57] Another trope is that of the enclosed city or 'keep' and these basic forms of imaginary city overlap in stories about enclosed vertical cities, what I would term the 'tower city'. This setting is apparent in a number of novels, short stories, and comics of which 'An Overload' is one example, ranging from Mega City One's Blocks in *Judge Dredd* (1977), the Urbmons of Silverberg's *The World Inside* (1971), and the knowingly architectural depictions in J. G. Ballard's *High Rise* (1975).

The tower cities of these texts are drawn from a collage of personal experiences of high-rises: newspaper stories about estates on the edge, architectural representations of the noble skyscraper, and in turn, SF films that pan past looming towers, and novels set in the suffocating cities of the future. This overlaying of texts creates the 'high-rise' as a space of representation and a symbol for a certain kind of lived experience; in the UK one particularly related to the failing social aspirations of the social housing movement. The combination of iconic form and publicised instances of social failures has resulted in myths that firmly link the architectural and the social. As Anne Power describes, the fact that high-rises in the UK did not blend in to town or country 'made it easier to attach social "myths" to them'.[58] Environmental planners Chen and Shih describe how the high-rise 'emerges as a powerful site and symbol for collective aspirations and imaginations',[59] a popular pervasive symbolic value, that transforms it into a shared cultural artefact.

This image of the 'high-rise' is an expression of the myths, the fears, and the experiences of vertical living, and its extrapolation in SF exaggerates and makes visible the imagined impact of living at height. As argued by Clive Bloom, freedom from convention in 'non-serious' publications and 'para-literature' like SF allows a greater and perhaps more truthful exploration of our innermost desires and fears.[60] As described by Sobchack in reference to SF film:

> *Because it offers us the most explicitly poetic figuration of the literal grounds of contemporary urban existence, the science-fiction city and its concrete realisation in US cinema also offers the*

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'The cognitive estrangement of SF pushes us into a position where we are "other" to the familiar city we inhabit, a perspective that opens up the possibility to imagine the city differently.'

> *most appropriate representational grounds for a phenomenological history of the spatial and temporal transformation of the city as it has been culturally experienced.*[61]

In this way, 'An Overload' provides us with an insight into the public perception of the high-rise, a site with deeply rooted associations of social inequality and entrenched hierarchies of power. In fiction architects are offered an insight into a common language of stories that are a critical part of how we communicate the experience of place,[62] one which SF extrapolates to expresses the pervasive cultural experiences of the built environment and to offer insight into the spaces of representation which define the present. But, in doing so, it also allows us to imagine a world otherwise and opens up the possibility of constructing alternatives.

Conclusion: 'Endless forms, vistas and hues'

> *Endless forms, vistas and hues slid into one another as the level within level mightiness of Obsier's home supercity swung past him.*[63]

The cognitive estrangement of SF pushes us into a position where we are 'other' to the familiar city we inhabit, a perspective that opens up the possibility to imagine the city differently. As discussed by utopian theorist Ruth Levitas, this critical engagement with the spaces of representation offers a way into a 'dialectical utopianism',[64] what Moylan terms an 'empowering escape to a different way of thinking about, and possibly of being in, the world'.[65]

This critical position is vital to architects, because this desire to project a 'different way of being in the world', could be considered the common driving force behind architectural design.[66] The architectural desire for incremental improvement through design is a utopian impulse, a desire to direct the shaping of our environment, through 'a movement beyond set limits into the realm of the not-yet-set'.[67] In order to act on this utopian desire to change the built, architects need to examine the assumptions and experiences that inform our perceptions of place and broaden our collective scope of imagined possibility.

In 'An Overload', the built environment is more than setting. It acts as metaphor or symbol for the social structures and political organisation within the text, extrapolating cultural associations of height into tangible experiences, which can then be critically examined and responded to. Its role is exaggerated to become protagonist acting upon the narrative, providing a way of opening the reader to the emotional and phenomenological impact of the built through empathetic imagination. It allows us to inhabit the common cultural associations of architectural design tropes, the pervasive hopes and fears that underpin the social experience of place. As a consequence, SF texts like 'An Overload' allow us to inhabit the perspective of the 'other' and gain a new view of our own social and architectural situatedness.

As either architects or inhabitants involved in the creation of the future city, we are better able to understand our own experiential reactions to the built environment and thus better able to make manifest our utopian architectural impulses, as readers of SF. More than just thought experiments that test possible futures, SF acts upon the reader to critically re-examine their own urban visions in relation to their experiential and imaginative implications and provoke the estrangement necessary to see both the everyday, and the architectural utopian impulse from the outside.

'... to make manifest fragmentary built elements of utopian potential.'

For those who feel a weight of responsibility for shaping and directing the development of the built environment, reading SF offers a space of exhilarating exploration, of the self, of the city, and of the infinite wealth of imaginable alternatives. It is my contention that the act of reading SF can be a utopian process for architects, that through this action and the awareness it provides we are better able to shape the cities we make, to challenge entrenched systems of inequality and oppression, to make manifest fragmentary built elements of utopian potential.

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