

Urban Sprawl: Invigorated by globalisation but still vulnerable to rational sustainable urban planning.



Research Question: How has the evolution of globalisation exacerbated issues of urban sprawl and which sustainable growth theories are credible solutions?

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*Figure 1. 'Image of vastly sprawling US neighbourhood'*

## **1. Abstract**

Low density, single use sprawl is currently decorating the suburban edges of our great cities and outwardly spreading. Core urban areas like cities are however about to experience a rapid new wave of urbanization with analysts predicting an influx of 3 billion more people within the next thirty years, a doubling of our urban environment. The current state of the urban landscape is not equipped with the sustainable infrastructure necessary to accommodate the next generation of growth, but with that generation imminent new strategies must be explored to ensure the social and economic survival of some of the world's most vibrant cities. This thesis dissects the causations and consequences of sprawl through a thorough review of literature and discussions from leading theorists. Integrating those outcomes with a hypothesis that values of globalisation were a dominant factor in the dissemination of sprawl, provided conclusions that focus on globalised societal attitudes and their accountability. There are highly credible solutions derived from recent literature such as 'New Urbanism' and 'Compact Cities' which outline urban planning policies that can contribute to the reformation of cities. There is an urgent need to prioritise these economically and environmentally sustainable strategies over excessive consumerism and social comfort before our suburban landscape is consumed by sprawl; a parasitical, polluting, desolate, developers playground.

## **2. Introduction**

The ramifications of the pattern of urban sprawl, which dominates the landscape across many of the largest cities on earth, is once again at the forefront of urban planning discussion. This thesis will scrutinise the methods of orthodox urban planning and changes in the social and economic environment that lead to the outbreak of sprawl. From the origins of sprawl to the cultural and environmental consequences up to the era of globalisation. It will explore the motives of globalisation and the part they played in encouraging the infectious nature of sprawl. Finally this thesis will look to current theories and debates that aim to offer a sustainable solution to a global problem.

The field of urban planning and development is rife with literature debating the issues brought on by sprawl and there are many theorists who possess strong anti-sprawl views and many sprawl sympathisers. However there is a lack of commentary that looks to identify the role that globalisation played in the epidemic of sprawl and how the consumerist ideology which spawned from that age contributed to the problem and therefore there is open opportunity for a new discussion. As a global society we are facing a new wave of rapid urbanization and currently our cities are totally unprepared to absorb an increase in population at a sustainable rate. It is therefore one of the most important urban planning issues we have faced in many centuries and is one that needs to be addressed urgently. The core objective of this thesis will be to expand on original research conducted on the socio-economic and environmental consequences of urban sprawl. This expansion of an existing theory will be achieved through considering whether the globalisation phenomena of the late 20th century was the dominant factor in the continuation of sprawl into the 21<sup>st</sup> century. This thesis is composed of two main hypothesis. The first is globalisation has drastically increased the impact of sprawl on our urban landscape in a unsustainable paradigm which is unable to absorb rapid new growth. The second hypothesis is that there are credible alternative solutions within current literature that need to be explored in order to create a sustainable urban form.

### **3. Methodology**

The approach will be a qualitative dissection of the debate surrounding the ‘disease’ and remedies of sprawl. Through the condemning rantings of sprawl critics such as James Howard Kunstler and Jane Jacobs this theses will delve into how sprawl become an urban planning disaster and what the repercussions have been on our social and environmental landscape. Juxtaposing these views with those of sprawl defenders such as Robert Bruegmann will offer insight into some of the attractions and arguments as to why we as a society chose this route of development. Understating the role that globalisation played in this argument will be achieved through the theories of Leslie Sklar and his ideas outlining the effect that a globalised markets have on aspects of economic cultural behaviour. Finally analysing concepts of ‘New Urbanism’ and ‘Compact Cities’ by prominent modern theorists such as Peter Calthorpe and Mike Jenks, will offer a vision of possible future sustainable solutions.

### **4. Sprawl a complex definition**

The definition of urban sprawl is still one of huge debate between theorists and academics. Most definitions amongst popular research literature will identify urban sprawl as a process where rapid migration out of core urban centres leads to low density residential and commercial development on undeveloped rural land. This process can also be referred to as suburbanization. Despite there being an open discourse of how we should define sprawl most conclusions associate specific characteristics with its form (Wegener, 2004), traits that can be identified on the periphery of many of the world’s cities. These include:

- Low density, low rise, single homes on large plots and spaced far apart
- Single use development where land is dictated by a single function and segregated from other uses by open space, roads and infrastructure
- Subdivisions of housing consisting of large areas of completely new build developments
- Retail parks containing low density single use commercial developments

## 5. Sprawl defenders vs critics

The growing numbers of critics or ‘anti-sprawlists’ has led to the term ‘urban sprawl’ itself being labelled with condemnation, an undefendable and destructive concept that is plaguing our society and environment. Robert Bruegmann a historian of architecture and professor at the university of Illinois is in the minority as a sprawl apologist. In his ironically titled book ‘Sprawl: A Compact History’, Bruegmann stops just short of championing urban sprawl in its various manifestations but begins to defend and points to many economic and social benefits of low density suburbanization. Bruegmann has a mission to detoxify the term sprawl and refers to it as an ‘invented concept by which if it was called by any other name it would pollute less and destroy less trees’ (Bruegmann, 2005). He argues like his contemporaries that the definition is difficult to define. He aims to set out a fair comprehensive solution to the definition of sprawl but in this attempt he ignores the fundamental spatial component of sprawl, instead focusing on the more subjective political, cultural and social implications of sprawl’. (Basmajian, 2007)

Kunstler who largely disputes Bruegmann’s conclusions as “ flat out wrong” in his review of ‘Sprawl: A Compact History’ despite his ‘barges of statistical analysis’ (Kunstler, 2006). At the route of Bruegmann’s thesis is the unquestioned premise that the ‘suburban project can continue indefinitely’, a good concept we should strive to continue as it is something that we as society chose. Kunstler argues that in Bruegmann’s book his statistical bombardment does not begin to address the questions of ‘quality and character’ (Kunstler, 2006) of our environments. He goes on to argue that you can cite all the measurable statistics relating to sprawl such as density trend lines and population figures and you will never come to the conclusion that areas of the suburban landscape have become “ soul- sapping sinkholes of auto-centric crap with a strikingly poor prospects for maintaining its value or utility in the not -too-distant future” (Kunstler, 2006).

Bruegmann seemingly dismisses the aesthetic concerns while admitting “ and by the way it is ugly” (Bruegmann, 2005) conceding the fact of sprawls role in the visual degradation of the suburban landscape. He implies with this that as an issue it does not require serious discussion on the basis that aesthetics are by definition a subjective concept and not one therefore that can be objectively measured and cannot therefore have an impact on people’s quality of life. A polemic to even agree on a definitive definition of this large scale planning phenomena goes to prove the complex nature of this issue. While narrators such as Kunstler, Jenks and Calthorpe have achieved success in that few today come to the discussion table with a neutral outlook on



urban sprawl. There is thanks to their endeavour now a mainstream consensus that shames sprawl as a manifestation of evil greed of a capitalist society. However not being rolled over by the tides of negative criticism sprawl defenders such as Bruegmann argue that the anti-sprawl champions are the leading planners and academics that reside in the more elite and powerful followed by holier -than -though reformers who believe they are solving the crisis for society (Bruegmann, 2005). They believe land use policies should be considered for the benefit of everyone in society and not the select elite few.



*Figure II. 'Empty rundown street'*

## 6. The origin of sprawl

The discourse which begins to scrutinise the origins of urban sprawl is very much the second act of the cast quarrelling over the very definition of the term. The movement of sprawl sympathisers headed by Bruegmann can often grossly simplify the causation of sprawl as a result of people choosing where they want to live and how they want to live. Robert Bruegmann begins his argument by attempting to remove the common supposition that suburbanisation is a concept that is unique to our time. He makes the case that in many cultures it is growing affluence and the resulting expansion of dwelling locations which then historically results in peripheral urban expansion. He references how cultures and civilisations throughout history would grow and expand as the powerful and privileged would succumb to temptations of constructing villas and large estates in the rural area (Bruegmann, 2005). Offering the wealthy an escape from the friction and chaos of urban centres. He concludes by commenting on why would we not make similar choices in the modern era as technology and resources have advanced to the extent that the middle class now have the relative affluence to escape the chaos of urban centres.

### *6.1 Sprawl throughout history*

The opposing point put forward by anti-sprawlists such as Kunstler seek to devalue this theory claiming “it is self-evident that human beings enjoy living in settings of domesticated nature”. He then questions the comparability of the quality and character of life in the ‘suburbia of our time’ which is something of a new and different order, with that of extensive suburbs of Rome (Kunstler, 2006). Kunstler contends that Rome as ‘an urban organism of roughly a million people’ down to the power of the empire, enjoyed civil security that extended to the very peripheries of cities. Kunstler’s case is that our suburban environment is so contrasting from that of imperial Rome, therefore motives for living away from urban cores cannot be transferred through hundreds of years of social and technological change.

Kunstler and fellow theorists such as Jane Jacobs cite more recent ideas which have contributed to orthodox modern city planning and architectural design (Jacobs, 1961). Kunstler begins by noting that after the collapse of Rome nothing was seen to compare to it until the industrial age. Cities of the gothic, medieval and Renaissance eras were designed as fortifications as there was less political security outside the city walls (Kunstler, 2006). The birth of the industrial age was in London and Jacobs outlines a key urban planner named Ebenezer Howard who believed the city was an ‘outright evil an affront to nature’ (Jacobs, 1961). His planning



programme proposed to halt the growth of London by expanding and repopulating the countryside. This escape from the fumes of the factories formed a new kind of town coined 'the garden city'. Although modern city planners have no interest in the garden city they are still governed by its principles (Jacobs, 1961). Jacobs develops this argument with the introduction of 'Decentrists' who have taken the concept of Howards garden city and its aim to decentralise great cities. The movements objective was to 'thin out' large cities and disperse populations and enterprise into smaller towns. These views became adopted into planning guides and architectural schools as a method of dealing with cities 'deconstructivity'. Examples of modern cities with this urban planning heritage are on display all over the globe however Jacobs views them as "unstudied and unresected" and they "have served as sacrificial victims" (Jacobs, 1961).

## *6.2 The United States the capital of modern urban sprawl.*

The United States has largely been referred to as the capital for 'sprawl sin' with cities such as Atlanta, Detroit, Chicago and Los Angeles amongst the lowest density large cities in the world. A lot of the literature and in particular James Howard Kunstler's book 'The Geography of Nowhere' outlines how this pattern of low density, single use development, spread across the United States. There are a variety of factors that contributed to sprawls dominance of the suburban landscape. The way we view it today as miles of winding streets of perfect homes designed for ideal nuclear families, connected by networks of freeways on the Fastrack to the very edges of human civilisation, is well documented in literature and widely agreed to be a combined effect of changing lifestyles, growing affluence and the advance of the automobile industry (Wegener, 2004). Rapid expansion of suburbanized growth can be dated from the end of the second world war. Post war, the US became a booming economy as industrialised countries, laid ruined or disabled by the war, left America with little international competition. People returned from Europe to discover a severe housing shortage as "the war had put residential construction back into a coma" (Kunstler, 1993). There was a prevailing belief that as the country had endured a long traumatic depression, preceding their victory against a manifestation of evil, the US citizens deserved a reward in the form of 'nice new things' (Kunstler, 1993). Veterans administrations introduced easy mortgages between 1947-57 resulting in the percentage of houses sold with these mortgages ranging from 40-50%. 'These large market subsidies spurred a housing industry that had learned the mass production techniques of the 'automobile giants' and combined with the knowledge that new suburban homes cost less than the rent of a city apartment meant that "the American dream of a cottage

on its own sacred plot of earth was finally the only economical rational choice” (Kunstler, 1993). This new escape from the crime and disease of urban centres has given birth to the current model of suburbia and the choice of lifestyle we witness today (Katz, 1993). Kunstler voices his disdain on this outcome, diagnosing that every American dream ‘house now stood next to an identical dream house’, neither in the countryside or the city, thus combining the worst social elements of both with neither of the benefits (Kunstler, 1993).



*Figure III. ‘The ideal family was simply the ones that followed the American Dream’*

## **7. The overlap of causation and consequence**

Causation and consequence are often confused in literature with authors such as Kunstler and Katz often detailing the negative consequences in tandem with the objective truth. Causes can be separated into two categories. General shifts in developing societies and then government policy (Wegener, 2004). Changes in urban form have been influenced by shifting social attitudes, as we have discussed, and then rises in technological innovation and transport systems. A key component in the promotion of sprawl to a global scale was the acceleration of the capability and availability of the automobile. The rise of the auto-industry in a post war, economically booming United States resulted in the car 'shaping the dispersed form of the modern city' which in turn has resulted in the city's dependence on the car (Wegener, 2004).

### *7.1 Drive-in utopia*

Civilisations reliance on the car was not a forgone conclusion. An intervention of government policy involving high subsidisation for the automobile industry and private modes of transport ensured the country's public transport street car systems went out of business. The street cars were forced to run as a private enterprise and the resulting lack of public funds and increasing regulations made their economic survival untenable. The development pattern of our urban landscape therefore became a 'drive-in utopia' focused on satisfying the only client who mattered, the car owners (Kunstler, 2006). We now have the ability through the automobile to disperse beyond the limits of one's own walking range (Katz, 1993). Vast dendritic roadway systems and expressways were therefore commissioned to accommodate large volumes of urban traffic. Government subsidies were introduced to facilitate further sprawl with the 'political justification given that it would ease the evacuation of the city in the case of a nuclear attack' (Kunstler, *The Geography of Nowhere: the rise and decline of america's manmade landscape*, 1993). These super freeways were golden opportunities for land developers as they were able to build beyond the original boundaries of the cities. For new residents previously long public roads became reasonable commutes on the freeway. Leapfrogging become an option for developers whereby they would 'skip over properties to obtain land at a lower price' (E.Heim, 2001). This strategy helped reduce housing prices making the appeal of this new suburban landscape all the more attractive for middle class Americans.



*Figure IV. 'A drive-in utopia'*

### *7.2 Zoning codes, a form of segregation*

The advent of the automobile established a separation between dwellings and commerce. Development codes were designed to 'protect property values in residential locations from industrial acidity' (Kunstler, 1993). These codes ensured property values in the area would exceed \$500,000 by requiring that each house must be a single dwelling with a square footage of no less than 3000. This premise founded the zoning of wealthier neighbourhoods, restricting them to only those in high income brackets. During this time, we achieved a total separation of uses in the suburban landscape. Houses separated into income enclaves which were miles away from shopping regions, which in turn were separate from schools and office parks (Kunstler, 1993). Kunstler again in his commentary analysis on the impact of the expresses his view on its ramifications in society exclaiming "The amount of driving necessary to exist within this system is stupendous and fantastically expensive". Expanding by noting that "since 1950 it has been practically impossible to go about ordinary routine of working and living without a car" (Kunstler, 1993).

### *7.3 The perfect suburban life*

The subsequent effect of the automobile revolution and the economic boom manifested in the growing housing market evolved the suburbs beyond their original 'bedroom' communities into opportunities for work, commerce and culture, making suburbia less inherently reliant on the cities (Calthorpe, 1993). Suburbia was becoming a more inviting prospect with the house

“seen as a cradle, nurturing the emerging independent nuclear family.... insulating women and children from the industrial cities evils.” (Katz, 1993). The new suburban dream home during the 50s and 60s offered an opportunity for expression of tastes through interior design and landscaping, the backyard was a space for a family to demonstrate its new connection to nature (Katz, 1993). Many of the sprawl defenders key arguments cite these ideas as the justification of sprawl, claiming the desires of people to transition into this form of society is evidence of economic affluence and the ‘natural outcome of democracy’ (Bruegmann, 2005). Bruegmann rejects the theory that urban sprawl is forced upon society by reckless government policy and propheteering land developers. Instead arguing that it was the conscious choice, made by the majority of Americans, to enjoy the privacy and freedom of less dense environments in suburbia (Krieger, 2006). He concludes with a defeatist tone, signifying that the outcome of sprawls persistence means that as a society we should succumb to the naturalistic fallacy (Bruegmann, 2005). He believes that nature is informing us that the easiest route is the best, and that the best route is the one we have already embarked upon. Bruegmann deserves praise for advancing a strong conversation and providing a counterbalance to his intellectual adversaries James Howard Kunstler and Jane Jacobs. However he ultimately fails in his reflection of sprawls impact on the suburban landscape by ‘remaining all too silent on sprawls consummative nature’ (Krieger, 2006) and his neglect of the effect on the quality, character and loss of place that sprawl has deposited on our landscape (Kunstler, 2006)

## **8. The true consequence of urban sprawl**

Narrators such as Kunstler and Jacobs alongside architects and planners such as Calthorpe and Katz review the true deficiencies of our suburbanized environment. Kunstler and Jacobs in particular seldom hold back with their opinion on how sprawl has systematically destroyed our urban landscape, not “rebuilding the American cities” but ‘instead sacking the cities’ (Jacobs, 1961).

### *8.1 Urban isolation*

Kunstler begins by diagnosing that the destruction of our rural landscape and social order, blurred the line between city and country life. He labels it “a landscape of scary places, the geography of nowhere” believing America is “a nation of overfed clowns living in a hostile cartoon environment” (Kunstler, 1993). Many anti-sprawlists reference one of the less talked about but significant consequences of the visual degradation of sprawl to our urban landscape.

Jane Jacobs in her opening line of ‘The Death and Life of Great American Cities’ admits that her book “is an attack on current city planning and rebuilding” describing housing projects as ‘marvels of dullness and reimagination’ trying to ‘mitigate their inanity’ (Jacobs, 1961). Kunstler believes the loss of character, nature and identity means “There is little sense of having arrived anywhere, because everyplace looks like no place in particular” (Kunstler, 1993). The mega suburbs have all the congestion of the city but none of the human contact, they instead have the isolation of the countryside but without any roots in nature. These large urban networks have deteriorated our neighbourhoods into an alienated, fragmented society (Kunstler, 2006). The loss of identity and sense of place means you can travel vast distances ‘to go from no place to nowhere’ (Jacobs, 1961). We have become a fractured society as new networks are no substitute for a diverse community. The separation of households into homogeneous enclaves determined by income, age and ethnicity has exacerbated social, class and racial segregation, thus removing the opportunity for integration between people of different backgrounds and outlooks, generating an environment of social urban distress (Katz, 1993).



*Figure V. ‘The freeways which isolate not connect’*



### *8.2 The need for speed*

There is a further separation of citizens who were able to freely explore and experience their suburban environment. The discrimination is against the young and elderly who are those in society without the finances or access to a car. Despite the propaganda that it is a ‘wonderful place to grow up’ the young often venture beyond their one-dimensional world in search of richer life experiences. If their parents are unwilling to transition into the role of chauffeur, they may ‘pursue their own personal sovereignty’ at some risk to their safety (Kunstler, 1993). Kunstler also details the hazards associated with the suburban streets themselves. This is down to the relationship between pedestrians, motorists and the buildings. The wide design, which is for the convenience and safety of the automobile, puts pedestrians at risk as the scale of the streets promotes excessive speeding as a motorist at 25mph feels like he is hardly moving. The American urban freeway which Kunstler describes as “not part of the urban fabric rather superimposed upon it” is also part of the network that does not respect the presence of humans without vehicles. It does however allow for millions of commuters to accumulate days and weeks every year ‘sitting alone in a steel compartment’ time which Kunstler argues could be spent with their family, exercising or literally “doing anything else” (Kunstler, 1993). The alternative consequence to increased volume of commuters on the roads is the increased risk and number of fatal traffic collisions with research indicating in the most sprawling regions, 18 of every 100,000 residents die each year compared to 8 in every 100,000 in the least sprawling areas (Reid Ewing, 2002). However the past has proven that Americans are still in love with their cars and Kunstler suggests that this is perhaps because they are “the machines that enabled them to escape their own reality” (Kunstler, 1993).

### *8.3 The environmental effect*

But possibly the most damning repercussions of sprawl is the effect of the fossil fuel hungry, CO<sub>2</sub> exhaling automobile on our environment and climate. Vehicles clogging up freeways on their daily commute are the single highest polluter in urban areas. This rate of rapid pollution is leading to issues with continued degradation of air quality in metropolitan areas, increasing the risk to society’s physical health with conditions such as asthma, bronchitis and cancer. More serious implications are the growing emissions of greenhouse gases into the earth’s atmosphere causing shifts in our climate. Secondary consequences relate to sprawls impact on natural wildlife habitats. As depicted in the DreamWorks animation ‘Over the Hedge’,

sprawling neighbourhoods and freeways conquer open space and wildlife habitats which subsequently disappear under a carpet of concrete. However, unlike the animal characters in the film, in reality whole ecosystems are at risk of collapse as acres of forests, farmlands and wetlands are lost to suburban development. Increasing water pollution comes from surface run off collecting toxins from roads, construction sites and driveways that populate suburbia, feeding down into nearby water sources such as streams, rivers and lakes. Runoff pollution affects over 40% of tested lakes and rivers in the US and is the new leading threat to water quality. It is universally agreed the rate we are polluting our natural environment is highly unsustainable and the factors that have led to the increase in suburbanisation have also contributed to the radical change in our climate. America and most of the world selected this suburban pattern as a way of building communities and is still now committed to the cost of that decision (Katz, 1993). Kunstler, during the early 1990s was adamant that the unsustainable suburban project could not continue indefinitely believing that ‘suburbia will be coming off the menu’. Concluding that this loss would be “tragic not because people cannot live without the wonderful conveniences but because it was a foolish waste of resources in the first place” (Kunstler, 1993). However we currently find ourselves in the same position with urban sprawl as Kunstler commented on in the early 1990s and therefore it is important to delve into what phenomena kept sprawl as a special on the new ‘millennium menu’.



*Figure VI. ‘Encroachment of suburbia into natural habitats’*

## **9. Globalisation the modern driving force of sprawl**

The foundations of America's and the world's problem with urban sprawl were laid during that post war period between the 1950s and 1970s. However as a global society we moved into a new era of globalisation towards the end of the 1980s and into the 1990s. There is again debate amongst academics about how we choose to define the concept of globalisation with some critics arguing that globalisation is overexaggerated as an impact while in other literature authors often fail to distinguish it from internationalisation occasionally using it interchangeably (Sklair, 2002). Globalisation can be briefly defined as the integration of local and national markets, people and governments to form a new global market economy. Sklair believes that the emergence of these globalised economies is based on new systems of finance, consumerism and production. This new phenomena emerged at a point where our urban theorists such as Kunstler, Jones and Bruegmann were deliberating about the issue of sprawl and therefore they stop short of commenting on the impact that globalisation had on our suburban landscape. However 30 years on from the emergence of globalisation, in the modern era, we are still combatting the consequences of sprawl, debating new sustainable urban planning policies which brings into question the role that globalisation may have played in exacerbating the sprawl epidemic. Globalisation is a complex multifaceted influencer but in the areas which have the biggest impact on the physical urban landscape it can be split into three dimensions. Firstly the role of Transnational corporations, also referred to as TNC's, secondly the spread of consumerism as an ideology of capitalism and finally the competition between cities on a national and global stage.

### *9.1 Transnational corporations the new nation state*

Interconnecting markets and economies gave birth to Transnational corporations, firms that were able to trade and manufacture in a new global market. TNC's have facilitated the globalisation of capital and production, becoming economic powers in their own right. In 1995 only 70 countries had a GDP of over \$10 billion whereas there were 440 TNCs with annual sales exceeding \$10 billion (Skliar, 1999). These companies such as General Motors, Shell and Volkswagen have more economic power than many countries leading to the decline of the idea of a nation state in favour of a 'stateless corporation' (Skliar, 1999). Surviving and thriving in a capitalist culture they are rewarded for maximising profits and the ability to grow and expand beyond national borders. For these large companies the ability to gain greater profits were dictated by their accessibility to their consumers. In a growing consumerist society as

consumers first began to move to the suburbs large retail facilities followed them. Firms would identify sites with a view to optimising size and location given their specific product, production technology and pattern of suppliers and consumers (Wegener, 2004). This process led to low-density retail malls on the urban edge becoming the commercial centre of the public realm. Rents were high to cover construction costs and therefore would be occupied by large TNC's which through economies of scale could afford the space with the justification it is part of the company's profit maximisation strategy. Profits which would then be funnelled back to a headquarters, often conveniently located on a tax-free Caribbean islands, reducing any reinvestment in the local area. The effect of this invasion of cash rich chain stores and brands was the destruction of local enterprise and Kunstler claims that these TNCs give nothing back to the community other than 'low wage service jobs' (Kunstler, 1993). It can be argued that the behaviour of these Multinational companies in the quest for increasing profits is a consequence of the character of globalisation, manifested in their choice of store location which contributes to sustaining a low density suburban landscape via the constant emergence of large car-centric retail parks.



*Figure VII. 'The mall, a substitute for every main street'*

Another role that large TNCs have played in maintaining the pattern of urban sprawl is down to the expansion and the monopolies of the automobile and oil industries. A large percentage of the richest corporations globally are car manufactures and oil companies. The development of global markets and economies ensured that as the vast reserves of oil, that fuelled the initial post-war suburban expansion, were pumped dry in countries like the United States and nations across Europe they could now be supplemented by the rising quantities of offshore oil predominately from Arab states. The interconnected economies of oil nations resulted in poorer nations economies such as Nigeria attempting to undersell their global competition however the richer oil countries like Saudi Arabia were unable to resist to the temptation to compete through overproducing. They saturated the market causing global reduction in the price of imported crude oil (Kunstler, 1993). This only benefited the car manufactures who now equipped with the ability to produce quantities of vehicles on another level through the division of labour coupled with the access to global markets, manufactures tightened their grip as the primary mode of transport. The ability for the average consumer to run a car at such a low price ensured there was little incentive to look towards alternate energy options and public modes of transport. It can again be argued that the continued dominance of the automobile was largely a result of globalising market forces enabling the TNCs of the automobile and oil corporations to capitalise on a consumerist society. The effect of this was a delay in the necessity for alternative energy sources and transport solutions, concerns that are only starting to be fully addressed in today's society, ensuring the suburban project of the late 20<sup>th</sup> century was able to power on uninterrupted into the new millennia.

## *9.2 The new age of consumerism*

Leslie Sklair in his book 'Competing conceptions of Globalisations' discusses the relationship between globalisation and consumerism. Consumerism being an economic and social order which promotes the purchasing of goods and services. He credits the electronics revolution of the 1960s as the origin for 'the system of credit which the global ideology of consumerism rests'. He details that advances in electronics transformed the quantities possible for shifting capital into new forms of entrepreneurship and personal and corporate financing (Skliar, 1999). Skliar goes on to reference the concept of the global village, where the introduction of mass media in the form of television, and in more recent years the internet and social media, has created an environment where everyone can be exposed to the same images and ideas

instantaneously. There is a new opportunity for suburban propaganda, broadcast on our televisions and electronic devices delivered by a consumerist ideology grown from the same roots as the globalised economies. There is strong evidence to support this theory as a contributor to the issue of urban sprawl when analysing consumers habits in relation to land purchasing and transport expenses. The basic theories on land economics suggest there is always a trade-off between accessibility and space and for a consumer this is a choice between travel distance and land consumption. In a consumerist society a household will aim to maximise their combined utility of land and travel within their cost budget leading to more higher income consumers occupying large plots on the urban periphery.



*Figure VIII. 'San Diego commuters stuck in gridlock'*



Further evidence of the rise of consumerism effecting our suburban landscape is derived from Hägerstrand's spatial interaction model which recognises a relationship between the price of travel and the spatial dispersal of human activity. His model predicts that if the price of transport decreases then distances travelled will increase (Wegener, 2004). On the back of this model Zahavis proposed a theory that "individuals in their daily mobility decisions do not, as the conventional theory of travel behaviour assumes, minimize travel time or travel cost needed to perform a given set of activities but instead maximize activities or opportunities that can be reached within their travel time and money budgets." (Wegener, 2004). His theory suggests why, despite advances in technology which have accelerated the speed of commuting, the time saved in travel has instead resulted in longer distances travelled. It is an argument that suggests as a result of the consumerist ideology, born from the electronic revolution, sprawl has endured through this new era, as this globalised socio-economic culture still promotes a hedonistic lifestyle, culminating in consumers opting for grander homes on the edge of urbanized areas and sacrificing the opportunity to save time and money in order to fulfil this fantasy identity.

### *9.3 Government incentives*

A final precedent in the discourse concerning globalisations effect on the built environment is its impact on government policy and urban planning. In a globalised market with integrated economies, cities often find themselves competing with one another to attract capital and investment. Local authorities offer financial incentives to create sufficient housing and increase infrastructure and recreation facilities (Thornley, 2000). Jane Jacobs in 'The Death and Life of Great American Cities' references government incentives as 'necessary' in achieving the levels of 'sterility, monotony and vulgarity' we witness in our urban landscape (Jacobs, 1961). Jacobs theories on urban planning predate the phenomena of globalisation, most of her work undertaken in the 1950s and 60s, but many of her observations relating to the incentives and outcomes of planning policy are comparable to today. Jacobs argues that despite some greed and corruption the intensions preceding planning mistakes are 'exemplary', believing that some planners and architects who have gone to great lengths to learn how cities ought to work are blinded by their own devotion. Blinded to an extent that when 'contradictory reality intrudes' which "threatens to undo their ardent learning they toss reality aside" (Jacobs, 1961). An example case Jacobs presents is in Boston's North End during the 1950s, seemingly a 'megapolis in the last stages of depravity', therefore a recurring assignment for planning and architectural students of MIT and Harvard. She found that upon visiting it was a thriving neighbourhood with excellent health and welfare statistics and low crime rates. A planner for

the local area admitted to Jacobs his instincts told him that the North End was a good place and the statistics supported his intuition. However his education in planning of what made a quality city for people to live, the very information that made him an expert in his field, told him that the North End had to be a ‘bad place’ and somewhere unworthy of investment (Jacobs, 1961). It can be argued that the misguided financial incentives of urban development policy that Jacobs outlines have been exacerbated by the evolution of globalisation. The competition between cities has pushed planning authorities to develop at an unsustainable rate in an attempt not to fall behind in a global economy. A consequence of this is many governments view environmental regulations as counterproductive to growth and therefore fail to enforce these regulations on TNCs, increasing the degradation of our natural environment (Thornley, 2000). As Jacobs explains urban sprawl may not be the fault of individual planners, who often have honest intentions, but instead that of the unstoppable capitalist machine that yearns for urban growth at whatever cost to the suburban landscape. It can be strongly argued therefore that the assimilation of globalisation into society and economic markets has clearly worsened the prevalence of sprawl.

## **10. New theories of Compact Cities and New Urbanism**

As a global society we are now facing the next great and possibly most important urban challenge. In Peter Calthorpe’s 2017 TEDX talk he reveals that by the year 2050 we will be building cities for an additional 3 billion people, a doubling of our urban environment (Calthorpe, 2017). The rapid growth of urbanisation is reflected in the population census data of major developing cities such as Sao Paulo, Cairo and Lagos which are out of date by the time they are published (Girardet, 1992). Mature cities in developed countries such as London and New York have static populations but the consumerist culture and economic affluence of these cities contributes more to the issue of sustainability than that of developing cities (Mike Jenks, 1996). Calthorpe believes the outcome of this challenge will depend on how we form our urban landscape from the environmental impact to our social wellbeing and economic vitality. He argues that “ fundamentally the way we shape cities is a manifestation of the kind of humanity we bring to bear” (Calthorpe, 2017) however due to the complexity of cities and issues of social culture it makes the search for an effective solution a daunting task (Mike Jenks, 1996). Through the rise of anti – sprawl literature, narrated by our previous protagonists of

Jacobs and Kunstler, an ensemble cast of critics has built upon their early renditions of a solution to sprawl. An evolution of theories that reject the ‘monotonous, unnourishing gruel’ (Jacobs, 1961) of the suburban environment and look to sustainable alternative planning resolutions.

### *10.1 Compact Cities in Europe*

The ‘Compact City’ is an urban planning concept modelled on the form of the densely developed core of the historic European cities. There is a danger of being blinded by the romanticism by which people assume the golden ages of history can be recaptured through urban form however these policies are based more on academic research than historic practice. The theories of the ‘Compact City’ are built on the premise of urban containment by providing socially sustainable mix-use dwellings, an urban development strategy that physically merges residential, cultural and commercial functions to form new pedestrian networks. New ideas concerning urban culture and a relationship with quality of life has served to revive an interest in the theories of Jane Jacobs. Previous critics cited her overly romantic notions of the city as her undoing, outlining her failure to acknowledge that the dominance of sprawl required big solutions and that promotion of diversity and neighbourhood protection would not reverse the trends of decentralisation. However, a new romanticism in concepts of urban residential densities in the debate on compaction has sparked a revival in her ideas related to mix-use dwellings, which is now the fashionable preference for current urban planners (Breheny, 1996).



*Figure IX. ‘Downtown Rotterdam where compact city policies are being implemented’*

The concentration of development helps reduce the necessity to travel long distances, further reducing vehicle emissions and the effect of greenhouse gases. The promotion of public transit systems as the antidote to the car is championed in most theorists' views and encouraging walking and cycling are often cited as the solution to curbing the effects of global warming. There is clear evidence which exposes a consistent correlation between cities with high density dwellings and lower fuel consumption. Statistics also show that the integration of large mass transit systems into high density cities are by far the most environmentally sustainable forms of transport. On the other hand some centralists, such as Mayer Hillman, who consider 'compact cities an important component of a sustainable future' (Mike Jenks, 1996) concede that living in a higher density environment may have negative implications such as overcrowding, a reduction in open space and increased inner city congestion. The consequence being a loss of urban quality with negative implications on individuals' lifestyles. Calthorpe goes a step further claiming the high-density sprawl super blocks infesting cities across Asia are just as 'sterile' and 'isolating' as low-density suburban sprawl (Calthorpe, 2017). The debate is ongoing concerning which urban forms will deliver greater environmental protection, viewed as a narrow debate with profound significance. When incorporating the economic, social and cultural planning repercussions, it becomes apparent to theorists that 'nothing less than the future of western lifestyles is at stake' (Breheny, 1996).

Most countries have begun to recognise this challenge and radical changes in policies and popular attitudes are reflected by nations commitment to the sustainable development idea. In this global push for urban change 'The Compact City' has been the trusted approach for most European cities. Large criticisms are levelled by Haughton and Hunter who argue "the sustainable city is not rooted in an idealised version of past settlements, nor is it one given to a radical casting off from its particular cultural, economic and physical identity in the name of the latest passing fad for urban change" (Haughton, 1994). However it can be argued these 'past settlements' are the remnants of the age whereby individuals would walk and interact with the city inside a compact urban core. These are the cities we enjoy the most and are seen as ideal places to live and experience vitality and variety to life (Calthorpe, 2017).



*Figure X. 'High-density super blocks in china'*

### *10.2 New Urbanism in North America*

When it comes to comparing anti-sprawl solutions between Europe and North America the fact that Europe has a long established history plays a significant role. European cities on average are much older than American cities and therefore are more compact in central zones as they were built at a time without the influence of the automobile (Wegener, 2004). Housing densities are on average three times higher in Europe and are naturally easier to navigate as a pedestrian or cyclist. This gives these European cities a sort of 'head start' over their American counterparts, whose struggle with sprawl is arguably on a much larger scale.

There are several American architects and urban planners that have risen to the challenge of ending the sprawl epidemic. These key theorists include Peter Calthorpe, Peter Katz and Andres Duany. Together they represent a movement of 'New Urbanism' which promotes the establishment of diverse, walkable, compact and vibrant mix-use communities, that are assembled into an integrated neighbourhood (Katz, 1993). There are many shared values and ideas between new urbanism and The Compact City with a heavy emphasis on defined

boundaries and within, a circulation system that functions as a priority for the pedestrian over the car (Calthorpe, 1993). Theories of New Urbanism are again derived from ideas dating back to Jacobs and more recently of Kunstler. Calthorpe and Co. expand on these theories with an aim to reduce the patterns of growth at the edge of cities which frustrate rather than enhance daily life. Where New Urbanism arguably differs from the Compact City is that according to Calthorpe urbanism is well understood within city centres but he argues this knowledge is rarely applied to the suburb. He firmly believes that new urbanism can be 'realised in the contemporary suburban condition and formulised at any density' (Calthorpe, 1993). Calthorpe along with his contemporaries such as Katz and Duany cite the best opportunity for preserving open space and utilising existing infrastructure is through infill and redevelopment. However they concede that it is not possible for infill sites to absorb all new growth and especially at the rate that urbanisation is expected or rise in tandem with a physical lack of space. There have been issues over the years with cities implementing infill projects. The chief culprit is the social attitude of 'NIMBYism' or not in my back yard syndrome (Katz, 1993). A rejection by American 'dream' home owners of development that could disturb their blissful suburban isolation, insisting however it is perfectly reasonable to build elsewhere.

### *10.3 Portland, Oregon a home of New Urbanism*

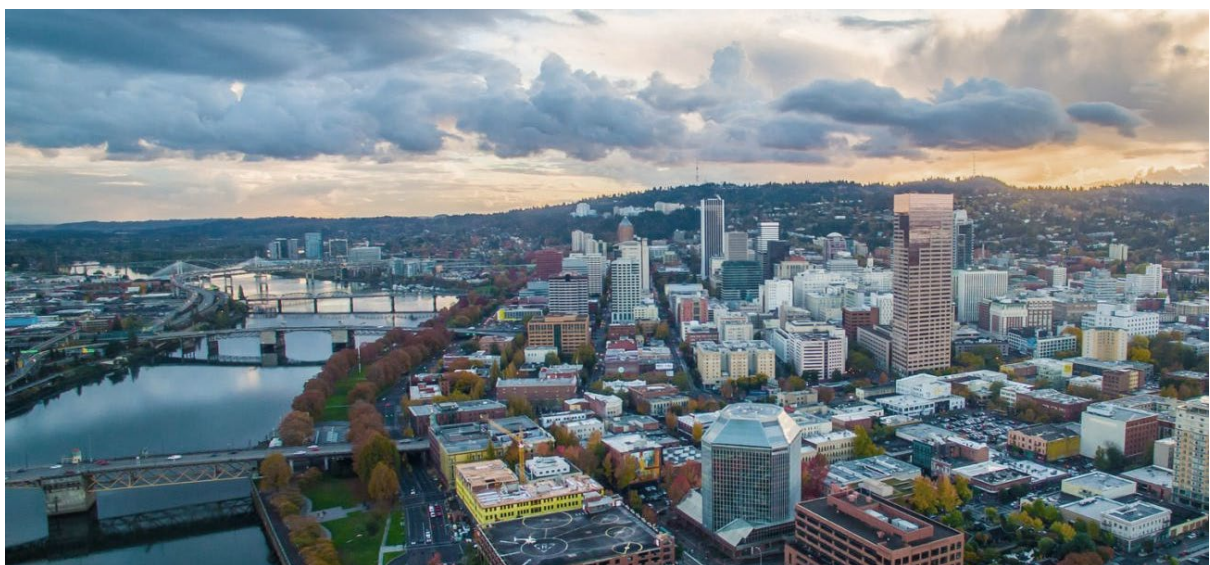
In the Pacific North West of the US the city of Portland has for many years been integrating many of the strategies put forward by New Urbanism. It is an example city that has 'gone beyond the traditional programs for urban infill and revitalisation' (Calthorpe, 1993). In 1973 Oregon state introduced an urban growth boundary (UGB) which defined the area in which urban development is permitted. This new form of development was not committed to the car as the primary mode of transportation but instead to an efficient public transport system. This transit orientated development (TDO) consisted of a light rail transit (LTR) in combination with a dense bus network and pedestrian focused streets (Wegener, 2004). These strategies are central to the thesis of a New Urbanisation. Through the LTR, Portland has seen a 60% increase in the usage of public transport which helping direct new development into the thriving downtown metropolitan areas. Decentralist critics such as Bruegmann argue that cities such as Portland have benefited from slow regional population growth when compared to cities like Phoenix and Houston. This has enabled the city to retain the urban character which contributed



to its liveliness (Bruegmann, 2005). Other critics reference the scarcity of land caused by infill development and the resulting higher land prices which seem to only benefit land owners inside the UGB. Other analysts comment that the rise in land price is down to an increase in the attractiveness of the area and that house prices have risen in proportion to other areas. Portland sets a great precedent for how New Urbanism can be introduced into urban planning policy to establish a more socially and environmentally sustainable city.



*Figure XI 'Portland, Oregon Light Transit system and cycle pathways'*



*Figure XII. 'Downtown Portland that has implemented New Urbanism Planning Strategies'*

## **11. Conclusion**

It is crucial to realise the true character of sprawl and its unapologetic massacre of our urban landscape to isolate how it decimated any identity of place. A place is now located somewhere on the urban fringe, somewhere which is indiscernible from anywhere else, and anywhere can, as Kunstler perfectly brands be 'the geography of nowhere'. As a global society we must be either blissfully ignorant or consciously self-destructing if we ignore the serious ramifications that leaving sprawl unchecked would spawn. In either scenario we must wake up or wise up to the detrimental impact that decentralised development is having on our social and physical wellbeing. More significant however, is the loss of natural habitats in tandem with irreversible effects of climate change. I am not faulting our initial intentions and desires for wanting a different way of life and the idea of a house on your own plot of land is fully justifiable and is not for me to judge as an individual coming from a later generation. However arguments put forward by privileged factions of current society who claim we still deserve this idyllic lifestyle of yesteryear are becoming exponentially more redundant every time another species goes extinct or polar ice cap melts. I believe the era of globalisation and the characteristics manifested by competitive integrated economies and TNCs has not only stalled credible solutions to sprawl but the shift to a consumerist culture has exacerbated the issue. Despite never being a more connected society we find ourselves now at a critical junction where we are experiencing rapid urbanisation without a universally accepted sustainable urban plan. It is an enormous undertaking but not one that can be further prolonged, the excuse that restructuring urban form is a complex process, whilst previously containing wisps of sensibility, is now past its sell by date as the need for change has arguably already passed.

Many of the anti - sprawl protagonists referenced previously have long argued and suggested alternative methods for combating the effects of sprawl but have gained little traction in the way of changing planning policies. Government led incentives and the profit hoarding philosophy's of TNCs have repeatedly thwarted any progress gained by new theories. It is my belief however that many of the urban characteristic strategies that we have discussed in relation to 'The Compact City' and 'New Urbanism' possess real merit and although for every city globally, the reforming of the urban landscape will be different these, theories outline a core paradigm that can be universally effective. Based on key ideas from theorists such as Calthorpe, I have outlined what I believe to be the key principles that we must implement when defining our new urban form.

|              |   |
|--------------|---|
| 1. Preserve  | Preserving the natural environment and ecologies, maintaining critical agriculture and cultural history   |
| 2. Mix       | Establishing mix-use dwellings as the core of the urban community. Ensuring integration through mix-income, mix-ages and mix-ethnicity neighbourhoods |
| 3. Walk      | Design walkable streets and neighbourhoods with a focus on the pedestrian. Bring the city back the human scale  |
| 4. Cycle     | Most efficient mode of transport so prioritise cycling networks and design completely automobile free roads.  |
| 5. Transit   | Develop high quality affordable public transit systems. Brings people and business back to the heart of the city.                                     |
| 6. Connect   | Creating a road network that allows many different routes and provides different types of roads. Reducing block size.                                 |
| 7. Hierarchy | Establish a hierarchy of the city based on transit as appose to the old freeway paradigm. Matching density and mix-use to transit systems.            |

It is a largely complex issue and these principles are not a cheat sheet guaranteed to rid the world of urban sprawl. Urban planners and architects who implore people to give up there comfortable suburban lifestyle and move back to a new form of mix-use metropolis have a responsibly to make them a quality urban environment where people want to live and build communities. There are now examples such as Portland, that are supported by statistics, which showcase the ways 'New Urbanism' polices can be successfully introduced. I firmly believe now is the moment we must acknowledge the reign of tyranny embodied by urban sprawl and not allow the autocratic character of globalisation to distract us from the crucial task of designing a sustainble urban form before it really is beyond hope.

## 12. Bibliography

- Basmajian, C. (2007). Sprawl: A Compact History (review). *Technology and Culture*, volume 48, 422-424.
- Breheny, M. (1996). Centrists, Decentrists and Compromisers: Views on the Future of Urban Form. In M. Jenks, *The Compact City: A sustainable urban form?* (pp. 10-29). Abingdon: Routledge .
- Bruegmann, R. (2005). *Sprawl: A compact history* . Chicago : University of Chicargo Press.
- Calthorpe, P. (1993). The Region . In P. Katz, *The New Urbanism: Toward and Architecture of Community* (pp. 10-16). New York: McGraw-Hill Education.
- Calthorpe, P. (2000). *The Regional City*. Washington D.C: Island Press.
- Calthorpe, P. (2017, April). *7 principles for building better cities* . (P. Calthorpe, Performer) Vancouver convention centre, Vancouver , British Columbia, Canada .
- Chase, J. (1991). The Role of Consumerism in American Architecture. *Journal of Architectural Education* (1984-), Vol. 44, 211-224.
- E.Heim, C. (2001). Leapfrogging, Urban Sprawl, and Growth Management . *American Journal id Economics and Sociology*, Vol. 60, No 1.
- Girardet, H. (1992). *The Gaia Atlas of Cities: New Directions for Sustainable Urban Living*. Gaia Books.
- Haughton, C. H. (1994). *Sustainable Cities* . London: Jessica Kingsley Publishers.
- Jacobs, J. (1961). *The death and life of great american cities*. New York: Random House.
- Karen A. Danielsen, R. E. (1999). Retracting suburbia: Smart growth and the future of housing. *Housing Policy Debate*.
- Katz, P. (1993). *The New Urbansim: Toward and Architecture of Community*. New York: McGraw-Hill education.
- Koolhaas, R. (1995). *Generic City*. Sikkens Foundation.
- Koolhass, R. (2001). *Junkspace*. Payot.
- Krieger, A. (2006, November ). *Sprawl: A Compact History by Robert Bruegmann*. Retrieved from Harvard Design Magazine:  
<http://www.harvarddesignmagazine.org/issues/25/sprawl-a-compact-history-by-robert-bruegmann>
- Kunstler, J. H. (1993). *The Geography of Nowere: the rise and decline of america's manmade landscape* . New York City: Simon & Schuster Ltd.
- Kunstler, J. H. (2006). Sprawl: A compact history, Reviewed by James Howard Kunstler. *the quaterly journal of humanities and social sciences of skidmore collage*.

- Mike Jenks, K. W. (1996). *The Compact City: A Sustainable Form?* Abingdon - on - Thames: Routledge.
- Pietrostefani, G. A. (2018). *Demystifying Compact Urban Growth*.
- Reid Ewing, R. P. (2002). *Measuring Sprawl and Its Impact, Volume 1*.
- Sklair, L. (2002). Globalization: Capitalsim and its Alternatives. In L. Skliar, *Globalization: Capitalsim and its Alternatives* (pp. 35-58). Oxford: Oxford University Press.
- Sklair, L. (2017). *The Icon Project: Architecture, Cities, and Capitalist Globalization*. Oxford : Oxford University Press.
- Sklair, L. (1999). Competing Conceptions of Globalization . *World-systems research, Vol 2, 1999*, 143-163.
- Thornley, P. N. (2000). Globalisatiion, World Cities and Urban Planning . *Planning 2000 Conference* . London .
- Wegener, F. D. (2004). Compact City and Urban Sprawl. *Built Environment Vol 30* , 308-323.

### 13. Photographic references

- Figure I. Cities Digest (2017) ‘*Image of vastly sprawling US neighbourhood*’ [image] Available at: <https://www.citiesdigest.com/2017/03/07/europes-urban-sprawl-detailed-report/> [Accessed 15 mar. 2019]
- Figure II. pxhere (2019) ‘*Empty rundown street*’ [image] Available at: <https://pxhere.com/en/photo/949407> [Accessed 19 mar. 2019]
- Figure III. Playbuzz (2018) ‘*The ideal family was simply the ones that followed the American Dream*’ [image] Available at: <https://www.playbuzz.com/lewigx10/7-acts-that-defined-the-ideal-man-in-the-1950s> [Accessed 21 mar. 2019]
- Figure IV. TheDrive (2019) ‘*A drive-in utopia*’ [image] Available at: <https://www.thedrive.com/vintage/3842/the-first-drive-in-theater-opened-83-years-ago-today> [Accessed 19 mar. 2019]
- Figure V. dailydot (2014) ‘*The freeways which isolate not connect*’ [image] Available at: <https://www.dailydot.com/debug/autonomous-vehicle-america-road-infrastructure/> [Accessed 19 mar. 2019]
- Figure VI. house&landdevelopments (2019) ‘*Encroachment of suburbia into natural habitats*’ [image] Available at: <https://www.houseandlanddevelopments.com.au/buying-living/market-insights/andrews-government-rezoning-12-suburbs-50-000-new-house-lots-to-come> [Accessed 21 mar. 2019]
- Figure VII. bizjournals (2017) ‘*The mall, a substitute for every main street*’ [image] Available at: <https://www.bizjournals.com/stlouis/news/2017/01/10/two-home-goodsretailers-to-close-at-chesterfield.html> [Accessed 21 mar. 2019]

Figure VIII. L.A.NOW (2011) '*San Diego commuters stuck in gridlock*' [image] Available at: <https://latimesblogs.latimes.com/lanow/2011/09/san-diego-power-outage-1.html> [Accessed 19 mar. 2019]

Figure IX. Wikipedia (2019) '*Downtown Rotterdam where compact city policies are being implemented*' [image] Available at: [https://en.wikipedia.org/wiki/Randstad#/media/File:Rotterdam\\_Blick\\_vom\\_Euromast\\_03.jpg](https://en.wikipedia.org/wiki/Randstad#/media/File:Rotterdam_Blick_vom_Euromast_03.jpg) [Accessed 21 mar. 2019]

Figure X. Medium (2018) '*High-density super blocks in china*' [image] Available at: <https://medium.com/@hellowynd/what-is-smog-and-what-does-it-do-to-you-80ec5df5c876> [Accessed 21 mar. 2019]

Figure XI. Wikipedia (2019) '*Portland, Oregon Light Transit system and cycle pathways*' [image] Available at: [https://en.wikipedia.org/wiki/Portland\\_Transit\\_Mall#/media/File:MAX\\_and\\_bus\\_side-by-side\\_on\\_Portland\\_Mall,\\_5th\\_%26\\_Yamhill.jpg](https://en.wikipedia.org/wiki/Portland_Transit_Mall#/media/File:MAX_and_bus_side-by-side_on_Portland_Mall,_5th_%26_Yamhill.jpg) [Accessed 14 mar. 2019]

Figure XII. Visittheusa (2019) '*Downtown Portland that has implemented New Urbanism Planning Strategies*' [image] Available at: <https://www.visittheusa.com/destination/portland> [Accessed 14 mar. 2019]