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A Hostile Place: The Role of Defensive Urbanism in the Pursuit of a World-Class City

A dissertation submitted in partial fulfilment of the requirements for the MSc Urban Development Planning

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List of Abbreviations

DU: Defensive urbanism

GC: Gated community

TI: Transport infrastructure

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1. Introduction

In recent decades, the emergence of hostile urban design has become a prominent feature in cities across the world (de Fine Licht, 2020). This feature, dubbed "defensive urbanism", has arguably been used as a deliberate tool for the purpose of reinforcing social boundaries due to perceived crime that is synonymous with cities (Chellew, 2019). Indeed, Chellew argues the definition of the term 'defensive urbanism' (DU) as "an intentional design strategy that uses elements of the built environment to guide or restrict behaviour in urban space as a form of crime prevention, protection of property, or order maintenance" (2019: 21). Given its name, DU has roots in defence and military protection, with notions of frontiers being prominent within urban planning (Pullan, 2011). High walls acting as fortresses and defining territories, such examples are prominent in many conflict-stricken countries such as Germany and the Berlin Wall, Jewish settlements in Israeli occupied territories, and, most recently, the Mexico-United States border wall constructed to deter illegal immigration.

Whilst examples of such DU (also referred to as hostile architecture, defensible architecture and defensive design) have been portrayed as explicit design features, many cases of defensive designs also tend to be less overt to deter certain groups in society from using (commonly public) spaces (Rosenberger, 2020). In particular, a popular example used within the DU literature are spikes built into the ground, or 'anti-sleep' benches designed to dissuade the homeless from using. However, in addition to such designs, DU is also manifested through enclaves of private housing, such as gated communities (GCs), as well as highways and transport infrastructure (TI) that segregate different classes in cities. Consequently, making cities with, sometimes with existing high levels of inequality, hostile and exclusionary places to live for many marginalised groups in cities across the world. As such, examples of DU are seen in cities across the world, whereby a certain aesthetic drives the desire to keep those who do not fit out of certain spaces.

This dissertation will then explore how DU is constituting to urban social segregation, isolation and exclusion of particular groups in society, and thus changing the social fabric within cities. It is important that such terms used, however, are defined early on to understand what we mean when using. Firstly, then, social segregation is defined as the extent to which someone within similar socio-economic, demographic and ethnic groups are likely to interact (Blumenstock & Fratamico, 2013; Andersson & Tuner, 2014). Secondly, I will use the definition of social isolation by Brian Barry, as "the phenomenon of non-participation (of an individual or group) in a society's mainstream institutions" (1998: iv). Finally, social exclusion is defined as "the dynamic process of being shut out from any of the social, economic, political and cultural systems which determine the social integration and of a person in society" (Levitas, 2000: 357). Whilst I understand that the terms themselves are contested in many ways, for the purpose of this thesis the definitions above will be used when in discussion of these.

In addition, this thesis will examine how DU can, and arguably *should,* be applied across non- traditional examples of urban designs that also create and reinforce social boundaries. In particular it will analyse GCs and highways and TI in relation to anti-homelessness architecture, which arguably tend to segregate different social classes. With this as the main context, then, the research questions that will be explored are as follows-

1. How have notions of "worlding" (Roy & Ong, 2011) aspirations contributed to the increase of DU in cities?
2. How has DU impacted socio-spatial relations in cities and to what effect?
3. How has DU redefined relationships between classes in cities?

I will be using 3 representative cases; gated communities, anti-homelessness architecture and highways and transport infrastructure to analyse the above research questions. As such, I will attempt to explore how these cases are in many ways connected, in that they have been seen to result in similar societal outcomes across cities. Whilst the cases have not been analysed as forms of DU together, through the analysis of each case, what appears is that these all constitute of forms of the built

environment used by states to create specific socio-spatial outcomes (Smith & Walters, 2017). As such, I argue that these should all be considered as forms of DU.

Furthermore, this dissertation will explore the emergence of neoliberal globalisation which has arguably led to aspirations of 'world-class' aesthetics and lifestyles, and subsequently a culture of modernist consumption (Robinson, 2002). Indeed, since the 1980's, during a time of emerging neoliberal globalisation era, cities across the world began to adopt strategies of control through the built environment in order to stay connected in the competitive global economy (Smith & Walters, 2017). Exploring shifts from public to privatised services and spaces, this thesis will further engage in theories of consumption culture, and in particular security consumption through messages of fearing those who do not fit the mainstream of society (Goold, et al., 2010). As such, it will show how DU has thus become a feature of the neoliberal city and contributed to the change in the social fabric of cities across both the so-called global North and global South.

For planners, architects and civil engineers, the built environment tends to focus of efficiency and urban infrastructure, without always accounting much thought on the societal impacts (Schindler, 2015). Indeed, prioritising flow of traffic and pedestrians through spaces, whilst ignoring the needs of civilians has even been termed "traffic log" (Blomley, 2007: 55), which has resulted in negative social outcomes, particularly for groups and people who have been most marginalised by societies (ibid.). As such, it is important that this research is considered by those who work in creating the built environment, to ensure inclusion and access for everyone.

In the following section, I will build a theoretical framework in order to analyse the representative cases. As such, through theories of globalisation, this thesis will explore how the restructuring of the global capitalist economy has led to the adoption of neoliberal policies sweeping across cities. This, as consequence, has thus also resulted in the rise of

security consumerism at the individual level, and subsequently, DU. The representative cases will explore examples in cities across both the global North and South, which show how DU is indeed constitutive of cities everywhere that are part of the current global economic structure.

1.1. Methodology

The methodology used is qualitative research, which has allowed me to understand and interpret the data used most effectively for this particular research (Bell & Waters, 2018). Part of the methodology includes the literature review, which acts as the theoretical framework for the thesis. The literature has such been divided into three sections. First, the literature around globalisation and the neoliberal agenda. This was critical in understanding the emergence of the global capitalist economy. Secondly, notions of "worlding", a term coined by Roy & Ong (2011) is subsequently used which details how cities are aspiring to this world-class city ideal. Finally, the literature on modernity and culture of consumption allowed a deeper understanding of individual habits and how the spread of security consumption has come to be.

I then applied the method of collection data in various forms. For the case of gated communities, I looked at advertisements and brochures from gated communities in both Argentina and Johannesburg. For anti-homelessness architecture, photographs of such designs were used, as well as interviews conducted by online sources (secondary data). In the case of highways and transport infrastructure, photographs were also used, as well as maps which showcased where these were located as relevant. This approach allowed me to analyse each case accordingly whilst connecting them to the theoretical framework (Bell & Waters, 2018).

Some limitations that have been confronted in this particular thesis must also be observed. Firstly, it is important to note the limit in the scope of this research, in particular the word capacity which arguably limits the richness of the research. In particular, I understand that context is of great importance and whilst the cases are

representative of how they each constitute DU, the context of the individual place may be lacking. As such, they may not necessarily be generalisable. Secondly, and arguably most critically, it is also important to recognise my own positionality within this research. In particular, to recognise that although the data used was secondary, how I interpret it may be subjective and based on prior assumptions (ibid.).

2. Literature Review and Theoretical Framework

This section will take on the structure of the thesis as a whole, examining the literature relating to 'Worlding Cities', or aspirations of Global South 'megacities' in becoming Global ones. As such, it will examine globalisation and the neoliberal agenda, which have led to the notion of "worlding", as well as notions of modernity and consumption culture that relate to, and arguably fuelled, the emergence of defensive urbanism (DU) and the features that constitute the phenomenon. It will then focus on the literature on DU itself and how notions of crime and security are used by governments in order to justify the implementation of such features in cities. These notions will subsequently act as the theoretical framework of discussion throughout the thesis.

2.1. Globalisation and the Neoliberal Agenda

Globalisation has allowed the world, and cities, to become interconnected by ways of infrastructure, technology as well as economically. It is important to note that within the literature of urban studies, globalisation eras have been divided across different periods of time (Sassen, 1991). In particular, discussions surrounding globalisation frequently view periods of globalisation as pre-1980 and 1980 thereon. This is widely due to a new process forming throughout the 1970's of capitalist globalisation, considered neoliberalism (Mese, 2019). Before this period of intense economic focus, cities across the world were not considered as influential nodes within the global capitalist economy, but rather it was nation states as a whole that determined hegemony. When discussing globalisation, it is also important to define exactly what is meant by the term. Using the definition from Neil Brenner, globalisation is defined as

> *"a double-edged, dialectical process through which: the movement of commodities, capital, money, people and information through geographical space is continually expanded and accelerated; and, relatively fixed and immobile spatial infrastructures are produced, reconfigured and/or transformed to enable such expanded, accelerated movement"* (1999: 435).

Indeed, with the emergence of market-driven, neoliberal and competitive globalisation, the world began to *de*territorialise, whereby states, and state borders, became less intrinsic to this process (Brenner, 1999). As Alsayyad and Roy (2005) note, however, whilst this deterritorialisation was taking place, cities and their borders became instrumental and played vital roles in making a mark on the global economy. As such, this post 1980 era of capitalist globalisation created cities as "spatial monopolies" (Taylor, 2000). Indeed, this new age of economic competitiveness, with technological solutions at the forefront, created new spatial structures of cities as nodes for the global network (Borja & Castells, 1997).

The emergence of neoliberal ideology that swept across the Western world was arguably an antidote to socialist parties gaining power across the developing world in preceding years. In David Harvey's 'A Brief History of Neoliberalism' (2007), he notes that throughout the 1980's, world powers of the USA and UK both adopted deregulatory and privatisation approaches in order for capitalist class interests to restore their power. He explains that at the heart of neoliberalism is not only the commodification and financialisation of everything, but neoliberalism itself became akin with the notion of individual freedoms (ibid.). On an individual level, neoliberalism asserted everyone, despite your social and economic class, the opportunity to prosper and it was cities of the so-called global North that manifested these ideals. However, contrarily, the privatisation of housing and public services that was witnessed subsequently fuelled what became known as the "criminalisation of the urban poor" (Brenner & Theodore, 2002: 350).

As discussed by modern philosopher, Michel Foucault, in his 1977- 1978 lecture series, 'Security, Territory, Population' (2009), he is interested in the functions of government by both state institutions and self-governance, which he notes relies on individual freedoms. As such, this leads to the notion of 'neoliberal governmentality', whereby the state exercises power through the disposition of 'things', mostly people and their relations to land. In later discussions, Foucault details how territorialisation is also used

as a thing to exercise state power (ibid.). In this sense, territory is not however only physical borders, but also subjective territories of changing social relations. Exercising this neoliberal governmentality, then, "requires the creation of a third scale of territory between the state and society, so that moral and rational individuals can be enclosed as the deserving group on the one hand and the state may extend its power to local agents on the other hand" (Wang & Li, 2017 : 711). With this in mind, territoriality thus creates areas or communities whereby groups obtain and create their own powers within these areas, whilst excluding other groups. Consequently, changing the social relations and fabric of cities as a whole.

2.2. Worlding Cities

In 'Global and World Cities: A View from Off the Map', Jennifer Robinson (2002) analyses the dualistic understanding between 'Third World' and 'Global' cities, and how these understandings and comparisons on development studies itself contribute to such divisions between cities across the world. Using Saskia Sassen's work in 'The Global City' (1991), Robinson suggests that the period of globalisation post 1980's has distinguished global cities as those who have influence in the global economy, however with "locally based and integrated organisation" (Robinson, 2002: 535). As such, aspirations to gain access to global markets through global city status. As mentioned, cities are therefore seen as playing a critical role in this era of globalisation, whereby their integration within the world capitalist system allows them to become production channels. Whilst 'world' cities are determined by concentrations of knowledge in terms of "producer services (accountancy, advertising, banking/finance, insurance, law, management consultancy, etc.), [which] enable the contemporary global economy to operate" (Taylor, 2000: 158), there are also examples of cities across the world that constitute these, such as Mexico City, Shanghai, Buenos Aires and Johannesburg. Also considered 'megacities' due to their population of over 10 million (Borja & Castells, 1997), these cities, however, fall short of being considered 'global' ones due to their geographic location and influence within the global capitalist economy.

‘Global cities’, in Sassen’s terms, are cities which have certain economic powers in this new era of globalisation, where the top rank of world cities are considered ‘global’. These are cities in the developed world, in developed nations, such as London, New York and Tokyo with advanced information technologies (Sassen, 1991). Robinson suggests that the traditional world systems theory of core, periphery and semi-periphery nations have also influenced this hierarchy of cities, whereby urban studies have focused on a dualistic notion on developed and developing cities across the world (2002). As such, we view cities across the world as ‘Western’ or ‘Third World’ binaries, and whilst there have been efforts to steer away from these notions through new development studies theories, these efforts have only reinforced these ideals. Ananya Roy emphasises this dualistic notion with what she describes as the image associated with the megacity “through the icon of the slum. In other words, the slum has become the most common itinerary through which the Third World city (i.e. the megacity) is recognised” (2011: 225). She adds that these perceptions are subsequently reinforced through other theorists who use the rhetoric of slums solely as places attributed to these negative stereotypes. For example, Mike Davis’ ‘Planet of Slums’ (2006) describes the informal settlements across cities of the global South as areas solely of destitution and extreme poverty, caused by some part by lack of industrialisation and modern infrastructure. Thus, failing to recognise the intrinsic nature of informality in these cities, and indeed the commonality of informal practices that are so present across cities in the Global North that are not regarded in the same way. Whilst it is important to acknowledge these, portraying inaccurate representations of cities and demonising informalities have caused more issues for governments who have thus tried to ‘resolve’ informality attempting to completely demolish these areas due to not adhering to world class views.

Whilst cities in Western nations, or ‘developed’, began changing their landscapes to ‘market’ themselves to the rest of the world, many cities in this part of the world thus began to change their aesthetic in addition to creating centre of innovation and economic growth in an attempt to conform to the image of the world-city. With these

ideologies having significant influence as a backdrop, the notion of 'worlding' emerged. In what Aihwa Ong describes as urban 'projects' that are equal to

> *"contemporary experiments to remedy an urban situation that has been assessed as problematic – aging infrastructure, underinvestment, neglect of the urban poor, lack of international profile, and so on – draw on global forms that are recontextualized in the city matrix, and then dispersed to other places seeking solutions. In such globalizing circumstances, the neoliberal as a global form comes to articulate situated experimentations with an art of being global"* (2011: 4).

Indeed, in her introductory chapter, Ong uses Dubai as an example of a 'worlding city', that has undergone intense urban development and change of aesthetic. She further describes such projects taken as the "neoliberal logic of unlimited possibilities and risk-taking embodied in Dubai's vertigo-inducing towers" (2011: 11). These acts of changing city landscapes through urban development planning gained popularity in order to modernise and give a certain 'look' to the city. Subsequently, however, in an attempt to appeal to the notion of competitiveness and technological production, this not only changed the aesthetic but had further implications on certain groups that also did not fit into the ideals of a global, or world, city. Here, then, DU became a significant element in achieving these ideals, or in already 'worlded' cities, to re-emphasise and affirm these ideals to the rest of the world.

2.3. <u>Modernity and Culture of Consumption</u>

Modernity has also been instrumental within the notion of 'worlding' cities. Since the end of the Second World War, modernity, and theories on modernisation and the 'modern city', have attempted to set a pathway for how urbanism should be, based on Western cities. As discussed by Murray (2017: 2), "classical understandings of the

modern metropolis have long rested on theories, fears, and hopes associated with the conjoined processes of historical transformation and progress ("modernization") and the sociocultural practices of innovation and novelty ("modernity")". Since the 1980's however, modern urban planning has also coincided with the neoliberal ideology of individualism as fundamentally about the idea of progress and improvement. As such, a main principle of modernity is privatisation, and privatising *space*. With a restructuring of the global economic system and new ideological assumptions of modernity (or postmodernity), this gave way for the phenomenon of the rising urban middle-classes and a new culture of consumption at the individual level. The new middle-classes, which appeared throughout cities, predominantly, of the so-called global South, also tended to move out of the city centres due to central districts becoming less homogenous (ibid). This was due to the rise of different social classes moving further inwards (ibid.).

Meanwhile, less state regulations further allowed private developers to shape the urban space and turn it into a competition arena (Mese, 2019). It is through these ideals that privatised urban enclaves began emerging throughout cities, particularly in the global South where such emerging middle classes were a relatively new development. Cities of the global North, on the other hand, witnessed almost the opposite, where the suburbs were occupied by the working classes who lived in welfare state housing built in the 1960's and 1970's (Borja & Castells, 1997). In addition, with minimal state interference, European cities began witnessing the residualisation of public services, such that city centres became highly fragmented by those who could afford private services and those left immobilised from accessing (Atkinson, 2000). As such, disparity of classes grew within large metropolitan cities of Europe, which was only exacerbated through urban planning. As Smith and Walters have observed;

> *"contemporary cities have become increasingly composed of abstract places as owners (both private and state) exercise their right to control the use of space both through design and regulation, resulting in urban space being controlled*

> *and privatised, excluding 'undesirables' such as homeless people, youth and minorities"* (2017: 2981).

As cities become spaces of increasing inequalities, spatial segregation through privatised enclaves that offer a lifestyle, consumption, leisure and work have epitomised urban life (Caldeira, 1996). Indeed, Caldeira also notes that consumption society has amplified the aesthetics of security and surveillance to portray status and class, implying those outside these spaces as criminal and dangerous (ibid.). As such, with the rise of neoliberal and individualised mentalities, coupled with the rise of crime being discussed in social and political realms, people began fearing threats of crime and social disorder (Goold, et al., 2010). Moreover, this has made security and features of security pervasive across cities, seen through the emergences of increased CCTV and police in public spaces (Ibid.).

In addition, Asher Ghertner explains how, in Delhi, those living outside of these private compounds and in slum settlements have deeper consumer aspirations of large homes and lavish cars, with posters of images of these 'luxuries' hanging in their homes (2011). These utopian visions of lavish homes are seen as attainable for these dwellers, promised by their governments who are demolishing their homes, considered public nuisances, or not adhering to the world-class vision of the city, instead selling land to private developers (ibid.). Whilst governments across cities with high levels of inequality are endeavouring for a world-class aesthetic, and citizens aspire the same at a micro-level, it is the world-class lifestyle that is put into question. Will the vision of a more aesthetically pleasing city be matched with such a lifestyle of decent education and employments rights (ibid.)? Indeed, Ghertner asks: "How long can the vision of the world-class city, premised on the democratization of aspiration, endure without a democratization of rights, a democratization of space?" (2011: 301).

These processes have thus all fuelled the emergence of DU (see Figure 1). As the world entered a new phase of globalisation during the 1980's, cities across the world witnessed the impacts of market-driven and entrepreneurial reality of the neoliberal agenda.

Whilst cities in the global North competed on the latest and biggest technological enterprises to home their headquarters, cities across the so-called developing, or global South, world sought to chase these ideals through demolishing informal settlements and building a new aesthetic. Furthermore, processes of privatisation have created greater divides within cities. Mike Davis, in his book, 'City of Quartz', (1990) describes a class war for space, where the semiotics of exclusion creates groups of those who are not part of the rest of the city. What emerged has thus been design and architecture which have exacerbated such divisions, fuelled on the basis of those on one side of the divides as being somewhat protected by those on the outside (Caldeira, 1996). The urban poor, marginalised, and disenfranchised groups who do not make part of this utopian vision have been physically excluded. As David Harvey has argued, as the city becomes ever more a collection of abstract places, the "right to the city" (2003) has consequently become determined on whether you fit into this notion.

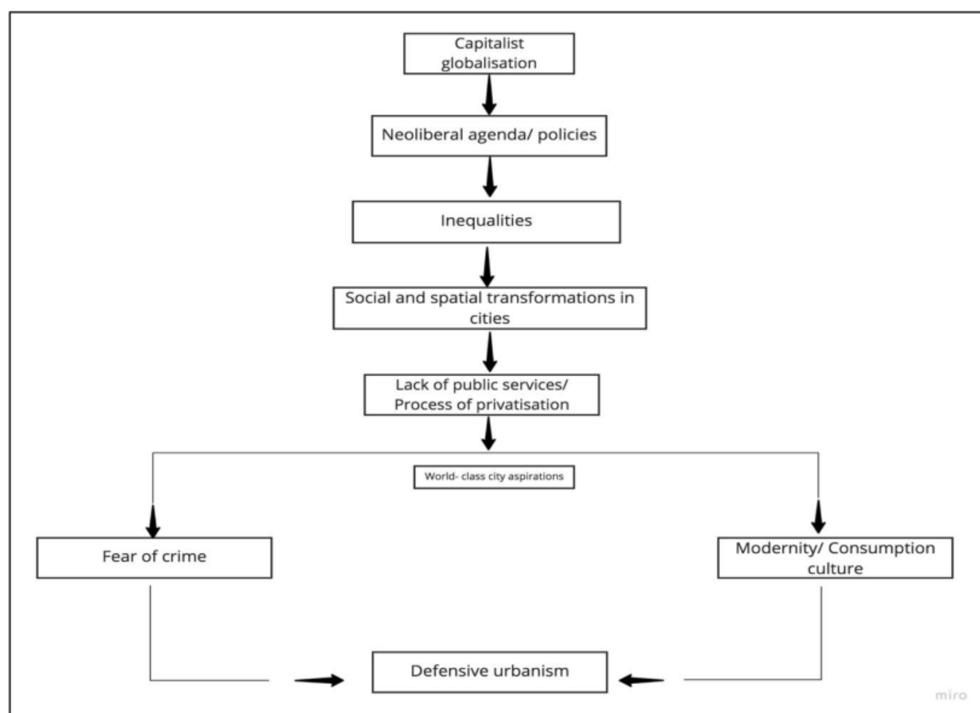

Figure 1. *The emergence of defensive urbanism*

Source: Adapted by Yönet & Yirmibesoglu, 2015

3. Representative Cases

The following representative cases have been divided into three categories; gated communities (GCs), anti-homelessness and highways and transport infrastructure (TI) architecture, which I believe all constitute a form of defensive urbanism (DU). Whilst it is important to understand that each case is context specific, to the individual region, state and city, each example is however used to show the role in how these are manifested as features of DU. As mentioned, although some of these cases have not traditionally been used as examples of forms of DU, the aim of this section is to demonstrate the correlation between each case that go beyond physical characteristics.

3.1. Case 1- Gated Communities

Gated communities, also referred to as gated compounds or "fortified enclaves" (Caldeira, 1996), are private residential developments that are enclosed within physical walls, fences or barriers that have been witnessed in cities across the world. Emerging predominantly since the 1990's, particularly in Latin America, where the 1980's witnessed inflation rates of over 1000% per year, creating unemployment and recession (ibid.). This created greater wealth gaps throughout the region. Gated communities thus spread across the world, appearing in addition to increased crime rates in cities.

Although definitions of gated communities vary, the definition used throughout this thesis is by Landman & Schonteich (2002: 72), as

> *"enclosed neighbourhoods that have controlled access through gates or booms across existing roads, and security villages and complexes, including lifestyle communities which provide their enclosed residents with a range of non-residential amenities such as schools, offices, shops and golf courses".*

Gated communities do differ, however, depending on location. It is important to note that such compounds are typically more common in cities in Latin America and Asia,

although can also be seen in Europe, North America and Africa (Roitman, 2010). As such, the developments typically have defining characteristics depending on where they are located due also to socio-political factors of each city (ibid.). For example, in Argentina and countries of the USA, gated communities are commonly in the form of single-family units, whereas Brazil and China are more often high-rise buildings as they are located in more inner-city areas (ibid.).

Although gated communities do differ across the world, the most prevailing aspect of all gated communities is that they provide residents with safety and security, whilst also displaying economic status (Bravo, 2020). In particular, gated communities administer the social boundaries between those living inside and those who reside in the rest of the city. As showcased in the Nordelta brochure in Buenos Aires, Argentina (see Figure 2), the private community advertises "educational institutions, sports clubs and an active urban life" (2021), whilst the 185 hectares of La Reserva, also in Buenos Aires (see Figure 3), offers dwellers its own "golf course, a medium density area and a Club House" (2021). These elements exude exclusivity of both basic services but also leisure.

Figure 2. *Nordelta gated community*

Source: https://www.consultatio.com.ar/proyect/nordelta/

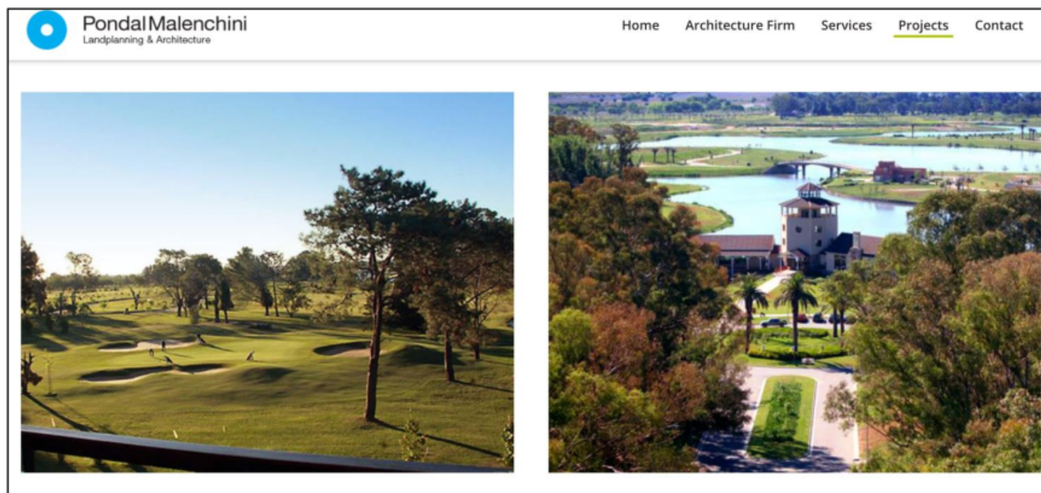

Figure 3. *La Reserva gated community*

Source: http://www.pondalmalenchini.com/projects/albanueva-gated-community.html

Residents are supplied with not only physical features however; gated communities also carry with them a degree of stature. Indeed, Fine & Country, in Johannesburg, South Africa, describe their development as "a centre of wealth and power, and arguably, the most exclusive business and residential address on the continent" (2021). These are reiterated in the security systems made up of elaborate entry systems and employed watch-guards (Rohrbach, 2012). These guards are sometimes employed by the gated community from members of the surrounding community, giving a sense of social integration, however, reiterates the social imbalance and power dynamics (Roitman, et al., 2010). Given that security is paramount for those living inside gated communities, of the highlighted features in the home brochures include 24-hour security, electric fencing, burglar bars and even guards (Fine & Country, 2021). As such, intended segregation is exacerbated when security features as such are put to the forefront of each advertisement.

3.2. Case 2- Anti-homelessness architecture

Anti-homelessness architecture and design is a phenomenon witnessed predominantly in cities of the so-called global North, such as Europe and North America. Perhaps the most palpable modern example of defensive urbanism, as noted in recent literature on the subject (Chellew, 2019; de Fine Licht, 2020). However, whilst common types of anti-homelessness designs and architecture can be obvious to the passer by, many examples are also less overt across cities. Indeed, whilst DU constitutes designs that excludes particular groups of people, anti-homelessness architecture has been designed exactly for said purpose.

In 2014, areas of London began witnessing metal studs located on the ground by the entrances of apartment buildings, aimed at deterring homeless people from sleeping (see Figure 4). As reported in popular right-wing British newspaper, The Daily Mail, cost of living in the UK capital has risen exponentially in recent times. Indeed, various two-bedroom apartments were being sold for upwards of £900,000 (2014). Although broadly regarded as inhumane, the newspaper also described the feeling that there was a need for a resolution to rough sleepers who caused fear amongst residents:

> *"I have female friends in the building who are scared to come home at night because they have been intimidated and threatened by homeless people in the doorway. It's about time something has been done about this. In any case, they aren't really spikes - they're not sharp. I'm sure someone could put a blanket over them and sleep here if they wanted to"* (2004).

These efforts to intimidate and dissuade homeless people from sleeping in certain spaces have been emulated in the USA as well. In New York, the 79,000 homeless people that live in the city (The New York Times, 2019) are also experiencing studded pavements, where strips of metal 'teeth' have been placed along low walls (ibid.). In addition, less obvious designs in open public spaces have emerged, where everyday

objects used by the public have been purposefully altered in order to prevent homeless people from sleeping. Such is the case with public seats and benches.

Figure 4. *Anti-homeless spikes in London*
Source http://www.takepart.com/article/2014/06/09/homeless-spikes-london

In the London borough of Camden, local authorities commissioned a private company to design and implement public benches that would deter not just homeless people from sleeping, but other 'anti-social' behaviours, such as skateboarding and graffitiing. As such, the 'Camden Bench' was commissioned by the council, and designed and made by British design company, Factory Furniture, to create a bench that's design makes it near impossible for someone to lay on. In addition, the bench is made out of hard concrete and finished with waterproof/ anti- graffiti paint to limit further disorderly behaviours (see Figure 5). Furthermore, in an interview conducted by organisation, Unpleasant Design, Factory Furniture explained the intentionality behind the benches were to fix a problem within society;

> *"homelessness should never be tolerated in any society and if we start designing in to accommodate homeless then we have totally failed as a society. Close*

proximity to homelessness unfortunately makes us uncomfortable so perhaps it is good that we feel that and recognise homelessness as a problem rather than design to accommodate it" (2012).

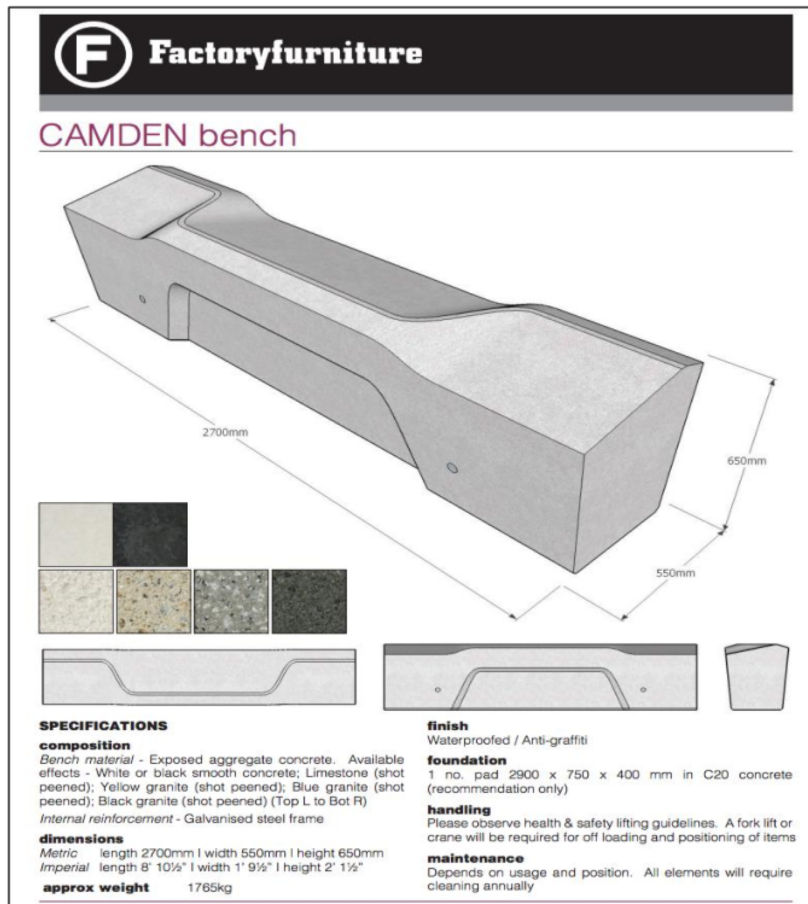

Figure 5. *Factory Furniture's design plan for the Camden Bench*

Source: Factory Furniture, 2012

Other benches to deter homeless people from sleeping on them include adding metal handrails in between seats that separate each seating allocation. The intention of these designs is not initially clear, yet for those who they have been designed to prevent from using, the designs are hostile and exclusionary. Whilst these benches deter the interactions with the 'other', non-conforming members of society, it also discourages

the public to use them in the standard way (Smith & Walters, 2018). Arguably, by making them purposefully uncomfortable, those using them are unable to for prolonged periods of time, limiting their engagement to the surroundings and interacting with other members of the public (ibid).

3.3. Case 3- Highways and Transport Infrastructure

Highways, and indeed TI as a whole, has a deep-rooted history of perpetrating class and race segregations. Whilst this kind of urban planning has not ordinarily been viewed as a form of DU, I argue that due to its nature and intentions, it should constitute as such.

Cities with high levels of inequality have seen roads and highways exacerbate socio-spatial relations. For example, in Johannesburg, South Africa, the city has attempted to reintegrate predominantly poor and black neighbourhoods into the economy by introducing a transport-oriented development model through bus line systems (Pieterse & Owens, 2018). The 'Corridors of Freedom' aimed to undo racial segregation caused by years of apartheid and colonialism that saw black townships pushed to the periphery of the city, away from economic opportunities as well as core services (ibid.). However, we will see that the implementation of this new infrastructure did not create such outcomes.

Whilst Johannesburg aimed to use TI for spatial and social inclusion, other cities have witnessed roads and highways bring about the opposite. In Cairo, Egypt, studies on urban planning have shown recent construction of roads have contributed to divides between rich areas and poor settlements within the city (Mohamed, et al., 2014). In addition, some roads have been physically elevated, creating a barrier, which makes them difficult to cross. For example, the informal settlement of Mit Uqba sits in the middle of the planned neighbourhood of Mohandisseen, however, the 26 July Corridor cuts through Mit Uqba with no access, leaving parts of the settlement separated from the rest (Abozied & Vialard, 2020).

In the USA, historic racial segregation has also further been ingrained through transport networks. The emergence of highways which cut through predominantly black communities also coincided with the period of the dis- enforcement of racial zoning of 1926, where black people were enforced to reside in certain communities, and white people in others (Archer, 2020). Cities including Los Angeles, Flint and Orlando all experienced such legal segregation yet witnessed the implementation of highway systems throughout the cities. Indeed, as Archer notes;

> *"the physical boundaries they created would become permanent tools of white supremacy, boundaries that could withstand the evolution of civil rights laws. Rather than be forced to comply with the law, the highways were the law"* (2020: 1267/8).

Birmingham, Alabama, was one of the last cities across the United States to keep the racial zoning law, and indeed was left unchallenged for 25 years (Connerley, 2002). The city's planning notion of erecting Interstate- 59 and Interstate- 65, still present to this day, were located in the exact areas of local boundaries within the city (ibid.). Moreover, located north of I-59 was middle-class white neighbourhood Ensley Highlands, whose residents included the managerial class, whereas on the south side was the neighbourhood of Tuxedo, an 82% black population with an average annual income of $1,951, considered working class (ibid.). Whilst there was resistance from those living in Tuxedo, the state, and indeed the city council, voted in favour of the Interstate, citing "the present location was proposed by the State and approved by the Bureau of Public Roads based on a thorough evaluation of all engineering, economic and *sociological* [emphasis added] factors involved" (Whitton in Connerley, 2002: 104). Similarly, the placement of I-65 was situated on the same dissecting lines as previous racial zones, which consequently meant the demolition of a slum settlement, creating a larger divide between the black and white neighbourhoods that now stood on either side (see Figure 6). Today, the I-65 still arguably acts as a barrier between the

University of Alabama, the city's largest employer, and the poor black neighbourhood of Titusville.

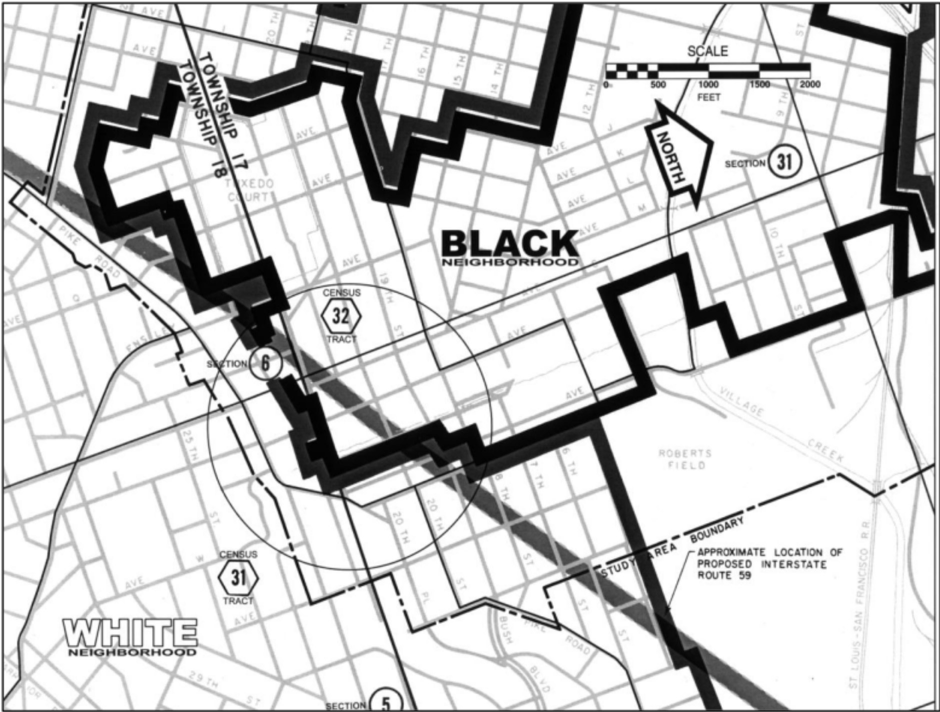

Figure 6. *Placement of Interstate-65*

Source: Connerley, 2002

4. Analysis

In the previous section, three manifestations of defensive urbanism (DU), GCs, anti-homelessness architecture and highways and TI, have been presented. These give a contextual understanding of DU, present the cases and introduce their use in the built environment in restricting human behaviours in cities. In this next section, I will be analysing these three features using my initial research questions. Moreover, using the theoretical framework developed throughout the literature review, I will attempt to explore the role that DU plays within cities, particularly cities of both the global North and global South, and to what effect. The section will be separated by each representative case, using the research questions stated to analyse each.

4.1. Gated Communities

4.1.1. How Notions of "Worlding" (Roy & Ong, 2011) Aspirations Have Contributed to the Increase of GCs in Cities?

As discussed, the notion of worlding has been prevalent across cities of the so-called global South since the emergence of neoliberal globalisation in the 1980's. Cities began adapting to fit into a globally competitive political economy. Worlding has thus stemmed from neoliberal ideology, whereby the reduction of state intervention allowed for "maximizing rationalities that articulates particular assemblages of governing" (Ong, 2011: 4). In other words, through means other than state implementation, the neoliberal agenda could thrive within cities. GCs thus began appearing in cities across the world as a way of portraying such wealth, however under the guise of 'protecting' those inside from those on the outside who were committing crimes (Bravo, 2020). As such, with privatisation of public services, housing increasingly became a token of individual wealth and success, private developers who were commonly brought in from Western countries began building new developments across cities in order to meet the demands of the new middle-classes (Sassen, 1991). Indeed, many GCs have taken the social hegemonic form of communities based in Western cities as an "imitation process" (Roitman, 2010: 279).

Security, and consumption of security, has been one way in which the neoliberal agenda was able to develop and appeal to states looking to 'world' through increased securitisation policies or surveillance aesthetics (CCTV, increased numbers of police officers on streets, etc.) (Goold, et al., 2010). This is also witnessed at an individual level, whereby the consumption of security is seen through goods purchased for personal protection as well as property, or in this case, property itself as a means of security.

Whilst although it is noted that the consumption of security products, such as locks or CCTV, itself is not classified as having the same psychological effects as other consumer goods, such as cars or technology, the purchasing of security nonetheless is targeted through "fear and desire […] to market security objects and implicated in why individuals are seduced, or repulsed, by them" (ibid.: 10). GCs initially stemmed from the inclination of protection and security as opposed to displaying wealth, however, have become synonymous with worlding cities due to both concepts becoming synonymous with the notion. The brochures of the GCs in Johannesburg and Buenos Aires all emphasise the security element that they offer whilst also advertising the facilities that are separate from the outside world.

4.1.2. How GCs Have Impacted Socio-Spatial Relations in Cities

Despite the examples given here portraying GCs in Buenos Aires and Johannesburg, the phenomenon has indeed been witnessed across cities all over the world, including Istanbul (Mese, 2019), Sao Paolo (Caldeira, 1996), the USA (Davis, 1990) and even London (Graham & Marvin, 2001). And although the characteristics and experiences differ across different cities, the outcome of gated communities has largely been similar throughout.

The rise of GCs as a form of DU, is fair to say, has drastically impacted socio-spatial relations where this form of housing became popular. With neoliberal ideology

becoming prevalent, local governments were thus considered as “engines of economic development” (Allegra, et al., 2012: 568) as opposed to providers of recourses and services to the public. This shift has impacted, and thus increased, spatial polarisation across such cities (Allegra, et al., 2012; Graham & Marvin, 2001; Davis, 1990). Urban gated enclaves of wealth that are designed to perpetrate values of exclusiveness, homogeneity and exclusion have become a common feature of cities (McKenzie, 1994). These characteristics also physically distinguish gated communities from other housing, which adds to such polarisation.

GCs indicate difference of social, spatial and phycological relations between those who live in such developments and those who do not. In both Buenos Aires and Johannesburg, as mentioned, the physical barriers of walls and security aesthetics have created divisions which thus emphasise the differences between those living inside and those on the outside (Simons, 2006). For example, rules such as breeds of dogs are regulated amongst many GCs in both countries (ibid.). Whilst homogenous in a broad sense, GCs do also provide heterogeneity within these enclaves, in the form of economic terms. In Buenos Aires, within such compounds there may be differing levels of wealth, from middle-class, upper-middle and upper-class residents creates a more heterogenous space. This is apparent in the brochures, which offer additional services at additional costs. However, what remains true is that in order to live in such communities, a certain level of wealth and socio- economic status must be reached (ibid.).

4.1.3. <u>How GCs Have Redefined Relationships Between Classes in Cities</u>

Whilst these physical barriers and characteristics of GCs have impacted the socio-physical divisions across cities with already high levels of inequality, the psychological relations between those living in and out of these spaces have also been redefined as a result. Sonia Roitman (2008) identifies the separation between the “insiders” and “outsiders” of gated communities with negative viewpoints leading to lack of interactions and thus exacerbating social segregation. As Simons (2006) also observes,

the divisions have caused perceptions from those on both sides of the other side, particularly viewing the "other" as dangerous. Such social tensions, then, can create stronger ties between those living inside, their family and friends, and those from other GCs who share the same values and lifestyles (ibid.).

It is also noted that there may not always be negative tensions or feelings towards the 'insiders' and 'outsiders', but instead a heightened power dynamic. As mentioned, those from the outside may be brought in to work as security for gated community residents which allows job opportunities. In addition, they may also be employed as gardeners or cleaners. As such, there is also a sense of charity which benefits those on the outside communities, whereby for religious reasons there is a sense of obligation (Roitman, 2008). The outcomes of such charity work, however, is dependent on such viewpoints, whereby negative viewpoints can create greater divisions and social polarisation through intended segregation, offering charity in a tokenistic way, whereas positive viewpoints of each group can create non-intended segregation (ibid.). However, although there is also much literature on perceived perceptions of those living inside as being unaware and afraid of those outside communities, thus having negative viewpoints, this is not always the case. There have indeed been studies on those living inside gated communities, focused on the awareness of the exclusivity of the lifestyles they lead which can cause social segregation (Simons, 2006).

Given that everyday social interactions are more limited between the two groups, levels of integration between is further restricted. As seen in Johannesburg, gated communities tend to be clustered in either the northern or north-western parts of the city (Landman & Bademhorst, 2012). As such, these areas tend to experience higher levels of fragmentation. Similarly, for the construction of the GC of Nordelta, a technique involving adding large grounds onto wetlands to increase the land where the GC sat 1.7 metres above the original height meant that this was considerably higher than the neighbouring poor settlements (Rios, 2015). Across Buenos Aires, harsh rainfalls and rise in sea levels have made the city particularly prone to flooding (ibid). Indeed, 2013 witnessed its heaviest rainfall causing floods across the city, however in Nordelta, given

its additional height did not feel the effects, but rather, the additional height not only protected the homes from the floods but altered the function of the original water systems (ibid.). This resulted in the neighbouring settlements experiencing catastrophic impacts, even deaths, from not only the rainfall, but also through not having the protection of the previous water systems, which created tensions between the two (ibid.). In addition, Nordelta now also has its own contingency plan for future potential flooding's whilst leaving the existing settlements outside increasingly vulnerable to the impacts of these disasters (Moore-Cherry, 2016).

4.2. Anti-Homelessness Architecture

4.2.1. How Notions of "Worlding" (Roy & Ong, 2011) Aspirations Have Contributed to the Increase of Anti- Homelessness Architecture in Cities?

Global neoliberal agendas and the opening of markets have significantly contributed to the rise of security, particularly in the manifestation of defensive urbanism (Roitman, 2010). In cities where crime rates are high, we have witnessed the phenomenon of gated communities, whilst anti-homelessness architecture has been predominantly a feature that has increased in cities that are considered to have already 'worlded'. Whilst cities across the global North have accumulated the majority of global wealth during the period since the 1980's, these cities have not been without consequences brought on by neoliberal policies, particularly for groups that are most marginalised. The 2008 global financial crisis arguably led to several nations across the global North, particularly Europe and north America, to adopt neoliberal government austerity policies. As a result, cuts to public services with the addition to rising rental living costs in London created rates of homelessness of more than double from years 2008- 2018 (Copley, 2019). Meanwhile, as such cities also became tokens of how world cities should be and look, infrastructure projects that reimagined the landscape were still underway (Blackman, 2014). For example, London witnessed £1 billion investment into the redevelopment expansion project of Canary Wharf, with city mayor at the time, Boris

Johnson, claiming to "transform a currently derelict brownfield site beyond all comprehension into a thriving new community with thousands of new homes and jobs" (Johnson in Blackman, 2014). This was an expansion on the controversial redevelopment of the London Docklands project of the 1980's, which arguably caused the decline of blue-collar jobs in substitute of technology and finance-based companies to attract high-income jobs and use the market to transform urban spaces (Kinder, 2014). As such, with austerity policies and new development infrastructures taking place in conjunction to one another, this manifested in the increase of securitisation of public spaces, such as cameras and increase policing, however also in hostile anti-homelessness architecture.

Despite the very purpose of public spaces acting as spaces of inclusion and accessibility, DU in the form of anti- homelessness architecture are specifically targeted at dissuading a particular group of people from using certain spaces (Chellew, 2019). This is as opposed to generally defensive architecture such as walls and gates, that restrict access to anyone (ibid.). Anti-homeless benches have been installed across these spaces as a way of keeping out people who do not fit into the neoliberal, worlding city aesthetic. As such, those who do not have access to privatised spaces are also being pushed out of public ones, which consequently create a seemingly more homogenous environment. Whilst there have also been arguments that such measures of 'tough-love' can help the homeless with finding alternatives (de Fine Licht, 2020), the aim of the designs remains the same in that they are used to make those feel unwelcomed.

4.2.2. **The Impact of Anti-homelessness Architecture on Socio-Spatial Relations in Cities**

As such, this feeling of being unwelcomed, or an 'outsider', also impacts socio-spatial relations. Whilst urban public space itself has been a widely contested, due to arguably being made by those who use and move through them; thus, spaces are made by asserting social identity (Petty, 2016). In this sense it is important that given the diversity that exists particularly within cities, public space is constantly being produced through the engagement and encounters of different people who use urban public spaces

(ibid.). As such, defensive urbanism, particularly through the manifestation of anti-homeless design and architecture, produce specific messages of who should use such spaces and who should not, whilst also connoting who is dangerous and who we should be fearful of (Tulumello, 2015).

In addition, Davis (2006) terms this "pseudo- public spaces", or spaces that are deemed public, or freely accessible for everyone by the state, however whilst also free from any dangers that could be inflicted by such 'others'. This has become interrelated to public space (Chellew, 2019). As such, public space has thus changed its meaning, whereby it is understood as who is welcomed to use and consume whilst still maintaining order. In spite of this, however, whilst these designs are intended for a specific purpose, it is also true that "people can easily adapt to the built environment and use it in unpredictable ways even if it is designed to promote certain behaviours and deter others" (Chellew, 2019: 25). In other words, the use can be changed in order to fit those who it is intended against. For example, in London, the 'Camden benches' designed against rough sleeping and skateboarding, have instead encouraged local street skaters to attempt its functionality (The Guardian, 2014). In addition, it is also noted that rather than preventing any crime or unwanted behaviours, such designs simply relocate the so-called problems which governments are trying to prevent, without targeting the issue itself (Chellew, 2019).

4.2.3. How Anti-Homelessness Architecture Has Redefined Relationships Between Classes in Cities

Whilst it is important to note that whilst some forms of architecture have been publicly contested, including through the media, others are somewhat more accepted, or indeed blend into the urban landscape. This arguably, however, only exemplifies the feeling people have towards the 'outsiders' of society (Petty, 2016). For example, anti-homeless spikes were deemed a malignant attempt at resolving the issues of homelessness, however it was arguably their physically arduous look that made people

feel adverse towards them (ibid.). In contrast, more socially palatable designs, such as the benches that have been altered in order to blend into the environment, have not caused such public outrage.

In both the interview with Factory Furniture and the resident of the apartment building, what is expressed is a feeling of fear and discomfort towards the homeless. The spikes in particular visually highlight the issue of homelessness, representing the issue that is at hand, whereas the benches are discreet, subsequently not creating the same level of upset. In this sense, the aesthetics of the city is important in that it can provide a utopian version of people's lifestyles, without having to confront urban issues (Petty, 2016). Furthermore, the spikes "become the visual and aesthetic equivalent of the homeless they are designed to remove: the visible tip of a much broader population or network" (Petty, 2016: 75). In other words, the public do not want to be reminded or confronted with the issue of homelessness, and the architecture can be a tool in which provides an almost cover up of this.

These issues, then, and individual examples of designs that are devised to deter behaviour, cannot be interpreted in isolation but must be part of the wider socio-spatial dynamics of how cities, and consequently individuals, view the homeless (Rosenberger, 2020). Moreover, the physical features can be a subtle but symbolic manifestation of power relations (Smith & Walters, 2018). Indeed, through features of anti-homeless architecture, the built environment is able to embody the values and social expectations that reimagine those who are welcome and those excluded (ibid.).

4.3. Highways and Transport Infrastructure

4.3.1. How Notions of "Worlding" (Roy & Ong, 2011) Aspirations Have Contributed to the Increase of Highways and TI in Cities?

The ways in which neoliberalism and world-city aspirations have impacted highways and TI is also evident in cities across the world. This is also particularly evident in cities with high levels of inequality, where roads are used as physical barriers to segregate

different social class or race. Johannesburg's implementation of the Corridors of Freedom, however, was determined to create a more inclusive city, although can still be manifested as a form of defensive urbanism in how it has played out in the city. The Corridors of Freedom were part of Johannesburg's masterplan, 'Joburg 40', that imagined the city in a post-apartheid vision, where its main objective was to bring poor and marginalised communities' better connectivity to economic opportunities in the city's core. In addition, this transit-oriented development project was also in-line with giving Johannesburg more global recognition and putting it on the map as a competitive city (Ballard, et al., 2017). Indeed, the slogan for Joburg 40 was "Joburg: A World Class African City" (Tau, 2014). Whilst the initiative was instigated by the city government, private developers were critical in implementing the new infrastructure, due largely to economic shortages from the state (Ballard, et al., 2017). As such, the Corridors of Freedom was dubbed a *megaproject* to boost Johannesburg's global city status through progress, integration and also limiting urban sprawl of generally poorer communities (ibid.). Having socially motivated goals whilst using a market-driven approach caused several issues, however. With private developers adverse to building affordable housing, groups that were most marginalised across the city were arguably left out, creating greater divides. Such megaprojects that were witnessed across large cities of the global South, or megacities, in an attempt to emulate development goals of those of Western cities using infrastructure to promote economic growth (Kennedy, et al., 2014).

Whilst in the USA, highways and were used in a more hostile way to arguably, purposefully sustain racial partitions across cities after zoning laws were being eradicated. Whilst the concept of "worlding" (Roy & Ong, 2011) had not been derived yet, the idea of cities acting as homogenous spaces for the middle-classes was constituitive of cities with aspirations of utopian, modernist ideals (Calthorpe & Poticha, 1993). Indeed, what we imagine today as the 'American Dream' has influenced aspirations of world class lifestyles at an individual level (ibid.). This is reflected in the avant-garde images of imagined 'typical' Amercians, one which mixing of social classes and races did not fit into (Marchand, 1985).

4.3.2. The Impact of Highways and TI in Socio-Spatial Relations in Cities

In ‘Splintering Urbanism’ (2001), Simon Marvin and Steve Graham analyse the complex relationship between urban infrastructure and socio-spatial relations, particularly in how infrastructure can fragment aspects of the city. Dubbed “splintering urbanism” (ibid.) due to the nature in which such infrastructure literally splinters and divides the city, creating social fragmentation, the book details the impacts of such in the context of city’s social fabric. In similar fashion, then, DU in the form of highways and urban infrastructure have impacted the city in more than just the physical mode, however with undertones of territoriality and protection.

In itself, TI, and indeed mobility, can play a role in contributing to exacerbating urban inequality. This is particularly true when considering the use of public transport versus private, and who uses different modes of transport depending on socio-economic positionings. In Johannesburg, for example, only 4 percent of white middle-class citizens used public transport prior to the new transit corridors, and unlikely that they would boost this significantly enough to create social inclusion (Harrison, et al., 2019). This is not to say that the Corridors of Freedom did not achieve any social inclusion, however. The implementation alone was possibly not enough to create the goals they set out, however with the introduction of new social housing and policies, more cohesion of different races and classes was met amongst the population (ibid.).

Across cities with high levels of inequality, it is not uncommon to find the most affluent areas as the most highly accessible, whilst the most deprived in isolation (Mohamed, et al., 2014). Additionally, it is also not uncommon that such communities with high socio-economic disparities tend to be located in close proximity to one another, however those who are most deprived do not benefit from the being in such strategic locations (ibid.). In the USA, another country with a legacy of racial segregation, highways were instead introduced to separate such communities of different social classes and race. Thus, creating physical divisions to be kept separate whilst also demolishing entire, predominantly African American, communities (Connerley, 2002). However, the

demolition of these communities also impacted the socio-spatial characteristics of cities across America, whereby it meant the loss of large portions of minority groups, arguably to maintain white privilege in certain areas (Karas, 2015).

4.3.3. How Highways and TI Have Redefined Relationships Between Classes in Cities

Moreover, in the United States, the altering of neighbourhood structures through the implementation of highways arguably caused "transportation racism" (Ballard in Karas, 2015: 15). In addition, Lutz (2014) notes that America's reliance and consumption culture on private vehicle transportation adds to how transport infrastructure can add to social divides. As such, cars in particular connote status and other socioeconomic indicators which can create further divides relating to class in itself (ibid.). Subsequently, and similarly to the case of Johannesburg, coupled with the reliance of highways, Americans who are without private transport means are excluded from any benefits granted by such new infrastructure. Mobility restrictions which impact the lower classes and by default ethnic minorities, then, "has had a profound and lasting impact on urban environments and travel patterns among Americans, patterns that have been perpetuated by […] the dependence upon automobile transportation and the political focus on supporting such mechanisms for movement both within and outside of cities" (Karas, 2015: 16). Furthermore, the assumption of car ownerships also impacted on class and gender relations, in that older women and single mothers tend to be the least well-off groups in society and are thus mostly impacted by the reliance on cars (Marvin & Graham, 2001).

In Cairo, studies have shown how spatial segregation caused by the implementation of highways across the city in recent years has consequently impacted and exacerbated social segregation between wealthy areas and informal settlements (Mohamed, et al., 2014). As such, this has created less social integration between classes due to there being limited interaction (Abozied & Vialard, 2020). This in turn has brought to light who has the right to the city (Harvey, 2003) as it becomes determined on social class,

race and gender. By creating “new patterns of segregated spatial organisation” (Rogers, 2004: 114) through highways and transport infrastructure, perceptions of difference between the groups are created (ibid.). Indeed, in Managua, Nicaragua, Rogers (2004) likens the segregation caused by highways to Caldeira’s (1996) observations of “fortified enclaves”, whereby spatial segregation caused by urban development have created isolated areas of wealth amongst cities. And whilst rather than such areas of wealth becoming integrated within the city and weaving amongst other social classes, such enclaves have led to fragmentation (ibid.). The roads in Managua, according to Rogers (2004) have been implemented across the city based on the fear of crime which have had a similar impact to gated communities in that they negatively impact those marginalised, leaving them disconnected from the fabric of the city (ibid).

4.4. Further discussion

Rogers (2004) characterises similarities between gated communities and highways and TI in that through their implementations, have created social exclusion. As seen, the use of DU amongst cities is used as a form of control, whereby the physical attributes can reinforce social boundaries between groups. Indeed, although anti-homelessness architecture and design, and to some extent also GCs, have been considered as forms of DU, highways and transport infrastructure have clearly been used in similar means. Furthermore, as the cases show, whilst aspirations of world-class city status have been an influencer amongst cities in the global South, modernist homogeneity that has swept across cities in the global North have also become a catalyst for these same ideals. As such, DU has been constitutive of cities everywhere. DU has thus become a feature of the neoliberal city.

Physically, the 3 representative cases have similarities. They each create barriers which restrict some form of access, or use, to space. Whilst it is also important to note that the examples given all have their individual contexts, which due to the limits of this thesis cannot be evaluated in as great depth, they do portray that these manifestations of DU have also resulted in similar societal outcomes. Accordingly, this section has attempted

to show how defensive urbanism, in the form of gated communities, anti-homeless architecture and highways & transport infrastructure, have constituted to strategically maintain order within cities, deemed necessary to protect citizens. In all examples presented and analysed, the outcomes have been consistent; in that it negatively impacts groups that are the most marginalised within society.

5. Conclusion

DU is manifested in different ways. As such, architecture with the intent to create physical exclusion should thus contend as forms and manifestations of DU. Since the global economic restructuring of the early 1980's, DU has emerged as a way to solicit the neoliberal ideology that has swept across nations and cities across the world. Moreover, through notions of security, modernity and consumption, DU has been able to act as a tool to control the image of a city, by restricting access to those who are deemed undesirable in a world-class city. When exploring informality, we discussed stereotypical affirmations of informality, as a place that is associated only in informal settlements of 'megacities' across the global South. As is argued by several scholars, this image is incorrect but also damaging, as it is described in a singular and negative way (Roy, 2011). In similar fashion, defensive urbanism is not exclusively a feature of the global South or North but can appear in cities across the world. Notions of modernity, and aspirations of 'world-class' city status have fuelled the emergence of securitisation which has thus led to defensive urbanism in the modern city. In addition, the rise of individual values and interests in fitting into this lifestyle has also influenced this process (Roitman, 2008; Ghertner, 2011).

This thesis has attempted to portray the ways in which DU has perpetuated social exclusion, segregation and isolation through its physical features and altered public space in a way that is not accessible for everyone. However, it is also done so in a discreet way. Historically, we have used walls to create a sense of security and territory, whereas today this is engrained within the built environment itself. Some examples, such as gated communities with electric fencing, or spikes on the ground, the intention is clear in that you understand its purpose is to deter certain people from accessing or using. Other examples, such as benches or certain highways, the intentions and meanings are instead concealed within the design itself. Moreover, as seen with TI, sometimes exclusion is not intended, however becomes the outcome due to existing social inequalities. Thus, just because a design is not identifiably exclusionary, it does not make it necessarily so. Indeed, whilst explicit racial zoning lines were eliminated

years ago, segregation is still prevalent and in many cities in the United States through highways, and many poor citizens in Johannesburg are still excluded from using the transport infrastructure put in place (Schindler, 2015). These designs have thus created socio-spatial segregation which may not be clear to everyone, however for those who the designs are specified for, the hostility is felt.

In addition, the urban social classes, as a result of the above, have also had relations redefined. DU has as such created perceptions between those who are able to use such features and urban public space and those who cannot. This has led to negative attitudes between classes whereby the way people experience the city impacts on social integration and, subsequently, has changed the fabric of many cities. Moreover, it is also important to stress that individual examples of DU must be explored in context, but also cannot be understood in isolation. As Rosenberger notes, "it must also be considered in terms of any larger collection of social and political agendas within which it may play a part, and any pattern of design across the city for which it is a particular instance" (202: 888). Indeed, the implementation of DU is rarely a neutral feat, but one with undertones that are felt. And whilst it may succeed in bringing a homogenous and idealist city look, it does little to confront issues beyond such an aesthetic, particularly for those it is keeping away.

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