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Spatial Translation of Social Inequalities

Poverty and Inequality in a deeply-divided London Borough

JIAYI JIN

NORTHUMBRIA UNIVERSITY, UK

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ABSTRACT

The fire which destroyed Grenfell Tower in June 2017 was one of the UK's worst modern disasters. 72 people died and hundreds of families were left homeless after a fire engulfed Grenfell Tower, a 24-storey residential building in the Royal Borough of Kensington and Chelsea within the inner-city of London. The tragedy has shaken the society, highlighting the conflict between the privileged and unprivileged within the city's society, as most of the victims were ethnic minorities living below the poverty line. The research aims to analyse and unfold the underlying issues relating to the fire by looking into the huge social divisions in London, looking at the social as well as the spatial condition of the Grenfell Tower's surrounding area. The research draws upon Charles Booth's poverty maps from over a century ago as well as the government's Indices of Multiple Deprivation and Space Syntax theories, intending to understand the geometry of poverty in the city. Through the specific case of the Tower fire, the relationship between social and spatial tension will be addressed.

KEYWORDS

Spatial analysis, Wealth gap, Spatial thresholds, Grenfell Tower fire, Royal Borough of Kensington and Chelsea, London

1   INTRODUCTION

London is progressively 'unhooked' from the state where it exists. The city became a theatre for international capital, its fortunes decided by forces over which it has little control (King, 1990). In recent decades, London has fallen into the hands of the 'super-rich' (Atkinson, 2021), this city has the largest number of wealthy people per head of population and London has even been described as the 'financial centre of the world' (Cassis, 2010). However, the consequences of this transformation are evident. As London's prosperity is increasing in some areas, poverty is deepening in others. And the wealth gap within the city's society is only widening. The city's

increasing wealth is in constant friction with pockets of poverty that can be found throughout the city. While 50% of the capital's wealth is owned by the top 10%, the bottom 50% own only 5%. (Trust for London, 2021) This leaves 28 percent of the city's society living below the poverty line - wages 60 percent below the national median (£517 per week) (Leeser, 2020). London is therefore characterised by extreme variations in living standards between different groups and neighbourhoods. Divisions exist between rich and poor, privileged and deprived, skilled and unskilled, employed and unemployed, healthy and ill, resident and immigrant, included and excluded and inner city and outer city (Pacione, 2002). These many dimensions of the problem and inequalities with it are part of the everyday lives of many Londoners.

June 14th in 2017 proved how severe the situation truly is, as the fire at Grenfell Tower speeded up the ongoing discussion concerning inequalities in London. The case remains at the heart of the debate - being an extreme example of the problem. That night, 72 people lost their lives, and hundreds of families were left homeless when the tower caught fire within the borders of the Royal Borough of Kensington and Chelsea - a borough generally known to be one of London's wealthiest. A budget cut of 5000 pounds during the tower's renovation in 2016 led to a cheaper, non-fire-resistant façade cladding (Lusher, 2017). The victims have been believed to die for that price. The division within the inhabitants of that city had now gone to the lengths where people were losing their lives.

The infamously divided London creates an opportunity to examine the different societal classes and their zones of socio-spatial conflict. In the book The New Urban Crisis, Richard Florida - an American economist - reminds us that the problem of inequality and poverty is fundamentally an urban problem, and the urban segregation, in the long run, threatens economic growth (Vergara, 2019). In consequence, this research aims to explore what makes certain areas in London more prone to poverty which results the close proximity of extreme wealth and poverty in the area around Grenfell Tower. And based on the social-spatial analysis like space syntax, it points a way out of this quagmire by offering an analytic theory of space and society, as well as a host of measurement techniques that can be used to test theoretical propositions against empirical phenomena (Hiller & Raford, 2010). It also investigates the role of space and architecture in signifying and designing these divisions and grounds for many different classes being able to co-exist.

This research firstly outlines a brief history of poverty and social cartography in London, subsequently describing the arising research questions, and the methods used. The income and housing divisions within the Royal Borough of Kensington and Chelsea will be studied, as well as how the social issues translate to the physical environment. The research ends with the case of the Grenfell Tower fire, also looking into discourses of this trauma, this tragic case study revealed previous analysis on the extent of inequality in Kensington and Chelsea, also with the years of poor political decision-making and financial mismanagement.

2   BACKGROUND

2.1   Heading Charles Booth Poverty Maps

Throughout the expansion and transformation of London, the city's social context has been tightly linked to urban configurations. Pioneers of social cartography have shown some evidence of spatial segregation giving rise to social segregation in their research. The work of Charles Booth's, an inquiry resulting in the seventeen-volumes of Life and Labor of the People in London published in 1903, revealed the true nature of poverty in London and became one of the most influential maps at the time (LSE, 2016).

Booth was an English sociologist who was diving into the societal problems and poverty in London in the turn of the 20th century. After being involved in the control of Census data to help targeting resources, he started questioning the quality of the data gained. The Social Democratic Federation in 1885 found that up to 25% of the population of London were living in extreme poverty. To Booth, this sounded like an overstatement. He then decided to undertake his own inquiry, unexpectedly ending up classifying the poverty rate at 35% instead. Booth was the first to really map the social shape of the city, putting it on display for everyone to see. Street by street, Booth coloured London according to the general condition of the inhabitants, identifying seven different classes in society.

His maps provided the spatial and social context of poverty by uncovering the arrangement of one in relation to the other. It was common that poverty streets – marked black or dark blue – were situated right adjacent to prosperous red or yellow streets, the inhabitants of which used to be unaware of the extreme poverty existing right behind the corner. A variety of classes were located in the same area, having an impact on the social conditions. The pockets of irregularity in the urban grid often created introspective places, claimed by the criminal classes. There was never an intention nor an explicit plan to organise the nineteenth-century city in this way. The pattern had rather emerged as part of the process of continuity and change which brought about the spatial logic of the city at the time.

Booth already recognised that the problem of poverty had become a spatial problem. Physical thresholds - such as railways - had the effect of isolating areas, blocking inhabitants from the life of the city. His notes during the research (1889-1903) drew observations such as: "...the "poverty areas" tended to be literally walled off from the rest of the city by barrier-like boundaries that isolated their inhabitants, minimising their normal participation in the life of the city about them..." (Wendling, 1968), and "Large-scale obstacles in the urban fabric have been proven to have a harmful effect on the ability of people to move around and improve their social and economic conditions" (Vaughan, 2018).

Charles Booth's work of gathering data around poverty, deepens the processes of social research as well as extends the attention given to it. The government also starts developing interventions to improve the situation faced by many. Booth's recommendations to the Royal Commission on Housing (1901) were precautions such as a better transport system (allowing it to expand to the suburbs), widening of roads and opening up spaces. Overcrowded households and houses, generally not fit to live in, would be closed as a part of slum clearance, in order to get rid of the overly complex geometry of the street layout.

2.2   Deprivation maps

Following the ground-breaking ideas of Booth's Poverty maps, today the Index of Multiple Deprivation is more commonly used since the turn of the 21st century. Whereas Booth's maps were the results of his own observations, the Deprivation maps are data driven (Consumer Data Research Centre). An influential study by Noble and his colleagues (2000) developed the Index for the UK government. The increase of GIS (Geographic Information System) in Census studies and the availability of Census data in GIS-friendly formats meant that increasingly more studies are using census information as the basis for their measurement of deprivation (Vaughan, et al., 2015). Rather than dividing the society by class like Booth did, the Deprivation map measures poverty based on access to necessities in society, the parameters being: income, employment, education, health, safety, housing & services, and quality of the environment.

Today, there is still a correlation between poverty and spatial segregation. Though, the widening trend of gentrification means that the relationship is not as strong today as it used to be in the past. Gentrification has the power to displace low-income classes and prevent them from moving into previously affordable neighborhoods. When comparing Booth's London from over a century ago to the current situation, it seems that society used to be generally more mixed. According to the original Poverty maps, the almost criminal back alleys might have been just a corner away from wealthy buildings along the main roads. The contemporary Deprivation Indexes imply that there are now clearer designated areas for each class within the city.

2.3   Space Syntax

Various methods have been employed in spatial inequality, deprivation, and poverty measurement studies to enable the understanding of the spatial process involved in the creation and stagnation of poverty areas. What Booth's poverty maps tell us about the relationship between the lack of access and spatial as well as economic poverty has been discussed to some extent. For instance, the UCL Space Syntax Laboratory, founded in the 1970s in London, started overlaying their theory with the original Poverty maps. Their algorithms analysing spatial design in relation to social outcomes drew some connections between Booth's definition of poverty and the accessibility of the areas. "The analysis found that interruptions to the grid structure significantly influenced the spatial configuration of a poverty area, giving rise to conditions of both spatial and social segregation" (Vaughan, 2018).

The space syntax method calculates the degree of integration of the mobility network in terms of geometrical distance combined with metrical radiuses, thud allows planners to analyse the configurational morphology of the city, where the configuration is the set of the relationship between parts. The most important components of space syntax theory are integration and choice, the higher the potential of frequent use, the higher the potential will be for social interaction. However, this technique is sometimes limited by 'general spatial accessibility' defined by Marcus (2010), "accessibility to urban space itself". The problem, however, "solely analysing the layout of space as a key indicator for urban processes lacks to understand the complex interrelation of non-configurational parts that generate social processes, as density and diversity etc."

Fortunately, in the past few years, academic researchers have developed new tools and techniques that follow the principles of space syntax theory; as a result, it is now possible to access space syntax models on connections that go beyond the spatial configuration only. Spicker (2013) has stated "forms of deprivation are patterned spatially by a series of urban processes, which lead to greater concentrations of problems in particular places." and we can now use GIS to layer historical poverty data, contemporary deprivation indexes as well as space syntax measures of spatial segregation. Thus, a multivariate system can be developed to understand the spatial process involved in the creation and stagnation of poverty areas as well as to analysis the street segment scale of configuration (Vaughan, et al., 2005).

From Figure 1, the main roads, depicted red and yellow, are well connected and they surround the lower integration and lower-class streets. The streets with high integration value often contain the socially and economically lively activities of the city (Vaughan, et al., 2005). They are functionally as well as spatially the so called 'foreground network'. Another pattern that emerged from the analysis is that the high-class streets are significantly longer with nearly straight connections and route continuity, whilst the lower-class streets are significantly shorter than average. Poverty classes tent to live in the 'background networks' of the area.
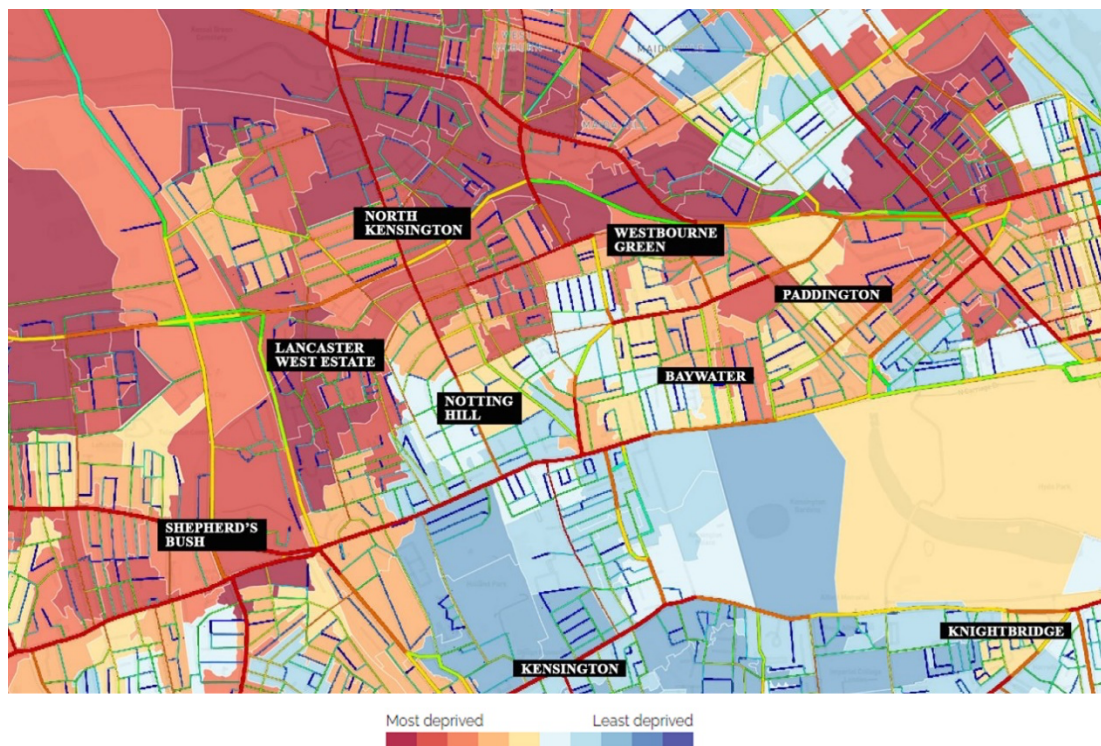
Figure 1: Map of Indices of Deprivation, 2015, showing the study area, overlaid with Space Syntax OpenMapping for showing spatial accessibility for each street to all other streets within 2km.

3 PROBLEM STATEMENT AND RESEARCH METHODS

London has undergone many drastic changes during the past century, yet the patterns of poverty seem to have stuck to a certain extend. Generally, the urban poor are now being pushed to the outskirts of the city. As Rowland Atkinson describes it: "The consequence of London's transformation is the brutal expulsion of the unprivileged. Severe cuts and demolitions are adding to the catalogue of social injustices" (Atkinson, 2021).

Previous research also suggests though, that despite the many attempts to improve housing quality and to eliminate the deep poverty clusters over the past 100 years, these interventions have "failed to substantially alter the geography of poverty." In a study, conducted by Scot Orford et al., Booth's measurement of social class was matched to the measurement of social class in the 1991 Census, as well as to all causes of death in a survey done between the years 1991 and 1995. The paper concludes that: "The spatial patterns of poverty in inner London are extremely robust and a century of change has failed to disrupt it" (Orford et al, 2002).

Urban form is a significant factor influencing the spatial distribution of poverty and the problem is that the geometry of poverty at the end of the 19th century seems to be very similar to that at the end of the 20th century. Even though, the poverty rate of 35% of Booth's London has dropped to 28% in the London of today, the problem remains. Currently, London's prosperity is increasing in some areas, but poverty is deepening in others. There are thus zones, in the inner-city of London, where 'rich' and 'poor' remain living adjacent to one another.

Five months after the Grenfell fire disaster focused attention on income and housing divisions within Kensington and Chelsea, a local MP, Emma Dent Coad, has compiled a report pinpointing the economic faultlines in the area. In her report, the close proximity of extreme wealth and poverty in the area around Grenfell Tower was highlighted, revealing that in some parts of the borough average incomes can "drop 10 times as you cross a street" (Gentleman, 2017). This research aims to shed light on this kind of conflict zones and their socio-spatial discontinuities, here the conflict zone can be understood as the confrontation of two incompatible spaces, which are long existing and worsen over time.

The main research question: "How are social conflicts manifested in a London borough, in terms of spatial dissociations, within areas where pockets of poverty and the upper-class collide?" will be answered by two sub-questions: 1. "What is the social condition of inhabitants living in these areas?" and 2. "How do the social issues translate into the physical environment?"
These research questions will be approached and answered through an example of a collision zone, which is the area around Grenfell Tower, rather than trying to understand the general condition in London. The issues of conflict will be approached from the perspective of the study location that stands out within the inner-city of London, by examing the social as well as physical conditions for a thorough understanding of the conflict zone. Analysing demographic data will be used as one of the techniques to address the social shape of the chosen borough – Kensington and Chelsea. Information about the general condition of the inhabitants will thereby be addressed and the opposing extremes between different areas will be identified. Studying the spatial qualities of the same area will be based on a typo-morphological analysis. Dissecting the different kinds of spatial discontinuities will help presenting the role of space in possibly heightening the social division.

In addition, the research considers the case of the Grenfell Tower fire, and its position within the bigger picture. A discourse analysis will be carried out, navigating through recent media and debates concerning poverty and segregation relating to the fire will provide more in-depth insights about the opposed actors in the area. Through a critical assessment, the findings will be measured against a theoretical framework - existing research linking spatial issues to social outcomes. By looking at space and spatial practices we can understand the characteristics of poverty, where space becomes the common denominator but also the carrier of these divisions.

4   KENSINGTON AND CHELSEA - A TALE OF TWO CITIES

4.1   Borough of Extremes

The Royal Borough of Kensington and Chelsea attracts attention as having the highest resident-based salaries in London (ONS, 2021). Being one of London's wealthiest boroughs, the Royal Borough of Kensington and Chelsea, withholds some of the city's most expensive streets such as

the Kensington Palace Gardens or, in other words, Billionaire's Boulevard. Despite the borough's overall wealth, there are also rather poor neighborhoods within its borders. The affluent areas surrounding the Hyde park have a shadow side. Just a kilometre away, where the colourful houses of Notting Hill meet the neighbourhoods of Holland park, Ladbroke Grove and North Kensington, the lower classes of society start to gradually appear. There appears to be a zone where poverty meets prosperity (Figure 2), where the opposing extremes live in close proximity. The deprived neighbourhoods in the Northern part of the borough have already had their status since Booth first revealed their nature.
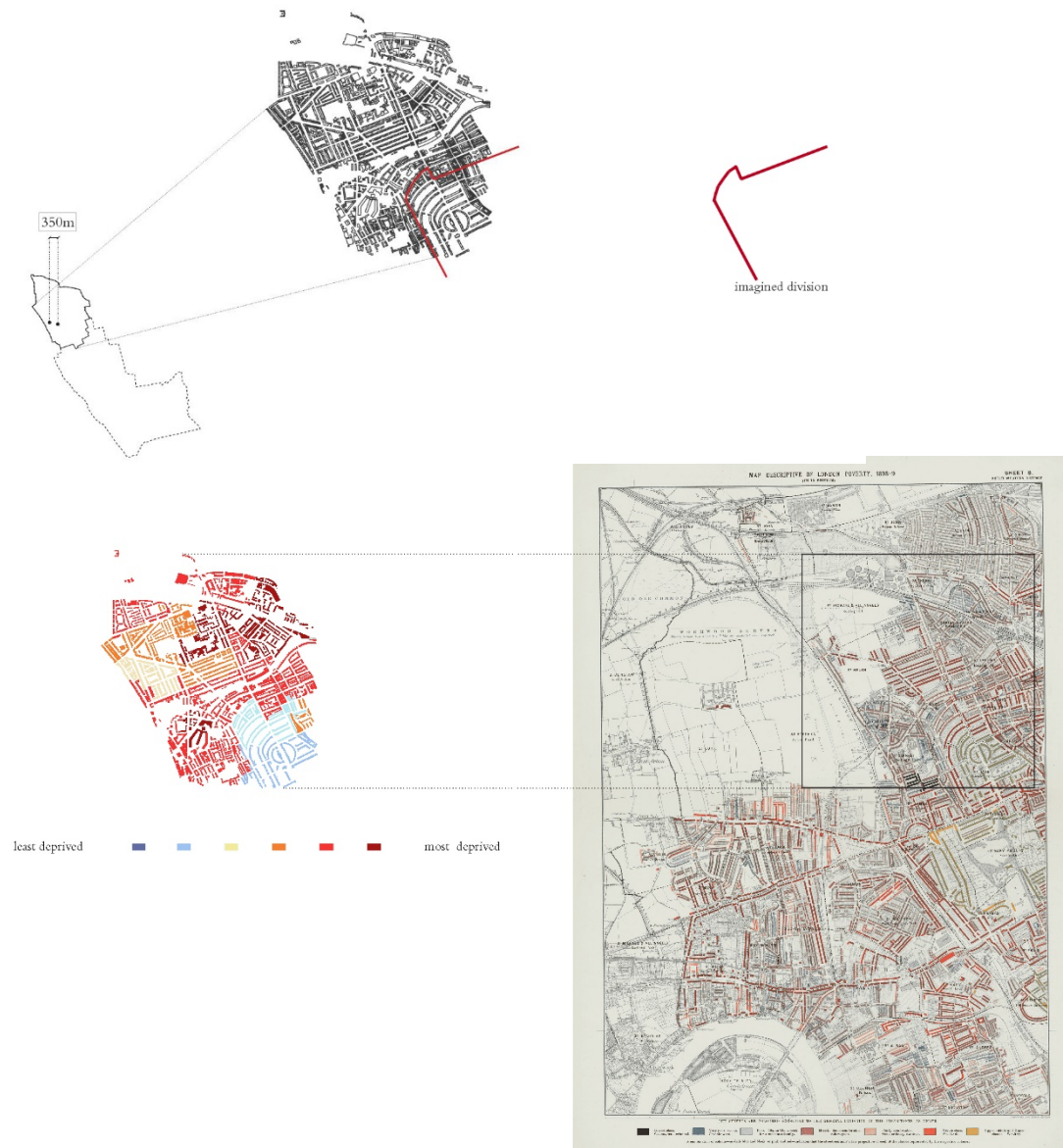

Figure 2: Streets in the northern part of the borough, the red line is showing the imagined division between poverty (red/dark red) and prosperity (blue/dark blue).

The area then underwent bombing during the Second World War. In the1960s, municipal housing was part of the slum clearances initiated by Booth (Vaughan, 2018). A decade later, large parts of North Kensington were remodeled to create the Westway highway. Despite the major changes, parts of the area remain deeply deprived to date. In the report drafted by local MP Emma Dent Coad, she pinpointed the economic faultlines in the area:

"Across the borough, life expectancy is the highest in the country, but the age at which people die varies dramatically depending on where they live within Kensington and Chelsea. In parts of Knightsbridge, near Harrods, a man can expect to live to 94; in a poorer part of the borough, near Grenfell, the average life expectancy for a man is 72, a figure which has dropped six years since 2010.

The child poverty level across the borough is 27%, about the London average, but in the poorest pockets it stands at 58%, while in the most expensive stretch around Hyde Park it is just 6%. One street in Knightsbridge has a 0% health deprivation rating, but one block on a council estate two miles away (still within the borough) has a 65% health deprivation rating.

Kensington and Chelsea, where I was born and bred, is a microcosm of everything that has gone wrong in our country in the past few years, It is a place where inequality has become a gross spectacle. Where childhood poverty, overcrowding and homelessness live cheek by jowl with opulent second homes, palatial apartments for the mega-rich and vast outflows of rent to corporate landlords."

-After Grenfell: Housing and Inequality in Kensington and Chelsea "the most unequal borough in Britain" (Coad, 2017).

4.2   Social Condition

In London, 28 per cent of the population lives under the poverty line. (Trust for London, 2021) Within the Royal Borough of Kensington and Chelsea, the average earnings abundantly exceed that line. According to a new analysis of government data, Kensington & Chelsea is the "richest" local authority area in the UK with residents earning three times the national average, income in the borough — home to Sir Elton John and the Beckhams — is £64,868 per head of population compared with £19,514 nationally (ONS, 2019). However, when that average is broken down per ward, shocking fluctuation can be found as the median annual gross income per household was as low as £15,391 in the northern parts of the borough like Golborne, whereas, in Campden and in its adjacent wards, it reaches up to £82,256 (Fordham Research, 2019). Based on the latest 2021 data provided by the online platform CrystalRoof shown in Figure 3, the annual mean house income in Campden was £73k, it is almost three times compared to the mean house income in Golborne (£26k). In the ward around Grenfell Tower – Notting Dale, the income was equally low, it is the second most deprived ward in the borough, only reaching £29k in 2021 (CrystalRoof, 2021). The financial differences within the borough translate to variations in population density, education level, unemployment rate and so forth. (Arribas-Bel, 2017), fluctuations become inevitably visible in the lives of the inhabitants.

Low £ annual mean income ■ ■ ■ ■ ■ ■ ■ £ annual mean income High

Golborne (£26K)

Campden (£73K)

Figure 3: above: Annual mean income per ward in the borough; below: Annual mean income between Golborne & Campden

Living in affluent areas, people often work in the financial sector as managers and directors. The highest workplace-based earnings in London are generated in Tower Hamlets, in the financial district of Canary Wharf (ONS, 2019). It's common for people from the wards of Campden, Brompton, Queen's Gate, Hans Town etc. to commute all the way there daily (Figure 4). More than half of the workforce of Kensington and Chelsea stay working within the borough or commute to the neighbouring areas though (ONS, 2019). The poorer part of the population is more likely to be technical and service workers. In Golborne, the population increases daily by only 8,4% due to commuter flows, whereas, the increase in Campden is +37,4% - implying that there are much fewer opportunities for work in Golborne (ONS, 2019).

Figure 4: above: Occupations per ward; below: Commuter flows from Kensington & Chelsea outwards

One of the main findings of research done in "Space and exclusion: does urban morphology play a part in social deprivation?" by Laura Vaughan, was the relationship between social deprivation and distance of residence from sources of employment. (Vaughan et al, 2005). The more personal aspects of the lives of the inhabitants also tell us something about the financial differences within the borough. The overall life satisfaction scores went significantly down the more North the ward was located, according to the Census data. (ONS, 2021) Inhabitants were somewhat more likely to have been diagnosed with long-term illnesses in the Northern wards of Golborne, St. Charles and Notting Dale. Moreover, overcrowding of the households was almost four times more intense in these poorer neighbourhoods, with a rising problem of homelessness.

4.3   From Wealth Gap to Spatial Thresholds

It can be said that everything that there is in space is produced either by co-operation or through conflict (Dehaene & De Cauter, 2008). Thus, the social condition can be confirmed by urban

space. Walls or other urban/architectural thresholds are often being put in places of high tension and conflict. The physical environment clearly reveals many basic aspects of social space. In the conflict zone of Kensington and Chelsea though, there only appears to be an 'imagined division', and spatially, it is hard to define a border between the different classes of society in the northern part of Kensington and Chelsea. Yet, urban features that already Booth was criticising can be recognised as being part of the segregation of certain deprived areas in Kensington and Chelsea. Spatial dissociations, such as an overly complex geometry of the street layout or the isolating capability of rails and highways are adding to the social problems in certain locations.
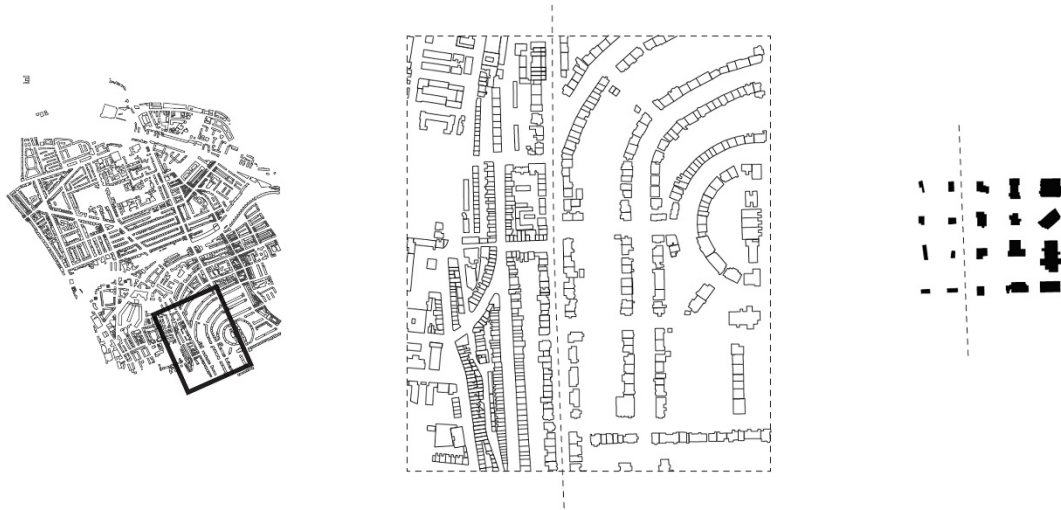

Figure 5: Plot sizes analysis

By analysing the morphology of the conflict area, where the poor streets are side by side with the prosperous ones, the uneven plot sizes convey the financial differences. As visible in Figure 5, along the main road of Notting Hill - Ladbroke Grove - the households are visibly larger. The streets on the west side seem to be squeezed in and are often overcrowded. In this area, just one street might be the separation between the highest and lowest social class (Figure 5) as a significant gap. Moreover, according to the analysis gathering spatial boundaries in the area, (Figure 6) one of the most deprived areas in North Kensington can be explained by having the hard boundary, an enclosed railway isolates the area from the rest. The poorest areas are often next to a non-crossable infrastructure, the areas appear with rare stays and rare activities are matching their low level of spatial qualities. The reasons are mainly lack of protection, lack of urban furniture, lack of accessibility to public services, lack of public ground. On the contrary, buildings along the major roads are easily crossable, often with fair distribution and equal accessibility to the publicness.
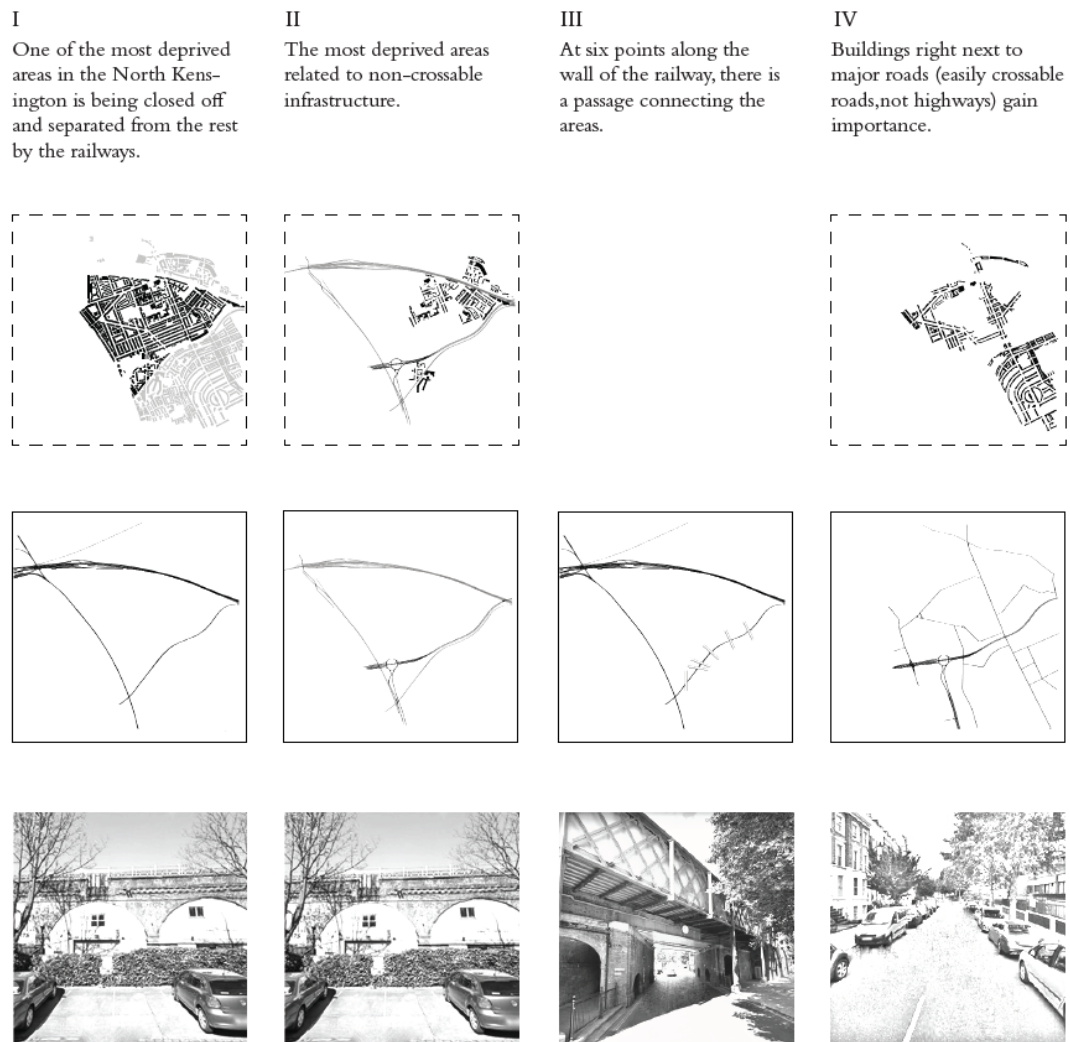
I

One of the most deprived areas in the North Kens-ington is being closed off and separated from the rest by the railways.

II

The most deprived areas related to non–crossable infrastructure.

III

At six points along the wall of the railway, there is a passage connecting the areas.

IV

Buildings right next to major roads (easily crossable roads, not highways) gain importance.

Figure 6: Spatial thresholds analysis

The Westway highway completed in 1970, has been criticised for the lack of care over the environment (Wayne, 2018), this is a two-and-a-half-mile long elevated highway linking the centre of London, England, with the west-of-England route to Oxford. In the decade or so preceding the construction of the Westway, the surrounding areas of North Kensington and Notting Hill became the first home in London for a generation of immigrants from the West Indies (Robertson, 2007).

When it is completed, people start to realise the highway is completely blocking the North-South connection of the area, isolating North Kensington. Many views and accesses are fenced off or blocked, as shown in the top two photos in Figure 7. Lowered air quality and noise pollution have reduced the quality of living for the residents living nearby. Homeless have found shelters underneath the highway, some of the 'awkward' or inconvenient leftover spaces generated by the highway have been claimed by mobile home-dwellers because they have no better place to go (Figure 7-4). Despite the space underneath and neighbouring the Westway highway being of poor quality, life has found its way to exist in there. For example, as shown in figures 7-5 and 7-6, sports facilities and stables have been placed below the roundabout. According to Lynch (1984),

people feel safe when they are familiar with their environment, where they can orient and navigate themselves in the environment. These modifications under the Westway highway are evident and these changes manifest efforts to make places more suitable for living by the local residence, despite the challenges brought by the infrastructure.
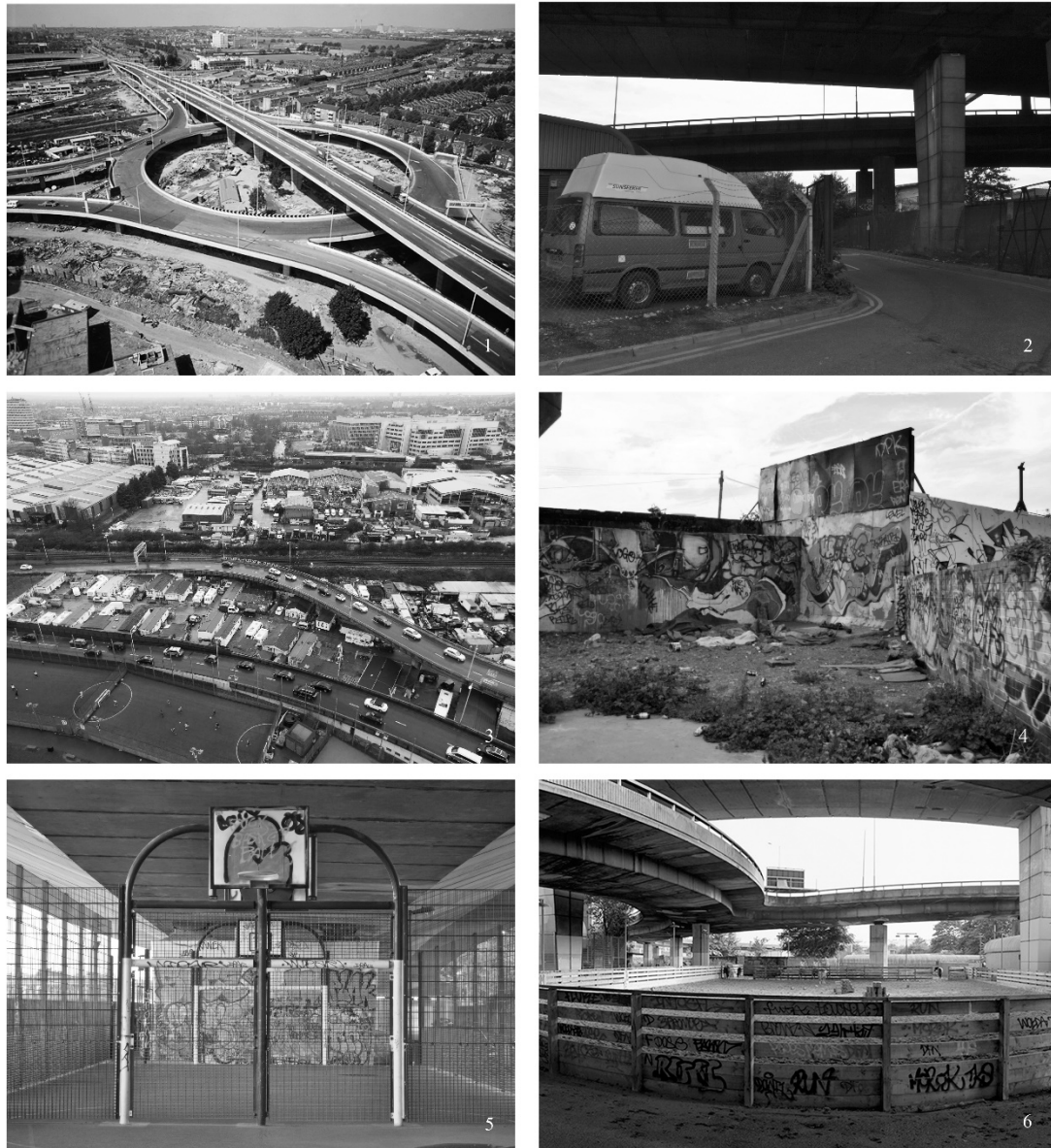

Figure 7: Images showing how the highway is blocking the North-South connections to the area

Space Syntax was also applied to the focus area. As a data-based method, space syntax helps us to understand integration and segregation in a city by defining its accessibility and identifying its pathological spaces. In figure 8, the most deprived areas of Kensington and Chelsea, according to the Deprivation maps are aligned with the least connected streets based on Space Syntax. It becomes clear from the analysis that the two correlate. The pockets of profound poverty are created by the street layout to a certain extent. For the Grenfell tower, it is located close to where the north end of St Ann's Road meets Bramley Road, and near the Latimer Road underground
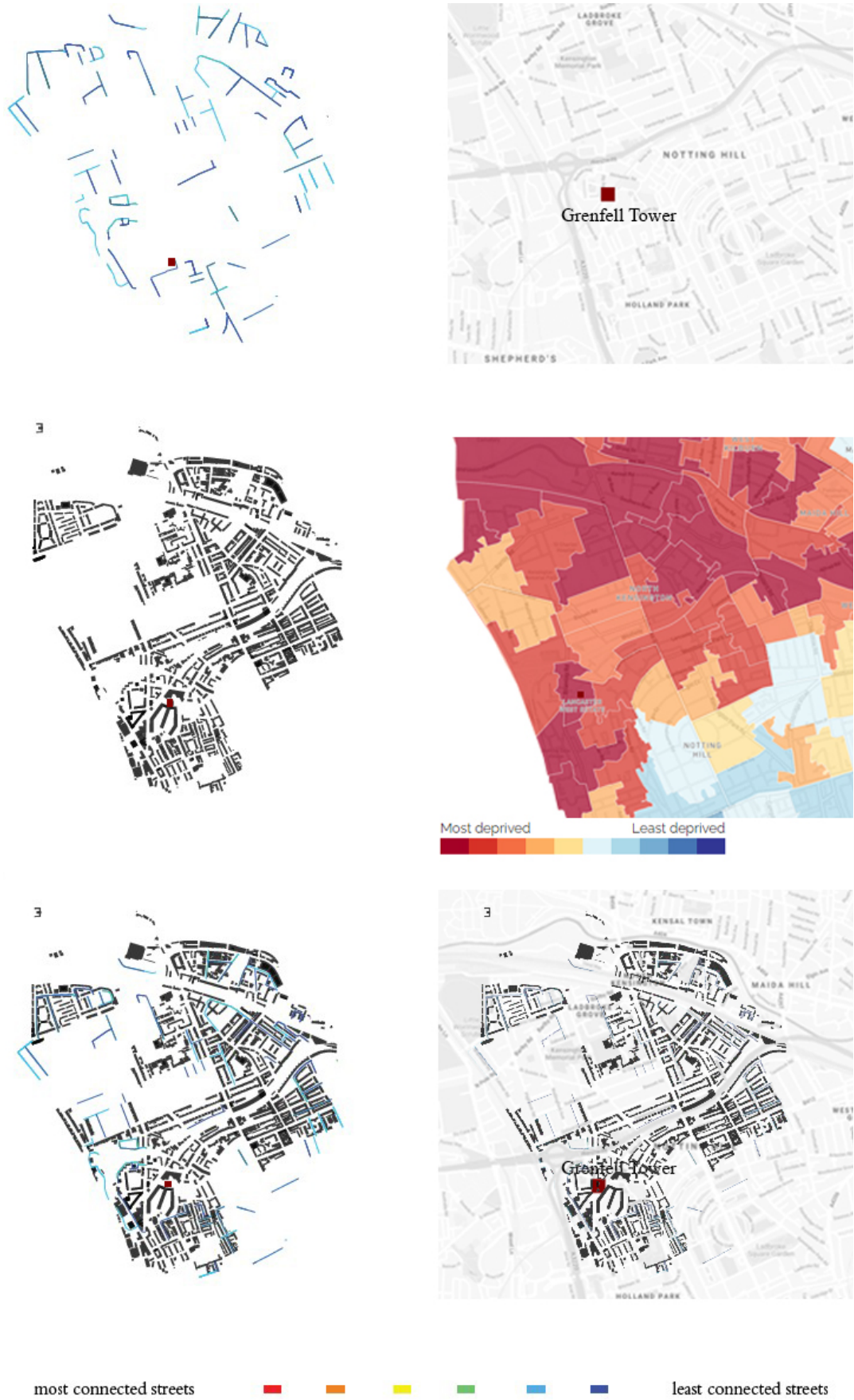
station.

Figure 8: Space Syntax & Deprivation combined analysis

The nearby side streets around the state are also blocked by majority social housing with some private rented, which gradually became a place not of communal warmth but of atomised despair.

5   AFTER THE GRENFELL TOWER FIRE

Located in the very deprived part of Kensington and Chelsea within the ward of Notting Dale, much of the Grenfell Tower neighbourhood is social housing and home to predominantly lower and modest income, working class, and many black and minority ethnic people, some of whom are migrants, these residents are in essence 'ordinary Londoners' (Alibhai-Brown 2017; Madden 2017; Watt 2017). However, no one anticipated the huge fire broke out on 14 June 2017. It started in a fridge on the 4th floor of the 24-storey residential tower block, crews from the London Fire Brigade arrived at the site within six minutes. However, before they could extinguish it, the fire had already spread beyond the kitchen window of the flat to the building's external cladding before rising rapidly up its exterior at a 'terrifying rate' (Bulman 2017), ended up taking 72 lives, with hundreds of families also lost their homes abruptly. This tragedy has lifted the Borough of Kensington and Chelsea to the spotlight and brought it in the middle of the discourse. The fire emphasised the discrimination of the lower income classes living in high-rise residential towers.

The debate goes about the victims being ethnic minorities, living below the poverty line. People were now losing their lives as the political agendas of the borough council and other organisations in lead continued neglecting the deprived areas and the concerns of the inhabitants. The residents of Grenfell had filed complaints concerning the safety of their homes prior to the accident. In 2016, the tower was renovated and commenced by KCTMO (Kensington & Chelsea Tenant Management Organisation). Designed by Studio E Architects, and led by contractor Rydon, the aim was to improve the tower's heating and energy efficiency, as well as external appearance "to prevent it looking like a poor cousin" Grenfell Tower Inquiry (2019) to a new academy school and leisure centre built close by. Due to a budget cut of 2 £ per square meter, a cheaper cladding – an aluminium composite rainscreen panel was chosen. Both the cladding with a polyethylene core and the PIR insulation plates failed fire safety tests conducted after the fire, as stated in the Phase 1 report, Grenfell Tower Inquiry (2019).

As Anna Minton described in her book The Big Capital, Grenfell is the epitome of those occurring throughout the whole country, there are many more underlying problems with the housing crisis but no clear answer how to solve them. According to her, housing in London has become a financial asset rather than a basic right. (Minton, 2017) Lynsey Hanley also criticised it in her article "Look at Grenfell Tower and see the terrible price of Britain's inequality" for the Guardian stated: "The privileged can buy their safety - high-rise dwellers and the poor are condemned to second-class status." (Hanley, 2017) As Hanley stated, Grenfell has to be the point where we recognise collectively the criminally destructive effects of Britain's class inequality

(Hanley, 2017). And these inequalities, in the case of the Grenfell Tower fire, indeed translated to compromised safety of the inhabitants.
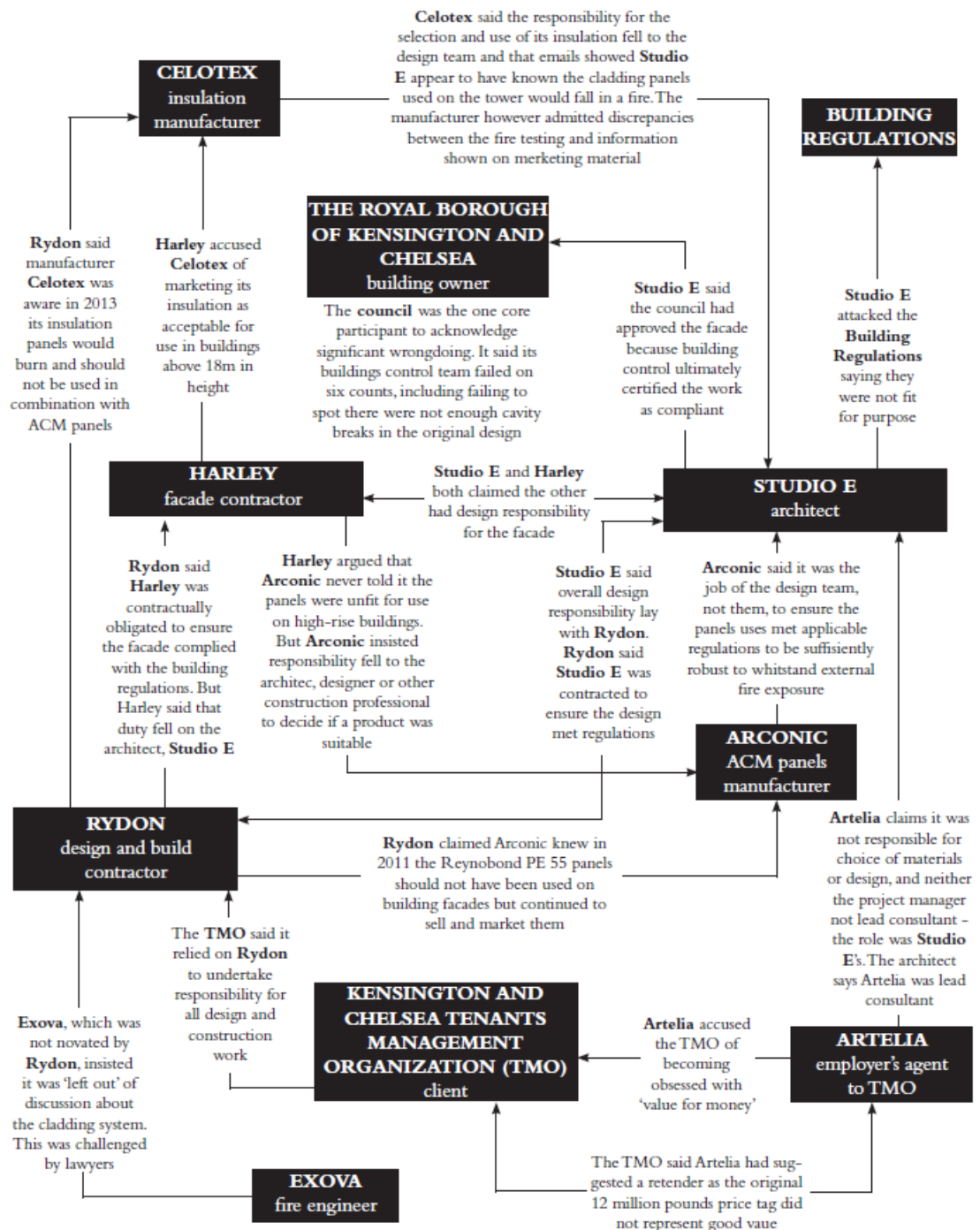

Figure 9: A chart on all responsive parties for the Grenfell Tower Fire, and what they have claimed after the disaster.

Many stakeholders were taking part in the renovation of the Grenfell Tower. The people affected by the fire demand answers and want someone to take responsibility. As seen in the chart as shown in Figure 9, the borough council was the only part-taker admitting to its wrongdoing. On 30 June 2017, Nicholas Paget-Brown, the former leader of the council, announced his

resignation, (Batchelor, 2017) he agreed the council had failed to adequately respond to the fire. The rest of the associates have only been bouncing around the responsibility, blaming each other for the events of that night.

The first part of a Public Inquiry was published on 30 October 2019, addressing the events on the night of the fire (Grenfell Tower Inquiry, 2019). The second part of the Inquiry is still ongoing, investigating the wider picture. Since 1994, KCTMO has been managing the whole housing sector of Kensington and Chelsea. Following the Grenfell Tower Fire in 2017 though, the council terminated its contract with them, and since January 2018, the housing has been directly managed by the council again (KCTMO, 2017).

The Grenfell Tower fire depicts political as well as social symbolism of London's division and inequalities. The event itself is monumental, being one of the most extreme illustrations of the issue of residential segregation in London's more recent history. Within the Royal Borough of Kensington and Chelsea, the accident becomes even more highlighted, in an area where the extremes in society live in close proximity. Since the Grenfell Tower fire, a series of politicians have made pledges of change, however, signs of progress have been extremely slow or long-delayed (Apps, 2019; Hart, 2021). According to the latest government figures, only twelve buildings have had dangerous cladding removed with the aid of a £5bn government fund, which was created to fix thousands of risky tower blocks (Prynn, 2022).

Residents in and around Grenfell also feel frustrated by the lack of answers, they have spent the past five years trying to process what the disaster means for their future and are desperate for clarity from the council about what will happen to the estate. "They want to get rid of the estate because it's the royal borough," said Ernest John, the resident of an evacuated block, as he waited for police officers to escort him into his home to remove key belongings. "The government has done nothing for us. They don't listen to us. They never address our problems." (Gentleman, 2017) In the short film 'The Tower Next Door: Living in the shadow of Grenfell', Nahid Ashby, the Chair of the Residents' Association, also expressed her worries, "there're four more residential towers around Grenfell, which are Dixon House, Whitstable House, Markland House and Frinstead House…less than 200 metres from the tower. We didn't just see, we heard it, felt it, smelled it, everybody has been affected – it's basically a tomb in the sky" (Healey, 2018).

Still today, the ghost of Grenfell is drawn on the skyline of the city. Thousands may have been traumatised by the Grenfell Tower fire. Survivors and the bereaved are still taking part in many activities, like silent walks, in memory of their loved ones and to call for justice. The second phase of the investigation starts four years after the fire, as a consequence, people have to wait a long period of time for the conclusion. According to the interviews of the victims, the community does not want the burned building as a haunting reminder to be there anymore (Grenfell United,

2020). The ruins of the Grenfell Tower are designated to be demolished in the year of 2022. And the community has requested a memorial park to be built on the site (Khomami, 2018), which "ensures Grenfell is never forgotten" (Grenfell United, 2020).

6 CONCLUSIONS

This research started with my interest in the divided city, London. I was curious about how financial extremes co-exist within the capital and how differences in living standards translate to social and spatial tension. In this research, social and spatial dissociations between different social classes were investigated in the Royal Borough of Kensington and Chelsea in London. The overlooked areas in North Kensington are long isolated from wealthy neighboring districts, creating a big tension between the two. The previous research shows the average earning and the median annual gross income per household can nevertheless fluctuate by tens of thousands of pounds between different social classes in this area. The rich are able to afford houses or apartments that are designed bigger, more sophisticated and safer for fewer occupants. In contrast, housing for poor people are mostly using high density design solutions, they were made much smaller, crowded and were built in areas where land costs are less, even inside roundabouts or along the highway. At the moment, a clear boundary between the rich and the poor is evident both spatially and socially through the mapping analysis. Public spaces and venues like community centres, playgrounds, green spaces and other amenities are not present to weave two polarised groups. Although efforts have been made, the local government still failed to substantially alter the geography of poverty by addressing fundamental living problems from the most deprived neighborhoods. Grenfell was not simply an unfortunate tragedy but was symptomatic of the social inequalities that pervade contemporary Britain.

The analysis has revealed the growing economic disparity between the rich and poor in this London borough. And the geography of poverty in the city has persisted over time. With mapping and space syntax analysis, spatial attributes are marked, such as uncrossable urban infrastructure, the overly complex geometry of street layouts and leftover spaces without clear signs of function and value for the local community. Moving forward, this borough demands a lot more spatial interventions to address identified local vulnerabilities and urban issues, local representatives need to keep making pledges of change, for new policies in tackling urban inequalities and social polarisation. All parties will need to work together to slow down the increasing inequality and divergent urban development to prevent another Grenfell disaster.

REFERENCES

Alibhai-Brown, Y. (2017). "Grenfell Tower Should Be Left Standing as a Reminder of All that is Unequal in Britain." Retrieved 5 January 2022, *inews*, https://inews.co.uk/opinion/grenfell-tower-left-standing-reminder-unequal-britain/

Apps, P. (2019). Have the promises made after Grenfell been kept?. *Inside Housing*. Retrieved 1 January 2022, from https://www.insidehousing.co.uk/insight/insight/have-the-promises-made-after-grenfell-been-kept-61684.

Arribas-Bel, D. (2017). *London: The Information Capital: 100 Maps and Graphics That Will Change How You View the City.*

Atkinson, R. (2021). *Alpha city: How London was captured by the super-rich.* Verso Books.

Batchelor, T. (2017). "Kensington Council leader Nicholas Paget-Brown resigns after fatal Grenfell tower fire," Retrieved 1 January 2022, *Independent,* https://www.independent.co.uk/news/uk/home-news/kensington-council-leader-nicholas-paget-brown-resigns-grenfell-tower-fire-residents-survivors-tory-conservative-press-a7817396.html

LSE. (2016). *What were the poverty maps? | Charles Booth's London.* Retrieved 4 September 2021, from https://booth.lse.ac.uk/learn-more/what-were-the-poverty-maps.

Bulman, M. (2017). "Grenfell Tower Graphic: What we know about how the Fire Spread." *Independent*, 15 June. Retrieved 5 January 2022, https://www.independent.co.uk/news/uk/home-news/grenfell-tower-how-fire-spread-graphic-a7792661.html

Cassis, Y. (2010). *Capitals of capital: the rise and fall of international financial centres 1780-2009.* Cambridge University Press.

Coad, E. D. (2017). After Grenfell: Housing and Inequality in Kensington and Chelsea "the most unequal borough in Britain" Government Report. Retrieved 5 January 2022, from http://emmadentcoad.co.uk/freedom/

CrystalRoof (2021). Retrieved 5 January 2022, from https://crystalroof.co.uk/

Dehaene, M., & De Cauter, L. (2008). *Heterotopia in a postcivil society*, pp. 15-22. Routledge.

Fordham Research. (2019). "Strategic Housing Market Assesment Report: Royal borough of Kensington&Chelsea" Rbkc.gov.uk. Retrieved 5 January 2022, from https://www.rbkc.gov.uk/wamdocs/SHMA%20Report.pdf

Gentleman, A. (2017). 'Where are we going to live?': Grenfell Tower locals face uncertain future. *The Guardian*. Retrieved 4 January 2022, from https://www.theguardian.com/uk-news/2017/jun/16/where-are-we-going-to-live-grenfell-tower-locals-face-uncertain-future.

Gentleman, A. (2017). Grenfell Tower MP highlights huge social divisions in London. *The Guardian.* Retrieved 4 October 2021, from https://www.theguardian.com/inequality/2017/nov/13/grenfell-tower-mp-highlights-huge-social-divisions-in-london.

Grenfell Tower Inquiry, (2019) Phase 1 Report Overview - Report of the public inquiry into the fire at Grenfell Tower on 14 june 2017. Retrieved 5 January 2022, https://www.grenfelltowerinquiry.org. uk/phase-1-report

Grenfell United, (2020). REMEMBER GRENFELL - A special memorial for the 3rd Year Anniversary. Retrieved 7 January 2022, from https://youtu.be/i-khO6DIC0E

Hanley, L. (2017). Look at Grenfell Tower and see the terrible price of Britain's inequality | *The Guardian*. Retrieved 1 January 2022, from https://www.theguardian.com/commentisfree/2017/jun/16/grenfell-tower-price-britain-inequality-high-rise.

Hart, I. (2021). Grenfell Tower fire: Government "hid" fire safety risks. SHP - *Health and Safety Practitioner.* Retrieved 1 January 2022, from https://www.shponline.co.uk/fire-safety-and-emergency/grenfell-tower-block-tragedy/.

Healey, A. (2018). The Tower Next Door: Living in the shadow of Grenfell [Film]. *The Guardian*. Retrieved 7 January 2022, from https://www.theguardian.com/inequality/ng-interactive/2017/nov/18/life-shadow-grenfell-tower-next-door

KCTMO. (2017) Kensington and Chelsea Tenant Management Organisation. Retrieved 7 January 2022, from http://www.kctmo.org.uk/.

Khomami, N. (2018). "Grenfell Tower site to be turned into memorial," *The Guardian*, March 1, 2018. Retrieved 7 January 2022, from https://www.theguardian.com/uk-news/2018/mar/01/grenfell-tower-site-to-be-turned-into-memorial

King, A.D. (1990). *Global cities: post-imperialism and the internationalization of London*. London: Routledge.

Leeser, R. (2020). Poverty in London 2018/19 – London Datastore. Data.london.gov.uk. Retrieved 4 September 2021, from https://data.london.gov.uk/blog/poverty-in-london-2018-19/.

London Poverty & Inequality Key Facts - Trust for London | Trust for London. (2021). Retrieved 4 September 2021, from https://www.trustforlondon.org.uk/data/key-facts-london-poverty-and-inequality/

Lusher, A. (2017). Grenfell Tower residents complained two years ago of 'cheap materials and corner cutting' in block's refurbishment. *Independent*. Retrieved 4 September 2021, from https://www.independent.co.uk/news/uk/home-news/grenfell-tower-fire-residents-fears-warnings-ignored-kensington-chelsea-borough-council-tmo-refurbishment-cladding-rydon-cheap-materials-cut-corners-corner-cutting-safety-rich-ps5-000-flammable-flame-resistant-a7794086.html.

Lynch, K. (1984). *Reconsidering the image of the city. In Cities of the Mind* Springer, Boston, MA. pp. 151-161.

Madden, D. (2017). "Editorial: A Catastrophic Event." *City* 21: 1–5. doi: 10.1080/13604813.2017.1348743

Marcus, L. (2010). Spatial Capital. *The Journal of Space Syntax*, 1(1), 30-40–40.

Minton, A. (2017). Big capital: Who is London for? *London: Penguin*, pp.1-14.

ONS (2019). London Datastore, Earnings by Place of Work, Borough. Retrieved 5 January 2022, https://data.london.gov.uk/dataset/earnings-workplace-borough

ONS (2021). Earnings by Place of Residence, Borough – London Datastore. Data.london.gov.uk. Retrieved 5 January 2022, from https://data.london.gov.uk/dataset/earnings-place-residence-borough.

Orford, S., Dorling, D., Mitchell, R., Shaw, M., & Smith, G. D. (2002). Life and death of the people of London: a historical GIS of Charles Booth's inquiry. *Health & place*, 8(1), 25-35.

Pacione, M. (2002). *Urban restructuring and the reproduction of inequality in Britain's cities: an overview* (pp. 25-78). Routledge.

Prynn, J. (2022). £5bn building safety pot has funded just 12 cladding removals. *Standard.co.uk*. Retrieved 7 January 2022, from https://www.standard.co.uk/homesandproperty/property-news/cladding-crisis-building-safety-fund-cladding-removal-b975427.html.

Robertson, S. (2007). Visions of urban mobility: the Westway, London, England. *cultural geographies*.14(1):74-91. doi:10.1177/1474474007072820

Hiller, B. & Raford, N. (2010). Description and Discovery in Socio-Spatial Analysis: The Case of Space Syntax. The SAGE handbook of measurement. Los Angeles: SAGE. https://dx.doi.org/10.4135/9781446268230.n14

Spicker, P. (2003). Poor area and the 'ecological fallacy', *Radical Statistics*, 76(Winter).

Vaughan, L. (2018). *Mapping society: The spatial dimensions of social cartography*, p. 268. UCL Press.

Vaughan, L., Clark, D. L. C., Sahbaz, O., & Haklay, M. (2005). Space and exclusion: does urban morphology play a part in social deprivation?. *Area*, 37(4), 402-412.

Vergara-Perucich, F. (2019). "Richard Florida: The new urban crisis: how our cities are increasing inequality, deepening segregation, and failing the middle class—and what we can do about it" *Journal of Housing and the Built Environment*, volume 34, pp.647–649

Watt, P. (2017). "'This Place Is Post-Something' – London's Housing In The Wake Of The Grenfell Tower Fire." City-online. http://www.city-analysis.net/2017/06/23/this-place-is-post-something-londons-housing-in-the-wake-of-the-grenfell-tower-fire-paul-watt/

Wayne, A. (2018). *Rings Around London: Orbital motorways and the battle for homes before roads.* London: Capital History, pp. 157

Wendling, A. (1968). Pfautz (ed.): Charles Booth on the City: Physical Pattern and Social Structure (Book Review). *Social Forces,* 47(2), 230.