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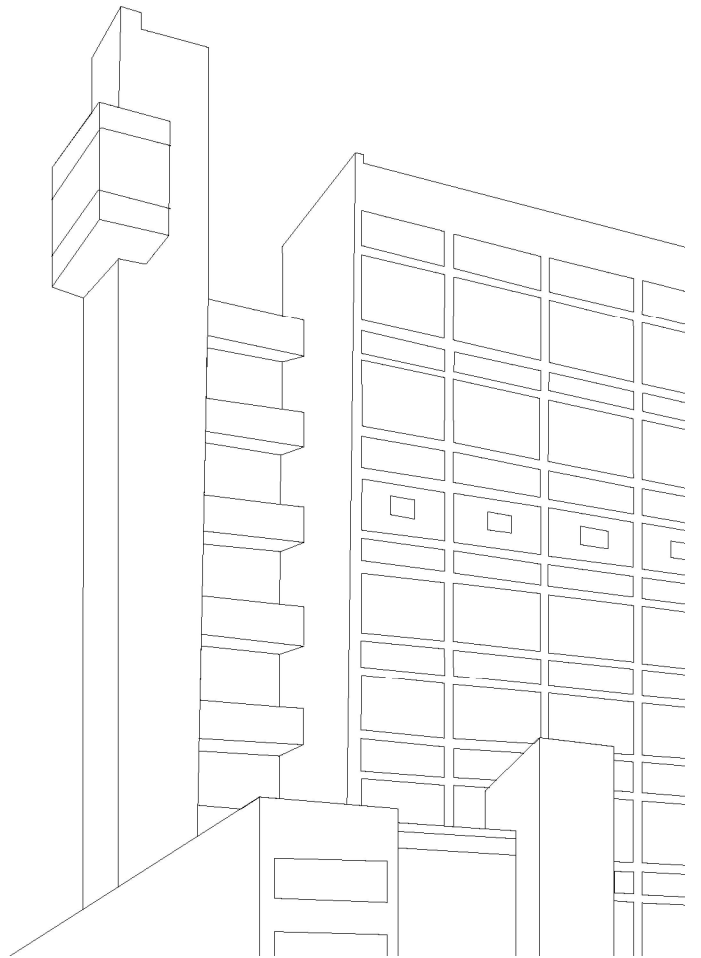
RESEARCH SEMINAR GRADUATION STUDIO
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RISE & FALL

RESEARCH REPORT

BRITISH POLITICAL DEBATE CONCERNING THE HOUSING CRISIS
HAS RETURNED ITS FOCUS UPON COUNCIL HOUSING

'Of course, within these so-called sink estates, behind front doors, families build warm and welcoming homes. But step outside in the worst estates, and you're confronted by concrete slabs dropped from on high, brutal high-rise towers and dark alleyways that are a gift to criminals and drug dealers. The police often talk about the importance of designing out crime, but these estates actually designed it in. Decades of neglect have led to gangs, ghettos and anti-social behaviour. And poverty has become entrenched, because those who could afford to move have understandably done so.'

I believe we are in the middle of a turnaround decade for Britain. And it all comes back to one word: security. I want this to be the decade where we deliver the economic security that working people and British businesses need to flourish; and where our national security is preserved as we strengthen our defences and defeat the scourge of Islamist extremism for good.

There's another crucial dimension to our plans: social reform – bringing security to families who currently have none at all. As I said 3 months ago in Manchester, a central part of my second term agenda is to wage an all-out assault on poverty and disadvantage. And tomorrow, I will set out our plan to extend life chances across Britain, and really get to grips with the deep social problems – the blocked opportunity, poor parenting, addiction and mental health problems – that mean so many are unable to fulfill their potential.

There's one issue that brings together many of these social problems – and for me, epitomises both the scale of the challenge we face and the nature of state failure over decades. It's our housing estates. Some of them, especially those built just after the war, are actually entrenching poverty in Britain – isolating and entrapping many of our families and communities. I remember campaigning in London as far back as the 1980s in bleak, high-rise buildings, where some voters lived behind padlocked and chained-up doors. In 2016, for too many places, not enough has changed.

Of course, within these so-called sink estates, behind front doors, families build warm and welcoming homes. But step outside in the worst estates, and you're confronted by concrete slabs dropped from on high, brutal high-rise towers and dark alleyways that are a gift to criminals and drug dealers. The police often talk about the importance of designing out crime, but these estates actually designed it in. Decades of neglect have led to gangs, ghettos and anti-social behaviour. And poverty has become entrenched, because those who could afford to move have understandably done so.

One of the most concerning aspects of these estates is just how cut-off, self-governing and divorced from the mainstream these communities can become. In some places, there is severe social segregation, and it damages us all when communities simply don't come into contact with one another. And that allows social problems to fester and grow unseen. The riots of 2011 didn't emerge from within terraced streets or low-rise apartment buildings. As spatial analysis of the riots has shown, the rioters came overwhelmingly from these post-war estates. Almost 3 quarters of those convicted lived within them. That's not a coincidence.

As we tackle this problem, we should learn the lessons from the failed attempts to regenerate estates in the past. A raft of pointless planning rules, local politics and tenants' concerns about whether regeneration would be done fairly all prevented progress. And if we're honest, there often just wasn't the political will and momentum in government to cut through all of this to get things done.

So what's our plan? Today I am announcing that we will work with 100 housing estates in Britain, aiming to transform them. A new Advisory Panel will help galvanise our efforts and their first job will be to build a list of post-war estates across the country that are ripe for re-development, and work with up to 100,000 residents to put together regeneration plans. For some, this will simply mean knocking them down and starting again. For others, it might mean changes to layout, upgrading facilities and improving local road and transport links.

The panel will also establish a set of binding guarantees for tenants and homeowners so that they are protected.

To finance this, we'll establish a new £140 million fund that will pump-prime the planning process, temporary rehousing and early construction costs. And we'll publish an Estates Regeneration Strategy that will sweep away the planning blockages and take new steps to reduce political and reputational risk for projects' key decision-makers and investors.
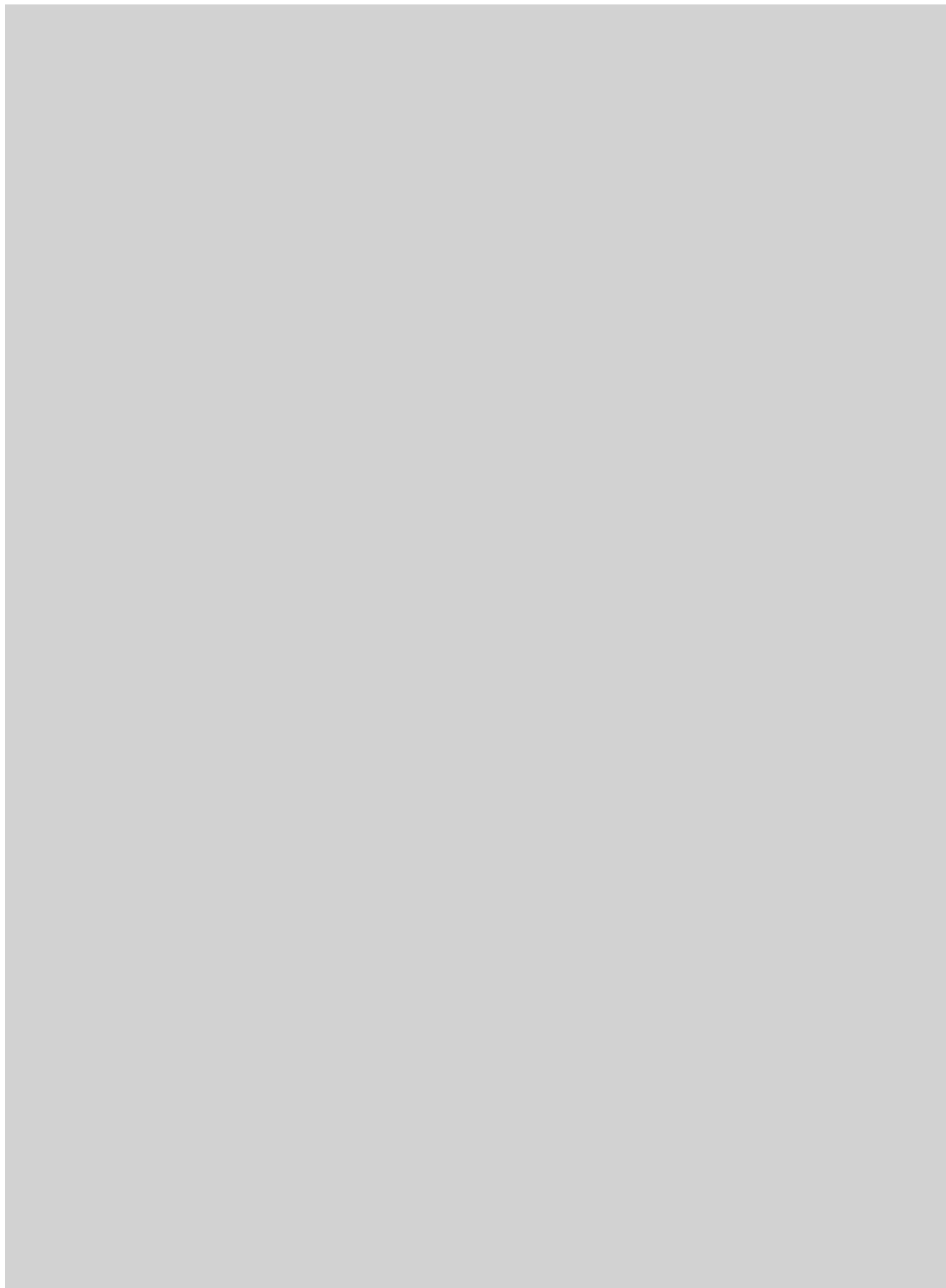
There's a second critical by-product of our plan. Tomorrow a report from Savills will show that this kind of programme could help to catalyse the building of hundreds of thousands of new homes in London alone. This is because existing estates were built at a lower density than many modern developments – poorly laid-out, with wasted open space that was neither park nor garden. So regeneration will work best in areas where land values are high, because new private homes, built attractively and at a higher density, will fund the regeneration of the rest of the estate.

For decades, sink estates – and frankly, sometimes the people who lived in them – had been seen as something simply to be managed. It's time to be more ambitious on every level. The mission here is nothing short of social turnaround, and with massive estate regeneration, tenants protected and land unlocked for new housing all over Britain, I believe that together we can tear down anything that stands in our way.[1]

1   Prime Minister's Office, 10 Downing Street, The Rt Hon David Cameron MP and Department for Communities and Local Government, *Estate Regeneration: article by David Cameron,* accessed 12th January 2016, https://www.gov.uk/government/speeches/estate-regeneration-article-by-david-cameron.

TABLE OF CONTENTS

Chapter Cover: Waine and Bailey
Houses under construction in Brown-
hills during the 1960's.
Source: Marion Jones

INTRODUCTION

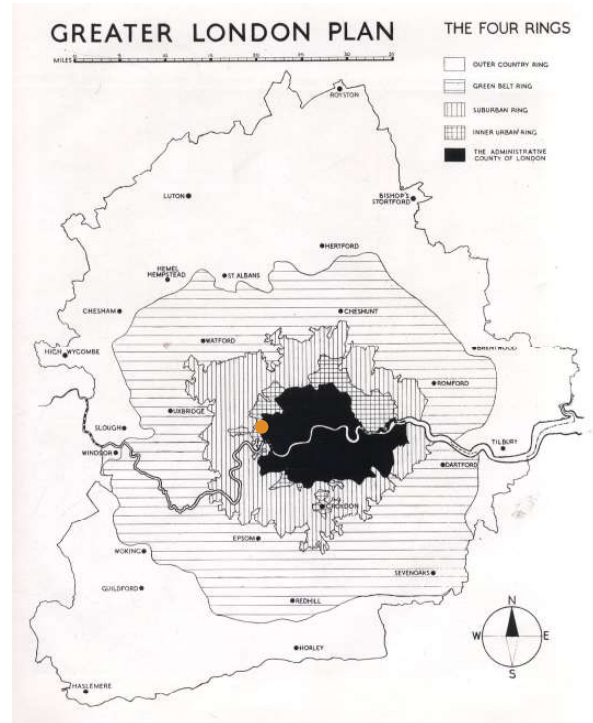Figure 1.3: Trellick tower
Source: Author

Figure 1.4: Site Location
Source: The Greater London Plan, Sir Patrick Abercrombie

This research has been undertaken as part of the Dutch Dwelling Graduation Studio at the TU Delft, investigating the theme of Transformation in the context of Council housing in the United Kingdom.

The topic of Council housing is not solely dependent upon architecture. A mix of politics, culture and economics have had an enormous impact upon the outcome of the estates built in the post-war period. To ignore this would be to grossly oversimplify the situation. Within this research the socio-political and economic contexts will be introduced by means of contextualising the buildings and approach. However the architectural manifestation remains the primary concern of the analysis. Whilst we acknowledge the contribution of many fields in the realisation of council housing it is through the lens of architecture that an analysis will be undertaken, observing how design has directly contributed to the issues that have pervaded council housing in recent decades.

In this research Trellick Tower will be analysed as a case study into the shortcomings of council housing and how through successive transformations it has been or will be possible to overcome the problems created. The topic of future transformation will be addressed by demonstrating the intended plans for transformation alongside recent transformations to the Warwick estate, which is typologically similar to Trellick. Understanding it's approach compared to Trellick will inform future approaches for its transformation, which is the ultimate aim of this research.
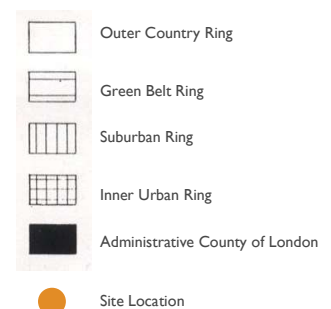

Outer Country Ring

Green Belt Ring

Suburban Ring

Inner Urban Ring

Administrative County of London

Site Location

Post-War Council Housing in the United Kingdom is a difficult and divisive topic. On one hand its inception lifted many in working classes out of impoverished living conditions; however its long-term appreciation has waned. In part this is due to its physicality; typically consisting of large, imposing concrete high-rises in a severe terrain of open-space. Accounts of life within these estates frequently begin with an optimistic energy in the early years, but over time a compromised standard of living becomes clear, either due to the poor quality of construction and maintenance of the buildings, or the behavior of the residents of the estate. Few buildings embody these virtues as strongly as Trellick tower, the high-rise element of the Cheltenham estate in West London:

"The nightmare would start moments after entering the lobby. Stench of urine, beer and stale sweat would seep from shadows, the lights would be smashed again and the corridor vandalised into gloom"

Rory Carroll, *How did this become the height of fashion,* The Guardian, March 11, 1999.

Although the locations of these estates vary across the United Kingdom several characteristics exist within all of them. The research conducted by Anne Power uncovers several criteria which create conditions where anti-social behaviour can occur within council estates:

- *Lack of security*
- *Neglected spaces*
- *Ground floor activation*
- *Concealed spaces*
- *No feeling of community*
- *Isolated Dwellings*

Anne Power, *Property before People*, 1987.

It is the concern of this research to uncover the means of transforming council estates in order to positively address the living conditions within them. The pertinence of the issue of council estates is profound. Within the UK the aging nature of these estates, along with another chronic housing and affordability crisis has focused political and economic attention upon council estates once again. The words of Prime Minister David Cameron outline the political agenda to demolish estates within the UK and regenerate into higher density affordable housing, believing that many

of their faults and failings are irreparable elements of their design. Given the intense economic and social momentum that was required to construct these vast estates, and that which will again be required to re-construct housing on these sites, it is perhaps time to focus on the need to transform council estates. This could provide living conditions which are more fitting to today's living standards without the burdensome costs of demolition and social challenges of displacing council estate residents. But how did estates fall from the height of architectural and urban design to places of disrepute? What is clear is that there is a mix of factors at play which resulted in this scenario; and of course, the true cause of the problems is a combination of some, or maybe even all of them. This report is made to investigate how architecture and the design of space contributed to conditions which accommodated anti-social behaviour, and how, through transformation the problems created can be alleviated. It is the hypothesis of this research that the unclear definitions between truly public and collective space within the design of Council estates is the largest design feature which supports anti-social behaviour. Within this there are several subquestions:

- Which spaces within Estates contribute to anti-social behaviour?
- Have subsequent transformations adequately addressed these spaces?
- How can the techniques used be applied similar buildings?
- What problems remain and are there ways to address these issues?

The pursuit of answers to these questions will be sharpened by the analysis of Trellick Tower and the Edenham estate as a case study of a failing estate which has been transformed over time.

The structure of the research is divided into four sections. An overview of post-war social housing will first set the context of the time in which Trellick Tower was designed and constructed; allowing the reader to grasp the Utopian ambitions of the era, and the ideals of the architecture that hoped to deliver this dream. This will be conducted through extensive literature research.

Figure 1.5: Trellick Tower viewed from the Grand Union Canal
Source: Author

Figure 1.6: Trellick Tower viewed from the Grand Union Canal
Source: sabotagetimes.com

The second section will discuss the material realisation of Trellick tower. This will be carried out using analytical drawings, specifically highlighting the connection between the canonical architecture of the time and the realisation of these concepts within the building. At this point analysis into the shortcomings of these design features will also be conducted to understand specifically which features of the building worked well or poorly, and which were responsible for the demise of Trellick tower from an icon of modernity to a ghetto of relative deprivation.

A conclusion in the form of a shortlist of issues will sum up the problems with Trellick tower as it was circa. 1980.

The identified issues, specifically concerning collective spaces will then be used to assess the recent transformations to Trellick tower, and the Warwick estate; where intervention was both more radical and physical.

Warwick estate is in West London, quite close to Trellick tower. This estate, consisting of 6 21-storey residential high-rises has recently been transformed in order to overcome several issues with the collective and public space around these buildings. This estate shows many similarities with the Trellick tower such as the time in which it was built and the area it is situated in.

Comparative graphic analysis between all three of these projects (Trellick past, Trellick present and Warwick) will highlight the array of strategies adopted to address problematic collective spaces. From this an evaluation of the strategies used, will quantify the successes and shortcomings of each design strategy.

To conclude a matrix showing the range of issues arising from poorly defined public space will be formulated along with the strategies implemented to alleviate these problems. This will form the basis of a list of recommendations suggesting appropriate transformation strategies for Trellick and other council-estates.

Trellick tower

Architect:	Ernö Goldfinger
Year:	1972
Location	North-Kensington, London
Units:	217

Warwick Estate

Architect:	LCC
Year:	1962
Location	Westminster, London
Units:	300+

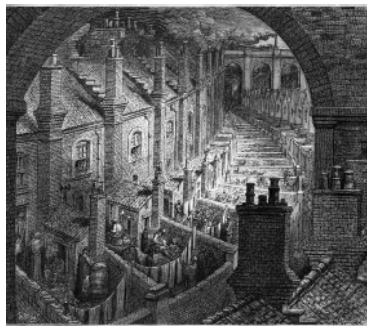# UTOPIAN AMBITION AND NECESSITY: THE EMERGENCE OF COUNCIL HOUSING

Figure 2.1: Gustav Dore: London by Rail. 1872.
Source: Tate Gallery

Figure 2.2: Charles Booth poverty of Whitechapel, London.
Source: http://www.sciencemuseum.org.uk/

The houses were in a most deplorable condition—the plaster was dropping from the walls; on one staircase a pail was placed to catch the rain that fell through the roof. All the staircases were perfectly dark; the banisters were gone, having been burnt as firewood by tenants. The grates, with large holes in them, were falling forward into the rooms. The wash-house, full of lumber belonging to the landlord, was locked up; thus the inhabitants had to wash clothes, as well as to cook, eat, and sleep in their small rooms. The dustbin, standing in the front of the houses, was accessible to the whole neighbourhood, and boys often dragged from it quantities of unseemly objects and spread them over the court.

Octavia Hill, Four Years' Management of a London Court, from Octavia Hill and the Social Housing Debate: Essays and letters by Octavia Hill, ed. Robert Whelan (Bury St. Edmunds: 1998, Civitas) p52-53

Council housing is a very particular type of housing which emerged over time from specific conditions in the United Kingdom. Before we can investigate collective space within this condition the context underpinning its very existence must first be explained. First a general introduction will give an overview of the creation of social housing, followed by a specific elaboration on the production of high-rise council housing.

Though the provision of housing has been a preoccupation of the church and in instances the monarchy over the centuries it was only following the Industrial Revolution of 18th Century that housing became a concern of a new emerging middle-class. Their wealth was being driven though the newly industrialised manufacture and production techniques, which resulted in a large working-class population. Figures from the time show that from 1801 to 1850 the population of the United kingdom doubled from 8,893,000 to 17,928,000[1]. Much of this population were also part of a wave of urban migration, moving to the city to better their prospects with employment in industry as opposed to the subsistence of rural agricultural production. Accommodated in overcrowded housing close to polluting factories their health and hygiene quickly declined.

...They were part of the process of town decay in which, from the late eighteenth century onwards, the better-off classes had begun to desert the noise, dirt and smell of overcrowded city centres for the peace and social homogeneity of the suburbs, leaving behind a vacuum that was quickly filled to overflowing by waves of fresh migrants. In a literal sense, much tenement housing was residual - what had been left over and abandoned after the needs of the more prosperous had been satisfied in newer, more salubrious, districts.[2]

The extreme dearth of housing provision, both in terms of its lack of production and the inadequate political structure to enable its delivery resulted in the adaptation of existing housing stock to accommodate this wave of urban in-migration. Many previously single family dwellings were subdivided into new typologies (Cellar dwellings, Lodging-houses, Tenement Houses and the infamous back-to-back row house.) With multi-family occupation and in some instances up to twenty persons living in each dwelling, combined with the inadequacy of the dwelling typologies to accommodate such density the quality of life of the working class, both in terms of health and wellbeing, declined markedly.

Social reformers such as Octavia Hill campaigned against these living conditions. Through campaigning and philanthropy on the part of wealthy and influential members of society she was able to provide housing for the working-class which adequately met their needs. At this time several other industrialists began to build minimum-standard housing for employees built around their factories in green open land outside the congested polluted cities. Understanding that a more content, well housed workforce would be more productive led to the construction of model villages such as Bournville and Port Sunlight, which in themselves were based upon the ideals of a quaint English village in the countryside.

Nevertheless the intervention by philanthropists alone was not going to solve a much larger housing crisis. In 1885 the Housing of the Working Classes Act 1890 was passed, which was the first step in legislating and regulating housing standards

1   Mitchell and Deane. *Population and Vital Statistics 2. U.K. Population and Intercensal Increases*, 1801-1851. 6.

2.   John Burnett, *A Social History of Housing 1815-1985*. (London: Meuthen &Co, 1986). 65.

in the United Kingdom. As part of the work that led to this act Charles Booth conducted research into the living standards in several areas of London, producing poverty maps showing the extent of the problem. Most striking were the areas of 'Vice' were living standards were so poor that residents were forced, in their destitute and poverty stricken condition, into a life of crime and violence.

The discussions of how to address the issue of crowded working-class neighbourhoods was a topic of common conversation in the latter half of the nineteenth century. Sir Ebenezer Howard's contribution, *To-morrow: a Peaceful Path to Real Reform -The Garden City* attempted to zone new urban settlements according to 'Three magnets' concept, where town, country and industry would all be separated for the wellbeing of the residents. Behind this was an economic model of affordable land ownership in collective trusts, where each resident is equal shareholder and private home owner. This would then create a cluster of small, connected cities within the garden or countryside of around 30,000 inhabitants located on the basis of service provision around a much larger urban centre of 250,000.

Such an approach was subsequently adopted by the government in the form of The Tudor Walters Report (1917). This was the first step towards the utopian Garden City. Containing detailed specifications, illustrations and model plans it attempted to legislate the idyllic low-density, rural lifestyle so longed for by the British middle classes and advocated by architects like Sir Raymond Unwin. Moreover this report also introduced new space-standards for kitchens and bathrooms, areas where advancements in sanitary technologies had yet to be matched by a shift in the allocation of space within the dwelling.

Two-storied cottages, built in groups of four or six, with medium or low-pitched roofs and little exterior decoration, set amongst gardens, trees... and often laid out in cul-de-sacs...have such a distinct character that it is hard to mistake them for anything else.[3]

3   M. Swenarton, Homes Fit for Heroes: The Political and Architecture of Early State Housing in Britain (London, 1981), p. 1.

Nevertheless the provision of this form of housing was for the middle-classes who were fleeing the inner-city. Necessary interventions were required to transform inner-city areas to provide adequate housing for the working-class. The Housing Act (1919). and Homes for Heroes campaign quickly followed. Health surveys conducted during the conscription of the population during the First-World War highlighted how poor health was becoming due to poor living conditions. Spearheaded by Dr. Christopher Addision, the Minister of Health at the time, a series of these acts between 1919 and 1930 mandated the renewal of inner-city housing and the clearance of slums; with the government providing large subsidies for the reprovision of this housing in accordance with Garden City principles. It was hoped by 1921 to have delivered 500,000 homes, however the onset of the great depression hindered the ability to meet this target.[4]

The poster child of this era, and the aspiration for the working class was the suburban ideal of Letchworth and Welwyn Garden Cities. Letchworth was founded in 1905 and adhered strongly to both Howard's vision of the zoned sub-centre surrounded by countryside, and Unwin's architectural expressions in mock-vernacular styles. Dwellings were typically detached with their own private greenspace and densities were low, averaging around 35 dwellings per hectare; in short doing little to solve the mounting crisis of inner-city overcrowding. Instead of addressing this politicians looked to the city fringes where greenfield sites offered the opportunity to deliver a new, low-density sprawling future, whilst the inner-city remained in destitute squalor. It would not be until the town development act of 1952 that the urban slums in existing centres would be radically addressed.[5] Nonetheless the United Kingdom was on the cusp of a defining moment in its history, a legacy of

4   'Council Housing', UK Parliament, accessed 12th October 2015, http://www.parliament.uk/about/living-heritage/transformingsociety/towncountry/towns/overview/councilhousing.

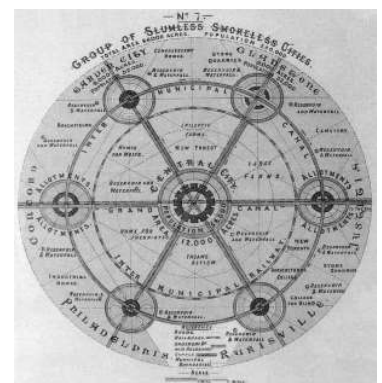5   'Town Development Act 1952' accessed 12th October 2015, http://www.legislation.gov.uk/ukpga/Geo6and1Eliz2/15-16/54/section/1.

Figure 2.3: Ebenezer Howard, *Garden City model.*
Source: https://en.wikipedia.org/wiki/Ebenezer_Howard
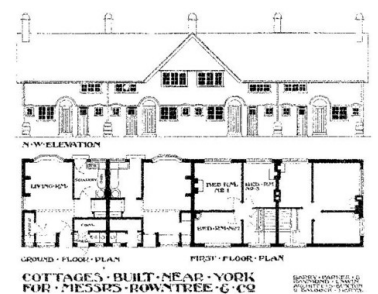
Figure 2.4: Raymond Unwin: Cottages near York.
Source: https://en.wikipedia.org/wiki/New_Earswick

Figure 2.5: Advertisement for Letchworth Garden City.
Source: Neil Hall Photography

Figure 2.6: Trellick Tower under construction.
Source: http://bbc.co.uk

Figure 2.7: Aylsbury Estate under construction.
Source: http://www.aylesburynow.london/

Figure 2.8: Lansbury Estate
Source: http://www.british-history.ac.uk.gif

socialism which stands strong to this day.

In 1942 William Beverage, a Liberal Economist, published the report on Social Insurance and Allied Services in which he outlined five 'Giant Evils' in society at that time: Squalor, Ignorance, Poverty Ideness and Disease.[6] In order to rid the population of these evils Beveridge went on to propose widespread and radical reforms to the social welfare system. A series of acts between 1942 and 1948 addressed Social security, Healthcare, Education Housing and Employment, with some of the outcomes being National Insurance, State-funded pensions and the National Health Service, collectively referred to as the Welfare State. Crucially the State provision of housing for the poor and working classes was also established, and thus the council house was born.

In 1944 these acts were followed-up by the Dudley report and the Housing Manual, which sought to improve the space standards of the Tudor Walters report to create housing now suitable with new needs, social trends and expectations. Again its focus was largely upon the internal standards of rooms, negating the collective and public elements surrounding the individual dwelling, and advocated an increase in the average dwelling size from circa 75m² to approximately 90m². Whilst it did encourage a greater diversity of dwelling typologies to cultivate a more mixed community it did little to overcome the feeling of an emerging suburban malaise. The transformation of the kitchen and living spaces with the concept of the working kitchen replaced with the kitchen/dining room where key drivers of this report. Technological advances enabled the individual water boiler, gas and electric to replace solid fuels and the need for chimneys and flues for each individual dwelling. Even at this point however there was scant mention of the high rise dwelling or the flat typology. Cavity wall construction and social prejudices still believed in the semi-detached dwelling as the saviour of the housing crisis.[7]

6   William Beveridge. Social Insurance and Allied Services. British Library. BL. Retrieved 8 July 2014.
7   A Social History of Housing. 299.

Despite this optimism there remained an issue of production. Bricks and gardens are lovely but they are expensive, space hungry and slow to construct. If this was to continue the issue of housing provision would simply snowball beyond control. What was needed was a fast, efficient means to deliver housing to the masses, whilst elevating their living standards to the highest possible level. What was needed was to industrialise housing production.

Two final acts of parliament announced this significant change of approach, the New Town act (1946) and the Children's act (1948). With these the need to supply fast, efficient and high-quality housing is met by a political structure able to provide for the mounting demand. Central government must now only designate land suitable for new Town development and then hand-over development control and to Development Corporations, state-run entities responsible for the delivery of these new areas. This required careful planning of new and existing urban areas, and in the case of London was the reasoning for Sir Patrick Abercrombie's London plan (1943-1948).

The 1951 Festival of Britain exemplifies the approach of the Lansbury Estate. Britain's politicians and designers looked to the continent for inspiration, where projects like the Karl Marxhof in Vienna offer visions of a collective living in tune with the ideologies of the socialist welfare state; along side Le Corbusier's vision of the Plan Voisin, where systematic tower blocks stand defiant in a public realm awash with public open space. These radically new visions of the city were not only possible, but could be realised more quickly that the prevalent designs at the time, with German and Dutch system based construction techniques of prefabricated concrete panel construction (Plattenbau) finally making it possible to realise housing completion cheaply, with unskilled labour and at a rate able to curb demand.

Housing provision became a topic of national priority, and a corner stone of the election campaigns in 1951, with the soon to be prime-minister Harold Macmillan proclaiming the 'housing

crusade' promising to deliver 300,000 homes per year for the coming decade.[8] Fueled by a demand for housing from the general public, persuasion from construction companies to use new, more lucrative construction techniques, and the desire of councils and architects to lend a new identity to housing in the era of social reform.[9] The subsequent 1956 Housing subsidy act was promptly waived through. With this Central government was initiating a density race between city-councils. Not only did the act promote high-rise dwelling typologies, but financially incentivised them by offering councils increased rental subsidy per floor built. Central government thus encouraged the construction of this bold new image of the high-rise, the icon of the working class[10]

In it in this frame that in 1966 The London County Council commissioned Erno Goldfinger to design a high-rise estate as part of the Kensal New Town in West London, what was to become Trellick Tower.

Figure 2.9: Trellick as viewed from the Golbourne Road
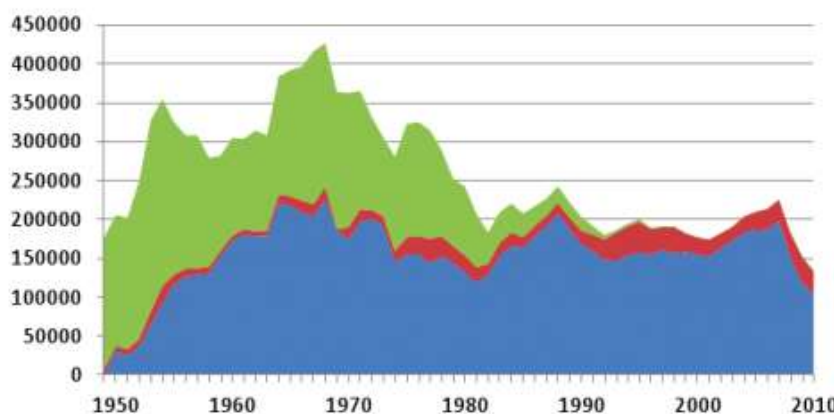Source: Author

Figure 2.10: Housing completions 1950-2010.
Source: http://www.economicshelp.org/blog/8733/hous-ing/uk-house-prices-high/

8   ibid. 90.
9   ibid.
10   ibid. 56.

LIFE IN THE 'SINK': A BACKGROUND TO LIVING ON A COUNCIL ESTATE

When these places were developed they were looking for a 'brave new world' and in 'brave new worlds' experiments take place.
Angela Brady, former RIBA President.[1]

i am the council estate scum

Sadness
Sorrow
Drugs
Violence
Normal People
Normal Flats
Little girls crying
Old women with cats

I go through the subway, with hopes to reach the other side
I avoid the young boys now I'm in a quick stride.
I exit the tunnel, sun shines on my face
I take a look round, I'm out that grim place.
Children are laughing and shouting and playing
There's no needles or gangs and the adults are saying
'mind the flowers' and 'be back for tea'
By now while I'm smiling they're staring at me.
As I smile and I laugh and take one last glance,
I know this ain't real but we do have a chance.

Unknown[2]

Figure 2.11: Blur, *For Tomorrow* (1993).
Source:Youtube

Figure 2.12: Damon Albarn, *Kingdom of Doom* (2007).
Source:Youtube

The age of new housing provision brought with it the chance for politicians to restructure how the state provides housing for its working classes. For architects it was an age of free experimentation, but it was also an age of great risk. Many unproven concepts were being built at pace in large areas of the United Kingdom. Sixty-years on from the beginning of this process it is now possible to understand what life has been like on council estates.

Over this time council estates have taken on an increasingly negative perception. On a superficial level many dislike estates due to their sometimes cold aesthetics, however there is also the much deeper issue of the behaviour and attitudes of those living within an estate. Though not everyone who lives in an estate behaves in this way, it is now the case that council estates are associated with a particular lifestyle based largely around financial

hardship, lack of education, violence and substance addiction.

In these places not everyone is conditioned to behave this way, however the prevalence of violence and crime reduced many to this way of life; to try and resist this will only lead to alienation and isolation of an individual within the estate. Bryon Vincent is a poet who spoke of his experiences growing up on an estate, where in order to simply survive day-to-day he had to change his personality to such an extent that he became part of the problem estates create.

I was at odds with gruffness of the estate, with its surly municipal topiary and brutalist sweet shop that sold individual cigarettes for 5p each. I was a self-proclaimed pacifist, and here's a tip for any prissy but morally-driven sink-estate seven-year-olds - vociferously declaring yourself a pacifist to the local bullies doesn't so much give you a free pass as offer them an invitation. I'd often fight back with pointed and cutting verbosity. This was a terrible strategy and I frequently got my head kicked in.
... I'm not advocating this behaviour, but that was the dominant cultural ideology and I adhered to it.

Such a social phenomena has led to council estates being referred to as 'Sink-Estates' When the conditions mentioned above emerge, it is usually due to a minority of socially irresponsible and violent (Commonly referred to as CHAV's/ Council Housed And Violent) residents holding dominion over the estate through fear and intimidation. This then begins a spiral of decline whereby it is seen as pointless or even wrong to try to better oneself, through education or employment. Doing so would demonstrate your desire to elevate oneself out of the social structure of the estate, and as such was oppressed by your fellow estate residents. As such this then leads to the emergence of what Vincent refers to as the 'Underclass'.

I'm from the underclass - now I'm middle class... I'm a scumbag, or an ex-scumbag to be precise. I'm middle class now. I own a bread-maker and everything.[3]

1.   Channel 4, *Estate of mind: politics, design and social housing*, 18 July 2013. http://www.channel4.com/news/park-hill-social-housing-council-estates-riba-stirling (Accessed 15 December 2015)
2.   Unkown Author, *i am the council estate scum,* http://allpoetry.com/poem/10299033-i-am-the-council-estate-scum-by-Helena- (Accessed 15 December 2015).
3.   Bryon Vincent, *Viewpoint: Escape from the 'sink' estate,* BBC News, 20 February 2014. http://www.bbc.com/news/magazine-26254706 (Accessed 15 December 2015).

People or Environment?

Council estates are today seen as the problematic vestige of the dying welfare state. With the middle classes looking down upon these areas as leaches upon the welfare system it is easy to understand how such a relativity desperate situation leads those who live in the area to a life of crime and violence.

Either you believe that people who are born into Britain's disaffected underclass are born with criminal proclivities - a belief which I hope you find bigoted and ridiculous - or you accept that the criminal behaviour of the underclass is the direct consequence of environmental factors. If this behaviour is an environmental construct, then surely there are ethical issues in punishing it. Those with power are reprimanding those with no power, for crimes they themselves would be committing if they'd been born into a different household. To me that is not a functioning society, it's abhorrent. [4]

Nonetheless from the opposite side the Middle-classes of the United-Kingdom did look down on council estates. Alison Ravetz book Council Housing as Culture outlines the issue of perception which was attached to council estates in the early 1980's:

[Council Estates] represented all that was profligate in public spending, an egregious intervention in the market and a featherbedding of the undeserving... [5]

Nevertheless as Ravetz goes on to explain the perception of the estate as a waste-ground of leaches leads to an added difficulty for residents to better themselves, branded as chav's and fixed to their estate by the government it is a challenge to find work or education to better oneself.

...[Estates] contributed to unemployment by preventing tenants from moving in search of work… the status of the council tenant was a sort of serfdom. [6]

But what is it actually like to live day-to-day on such an estate. In all likely hood it is a repetitive, and banal experience, underwritten with a hint of despair and an air of violence. The poetry of Neil William Holland aptly frames this experience. [7]

Contemporary media further highlights the feeling of life on a council estate. Musicians from Damen Albarn, Arctic Monkeys and Plan B have all made use of council estates in their music videos. In doing so it allows the artist to create the gritty-urban feel that these estates embody. This is not the place of dreams but the world of harsh, cold, brutal realities.

'Razed' On a Council Estate

There's a light on in the window over there.
A house with one eye open, gently venting water vapor in the air.
Like a mother she carries them in her mouth
Her great shoulders silhouetted by the mauve and sanguine black.
And in the full morning the dawn chorus done she spits them back.
They troop like ants,
Their purpose pours along pavements
Along arteries that feed the nation's need.
The factory whistles, the shop closes.
Dark hoses down the day.
They mend their way back to her mouth.

But some will venture out and leave
And some will go back to their cells and grieve
And Bert will have his tea
And I will rise next day to see
There's a light on in the window over there...

Neil William Holland [8]

Figure 2.13: Arctic Monkeys *View from the Afternoon* (2006).
Source: Youtube

Figure 2.14: Plan B *Ill Manors* (2012).
Source: Youtube

Figure 2.15: Broadwater Farm Estate Riots (1985).
Source: Youtube

4.   ibid
5.   Alison Ravetz, Council Housing and Culture, (London: Routledge, 2001). 200.
6.   ibid
7.   Neil William Holland, *Razed on a Council Estate.* http://m7.mirrai.com.br/listen/razed-on-a-council-estate-134259004 (Accessed 15 December 2015).
8.   ibid

Figure 2.16: Trellick tower from Hazelwood Crescent
Source: http://thecharnelhouse.org/

Trellick tower is an emblematic high-rise residential building situated in West London. Built in Goldfingers emblematic oeuvre of concrete brutalism the building, part of the Cheltenham estate, has become both a symbol of the brutalist style and the problems associated with council housing.

Today it is a protected building yet many issues remain with the building, in many respects its protection restricts its transformation and ability to respond to some of the design flaws. Early-stage community centred plans are currently underway to transform the areas at the base of the tower.

Erno Goldfinger (11 September 1902 – 15 November 1987) was a Hungarian-born architect. He received his training in architecture at the École nationale supérieure des beaux artes, Paris, commencing in 1921. It was in this period under the mentoring of Auguste Perret that he came into contact with Le Corbusier, whose publication 'Vers une architecture' would have great influence on his work. His marriage to a British heiress would bring Goldfinger to the UK, where he would practice for the remainder of his career.

Trellick tower has much in common with Balfron tower, a 27 story tower in East London. Though Trellick is 32 stories both evidence the Ville Radieuse concept of large towers rising above parkland space. Similarly they draw reference from Le Corbusier's Unite de habitacion in combining high-rise living with commercial and communal spaces throughout the tower.

Their massings consist of 'L' shapes that define the corners of their site. The circulation space, utilities and plant rooms are all contained in a free-standing core which rises along side the dwelling slabs.

In Trellick a three-story cassette, consisting of a single floor apartment and a duplex are accessed from an enclosed gallery extending from the core.

All dwellings in the tower offer aspect to the North and South and are generously sized with single floor apartments of 90m^2 and duplex units of 170m^2.

The design of Trellick tower was prepared for London City Council as the culmination of a long recognition of the social and economic problems of the area and of the inadequacy of the historic housing that once occupied the site, an urban slum of row housing containing many ethnic migrants. Trellick Tower attracted fierce criticism from residents, Goldfinger's peers and other commentators. High-rise towers had become unpopular forms of development following the Rowan point collapse; with the perception that the design of Trellick Tower also generated severe social problems and crime.

Trellick quickly became the poster-child for the failing public housing provided by the welfare state in the 1960's. The 1980's saw pressure from residents to improve on social problems and disorder, resulting in improved security systems that impacted on crime and anti-social problems within the building. At the same time the pirate radio station DBC began broadcasting its Black music shows from Trellick, enshrining the building into the cultural legacy of the area. In an attempt to control crime in the estate the original garage block and access ramps on Cheltenham Estate were partially demolished as part of a plan which included building terraced houses in the play ground area; the garages and tenant stores beneath the tower and extending out from it which were not demolished are derelict and unused. The Grade II* listed status acknowledges Trellick Tower's value as a unique piece of modern architecture and planning. Despite its previously problematic history, Trellick Tower, thanks to continued efforts for improvement by residents and several associated groups, is now widely recognised for its numerous positive qualities as a place to live and popular amongst many residents of the area. The adjacent buildings on Edenham way are also now Grade II listed.

Since 1998 the Trellick tower has been listed as a Grade II* building, which means it cannot be demolished, extended, or altered without special permission from the local planning authority. In 2013 attempts to improve the buildings technical performance resulted in the installation of new double-glazed window units for every apartment, undertaken by John McAslan and Partners the new units are sensitively designed to complement the brutalist expression of the building.

In addition to this the lobby of

the building was also modified to match Goldfingers original intentions, something which at the time the LCC deemed too expensive and unneccessary. This along with increased CCTV and a concierge have helped to change the image of Trellick from the "Tower of Terror" to a sought after location in the city.

Reports and studies are currently being undertaken to improve the areas of the estate around building, focusing on the approach to the tower, the former car park and site of the former elderly home. This has been a heavily community-engaged process, with architects translating their ambitions into outline designs which include a new elderly care facility along with new housing provision.

T - Transformation.
D - Demolition.
A - Addition.
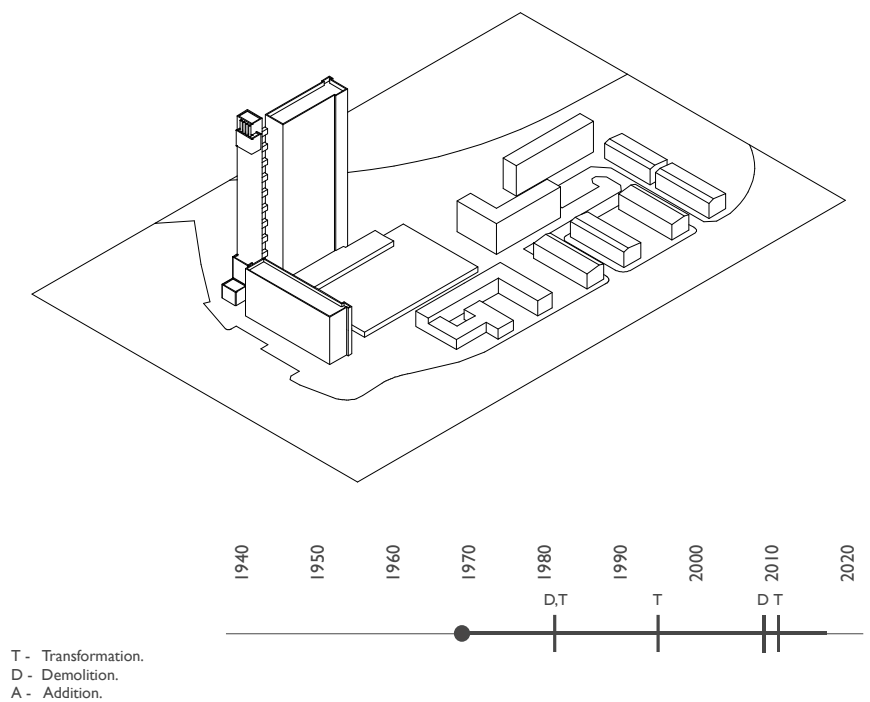
Figure 2.18: Trellick tower Transformation timeline

Figure 2.17: Proposal for Cheltenham Estate overlaid on pre-existing fabric
Source: RIBA Drawing Archive
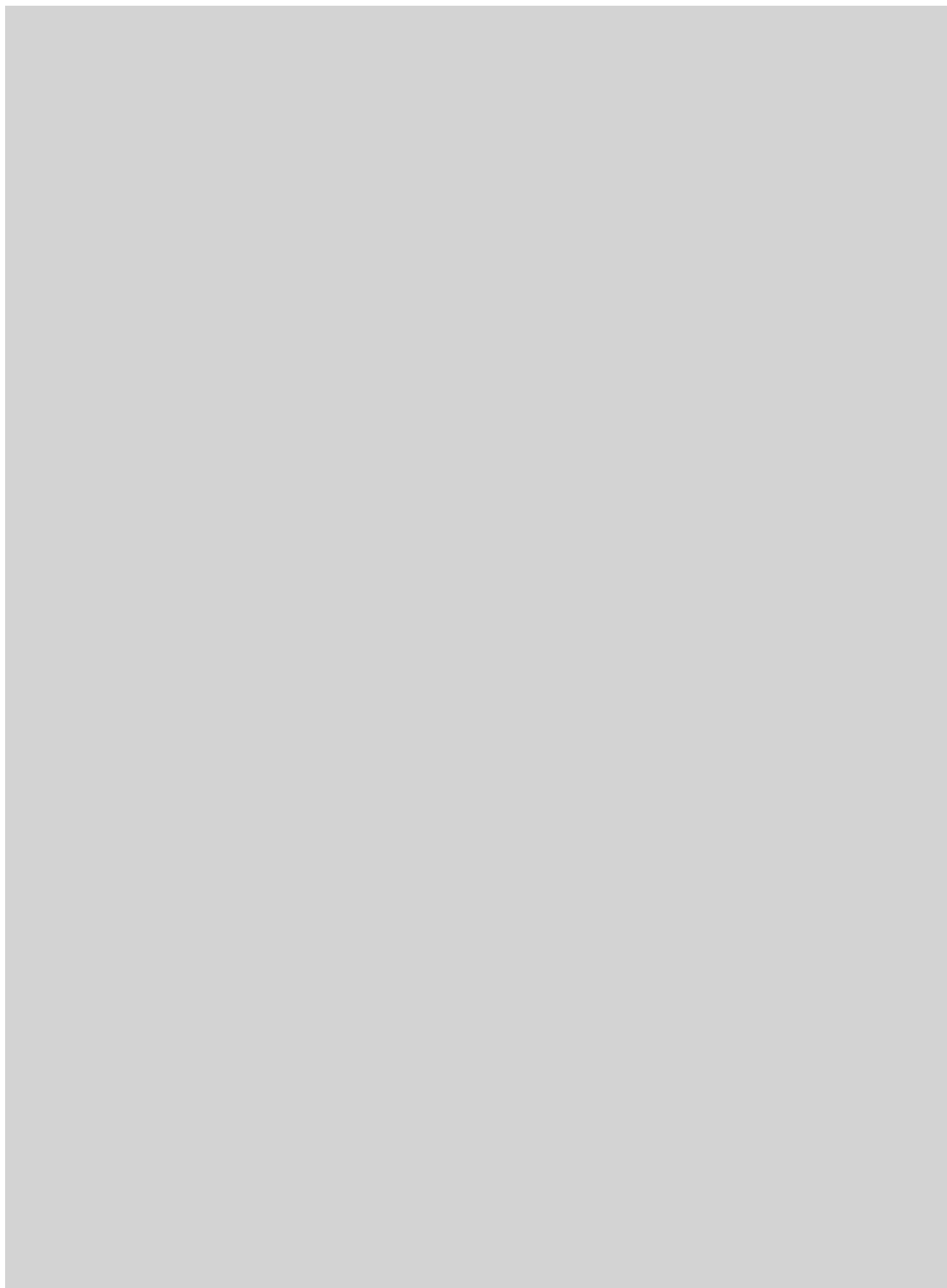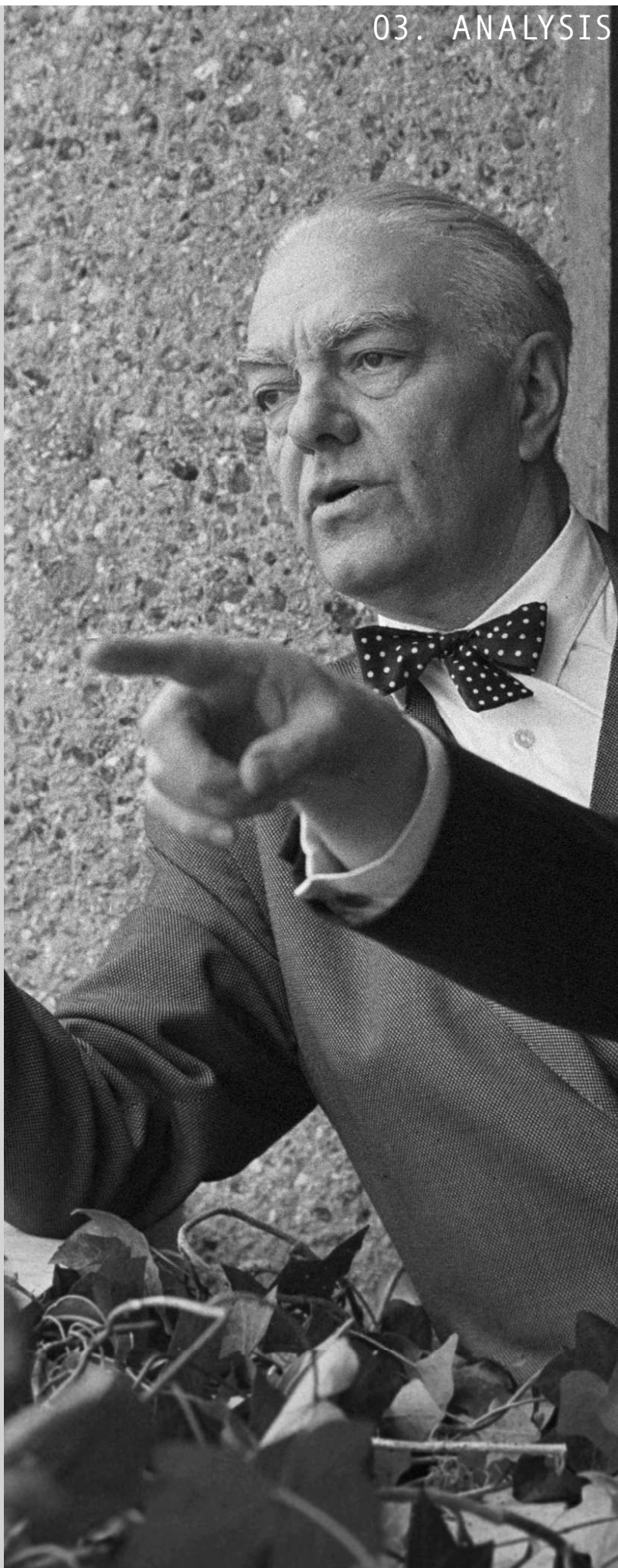
16

"The nightmare would start moments after entering the lobby. Stench of urine, beer and stale sweat would seep from shadows, the lights would be smashed again and the corridor vandalised into gloom. Silence did not mean no one was there. Walk, and the broken bottles and syringes crunched underfoot.
With luck, one of the tower's three lifts would be working. Fresh graffiti, used condoms and a passed-out vagrant might have been waiting inside when the doors parted. The 12-person aluminium box, shaped like a coffin, would grind upwards at 1.5 metres per second. Often it would stop at the wrong floor, open into darkness and the sound of dripping water, then resume the ascent"

Carroll, Roy. "*How did this become the height of fashion?*" Guardian, March 11, 1999.

Figure 3.1: Looking up at Trellick Tower from the raised walkway
Source: Author

As written earlier in this document, the hypothesis of this research is that poor definition of collective spaces within high-rise council estates was responsible for many of the anti-social problems that occurred.

In order to eliminate bias in favor of this hypothesis an analysis of all types of space within Trellick Tower; Private, Collective and Public will be undertaken. In this way it is possible to objectively understand the design of Trellick Tower at the time of its completion, and begin to understand how all types of space within the building contributed to the problems of anti-social behavior. It will also be possible to understand the overlap between the types of spaces, how the design of private space in the dwelling impacts the use of collective space for example. But first it is important to get a clear picture of the anti-social problems themselves.

In contemporary London culture, Trellick Tower is seen as an icon of 1970's architecture. Towering above the London skyline, it is currently valued by both residents and outsiders. However, this hasn't always been the case. Immediately fowling its completion the building was severely criticized. Ernö Goldfinger, as the architect of the tower, was seen as the culprit of the poor living conditions that had been created.

Stories about Trellick Tower in the years after completion speak for themselves. Several recent newspaper articles, as well as reports from those years speak of a true Tower of Terror. Vandalism, crime, rubbish and muggings were daily occurrences. The poor technical condition and lack of maintenance of key installations resulted in appalling living conditions. The towers elevators, essential given the height of the building were frequently broken, and when in operation regularly malfunctioned, opening between gallery floors, leaving residents staring into darkness. This was responsible for the death of at least one elderly resident, who after being forced to walk the many flights of stairs in order to get to his home died from exhaustion. Without any security the galleries and service cores quickly became the hotspots for prostitutes, drug addicts, muggings, assaults and rapes. Other stories speak of the tower being the place of frequent suicides.

The extent of the anti-social behaviour gave the tower a terrible reputation something the author J.G. Ballard emphasised when he used Trellick Tower as a reference for his dystopian novel "High Rise.". However, when confronted with this, Ernö Goldfinger pointed his finger towards the inhabitants, the LCC's budget cuts and mismanagement for the demise of his design. Though these undoubtedly had a large influence, the architecture and design of the building did also contribute to the problems within the building. By means of this analysis an attempt is made to investigate what design aspects have played a role in the demise of the tower.

In order to carry-out this investigation it is however important to have a clear list of problems that occur in the building. In *'property before people'*, Anne Power surveyed over 20 estates across England, noting what issues existed and how they originated,
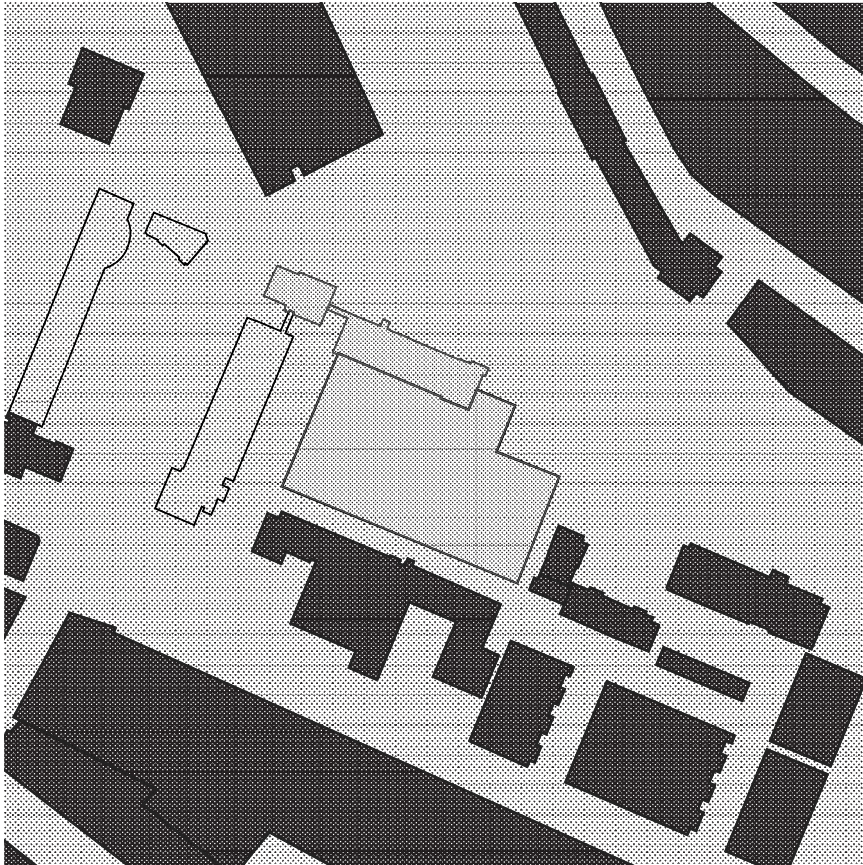
Figure 3.2: Definitions of space within Trellick
Tower (Plan)

01. Private

02. Collective

03. Public

Figure 3.3: Definitions of space within Trellick Tower
(Section)

considering ownership, management and design. Her suggestions of design failings ranged from unused parking garages to poorly guarded community facilities. Using this as a background to Trellick Tower enables several issues to be legitimized. Reports of anti-social behavior have been recorded through reports and articles, as well as personal observations.

The plan analysis will begin with analyzing the smallest scale of space, the private space of the dwelling. Comparisons with the Parker-Morris space standard, used at the time of Trellick's design, and the contemporary London Housing Design Guide, will outline how well the dwellings met historical and contemporary space standards, offering insight into their fitness for purpose, or if any elements of the dwellings designs were inadequate, either then or now. A table of conclusions will be drawn at the end which show strengths, weaknesses and impacts on collective and public spaces that might result.

Collective and Public space will then be compared in a similar fashion, comparing them with the LCC housing Manual and contemporary standards which advocate appropriate design criteria for these types of space.

Figures 3.1 and 3.2 outline the different spaces within the building are categorised:

Private space is that of the individual dwelling, of which there are an array of typologies due to the stacking technique of the design.

Collective space refers to the galleries, service core and collective amenity spaces (laundrettes, recreation rooms) that are contained within the building.

Public space refers to the external open spaces outside the building, raised decks and publically accessible roads and walkways around the building.
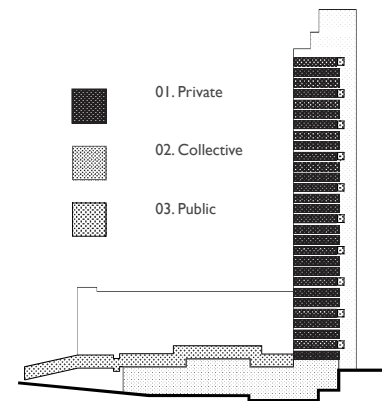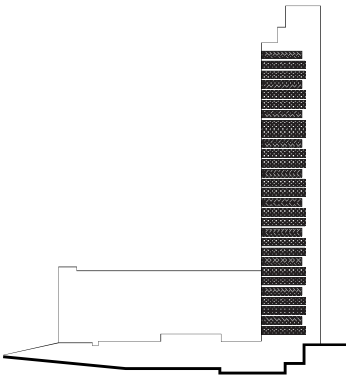
Figure 3.5: Private space within Trellick Tower

Trellick Tower holds a total of 168 dwellings in a wide variety of dwelling-types, housed in a vertical repetition of 3-storey cassettes. Each 3-floor cassette contains three different dwellings which we from now on call unit A (access level), Bl (B lower level), and Bu (B upper level). all three of these are single floor apartments with their entrances on the same level. The lower apartment is roughly 70m² and has 3 bedrooms, housing a total of 4 people. The middle (A) apartment is a single bedroom apartment of 50m², designed to house 2 people. The final dwelling of this typical cassette is the Bu apartment, which is comparable with the Bl dwelling, with the only distinction two double bedrooms instead of a master double and twin bedroom. Thus it still houses the same amount of inhabitants (4). Alongside these 3 typical apartments, each floor also has a corner apartment (C)
On the 22nd and 23th floor two layers of apartments make way for a series of generous duplex apartments (D)

In 1961 the Parker-Morris committee released a report on Modern day space standards called "Homes for today and tomorrow" This report concluded that that the quality of social housing needed to be improved to match the rise in living standards, and made a number of minimum recommendations. The Committee took a functional approach to space standards within the home by analysing what furniture was needed in each room, as well as the space needed to move around and the space needed for normal, household activities.

When comparing The total floor areas of the dwellings within the tower to the Parker-Morris space standards, some conclusions can already be drawn. For the Bu and Bl apartments, which both house 4 people, their 70m2 of floor area is roughly similar to the 69m2 given in the Space standards table. The 2 person dwelling (A, 50m2) can be called quite generous compared to the minimal space standard (44m2). The duplexes, designed to accommodate up to 6 people have a total floor area of 108m2 , which is considerably more than the 81m2 given by the Parker-Morris standards. Thus in conclusion every dwelling was well beyond the minimum spatial standard when built. Over the years, due to a change in perception of the dwelling as well as the activities conducted within the home space standards have grown. This, of course, is much more important for the analysis of the dwellings as it shows how well they perform in the present day, over forty years after they were built. In the table, you can see how the space standards have changed over the years. Each area standard has increased approximately 10%. However, even with these increased standards the dwellings in Trellick still meet the requirements, with the exception of the 3 bedroom, 4 people apartment. This means a more thorough investigation of the dwellings and the space standards in required in order to truly grasp the spatial performance of the dwellings. A room-by-room comparison of the dwellings in Trellick with todays standards as outlined in The London Housing Design Guide (LHDG) space standards will be conducted to find out which spaces within the dwellings are insufficient relative to present living standards.

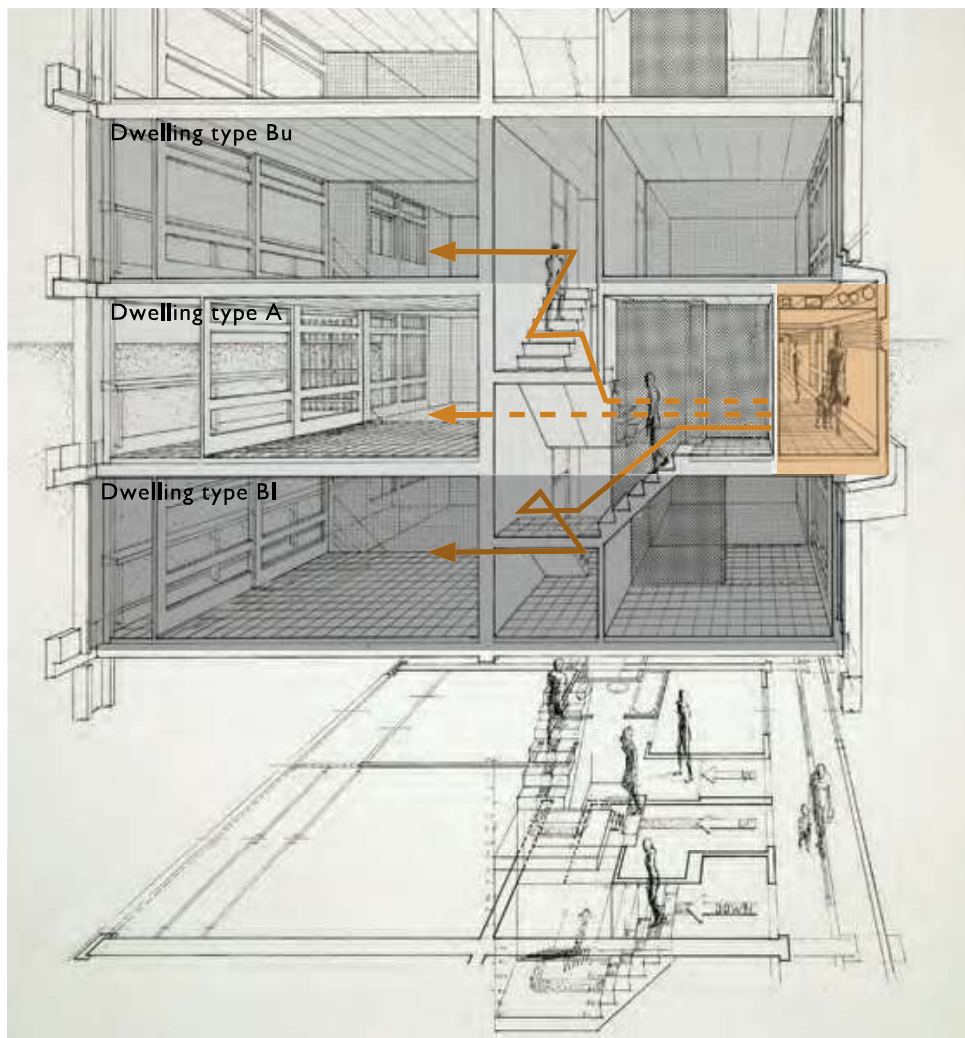|	Dwelling type	Dwelling size	Parker Morris space standard	LHDG space standard
Type A	Flat, 1 bedroom 2 people	50m²	44.59m²	50m²
Type Bl	Flat, 3 bedroom 4 people	70m²	69.68m²	74m²
Type Bu	Flat, 2 bedroom 4 people	70m²	69.68m²	70m²
Type D	Maissonette, 4 bedroom 6 people	108m²	91.97m²	92m²

Figure 3.4: Parker Morris Space standards 1961

Dwelling type Bu

Dwelling type A

Dwelling type Bl

Figure 3.6: Cassette stacking principle
Source: RIBA Drawing Archive

Dwelling type Bu

Dwelling type A

Dwelling type Bl

Dwelling type Bu

Dwelling type A
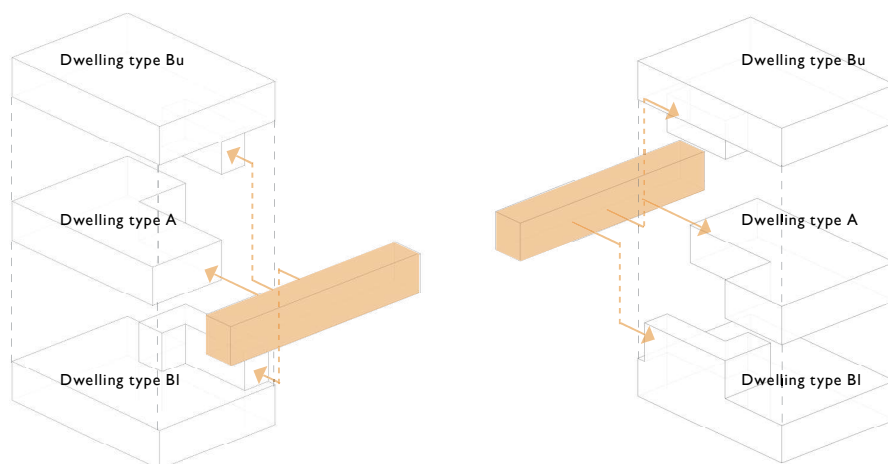
Dwelling type Bl

Figure 3.7: Cassette axonometric stacking principle

DWELLING ANALYSIS

Dwelling type Bl

7200

10700

1550

860

Bedroom Bedroom Bedroom

Living-room

Dining/Kitchen

Private outdoor space

3 bedroom
4 persons
750 sq.ft / 70m2

Figure 3.8: Dwelling Bl (1:100)

Dwelling type A

7200

1625

12275

8975

1425

Entrance Bl

Entrance Bu

Bedroom

Living-room

Dining/Kitchen

Private outdoor space
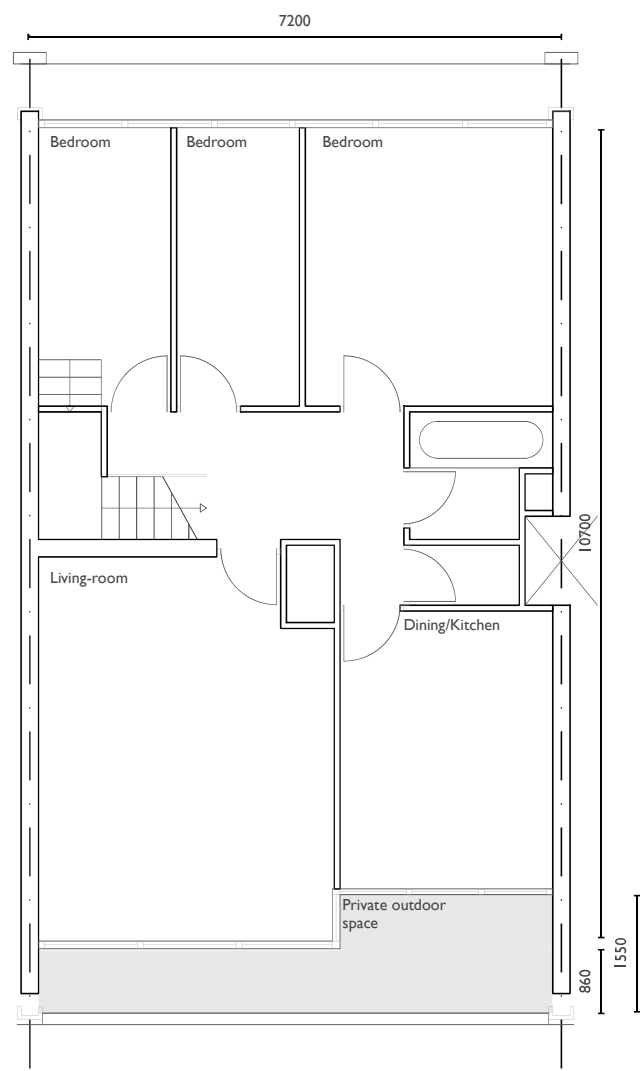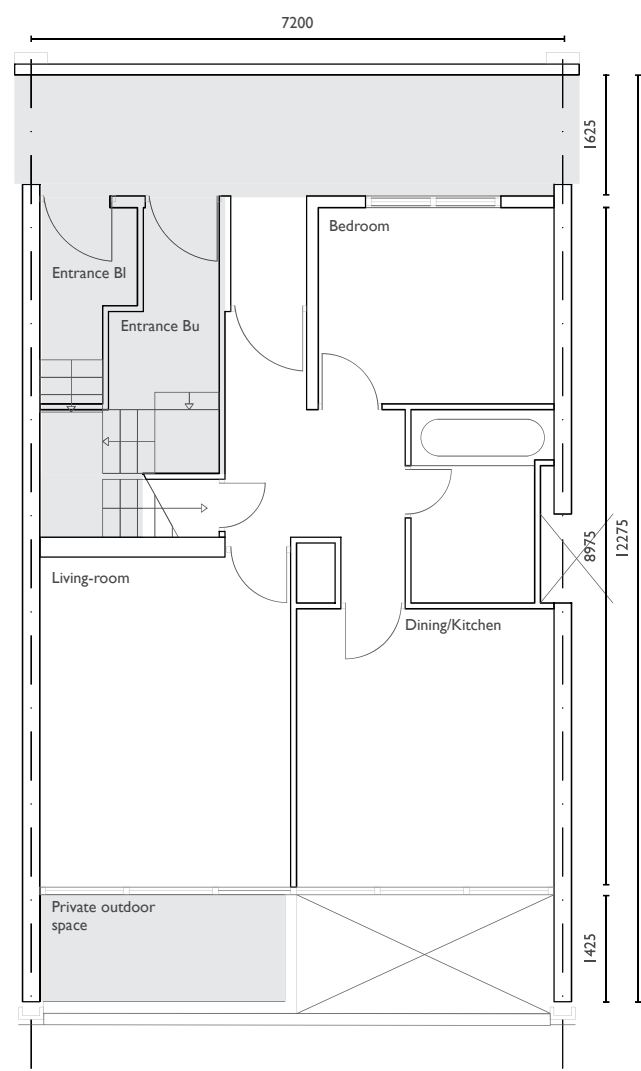
1 bedroom
2 persons
545 sq.ft / 50m2

Figure 3.9: Dwelling A (1:100)

Dwelling type Bu

Bedroom

Bedroom

7200

10700

1550

860

Living room

Dining/kitchen

Private outdoor space
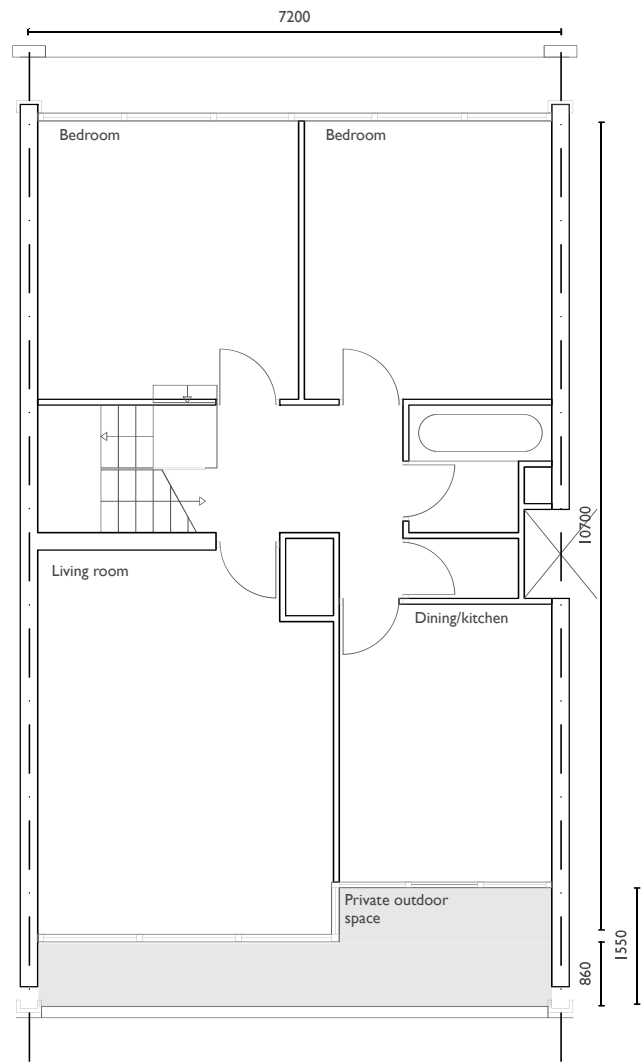
2 bedroom
4 persons
750 sq.ft / 70m2

Figure 3.10: Dwelling Bu (1:100)

Dwelling type Bu(corner)

Bedroom

Bedroom

Bedroom

Living room

Dining/kitchen

Private outdoor space
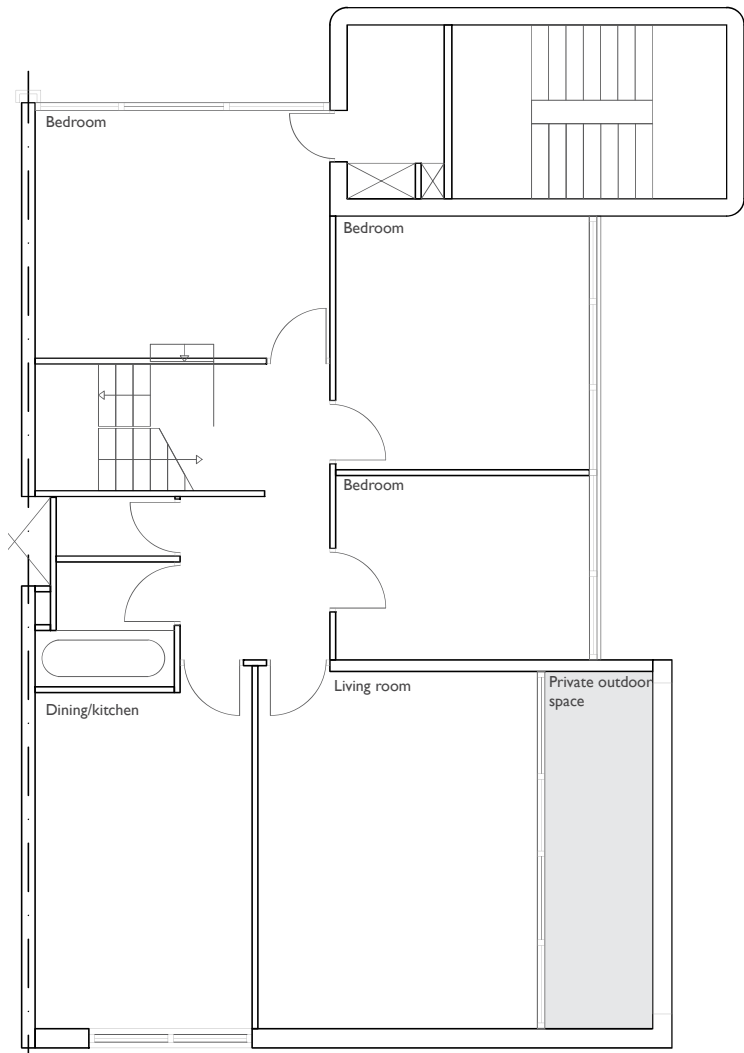
3 bedroom
4 persons
750 sq.ft / 70m2

Figure 3.11: Dwelling Bu Corner (1:100)

Dwelling type D

7200

Storage   Storage

Bathroom

Living room

Dining/kitchen

7200

Bedroom   Bedroom

Bathroom
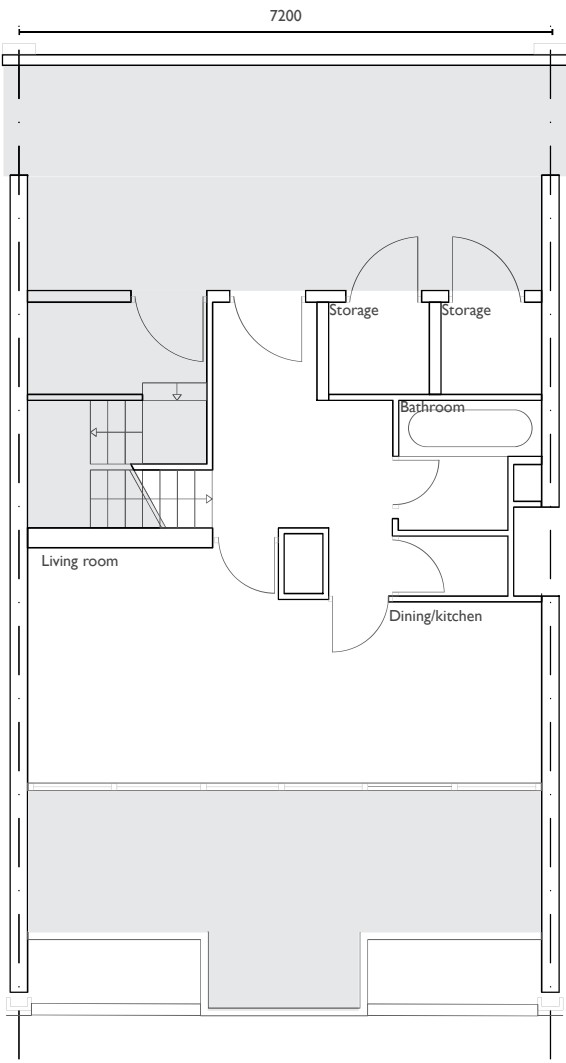
Bedroom

Bedroom

4 Bedroom
6 people
1150 sq.ft / 108m2

Figure 3.12: Floor plan Dwelling D (1:100)
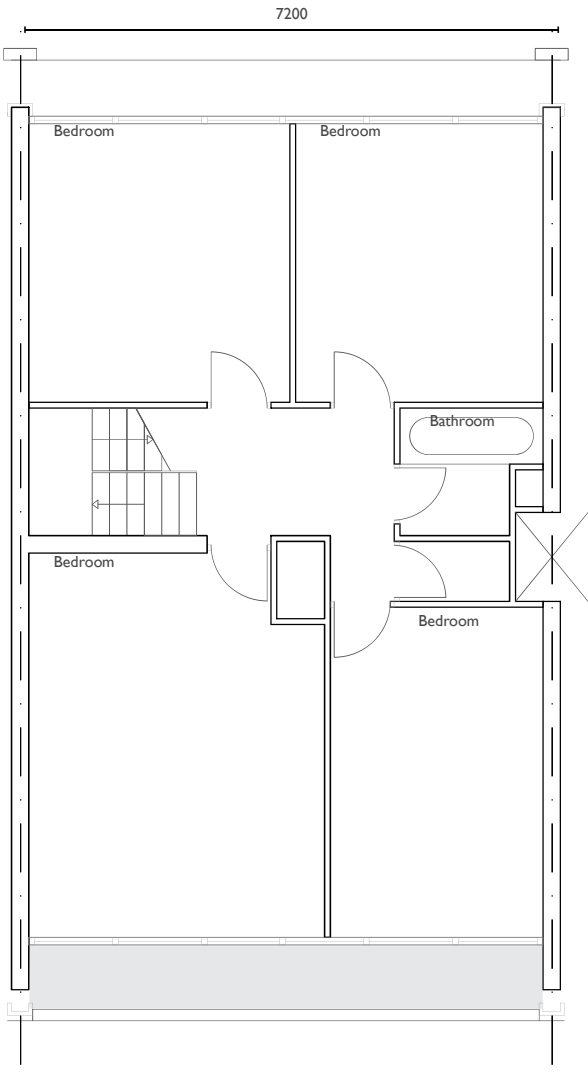
Figure 3.13: Floor plan Dwelling E (1:100)

In the London Housing Design Guide, LHDG, not only the minimum area for dwelling types is given, but also the minimum requirements for each room inside. In figures 3.6-3.11 a selection of the dwelling types which can be found in Trellick Tower are given. These sizes are based on the functions which must be performed withing this space, as well as the associated furniture that have to fit. By comparing the dwellings in Trellick with the measurements in this matrix, a more thorough investigation of the performance of the dwellings in contemporary living culture can be undertaken. Tables 3.15 to 3.18 show this comparison, along with a conclusion.

A general conclusion that can be drawn from this analysis is that the dwellings aren't as fitting as the first analysis suggested, The majority of bedrooms remain sufficient, however living rooms, kitchens and bathrooms are now considered too small. Another notable aspect is the fact that although the external private amenity spaces are actually large enough, they are unacceptably shallow. The depth of the outdoor space of only 860mm in the Bl and Bu dwelling types is too small for any kind of activity to be conducted in this space. It is not possible for children to play in such a space or to keep a pet on it; consequently it is used as external storage. This ultimately resulted in the shift of private outdoor activities from the private outdoor spaces of the balconies to the communal and collective spaces within the building, such as the gallery and the access tower.

01. Private

02. Collective

03. Public
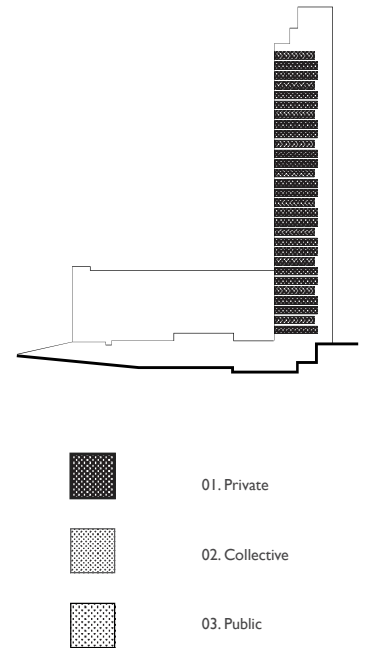
Figure 3.14: Private space within Trellick Tower

Figure 3.15: The London Housing Design Guide (Interim 2010)

Figure 3.16: 27th floor apartment
Source: http://www.rightmove.co.uk

Dwelling type	Space	Area	LHDG space s	Conclusion
Dwelling type A	Living	14,3 m2	13,0m2	
	kitchen / dining	10,2 m2	10,4m2	
	Double bedroom	19,0 / 12,5 m2	12,0 m2	
	Single bedroom			
	Bathroom	4,3 m2	4,4 m2	
	Outdoor	4,5 m2	5,0 m2	
Dwelling type D	Living / kitchen / dining	18,6 m2	31,0 m2	
	Double bedroom	19,0 / 12,5 m2	12,0 m2	
	Single bathroom	11,9 / 10,2 m2	8,0 m2	
	Bathroom	8,0 m2	8,0 m2	
	Outdoor	20,0 m2	9,0 m2	
Dwelling type Bl	Living	18,9 m2	14,8 m2	
	kitchen / dining	10,2 m2	12,0 m2	
	Double bedroom	11,9 m2	12,0 m2	
	Single bedroom	6,4 / 5,9 m2	8,0 m2	
	Bathroom	4,0 m2	4,4 m2	
	Outdoor	7,7 m2	7,0 m2	
Dwelling type Bu	Living	18,9 m2	14,8 m2	
	kitchen / dining	10,2 m2	12,0 m2	
	Double bedroom	11,9 / 12,5 m2	12,0 m2	
	Single bedroom			
	Bathroom	4,0 m2	4,4 m2	
	Outdoor	7,7 m2	7,0 m2	

Figure 3.17: Dwelling comparison to LHDG
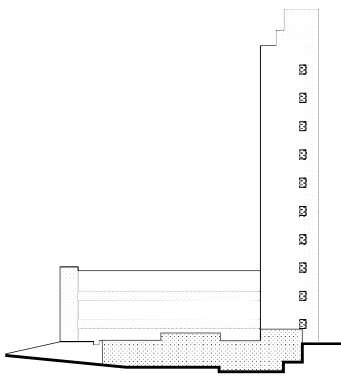
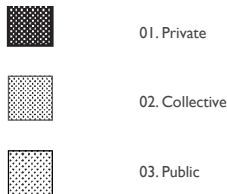Figure 3.18: Public and Collective space within Trellick Tower
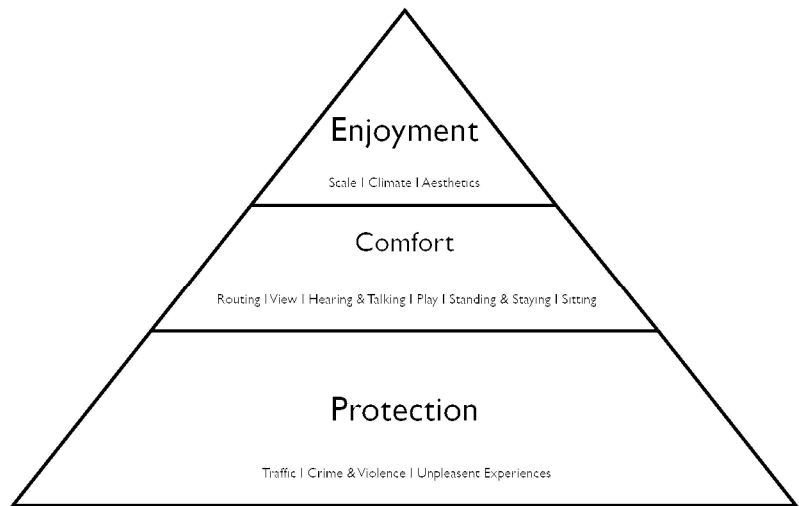
Figure 3.19: Levels of articulation within collective space.

01. Private

02. Collective

03. Public

Within architecture an absolute definition of collective space proves somewhat elusive. As a category of space particularly pertinent to the post-war era of socialism, it is not surprising to find that Trellick Tower contains a vast amount of this ambiguous space. Neither the realm of the private, which is contained within the dwelling, nor truly public, which carries notions of anonymous interaction, collective space must straddle a fine line. The fusion of public along with the ownership and identity of domestic private space lends collective space a vital role within large residential projects, as it is this which acts as a spatial glue, bonding and connecting private to public and as such creating the possibility of layered interactions between occupants and passers-by.

It is the hypothesis of this research that the collective space contains many of the spatial issues that contributed to the anti-social behavior which has made Trellick and Council Estates so infamous. Within the tower collective space is defined as the **access galleries, the service core including the community room and the underground car park**. In order to objectively assess these a systemic approach is required, thus the analysis will take a threefold approach to the analysis of these spaces, based upon three categories which collective space must afford its users. This is based upon the work of Jan Gehl (*Jan Gehl, Lars Gemzoe, New City Spaces (Copenhagen, The Danish Architectural press, 2006).* this work is elaborated upon, forming a hierarchy of needs to determine the degree of articualtion within collective space (Figure 3.43).

At the most primitive level collective space must protect its users, from external weather, from the truly public space, from crime and violence and from unpleasant spaces, visually, acoustically or olfactory.

As the space becomes more articulated it can begin to provide a degree of comfort to its users. In this it will offer appealing views, places for talking and conversation with other residents and areas to dwell outside of the private dwelling. At the highest level of articulation collective spaces must provide a sense of enjoyment to users, improving or increasing their own personal wellbeing through the creation of positive spatial conditions, pleasantly scaled spaces, comfortable climates and aesthetically pleasing buildings.

It is with these levels of articulation that the collective spaces of Trellick Tower will be assessed.

Figure 3.20: Translucent windows between kitchen and gallery
Source: http://www.rightmove.co.uk
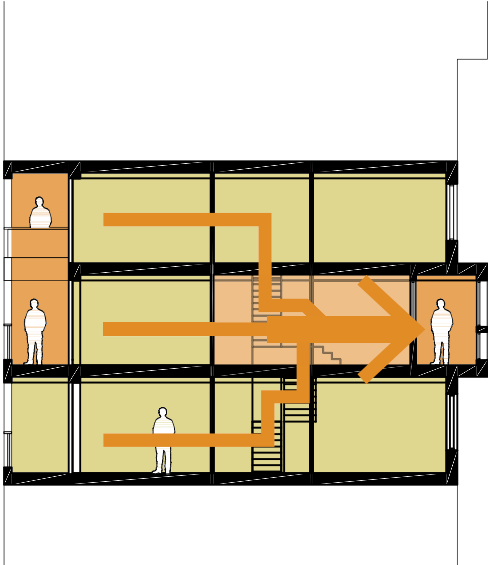

Figure 3.22:Exposure of private dwelling to collective space

Figure 3.21:Deck Connectivity

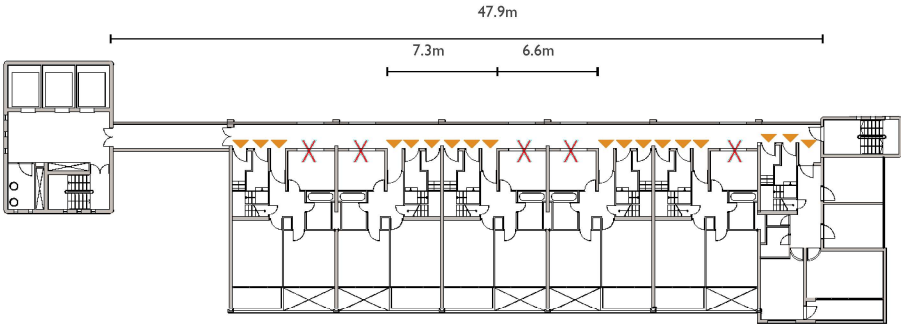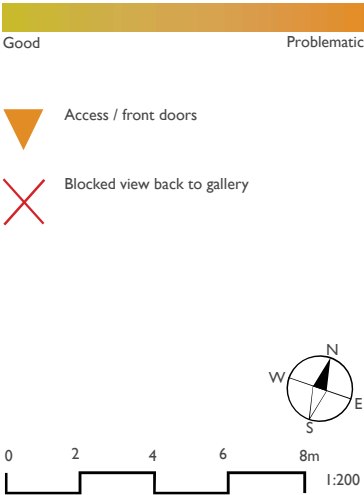Good   Problematic

▼   Access / front doors

✗   Blocked view back to gallery

Collective spaces should aim to enclose and offer a buffer to the public realm before entering the retreat of the private dwelling. In Trellick however the shear number of dwellings accessed off one corridor, plus fact that only one third of dwellings are actually at the corridor level introduces anonymity to the gallery space, making it feel public, not collective.

Windows back to the gallery from dwellings are not frequent enough to encourage passive surveillance of space, and are often boarded over by residents fearful of their security.

The stacking of balconies within the dwellings reintroduces collective feeling to private balconies. Thus at no point within the access level are there truly private aspects.
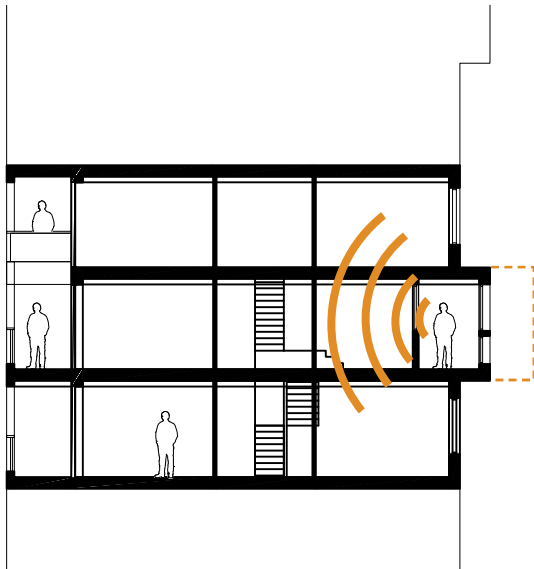
Figure 3.24: Noise Transfer from Gallery

Figure 3.23: Minimum width and ceiling heights in galleries
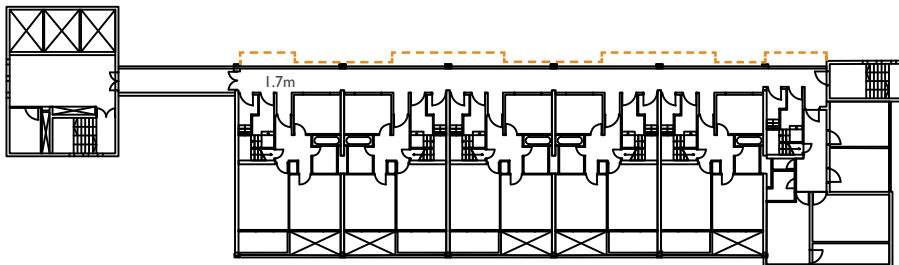Source: http://www.orrengarner.co.uk

1.7m

Figure 3.25: Narrow Gallery Circulation

The long, narrow galleries of Trellick tower provide no breakout spaces along gallery, especially opposite entrances. This creates a creates cramped corridor feeling, reducing the gallery to nothing more than purely functional circulation space. The overlapping of upper and lower typologies creates noise transfer issue around the gallery

Narrow proportions and low-ceiling height (2.3m) further reduce the opportunity to interact with other residents without causing congestion in the corridor given the number of dwellings it serves
Interestingly the lift lobbies are generously sized and could provide a space for interaction, but isolated from dwellings they have been known for crime and assaults.
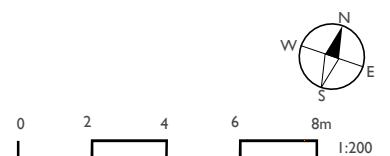
01. Desired profile

02. Noise transfer

0   2   4   6   8m   1:200

Figure 3.26: Cold, Dark and Draughty Galleries
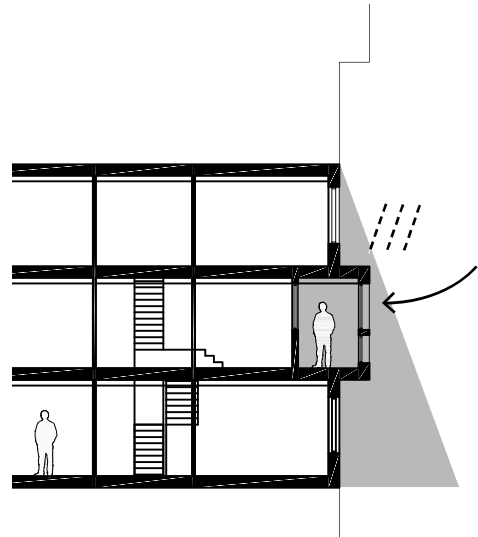Source: http://www.orrengarner.co.uk

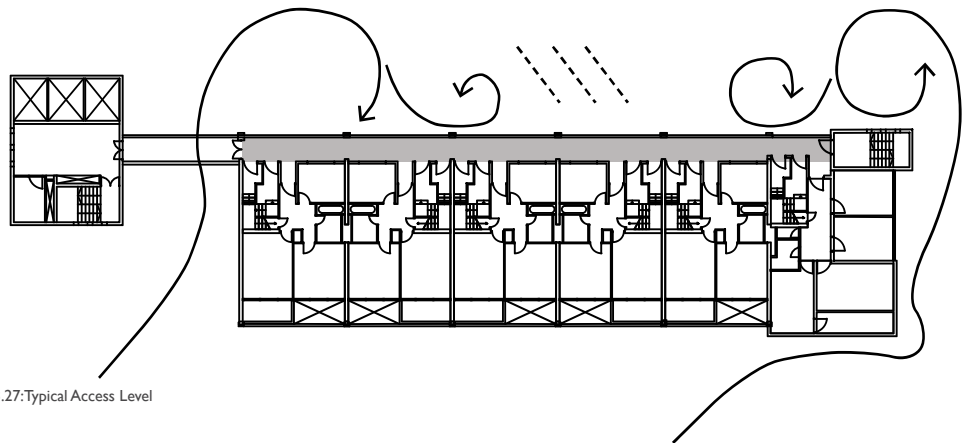Figure 3.28: Typical section 3 floor cassette

Figure 3.27: Typical Access Level

The external brutal concrete expression continues internally, complemented with garish tiling which is colored uniquely on each floor. In combination with the extensive use of artificial materials, poorly maintained finishes and lackluster detailing this creates an expression of anonymous mass-production making it difficult for residents to identify themselves as individuals and personalise.

The building itself suffers from poor technical performance. Thermal bridging within galleries leads to condensation and damp along the corridors.
Single glazing and the external projection of the gallery leads to draughts, over-

pressures and leaks from wind-driven rain.

Moreover the northern orientation of the gallery, results in no direct sunlight, along with limited prospect through small windows which do not offer any vantage of Londons landmarks despite the height of Trellick tower.
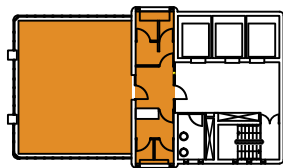
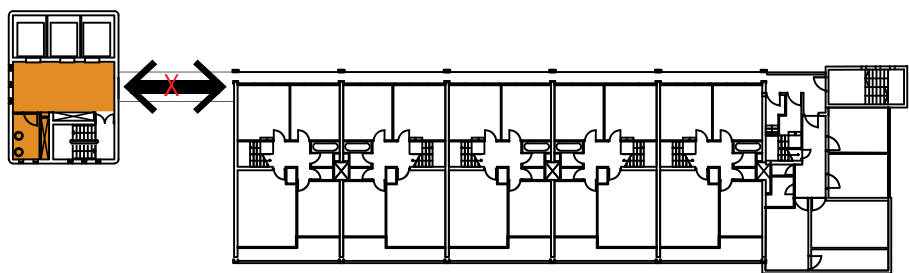Figure 3.31: Club Room within service core (First floor)

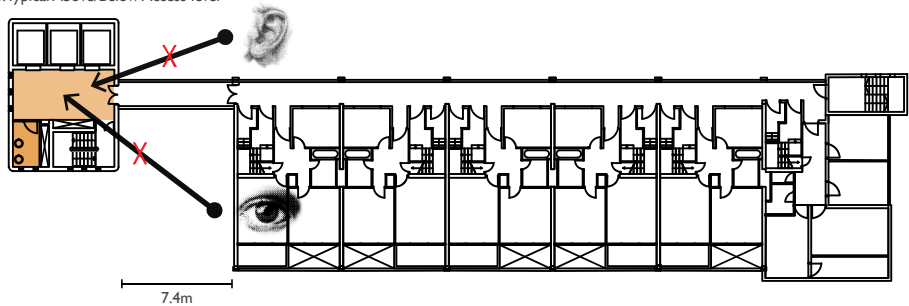Figure 3.30: Typical Above/Below Access level

7.4m

Figure 3.29: Typical Access Level

The vertical circulation takes place in the service core. This tower consists of the same three-floor cassettes as the dwellings. When looking at the qualities of this core, in particular the protective quality, it is clear many issues exist. Chiefly, the physical disconnection from the dwellings, a 7.4m gap of air, and the only connection to the dwellings being a narrow bridge on every third floor creates a very isolated circulation system. When in the service tower, there is no way to be seen and/or heard from outside the tower; making this a very unsafe place to be or even pass through.

The club room is located on the first floor, right above the concierge and the ground floor lobby. The fact that it is not connected to any gallery, in close proximity to the street and could be accessed by members of the public made this space particularly conducive to crime.

Strong negative influence

Negative influence

Problematic area

Figure 3.32: Color coding
Source: http://www.orrengarner.co.uk

Figure 3.33: Tower entrance with the clubroom above
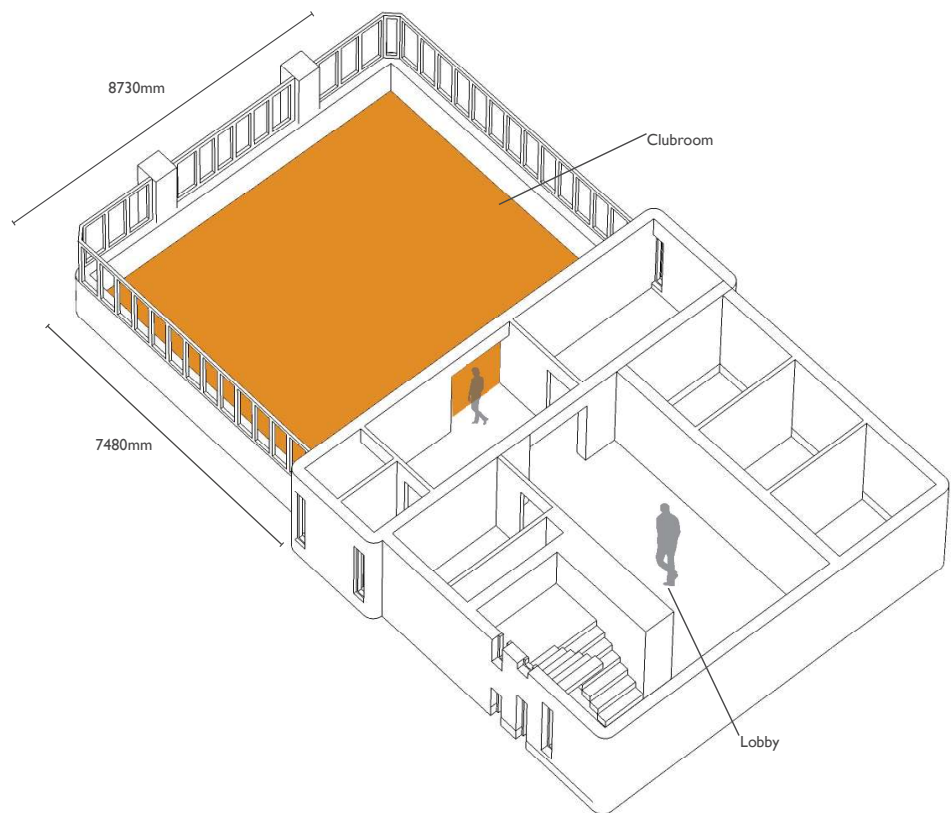Source: http://www.geograph.co.uk

8730mm

Clubroom

7480mm

Lobby

Figure 3.34: First floor clubroom

Clubroom

The servie core offers few opportunites for comfort. The only exception to this should be the clubroom on the first floor. This communal space is designed for multiple purposes, such as a playroom for kids, a club room for groups within Trellick's residents and other social events. As outlined previoulsy however its lak of security led to it being used as a drug-den and base for local gangs. Subsequently it was abandoned shortly after the buildings opening and remains closed to this day.

Figure 3.35: Double height lobby
Source: http://www.geograph.co.uk

Figure 3.36: Uncollected rubbish on intermediate floors
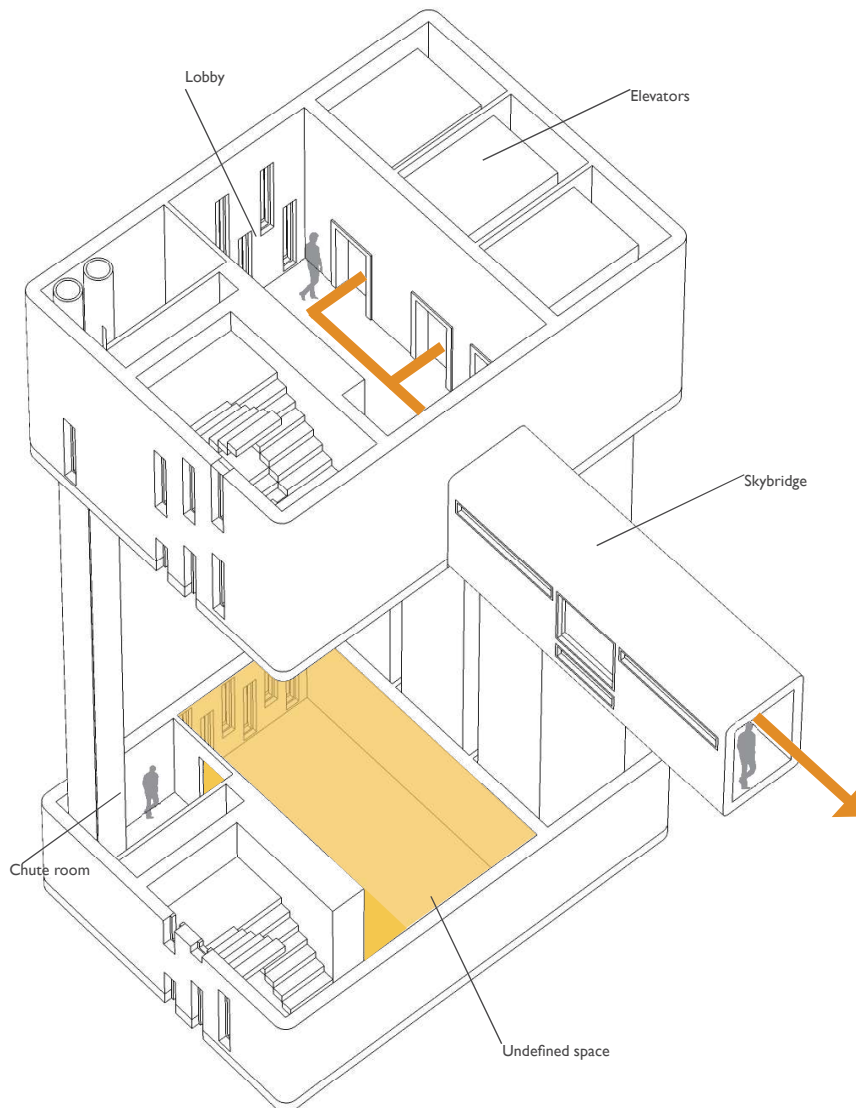Source: http://www.youtube.com

Figure 3.37: Service tower; typical 3 floor cassette

Although the service tower is severely disconnected and isolated, resulting in a lack of protection, it could well be an enjoyable experience. Each 3-floor cassette in the tower consists of a double height lobby and a single height floor underneath. Each lobby is connected to 3 elevators, a staircase and a chute room. The double height makes the lobby seem much more spacious and bright.

The double height lobbies are connected to the dwellings and the galleries through bridged tunnels. The transition in scale between the relatively high space of the lobby, and the much more confining tunnel is extreme and unsettling. The tunnel and gallery seem much smaller when coming from the generous space in the lift lobby,

accentuating the low celings within the galleries.

In an attempt to make the building more inviting an attempt was made to make the rooms in the service tower more lively by adding color to them. Each 3 floor cassette has it's own color in order to give it it's own identity.

This color coding is often considered as an unsuccessful addition to the building. It tries to add a unique identity for each floor, akin to small communities in the building, but sadly only accentuates the repetitive nature of the circulation system and mass-nature of the housing provision.

Undefined space

Routing (funneling effect)

Figure 3.38: Blind walls
Source: http://www.ldngraffiti.com

Figure 3.39: Inactive ground floor
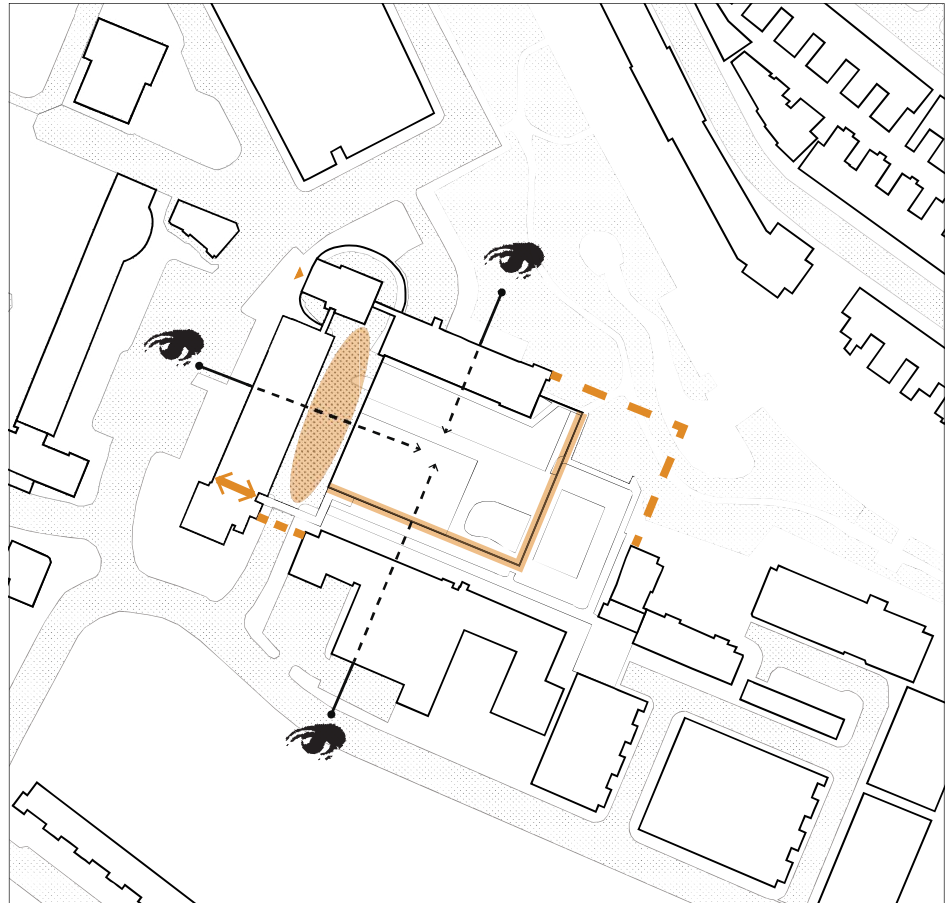Source: http://www.astarix.co.uk

Figure 3.40: Ground floor plan

When Trellick Tower was built, a two-storey, partically submerged carpark was also constructed. This carpark is located on the southside of the tower and contains a large number of parking spaces for the inhabitants. On top of this garage, a publicly accessible deck is present. In contemporary architecture, carparks are still a source of crime and criminal activity. This is caused by a large amount of dead spaces and a total lack of control. Today that is countered by making carparks increasingly transparent. In Trellick Tower, however, this was far from the case. The dual-layered carpark has a total height of well over 5 meters and has blind concrete walls on all sides, in keeping with the Brutalist style of the building. This, in combination with the roof and deck, resulted in a very unsafe place within

the complex due to the lack transparency or surveillance and was a known hotspot for crime in the area.

The Western Block of the tower is intentionally separated from the collective space on top of the car park. This allows access to the rear of the shops for deliveries and the doctors surgery. By offering a public frontage only to Golborne Road it causes a large disconnection from the public street and collective deck space. The buildings layout, an L-shape flanking the collective space, further disconnects the ground floor and the carpark from the public street. Combined with the highly isolated dwellings above its becomes clear there is poor boundary definition on the ground floor of the complex.

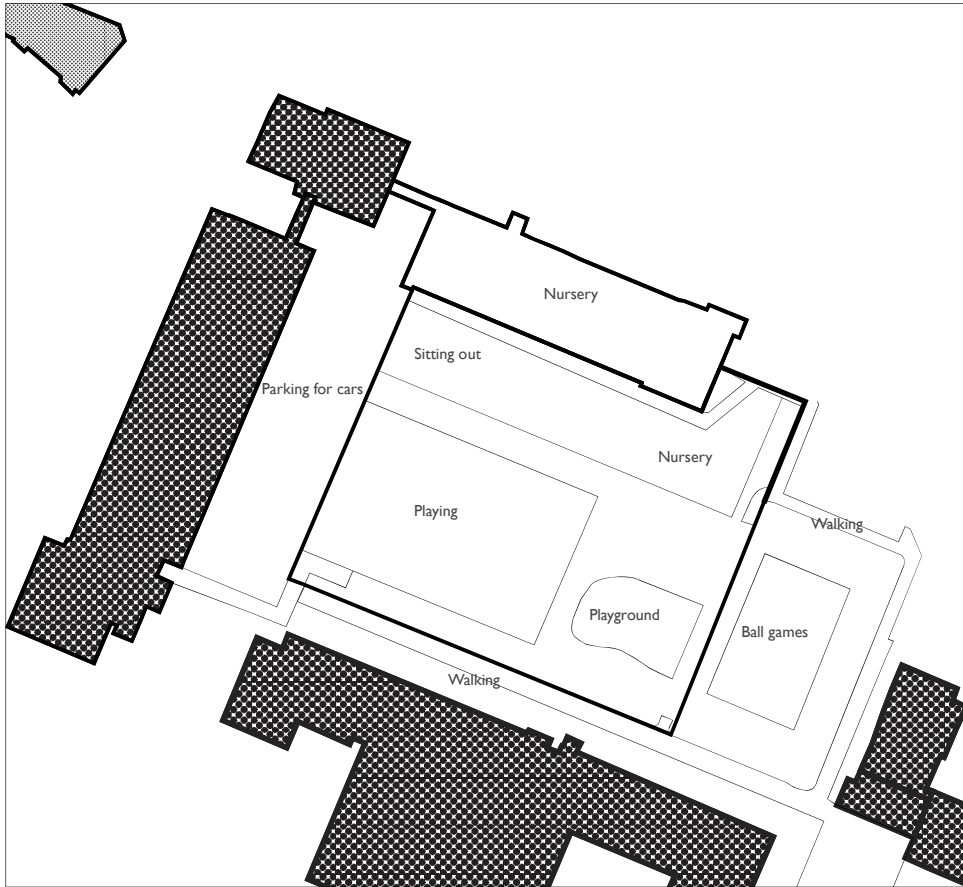0   20   40   60   80m
1:2000
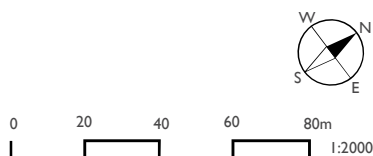
Figure 3.41: Ground floor plan

Figure 3.42: Childrens Nursery
Source: Levitt Bernstein, *Edenham estate and Trellick tower (2013)*

As the carpark is purely functional, it provides little comfort in terms of meeting each other, talking or relaxing. However, this is not expected from a carpark. The main function of this is to park your car protected from the elements and in safety. As explained on the previous page, this last attribute is lacking.

Contrary to this however The deck upon the roof of the carpark provides much more comfort to residents. The opportunity of meeting, playing, talking and walking are all present on the deck. In the original plans, designated areas can be distinguished between places for sitting, walking, playing fields for toddlers, ballgames and a bespoke playground.
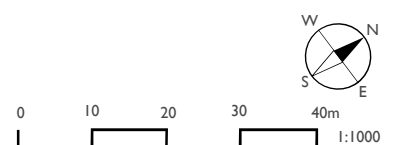
CARPARK: ENJOYMENT

Figure 3.44: Poorly Illuminated Carpark
Source: http://www.afr.com

The ground floor, carpark and deck of the complex are in coherence with the overall brutalist style of the building. This results in bare concrete walls and repeated modular elements. The public opinion about this style may vary, but it is in coherence with the rest of the complex. The orientation of the deck can be considered as a positive attribute Facing south with no real obstructions or overshadowing provides a pleasant climate during summer months. Nevertheless its position next to a 31-storey tower could have a detrimental impact to the quality of the deck-space in terms of wind and sound nuisance.

Lack of Visibility

Unclear Boundary

Lack of Sightline

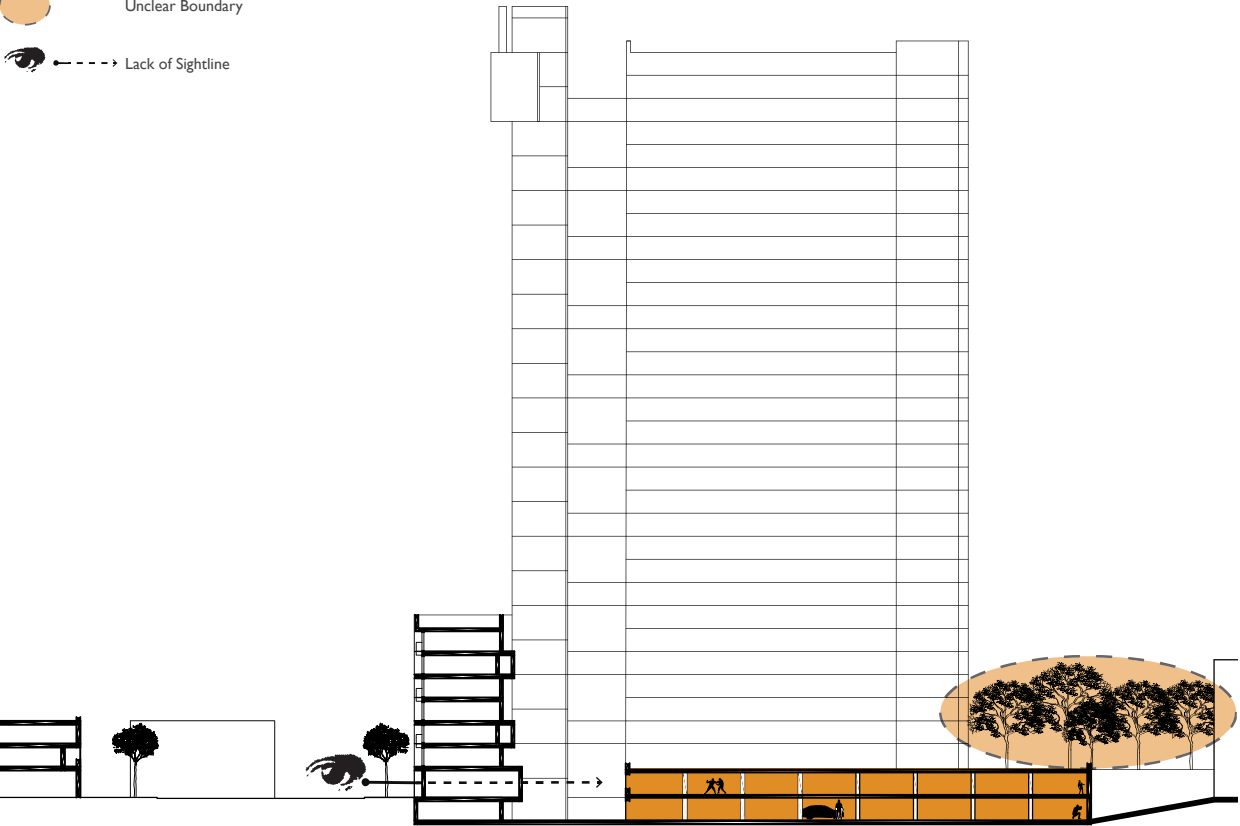Figure 3.43:Section highlighting conditions of carpark and ground floor

Figure 3.45: (Right)Trellick tower service road
Source: http://www.buildington.co.uk

SUMMARY TABLE

Concluding from the findings in this chapter, Trellick numerous issues, mainly concerning anti-social behaviour within the estate, specifically within the collective and public spaces.

Building part	Level of articulion	Evaluation	Evaluation
Access Gallery	Protection	Provides for little protection, attracts crime and violence due to a lack of control	
	Comfort	Designed as a space of passage. Uncomfortable to stay for longer periods of time	
	Enjoyment	Insufficient and unsafe technical performance	
Service core	Protection	Provides for little protection, attracts crime and violence duo to phycial isolation	
	Comfort	not very comfortable for longer periods of time	
	Enjoyment	Contains unclear articulationand undefined spaces	
Car park	Protection	Designed as a space of passage. Uncomfortable to stay for longer periods of time	
	Comfort	Fulflls in the basic nees of the user. Orientation to the south is comfortable	
	Enjoyment	A pleasant place to stay	

Service tower, source of vandalism and crime

Car park, source of vandalism and crime

Ground floor lobby, no access control

Collective open space, under utilised

Elderly care home, blocking the connection to the street
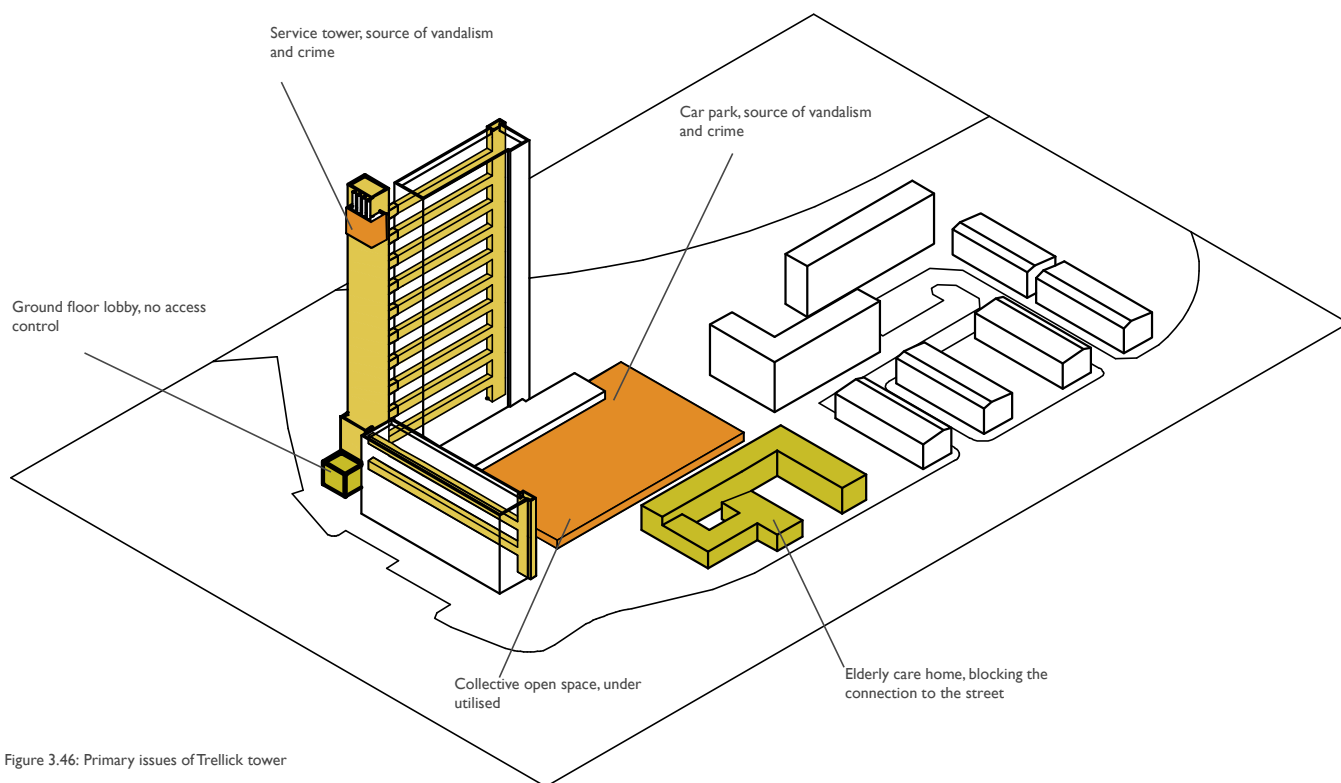
Figure 3.46: Primary issues of Trellick tower

T - Transformation.
D - Demolition.
A - Addition.

1940 1950 1960 1970 1980 1990 2000 2010 2020

D,T   T   T
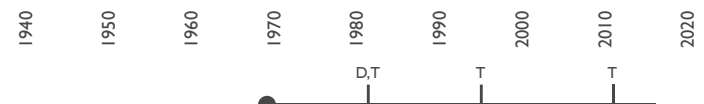
Figure 6.1: Trellick Tower Transformation Overview
Source: Google streetview

Over the years, The Cheltenham estate containing Trellick tower has undergone several transformations. These have ranged from very subtle interventions to large demolition projects. In each an attempt was made to resolve some of the issues outlined in the previous chapter. Ultimately some interventions were successful, whilst others were not. This chapter describes the transformations that occurred, why they were necessary and evaluates their effectiveness. To conclude a summary table will allow a comprehensive overview of the transformation process at Trellick tower and the Edenham estate.

Service tower, source of vandalism and crime

Car park, source of vandalism and crime

Ground floor lobby, no access control

Collective open space, under utilised

Elderly care home, blocking the connection to the street
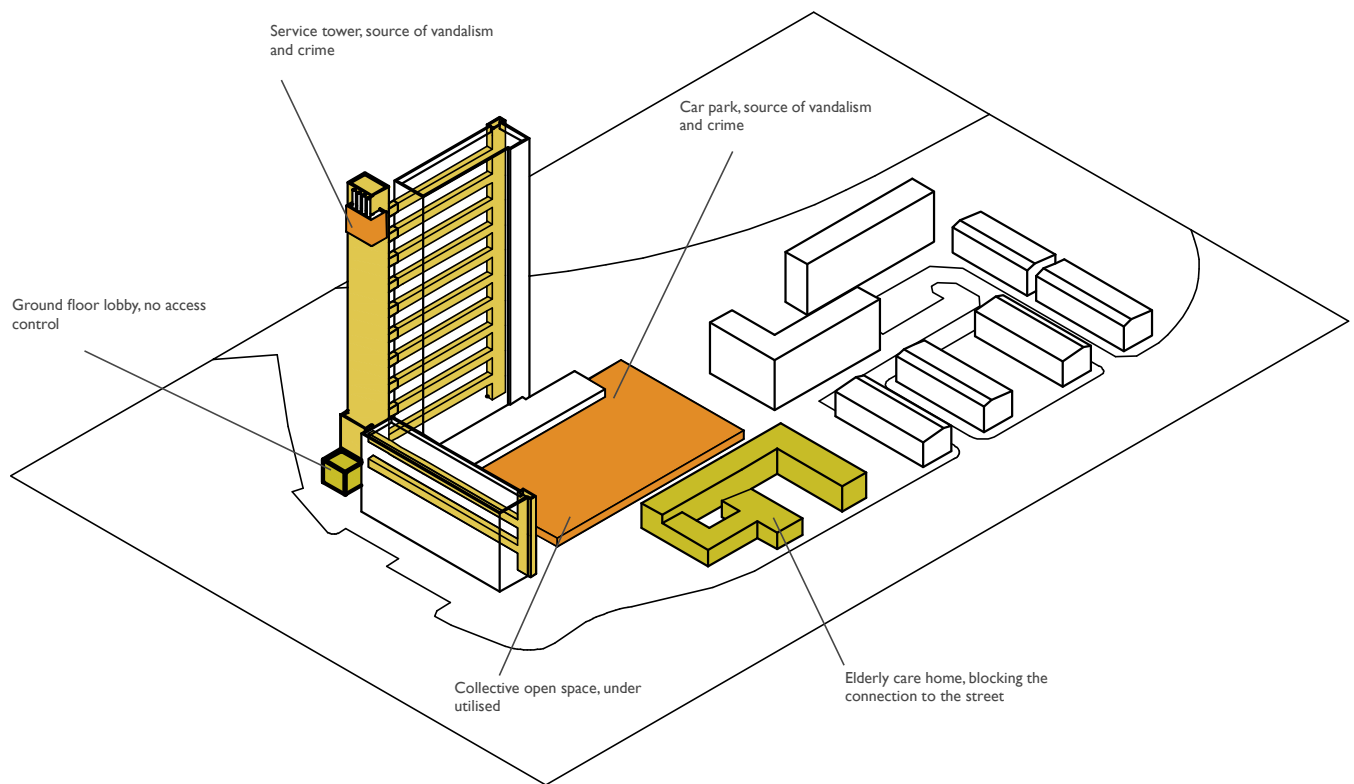
Figure 6.2: Summary of problematic areas

In the early 1980's, the London County Council (LCC) acknowledged that Trellick tower had grown into an troublesome building. They indicated several problematic areas within the estate. Partly overlapping with the findings from the previous chapter, but also including several other areas. Firstly, the council labeled the carpark as obsolete and a source of vandalism and crime. Also, the elderly care home was seen as a source of the problems as well as the lack of security within the tower itself. A plan was made to transform Trellick tower in order to improve living qualities and standards. In the years that followed, between 1982 and 2008, Trellick tower was slowly transformed, piece by piece by demolition, subtle interventions and an attempt to change the negative perception of the building

TRELLICK TOWER: TRANSFORMATION

DEMOLITION

Demolished

Changed in use and function
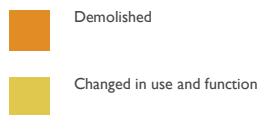
As mentioned before in Chapter one Trellick tower was designed and built during the Late-Modernist era. As a result ample provision was made for car parking. During the 1980's however, it became clear that the vision on the vast amount of cars had been overestimated. The economic down-turn of the Eighties also resulted in massively reduced car ownership. For Trellick this resulted in a large, but mostly unused basement carpark. This had the knock-on effect of attracting more crime as a result. As a result, during mid 1980's around the same time the lobby was changed, a large part of the carpark was demolished, with only a small portion of the original carpark and the deck nearest to the tower remaining today. The empty area was filled with a sunken 'play-pit'.

In 2008, the third major step in transforming the Trellick Tower and the Edenham estate took place. The Edenham Care Home, Edenham Day Centre and Denbigh Day centre were all demolished. These buildings were situated on the strip of land between the ball-court, the old Parking Garage and the Elkstone Road. These buildings, part of Goldfinger's original scheme of 1972, were deemed to have caused a barrier between Trellick Tower and Elkstone Road.. Currently this site is being used as a temporary coach park, awaiting plans for the next step in the transformation of the tower and estate.

The implications of these transformations on the use of the site have been enormous, but in particular the demolition of the carpark has been profound. Although was partially removed in an attempt to reduce crime, the "sunken spaces", which formally housed the structure of this car park, has only increased

the lack of surveillance and security, making it much easier to enter these spaces. The blind walls that resulted only increased the limited lines of sight and in conjunction with the closed walking paths there is now a total lack of user-choice and permeability. Moreover the demolition of the buildings between Trellick tower and the Edenham Estate only added to the sense of separation between the two areas of the estate. This, in combination with the level changes across the communal spaces only accentuates the impenetrability of the Estate. The coach park which replaced the elderly care home is in itself another is now an isolated area. It neither contributes a positive frontage to Elkstone Road, nor does it interact with the communal spaces of the Estate. It only acts as a physical barrier between the communal and public space.

Conclusively it can be said the demolition of certain buildings, without a meaningful reuse of the space they once occupied to create a clear definition of public and collective space has only further scarred Trellick Tower and the Edenham Estate. In this sense the transformation of the estate cannot be seen as a positive process, principally as the main issues, a lack of surveillance and safety are not adequately addressed through the interventions.
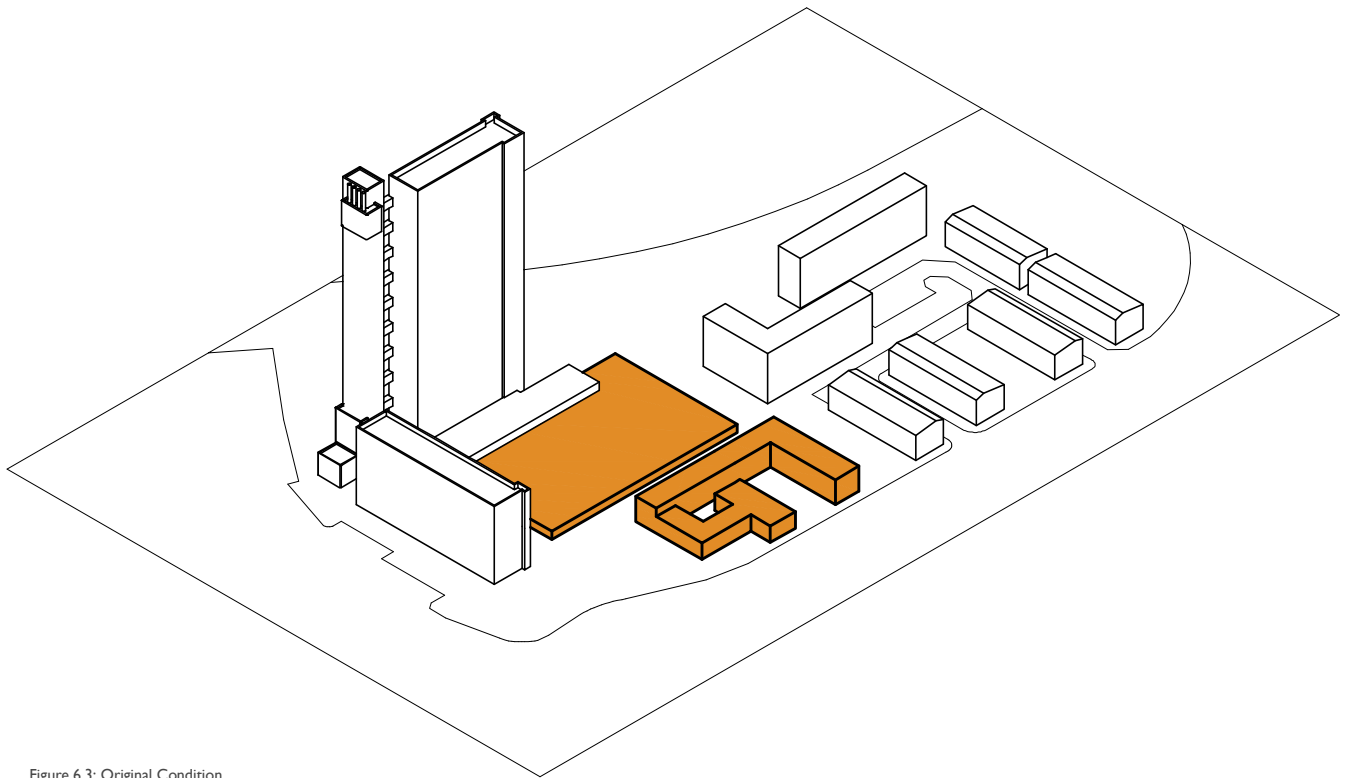
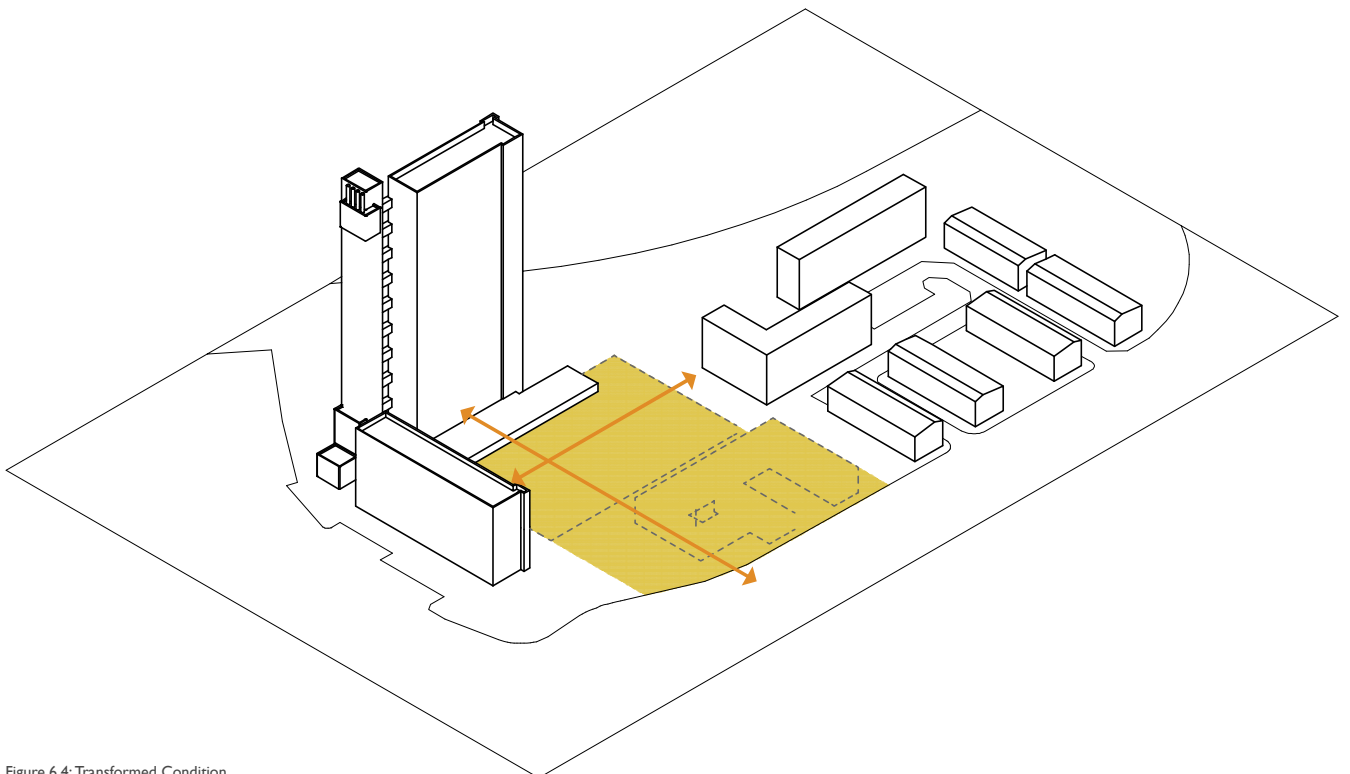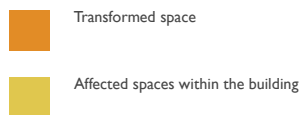Figure 6.3: Original Condition

Figure 6.4: Transformed Condition

TRELLICK TOWER: TRANSFORMATION

LOBBY AND ACCESS GALLERIES

■ Transformed space

■ Affected spaces within the building

After being in use for approximately ten years, several design issues of Trellick Tower had become chronic problems. Municipal authorities decided that a transformation was needed in order to resolve the issues of crime and vandalism, improving the safety and wellbeing of its residents. A choice between small and subtle transformations, or a major transformation was necessary, and ultimately it was decided to opt for a subtle, cost-effective series of interventions. This strategy focused on the transitional spaces between the public street and private dwelling through the collective realm; creating better defined boundaries between each space. The concierge, which was value-engineered out of the original scheme of the Tower was finally installed, with a security attendant sitting behind a reception desk at the front door of the building, twenty-four hours a day. A new door system was installed such that only residents could enter the tower and the outdoor spaces. Added to this, a new elevator system was installed which was much more reliable. These minor interventions changed the service core and galleries from poorly defined in-between space to a clearly defined collective space.
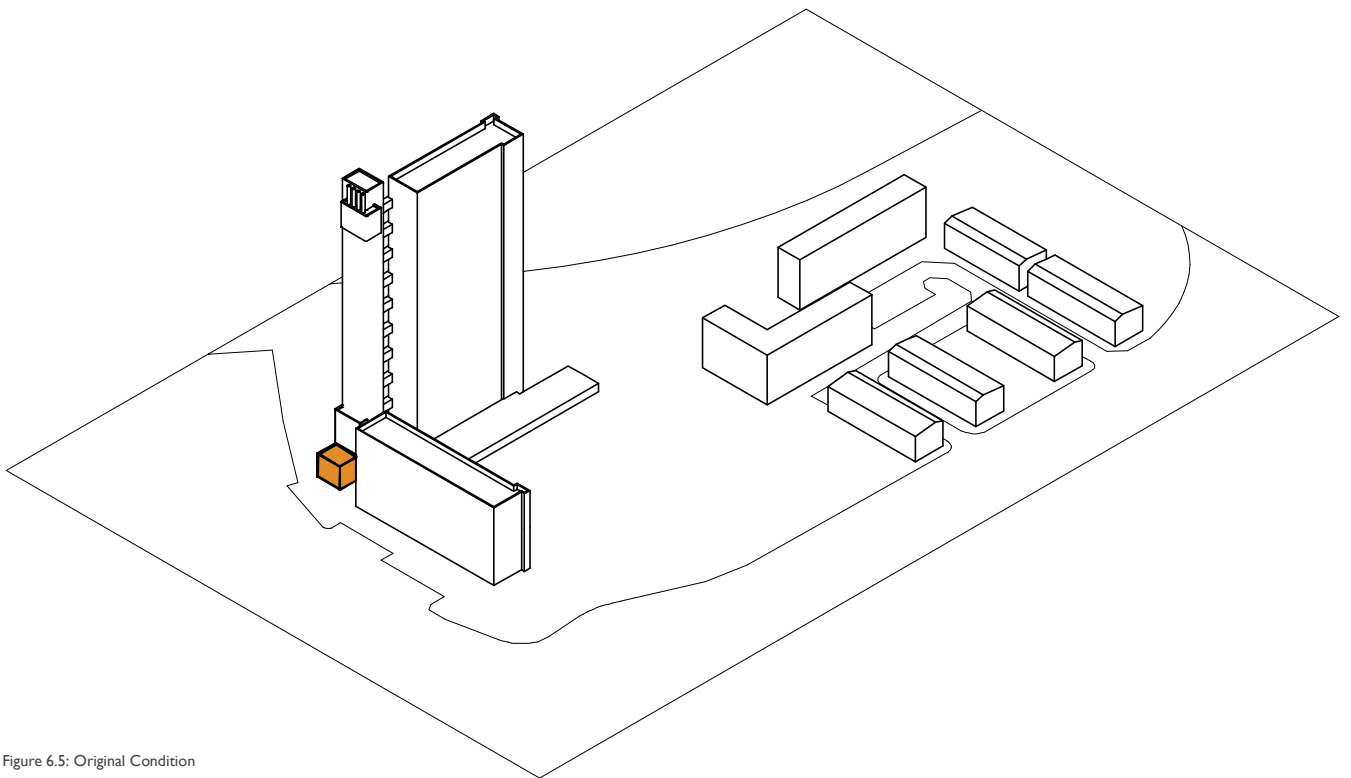
Figure 6.5: Original Condition
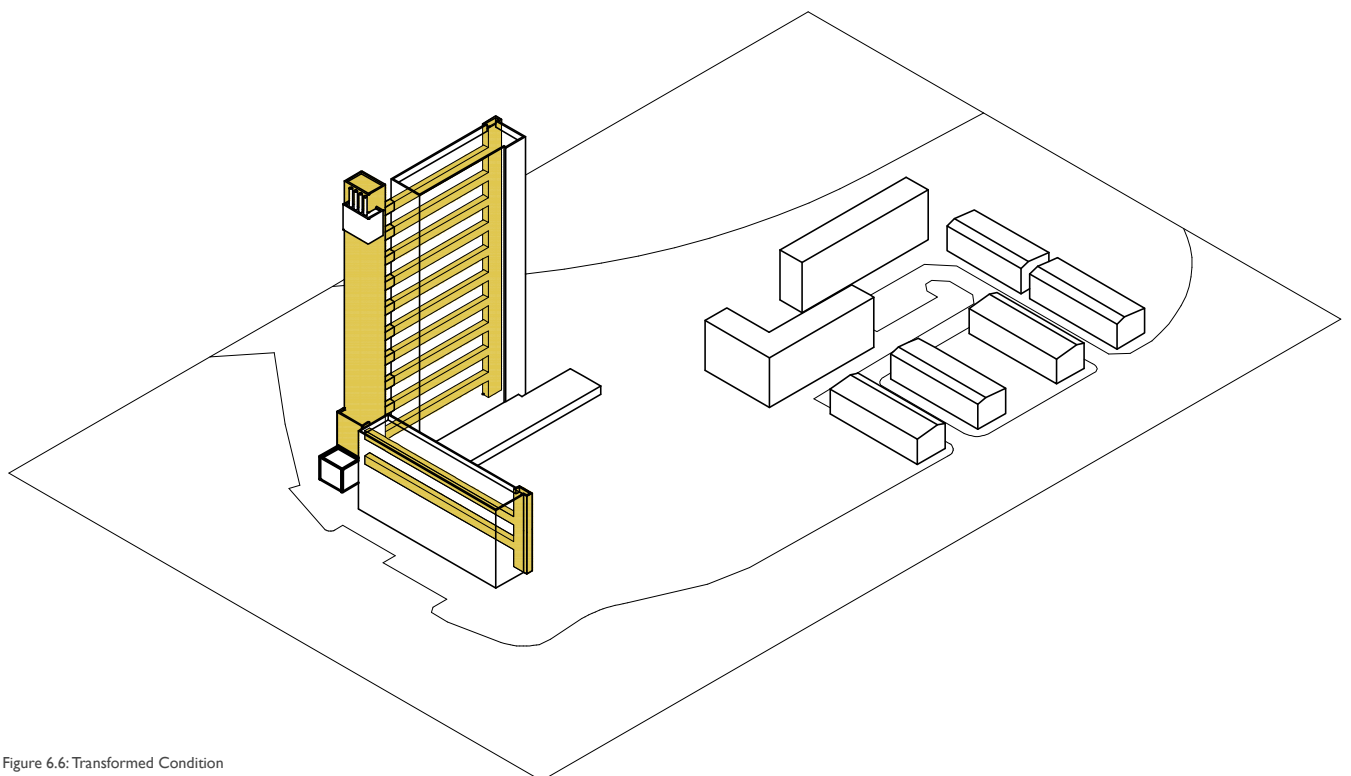
Figure 6.6: Transformed Condition

ENTRANCE AND CLUBROOM
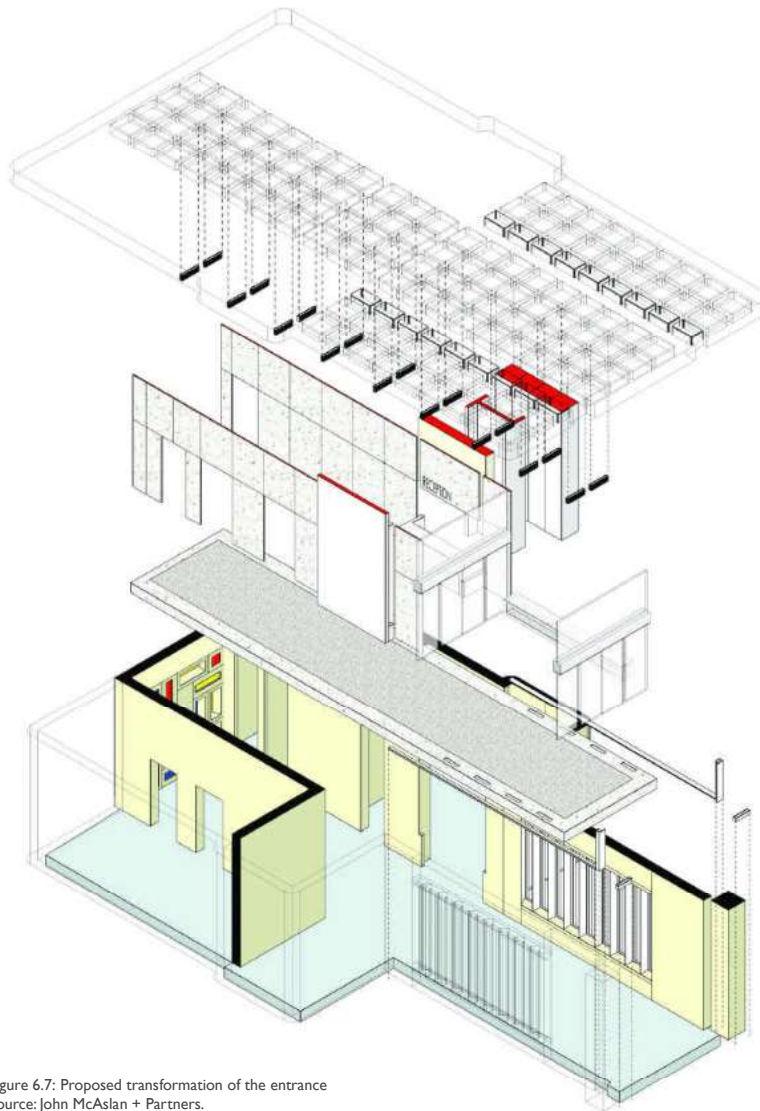
Figure 6.7: Proposed transformation of the entrance
Source: John McAslan + Partners.

In the last decade Trellick was transformed and conserved again. Approximately forty years after it's construction, the technical conditions of the building were no longer deemed satisfactory. Single-glazed window systems and outdated technical services were found throughout the building. The architects John McAslan + Partners had the task to conserve and regenerate the building in such a way that the architecture remained unchanged. Throughout the building new window frames were installed, as well as insulation and a new heating systems. In addition, the entrance which has been transformed in the 1980's before, as well as the above clubroom were addressed to meet today's standards.
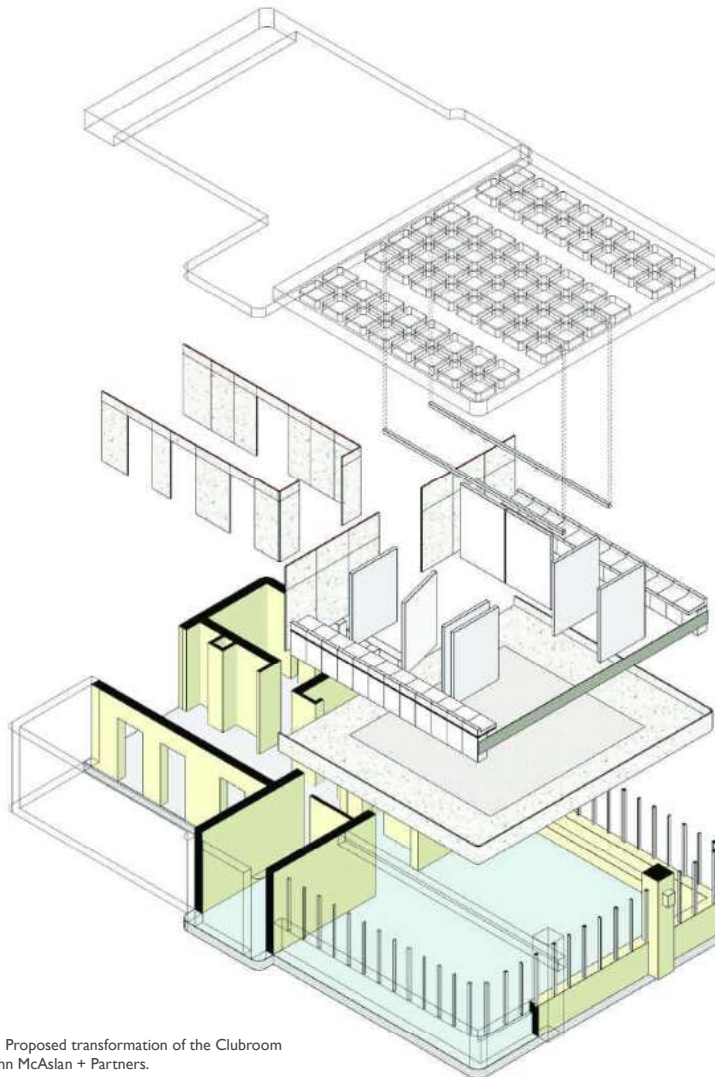
Figure 6.8: Proposed transformation of the Clubroom
Source: John McAslan + Partners.

RIGHT TO BUY
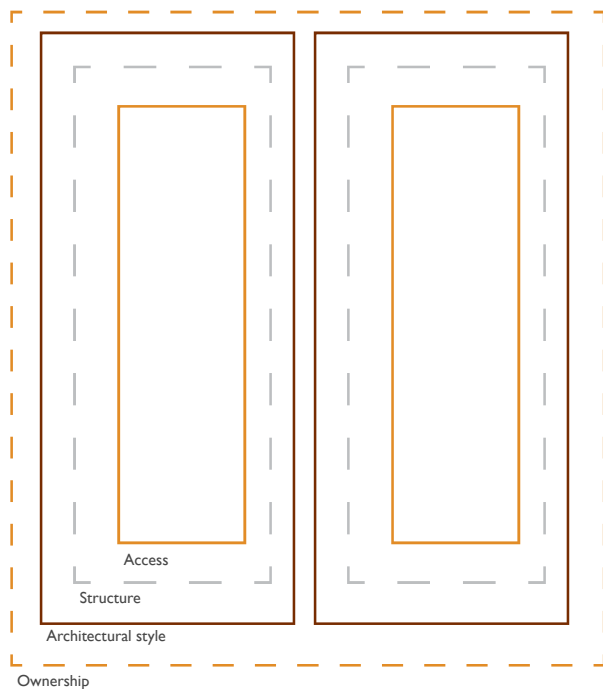
Figure 6.9: Ownership structure: As built
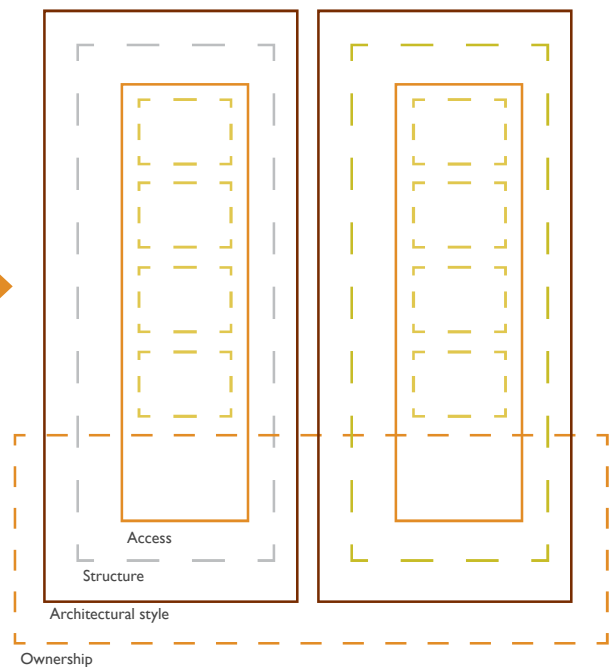
Figure 6.10: Ownership Structure: Current

"We believe the 36, nearly 40 million pound discount given for a right to buy houses took a million houses out of the public housing sector which is desperately needed for rent."

John Prescott

Figure 6.11: Council ownership

Figure 6.12: Privately owned

In August 1980, under the first government of Margaret Thatcher, a housing act was created to cope with the demising housing conditions of that time. The main focus point of this act was "the right to buy" In short, this was "to give ... the right to buy their homes ... to tenants of local authorities"[1] . The majority of sold-off homes were not replaced, leaving social housing as a residualised tenure. Therefore, this Housing act has had a long-reaching effect on the housing environment for the last decades. This act affcted the national view on council estates drastically.

This housing act also affected Trellick. Before 1980, all the dwellings were owned by the LCC and rented out to tenants. From 1980 however, they could be bought by the tenants. This started a slow, but ever increasing sub-division of the ownership structure of the tower, and with each sale the complexity and number of involved stakeholders grew, whilst proportionally their ability to determine the future of the

estate weakened.
From the owner's point of view, this is seen as a positive transformation. However, when looking at the building as a whole. This transformation is strongly negative The division of ownerships, close to 100 in this case, makes it more difficult to intervene comprehensively within the building. Whenever the tower requires significant maintenance or intervention, the large number of stakeholders create a large bureaucratic hurdle to negotiate.

Even outside of the boundaries of Trellick tower, the Right-to-buy act has been received skeptically. The pressure on council housing is still enormous within London, and the waiting lists are long. Due to this act affordable, suitable family dwellings are taken out of the welfare system and sold on the open market as private ownership houses. This serves to drive up both the pressure on council housing and housing prices in the city generally whilst reducing the number of affordable dwellings.

Figure 6.13: Original condition

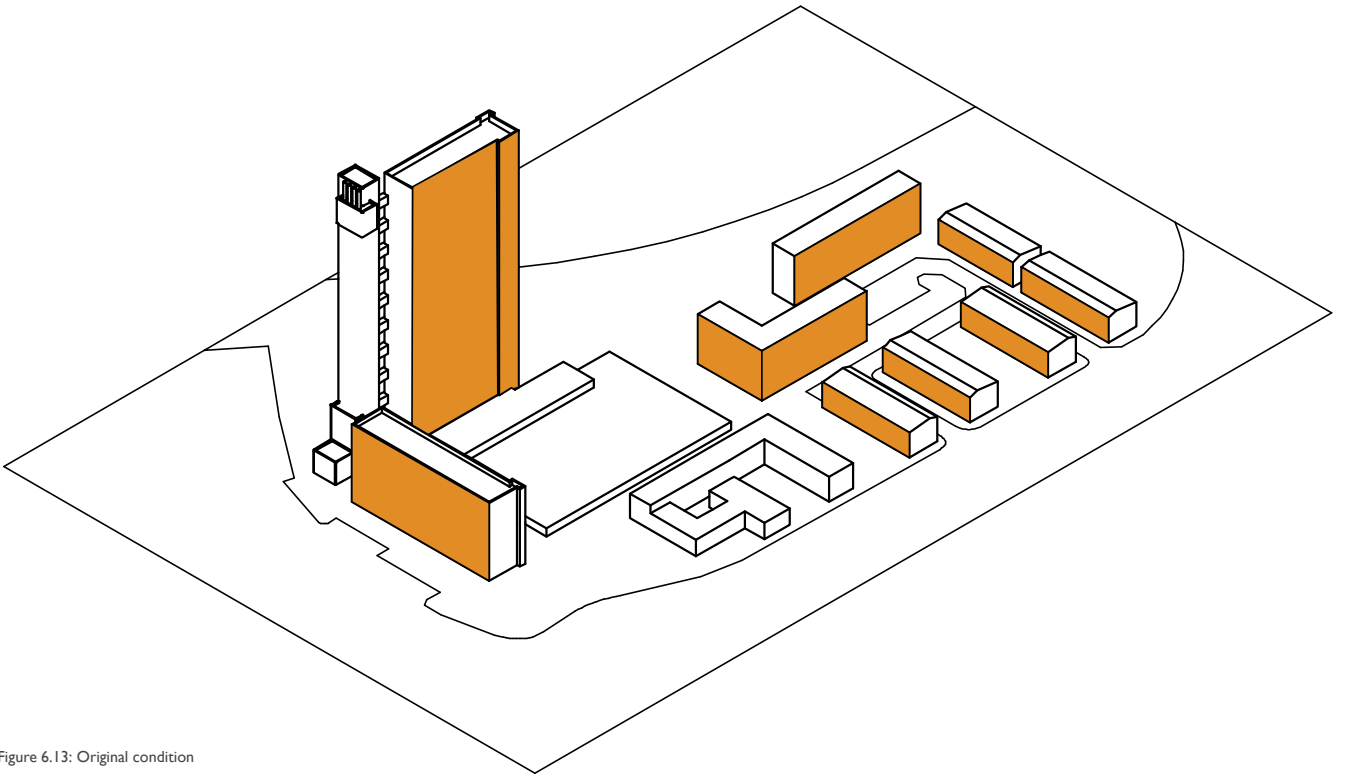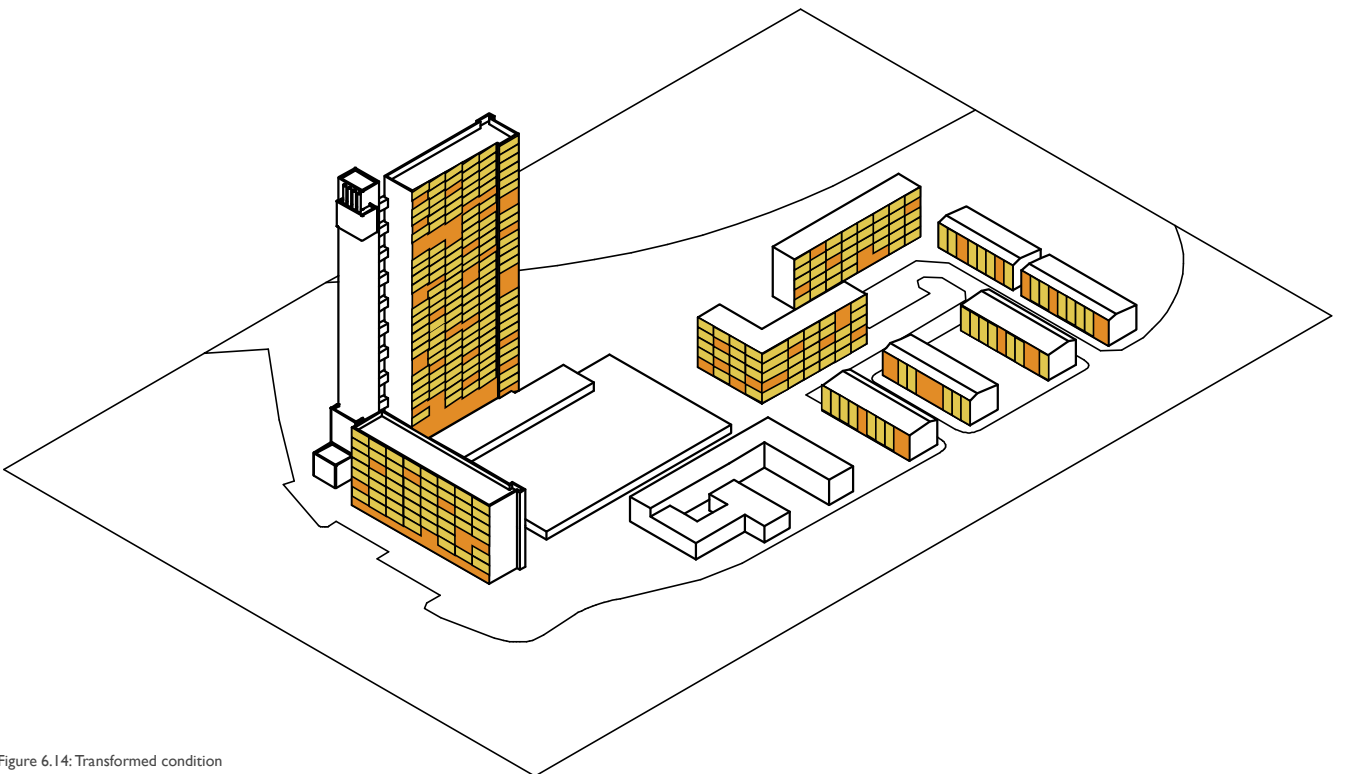Figure 6.14: Transformed condition

LIFE IN THE TOWER BEFORE AND AFTER TRANSFORMATION

■ Highly affected space

■ Partly affected space
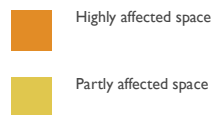

Figure 6.15: Advertisement for DBC, a pirate radio station which illegally broadcast reggae music from the rooftop of Trellick Tower.

Source: http://www.thepiratearchive.net

Before its transformation Trellick was a denigrate Tower of Terror. Though the LCC had full ownership of the Tower and Estate they were slow to intervene with measures to reduce the incidents of crime and anti-social behaviour within the building.

Trellick Tower attracted fierce criticism from residents, Goldfinger's peers and other commentators. High-rise towers had become unpopular forms of development following the Rowan point collapse; with the perception that the design of Trellick Tower also generated severe social problems and crime.

Trellick quickly became the poster-child for the failing public housing provided by the welfare state in the 1960's. A lack of management and isolating design led to crime, drugs, attacks and abuse throughout the tower and estate. Attacks within the service tower became so commonplace that amenities such as the communal room had to be abandoned. The lack of maintenance led to residents having to climb all 31 stories by stair, responsible for the death of one elderly resident; earning the building the nickname "the Tower of Terror" -something the author J.G. Ballard emphasised when he used Trellick as a reference for his dystopian novel "High Rise." One Christmas was ruined for all residents as several vandals had broken into the boiler room at the top of the service tower, flooding the tower and disrupting all electricity and heating provided to the dwellings for a week.

The 1980's saw pressure from residents to improve on social problems and disorder, resulting in improved security systems that impacted on crime and anti-social problems within the building. At the same time the pirate radio station DBC began broadcasting its Black music shows from Trellick, enshrining the building into the cultural legacy of the area.

For the residents it was clear that change was needed, ironically however the 'Right-To-Buy' scheme, and the complexity of ownership this introduced made it harder than ever to realise any alteration or amendment to the Tower, Each home-ower was an individual stakeholder in the Tower, and thus must be involved in every decision regarding the future of the building. To alleviate this problem the residents formed an association, who represented the interests of all the residents of the tower. By doing this it became possible to co-ordinate the approach to the transformation of the many faults and problems within the tower, in conjunction with The LCC and later Kensington and Chelsea Council.
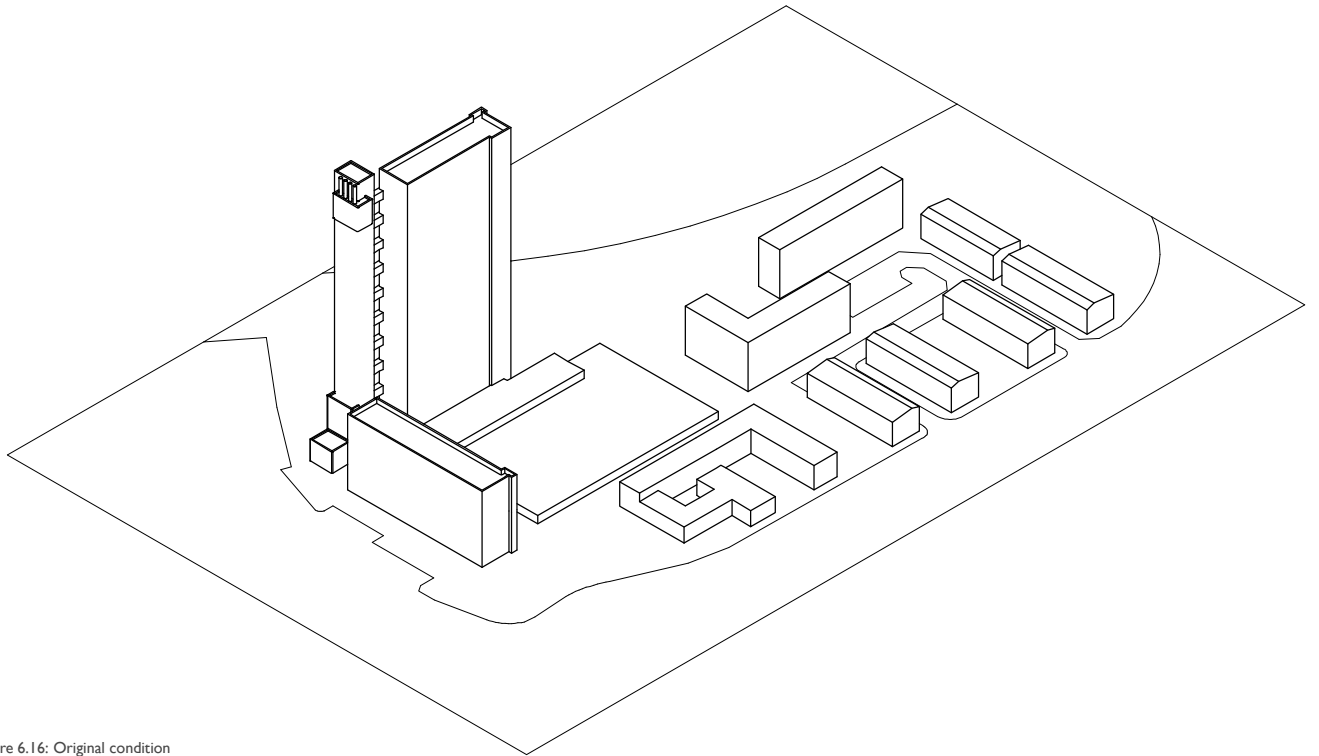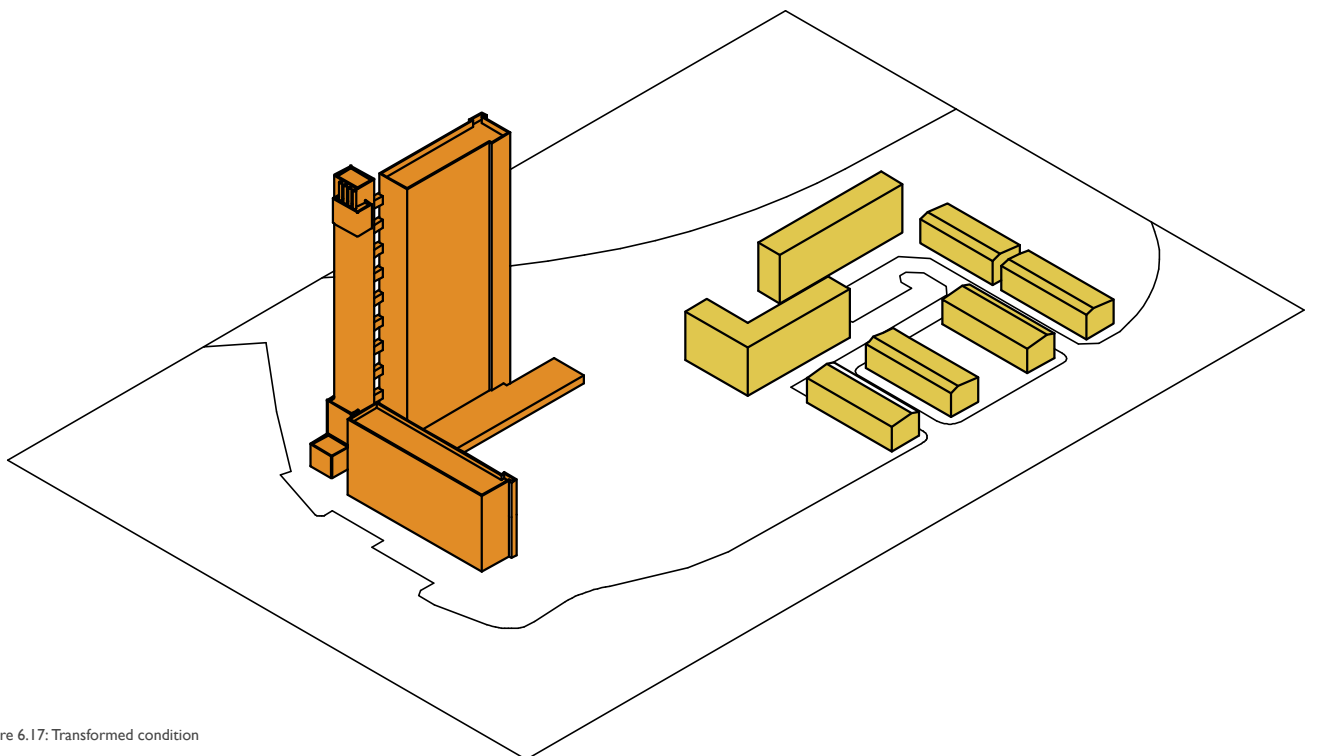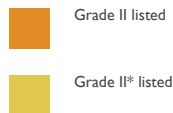
Figure 6.16: Original condition

Figure 6.17: Transformed condition

TRELLICK TOWER: TRANSFORMATION

LISTING

Grade II listed

Grade II* listed

Trellick Tower has undergone a third major transformation. Although not physical, the listing of the tower and estate has been a powerful catalyst in the transformation of the Estate. In 1998, Trellick Tower and Cheltenham Estate were listed by the English Heritage for their "special architectural or historic interest" A distinction has however made between the tower complex and the low-rise Cheltenham estate. The tower complex has been appointed a grade II* (two-star) listing status. This status is reserved for "buildings with more than special interest. This results in the protection from demolition or any alteration without special permission from the local planning authorities, which in turn must consult the English heritage, The Cheltenham estate has a grade II listing status. For this, the rules are less strict, but still nothing can be changed or altered without a special permission.

English Heritage gave the following justification for including Trellick in their list of listed buildings:

"Included as the ultimate expression of Goldfinger's philosophy of high-rise planning. It also embodies the best ideas of the time on high rise housing"[1]

Although the listing has not changed the visual appearance of the tower, as this is now illegal without consent, it has had a profound impact on the perception and value of the building, all of which has contributed to reducing the incidents of crime in and around the Estate. This is due to fact that English heritage has valued and appreciated the architectural value of the building, acting as a professional 'Seal of Approval' for the Estate, giving it a

certain credibility and quality. Therefore, the perception of the building by the local residents, as well as the general Londoners has been altered in a positive way. The problems which over the years Trellick's perception as a 'Sink' Estate has attracted, such as vandalism were found to have declined. Moreover the listing of the building also highlighted the qualities of the building to new target-groups. Suddenly there was demand for apartments within Trellick tower from professionals such as architects, attracted to the generous space standards, enviable views and sound financial investment opportunities.

All in all, the listing of Trellick Cheltenham estate has had a major impact on the building. On one hand, it could have had negative influence on the building, as it restricts the possibility to radically intervene and address long-standing design issues. But on the other hand the positive change of the perception of the building has eliminated a large part of the anti-social behavior without the need for physical intervention. Increasing the value of the building in terms of wellbeing for tis residents, public perception and economic term. Trellick Tower has become a desirable building to live in, but with this come challenges of affordability, with some today concerned at the gentrifying trends that are occurring to the ownership structure within the tower and estate due to the rapidly rising dwelling prices.

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1   The royal borough of Kensington and Chelsea(2013), *Trellick tower and the cheltenham(edenham) estate*

Figure 6.18: Original condition

Figure 6.19: Transformed condition

Transformation	Issues Addressed	Intervention	Evaluation	Further Measures required?
Demolition	Lack of Passive Surveilance	Demolition of carpark		
	Unused space	Demolition of carpark		Ground floor should be activated more
	Inactive Ground Floors	Introduction of the 'play-pit'		Use activates ground floor, but relation between dwelling and external space could be strengthened
	No relations to elkstone road	Demolition of Edenhame care home, Edenham day centre and Denbigh day centre		Replacement of the care home by the coach park, and the preservation of the row of tall trees did not get the desired effect. A more active approach is needed
Transformation	Crime and vandalism	Installing security attendant / new door system		Extend the 24-hour surveillance to the surrounding streets
	Unsafe conditions and low wellbeing	Replacement of unsafe technical equipment		
Listing	Negative perception of the building	Listing the tower and estate		Further improve the tower's marketing
	Unclear definitions of Trellick's qualities	Listing the tower and estate		
Right to buy	Demising housing conditions	Provide tenants to buy their dwelling		Counter the sub-division of owners by stimulating the forming of owners'associations

Figure 6.20: Image of Warwick estate taken from Trellick tower
Source: Will Faighney Photography

Concluding from this, it can be said that Trellick tower has undergone quite few transformations in the relatively short 40 years that it has been standing. Several issues such as anti-social behavior that have arisen during this time has been partly resolved by what appeared to be rather subtle interventions. However, this interventions, as subtle as they might be, have had a great impact on the use and perception of the building, contributing the reducing of anti-social behavior.

Vandalism and crime rates have dropped a considerable amount and Trellick has already started to become a desirable place to live in. However, despite the fact that there have been measures taken, there is still a lot that still hasn't been resolved. At the time we went to visit the tower and estate, there was still a lack of feeling of safety and we felt really unwanted there. Rubbish still dominated the streetscape, especially on the delivery road. Full garbage cans emitted a smell of rotten food and throughout the entire estate someone was always watching you.

Therefore, it can be concluded that the way of intervention of the issues has not been completely sufficient. These measurements did not address the root causes of it. Therefore it could never be a 100 percent fix of all the issues as it only covers up the issues and moves them to nearby areas. [Needs elaboration]But what else could they have done to trellick to completely resolve all of the issues. By tackling the issues by the root cause. Therefore it is important to also look at other projects which encountered similar problems and have also addressed these through transformation.

About 1 km to the east of Trellick tower, in the Borough of Westminster, an estate consisting of 6 high-rise tower blocks built in the same time-frame as trellick is present. This estate, Warwick estate, had the same issues of anti-social behavior which has been addressed through transformation. However, they approached these transformations in a completely different way.

58

WARWICK ESTATE AND WESTBOURNE GARDENS


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1940   1950   1960   1970   1980   1990   2000   2010   2020
                                          A      D,T
●
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T - Transformation.
D - Demolition.
A - Addition.
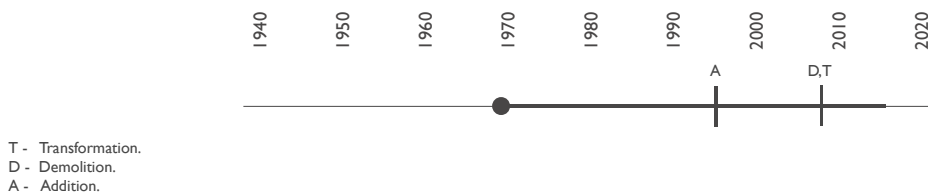
Figure 6.21: Warwick Estate Transformation Overview
Source: Google streetview

The Warwick estate is part of the Westbourne Gardens area of Westminster. Like the Estate containing Trellick this area was also part of the slum-clearance effort that was ongoing during the 1960's and 1970's. Warwick, despite being more throughly planned out than Trellick, nevertheless suffered from crime and anti-social behavior in a similar manner. However in the past twenty years two significant periods of transformation occurred which has transformed the estate from an area of hardship and crime to a 'model' estate as part of the Borough-wide renewal strategy.

Figure 6.22: Left, Aerial view of Warwick Estate
Source: http://www.kmw.co.uk/

METHODS OF RENEWAL IN WESTMINSTER CITY COUNCIL

'Coming from an estate in London no-one feels like they can make it so we all just chill-out, everyone just buns weed and everyone just gets depressed… and has babies'

'You have to realise that it's only because of where I was raised that this is happening. If I was raised out in the countryside somewhere, like on a farm, obviously I'm not gonna be committing crimes.'

'Cus where we live yea, you gotta think we're here… and we ain't got much and we're seeing all these rich people and they got all their things. And people that live in the flats that's what they want. So they're gonna go out and get that, either legally, or more than likely, illegally.'

'It's all about building a relationship with these kids to let them know that you gotta come to school, get your education and you get out (of the estate). There should be more activates after-school like for instance sports, football, basketball. I mean sometimes they're just once a week. I don't see why that it shouldn't be five times a week, just so you got the youths doing something positive.'

Figure 6.23: Perception of Quality of Life for residents within London Council Estates.

Source: Youth Voices - London Estates' accessed 28 November 2015, https://www.youtube.com/watch?v=C0--nOkXdk8.
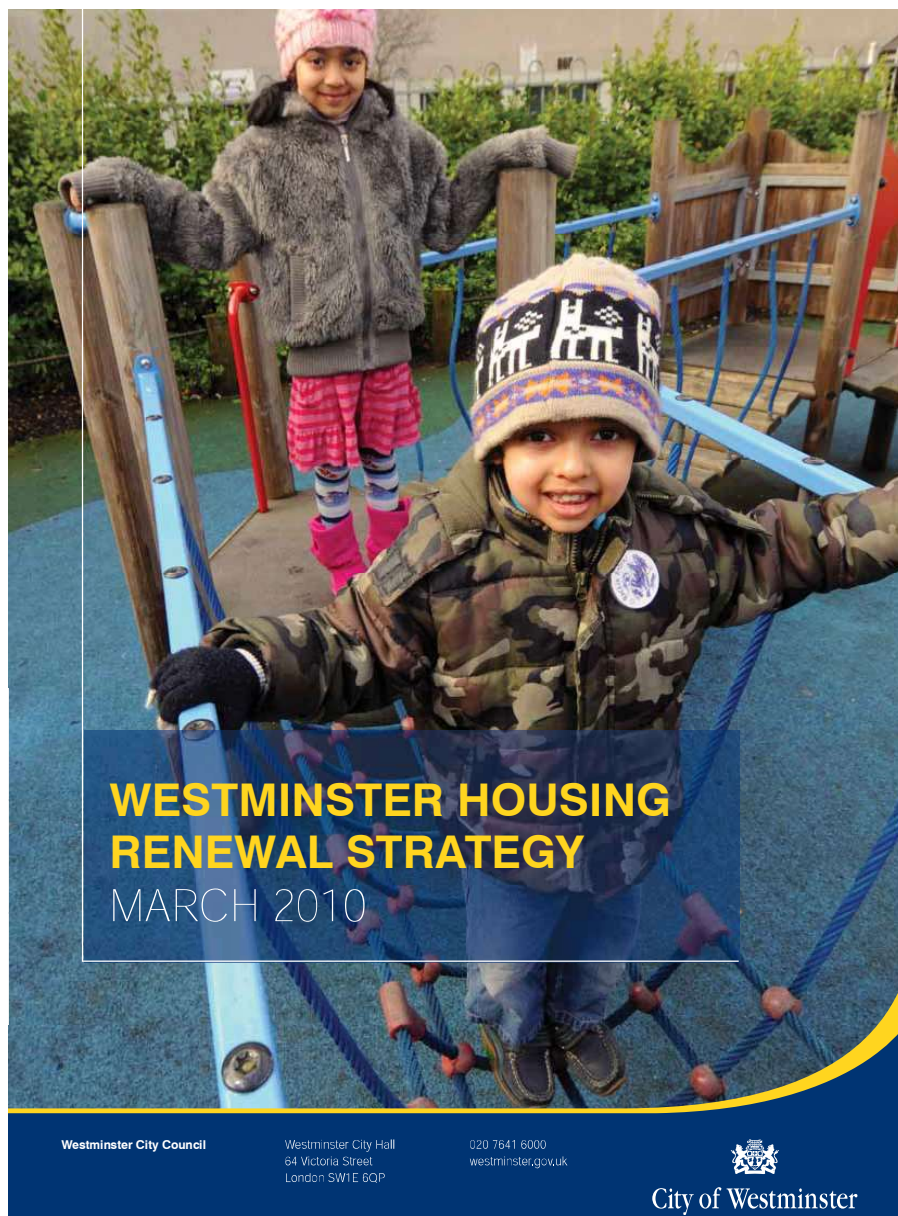
Figure 6.24: Westminster City Council: Housing Renewal Strategy
Source: https://www.westminster.gov.uk/

The City of Westminster has since 2010 developed a housing renewal strategy. This applied to all council owned estates within the borough. Trellick tower, as it is in the borough of Kensington and Chelsea is not applicable for this strategy.

Within the strategy is a threefold approach:

Investing in Homes
Investing in Community
Investing in Business

The council views this list in order, and thus attempts at renewal on estates first start with tackling the issues with housing provision. Typically it results in improvements to the technical performance of the buildings (insulation, waterproofing) Reconfiguring the internal layouts of the buildings to provide larger or more appropriate dwellings sizes, and finally adding new dwellings to meed demand.

Upon the completion of this the council reviews the success of the introduced measures and follows-up with a borough wide scheme of Community initiatives such as sports clubs and community groups, as well as improving the education and well-being of residents, giving them health, education and employment advice.

Finally the council provides opportunities and grants for local residents to undertake entrepreneurial endeavors, hoping to transform the wellbeing of residents through employment and economic prosperity.

Within the Warwick estate all aspects of this strategy have been applied, with the transformation of the estate noted as an exemplary case of the effectiveness of the renewal strategy.

ADDITIONAL DWELLINGS AND AESTHETICS
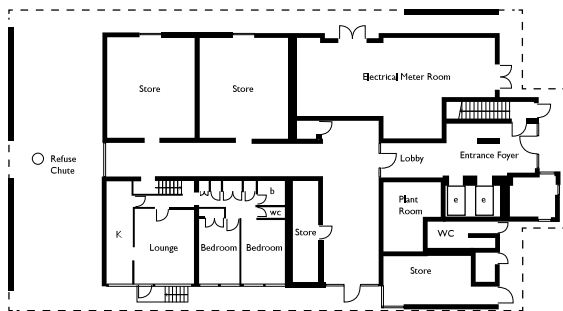
Figure 6.25: Original Condition
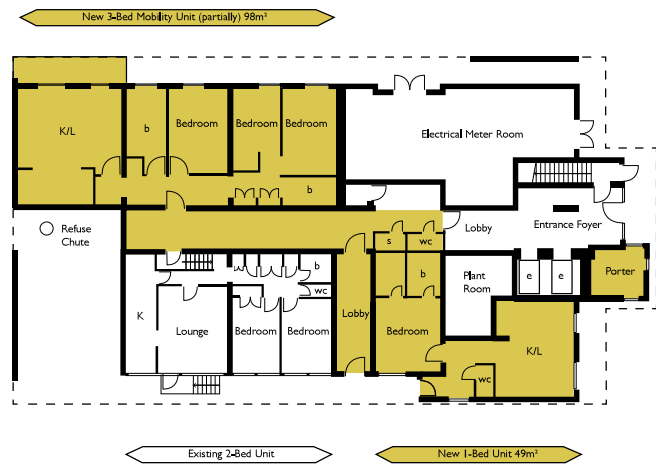
Figure 6.26: Current Condition (New Dwellings)

Figure 6.27: Original Condition
Source: www.youtube.com/watch?v=nD835iqVdTQ

Figure 6.28: Current Condition
Source: www.youtube.com/watch?v=nD835iqVdTQ

Unlike Cheltenham Estate the Warwick estate is not listed. This allowed new buildings to be added to the estate relatively easily. In 1997 three separate buildings were added to the bases of the towers closest to the Great Eastern Canal Additional Dwellings Along Canal edge. These provided 96 new homes, a mixture of 1 and 2 bedroom apartments. These dwellings were oriented to overlook the Canal, with the resulting passive surveillance helping to reduce the likelihood of anti-social behavior along the tow-path.

The construction of the new buildings was a in a marked contrast stylistically from the existing buildings. Using brick and metal they express themselves in a much more contemporary style. Though it can be argued whether their style has merits what is crucial is the contrast from the concrete facaded high-rises. The stylistic layering between the new and old certainly softens the imposing, monumental character of the estate and helps to overcome the stigmatised perception of councils estates as a place of deprivation and crime. The seven storey massing of these building also further helps to blur the edges of the estate, giving an intermediate height between the three and four storey Harrow Road and the twenty-one storey existing high-rise towers.

The high-rise buildings have also undergone significant alterations. The transformation of the three identical towers began in 2006 and was completed in 2009. During this time residents did not have to leave their dwellings.

The most significant alteration was the addition of a new facade to the building. Additional insulation, new double-glazed windows and new cladding panels gave the buildings a rejuvenated, lighter appearance and crucially removed any outward expression of concrete, reducing associations with post-war council housing. Internally the ground-floor was significantly altered. It was felt that the undercroft containing the bin chute and stores, Electrical meter rooms, Plant room, Storage room and Toilet were under-utilised and potential sources of anti-social behaviour. Therefore these were removed and replaced with ground-floor dwellings. In each building a new 3-bedroom 5-person flat, along with one 1-bedroom 2-person flat were added. Being on the ground-floor makes them ideal for wheelchair access and families independently of the service cores of the building. Moreover their active use as dwelling deters crime and further secures the space around the base of the towers as private space for their gardens.
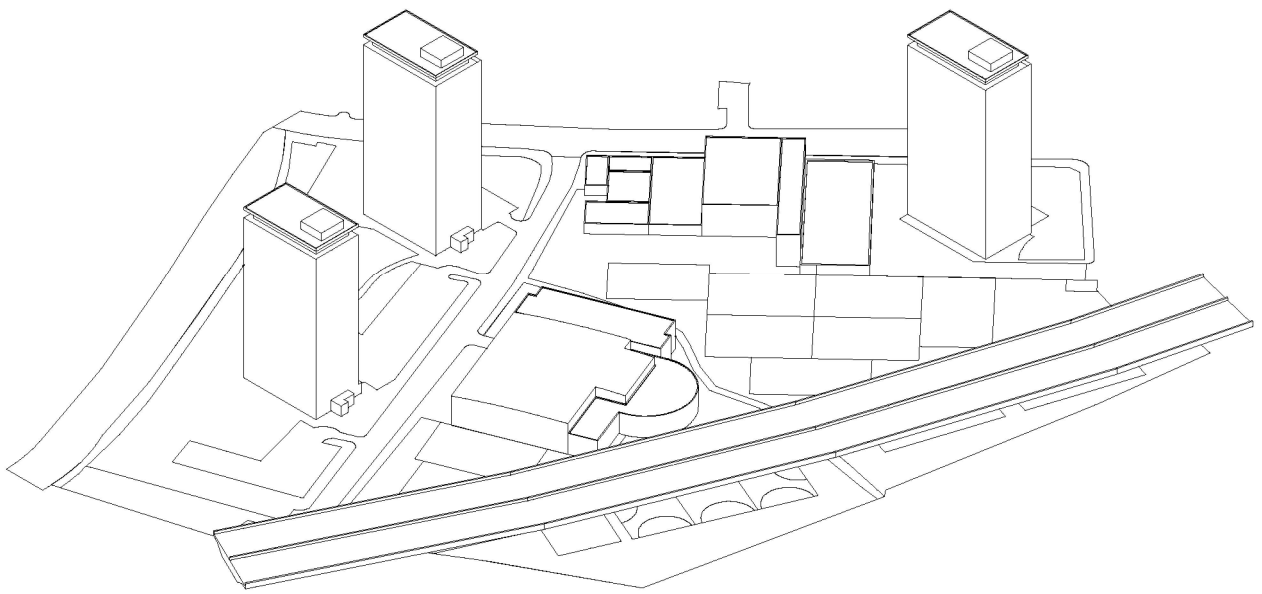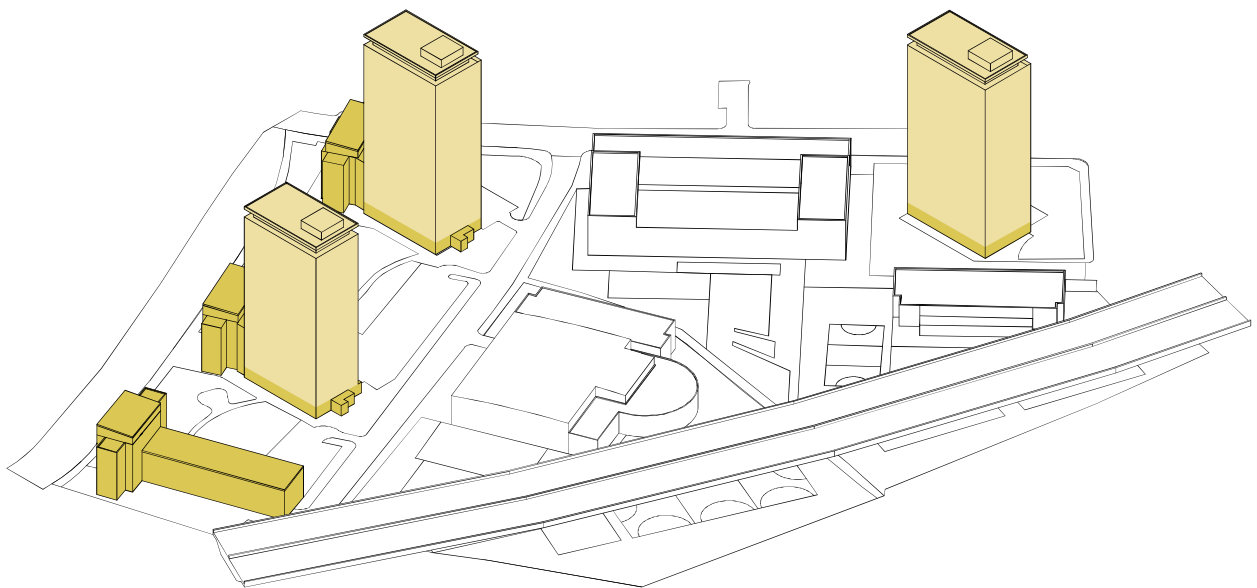
Figure 6.29: Original condition

Figure 6.30: Transformed condition

CONNECTION TO CONTEXT

Figure 6.31: Transformed Identity
Source: http://www.architravel.com/architravel/building/
westminster-academy/
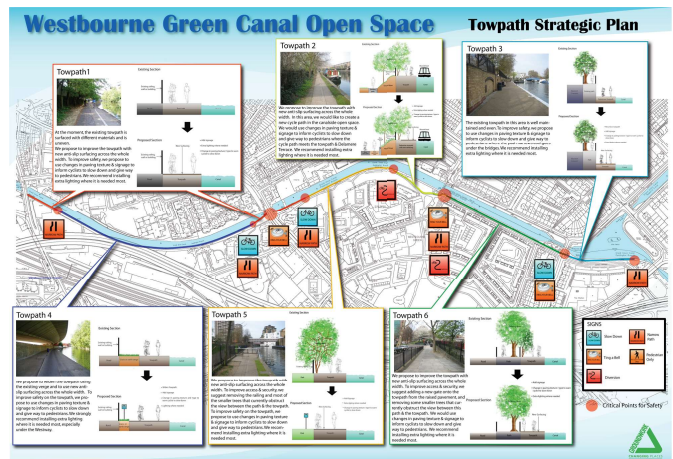
Figure 6.32: Community Consultation

Figure 6.33: Transformed Identity
Source: http://www.pdt.org.uk

Figure 6.34: New Sports Facilities
Source: https://www.mylocalpitch.com

Before transformation the Warwick estate had a ground-floor condition that was comparable with Trellick tower and the Cheltenham estate. An abundance of publically accessible space and boundaries that were not clearly defined with restricted access to the Harrow Road were similar problems as at Trellick Tower. The estate was fronted by a large employment building, which did little to create an inviting, positive image for the estate behind. Combined with the playing fields in the centre of the estate this created an ideal location for crime and drug-abuse. A public right of way though the site resulted in a poorly defined path leading across the open sports fields and under the Westway. The Great Eastern Canal, though passing one of the edges of the estate was not accessible or used as a public space due to a large boundary wall and the poor environmental condition of the canal tow-paths.

In an attempt to improve the ground-floor condition a large intervention was made in the centre of the estate. The workspace buildings were replaced with The Naim Dangoor Centre, a large community and school building. This created a much more positive frontage to the Harrow Road, and, when combined with the allocation of the playing fields within its boundary, resulted in a 14% reduction in the crime rate within the estate. Playing fields are now protected

and fenced, becoming private space instead of openly public. This makes them more safe for school children to use, whilst they can still be used by the local community on appointment when not in use by the school.

A community consultation process saw the canal towpath transformed into a new public leisure route. A series of feedback meetings, questionnaires and community design sessions helped both the design team and locals create public space which was of use to the residents, whilst also giving them a sense of ownership through their contribution to the design process. Whilst it is hard to definitively prove it is likely this changed the perception of residents and coaxed them to be more considerate and thoughtful to the space, refraining from anti-social behaviour and abuse. Along the canal many interventions were made to allow residents and passers-by to enjoy the environment. Such measures included Cycle paths, Environmental education areas for children, Informal picnic and play areas and community art. Crucially new footpaths were created to connect the Estate boundary and the canal path, opening up the estate to the surroundings and thus reducing the likelihood of crime through increased passive surveillance and activity.
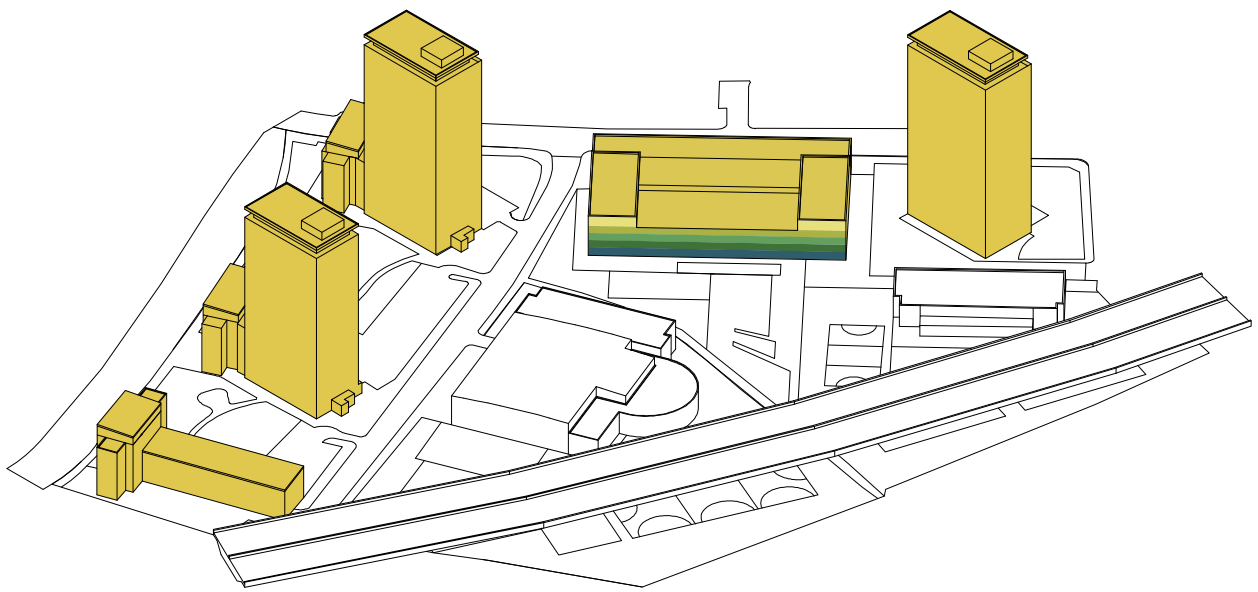
Figure 6.35: Transformed aesthetics
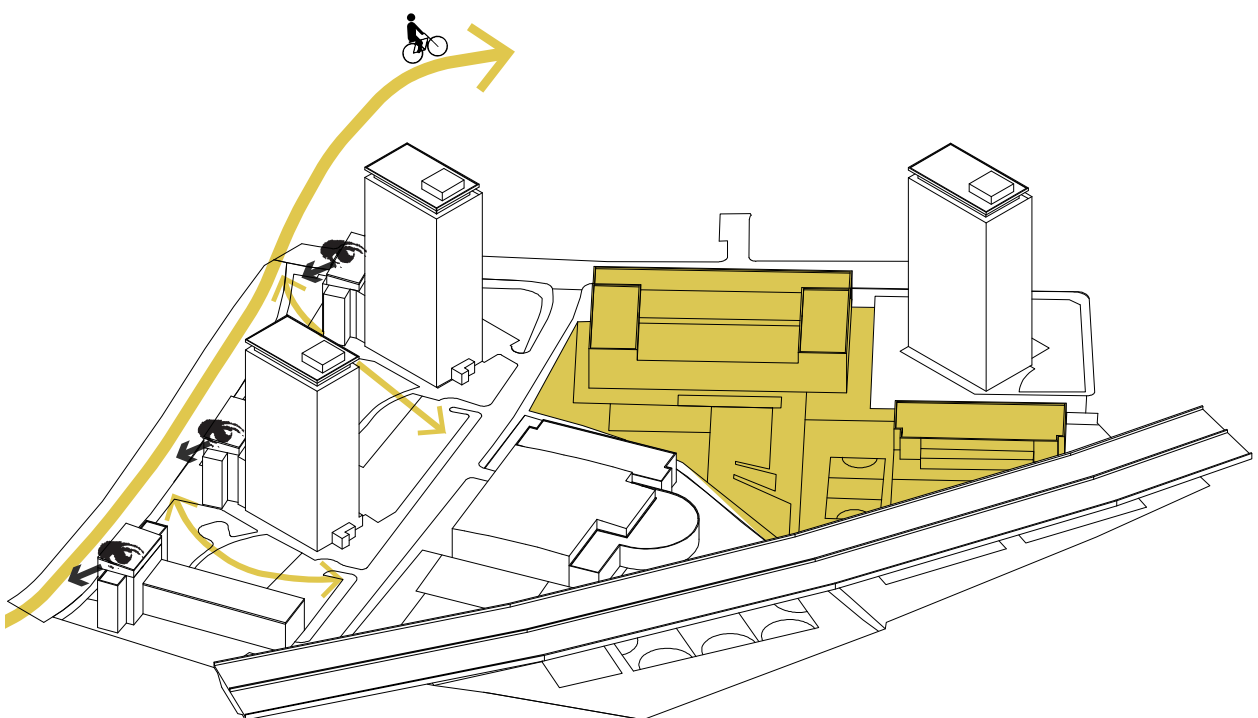
Figure 6.36: Transformed condition

OPPORTUNITIES FOR YOUNG TAR-GET GROUPS

Figure 6.37: Naim Dangoor Centre
Source: http://wamemphis.com/

Figure 6.38: Stowe Centre
Source: http://www.buildington.co.uk/buildings

The Westminster Academy within the Naim Dangoor Centre offers alternative education paths (Music, Arts, Economics) and provides opportunities for children who would otherwise not remain in school beyond 16-years old. Its design focuses on alternative education methods and contains spaces to support alternative learning methods, making use of more informal break-out spaces to deliver education.

Communal spaces are large and visible within the building, and spaces such as toilets are designed to reduce the chance of bullying and anti-social behaviour.

The Stowe Centre is a nearby facility that was added along the Harrow Road at the same time as the construction of the Naim Dangoor Centre. It contains a hi-tech youth and community facility offering space for voluntary and community organisations, along with an extensive range of youth facilities.

Both of these facilities aim to offer the youngest residents of the estate an alternative path to crime, firstly by reducing the amount to free-time they have and secondly by changing their attitudes to education and work
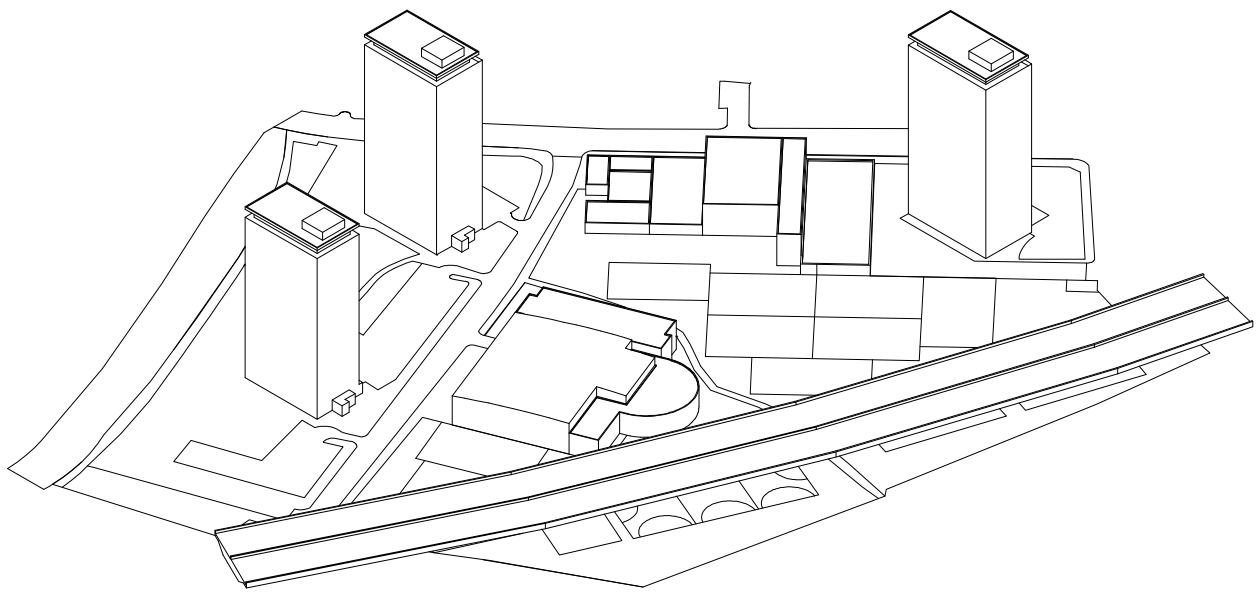
Figure 6.39: Original condition
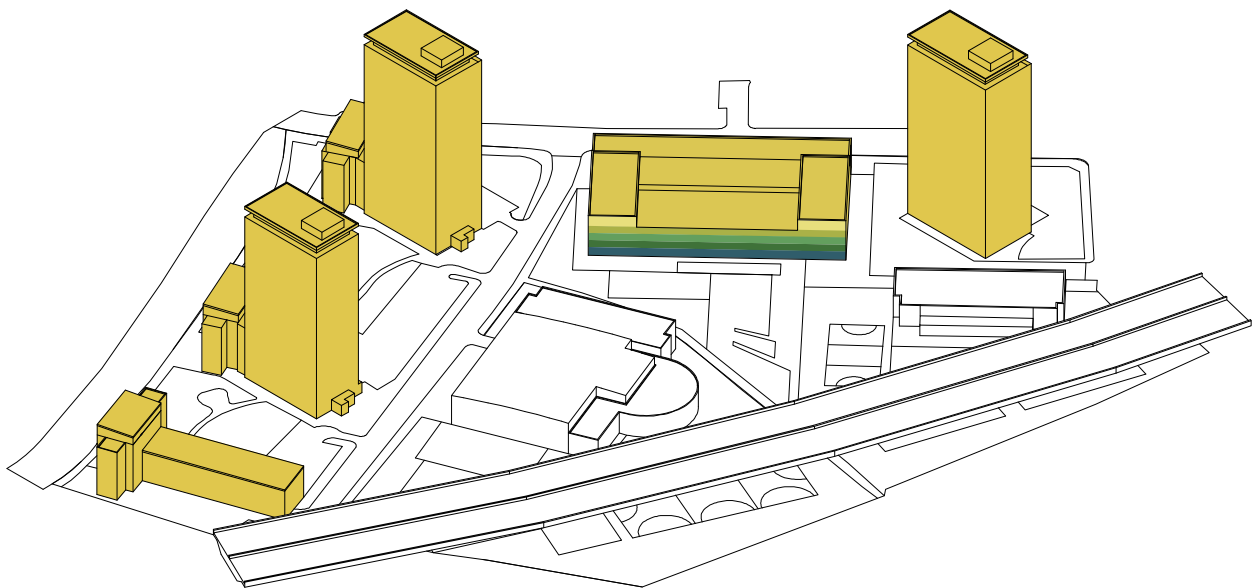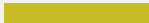
Figure 6.40: Transformed condition

SUMMARY TABLE

Transformation	Issues Addressed	Intervention	Evaluation	Further Measures required?
Additional Dwellings	Lack of Passive Surveilance	Ground-Floor Dwellings		More engagement between outdoor and dwelling should be created to further strengthen the ground floor activity and relation to surrounfing public space
	Integration into surounding context	Additional Dwelings along Canal		
	Inactive Ground Floors	Ground-Floor Dwellings		Use activates ground floor, but relation between dwelling and extenral space could be strengthened
	Opportunites for anti-social behaviour	Ground-Floor Dwellings		Dwellings remove undercrofts from buildings, resulting in fewer spaces where crime can occur
	Need for additional dwellings	Ground-Floor Dwellings		Provide only a limited number of dwellings, opportunites to develop green space between towers as low-density housing could be explored
	Under-utilised space	Ground-Floor Dwellings		Opportunity to provide housing maximises the redudant space fo stores in the ground floor of the towers
Aesthetics	Integration into surounding context	Smaller Canal buidlings with different expression		Brick facades give more character to the estate
	Monumentality of Concrete	Over-cladding		Removes massive expression for a contempory, crisp aesthetic
	Negative perception of Council Estates	Over-cladding and mix of styles		Fresh appearance does change perception, however 'towers in space' feeling of estate remains
Connection to Context	Lack of Connection to Grand Union Canal	Additional Dwellings along Canal		Additional measures could link canal with open spaces of estate
	Negative frontage along Harrow Road	Demolition of Employment Buildings and construction of Naim Dangoor Centre		Takes emphasis from towers and activates street frontage
	Poor Definition of Right-of-way across estate	Playing fields made into private space as part of the Naim Dangoor Centre		
Opportunities for the Young	Lack of education facilites	Westminster Academy at Naim Dangoor centre		
	Lack of groups and clubs for sport and recreation	Community uses of Naim Dangoor and Stowe centre		
	Lack of welfare and health awareness	Stowe centre		Remote from estate, more outreach facilities on the estate directly
	Low employability	Stowe centre, Westminster Housing Renewal Strategy		

Post-War Council housing in the United Kingdom was expected to be a panacea to the ills of poor housing standards for the British working classes. For the most part this was a success and many were grateful to be removed from their slum-like homes in tenements and row housing to open, bright and more sanitary council estates, supported by the newly forged Welfare state and a highly industrialised technique of housing provision.

Nevertheless, and as can be seen with Trellick Tower and the Warwick Estate this new housing was not without its faults. Although it did provide people with a quantitatively better standard of living it quickly became clear that the more subjective, qualitative criteria of estates were lacking. Eventually the optimism which surrounded post-war housing faded as the estates created became known for their isolation, lack of opportunities, 'under-classing' tenancies and inevitably crime and anti-social behaviour. It is this perception of council estates which has prevailed to the present day, with mainstream perception believing that estates are problematic areas best avoided if not ignored completely.

It is difficult to state a definitive reason for the failed perception of estates, some failed due to truly poor design, others from unemployment during the economic recession of the 1980's and Thatcherism, which declared estates as state burdens that are best offloaded to the private market. Nonetheless over time they have disappeared from political agendas and as such their issues in many cases have gone unchecked. With the political agenda in the UK once again heavily centred on the housing shortage and a lack of affordable housing the topic of post-war council housing has re-entered the political realm. Presently the position of the conservative party is to demolish the estates entirely, opening up large areas of land for redevelopment into low-rise high density affordable housing. But is this truly the most appropriate approach? Given that there are multiple agencies involved in the failure of a council estate is it legitimate to claim that demolition will overcome the issues and perception of estates? Throughout this research it has been the intention to demonstrate that through transformation it is possible to rectify the spatial problems resulting from council estates, this we reason is a more sensitive, cost-effective response to the housing crisis.

The research content of this report has focused on the architectural aspects of transformation ,nevertheless the ultimate objective is to understand how to bring about a qualitative improvement in the standard of living for the residents of a Post-War Council Estate, specifically in terms of reducing the instances of crime and anti-social behaviour within the Cheltenham Estate (Trellick Tower and Edenham Estate).

When studied objectively council estates have many positive attributes. Dwellings, even today, have appropriate space standards for their users' needs and are carefully orientated relative to both climatic factors and their proximity to other dwellings. As was seen in Trellick tower despite the apartments being largely single floor dwellings their careful stacking allowed just a single access gallery for every three levels of dwellings, allowing much larger family- appropriate dwellings on upper and lower floors in combination with dual aspect dwellings.

It can be said that Council housing estates in the UK, receive a bad press and negative perception which does help to reduce the likelihood of crime and anti-social behaviour. Socially and politically the following reasons are the key findings of this research to suggest why estates such as Cheltenham are labeled as problem or 'sink' estates:

• General Perception of estates as a place of working-class deprivation

• Isolation from other areas of towns and cities

• Concentration of similar class/target groups

• Lack of opportunities in vicinity

• 'Underclassing' - misunderstood by middle-class politicians and labeled as a problematic burden

• Over-eagerness on part of designers to create generous public space

- Ambiguous boundary and threshold definitions between collective spaces for residents and publically accessible areas of the estate.

The final point has become the point of emphasis of this research as it the most influential spatial reason for anti-social behaviour. Between the analysis of both Trellick Tower and Warwick Estate the following issues were observed:

- A lack of passive surveillance

- A lack of integration into surrounding context

- Inactive ground floor conditions

- Opportunities for anti-social behaviour

- Poorly defined boundaries between public collective and private

- Poor connectivity between open spaces and high-streets

- Lack of active frontages

- Slack open spaces with no clear function

So how does transformation address this and make council estates better places to live in? In the case of Trellick the most significant alteration was the elaboration of the routing from the public street to private dwelling. Instead of all internal circulation being publically accessible, which given the scale of the building led to anonymity, crime and fear among residents, it was given a more collective character. This was achieved through the creation of a concierge solely for the residents. This increased the feeling of ownership for the residents, resulting in an increased feeling of protection within the building. From this it is clear that a more careful consideration of the route from the public street to private dwelling, which adds buffer spaces and thresholds to mediate the directness of the relationship between the public and private realms, is crucial to reducing crime and improving the wellbeing of those living on council estates.

Defining more strict divisions between public and private space is also crucial. In doing this ambiguous borders are minimised. Typically it is at such thresholds that difficulties emerge between council residents and the general public as the ownership of the space is uncertain.

In the case of both Trellick and Warwick it was necessary to change the perception of the general-public towards these estates. This was achieved in two different ways. With Warwick estate the striking Naim Dangoor Centre, along with radical over-cladding dramatically changed the expression of the estate, giving it a more energetic, contemporary aesthetic, shedding is aged concrete which carries the burdens of the council estate perception. In the case of Trellick its listing as a monument has placed additional value on its aged concrete appearance, heralded as a prime example of the Brutalist style which has now come of fashion almost sixty years after its creation. In both of these approaches it was possible to overlook the 'typical' perception of an estate as a place of working-class hardship and crime and create a platform where a new identity could emerge within the estate.

Both Trellick and Warwick suffer from an over provision of publically accessible open space. Often the hard to see or reach areas of this space becomes a prime location for crime, muggings, assaults and drug taking. In both estates much of this space was strategically re purposed and privitised in the Warwick estate to provide amenities, facilities or additional housing to make a more positive contribution to the estate and reduce the capacity to facilitate crime.

Passive surveillance from the dwellings to the public spaces is vital to reducing crime and anti-social behaviour within estates, but was not evident in either Trellick Tower or the Warwick estate as originally constructed. Without it public space quickly becomes a place where anti-social behaviour can occur. By creating ground-bound dwellings, and adding additional dwellings around the estate it is possible to increase passive surveillance and reduce the likelihood of crime occurring, as can be seen in Warwick estate.

Beyond merely spatial features it

is vital to provide opportunities for those living on the estate to break-out from the 'sink-estate' attitude. Providing facilities and opportunities to improve their education, wellbeing or employability are fundamental to reducing incidents of crime and anti-social behaviour. Specifically in the case of Warwick it was necessary to target the ages of 15-25, as it was this group which was offered the fewest opportunities and committed the most crime. The Naim Dangoor centre was itself responsible for a 15% reduction in crime within two-years of it opening. Moreover in the case of Warwick the addition of new buildings, both mid-rise dwellings and the Community facilities helped to blur the estate into the surrounding context, seen less as a monumental intervention and more as a collection of buildings within the larger urban fabric.

But what do any of these changes actually mean for someone living on an estate? Transformation at times can be a double edged sword, though improvements are made to estates it can at times be to the detriment of the residents living there before the transformation. Typically transformation will address and reduce the issues of crime and anti-social behaviour, allowing people to live in a less stressful environment, but may also encourage the renewal of the estate for new target groups, a process of gentrification which has begun to occur at Trellick Tower.

It should therefore always remain the aim to promote an inward investment for the residents of the estate more than the landowners or housing associations. With this any capital value which appreciates will be reinvested into the community and area, furthering its improvement and wellbeing of its residents. Only by doing this can estates be re-energised and their communities put on a path of long-term improvement.

Figure 7.1: (Right) Trellick Tower, Edenham Estate and Warwick Estate
Copyright: Nico Hogg

Given the specific nature of Trellick Tower, its significance as a symbol for failed council housing and the complexities which emerge due to its listing it was decided to analyse a second Council Estate to comprehend how many of the strategies used with Trellick are truly unique and what can be determined as a more universal guidance for any council estate. The transformation of the nearby Warwick estate was more spatially radical and physically aggressive than that at Trellick Tower, yet have a proven track-record in reducing crime according to Westminster City Council. The points below outline the key strategies uncovered through the analysis of Warwick Estate.

- The improved visual and physical links across the site from Harrow Road to the Grand Union Canal open the site up more to the surrounding context, helping the estate to integrate into the urban context and improving the perception of safety within the estate.

- Improvements to the public realm and open space in and around the site give purpose to undefined space and open under-utilised space, typically conducive to crime, to the public for leisure and recreation (play grounds, sports fields, tow-path walk). The addition of new housing into vacant/empty/under-utilised spaces provides accommodation for new target groups whilst further maximising the use of unused spaces within the ground floor of the high-rise towers.

- Resolving difficulties from changes in level to offers several clear routes with well-defined public/collective/private boundaries across the site (public/private separations of ground floor, provision of active frontages and useable open space).

- The construction of the Naim Dangoor gave a fresh image and legible 'face' to Warwick Estate. Within the Cheltenham estate the approach from Elkstone road should similarly addressed to make this approach seem less like a rear service access and more like a street approach, potentially

through concealing the level change and service zones and adding street frontages to the Elkstone Road.

- The rejuvenation of the High-rise elements of the estate overcomes the negative public perception of Brutalist concrete, moreover the variation in architectural aesthetics of the buildings on the estate further help reduce the perceived scale of the estate and strengthen its integration into the surrounding context.

Figure 7.2: Warwick estate

Use materiality to define boundaries
between public and collective

New public building to create new
identity for Estate?

New housing in place of
difficult collective space

Introduce new massings to inte-
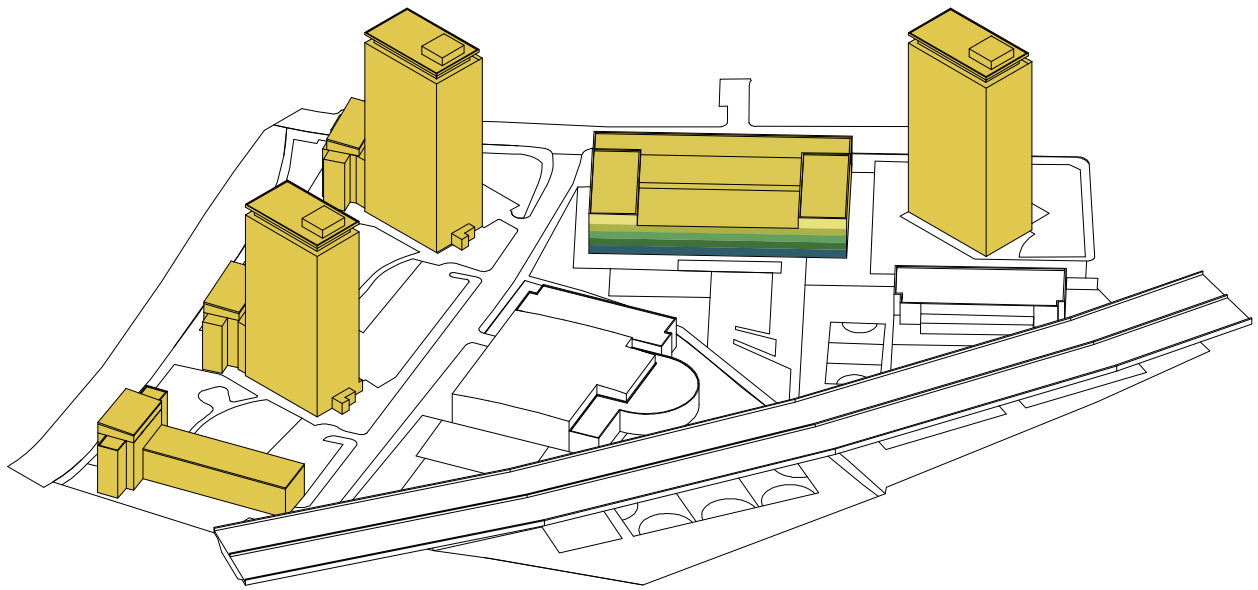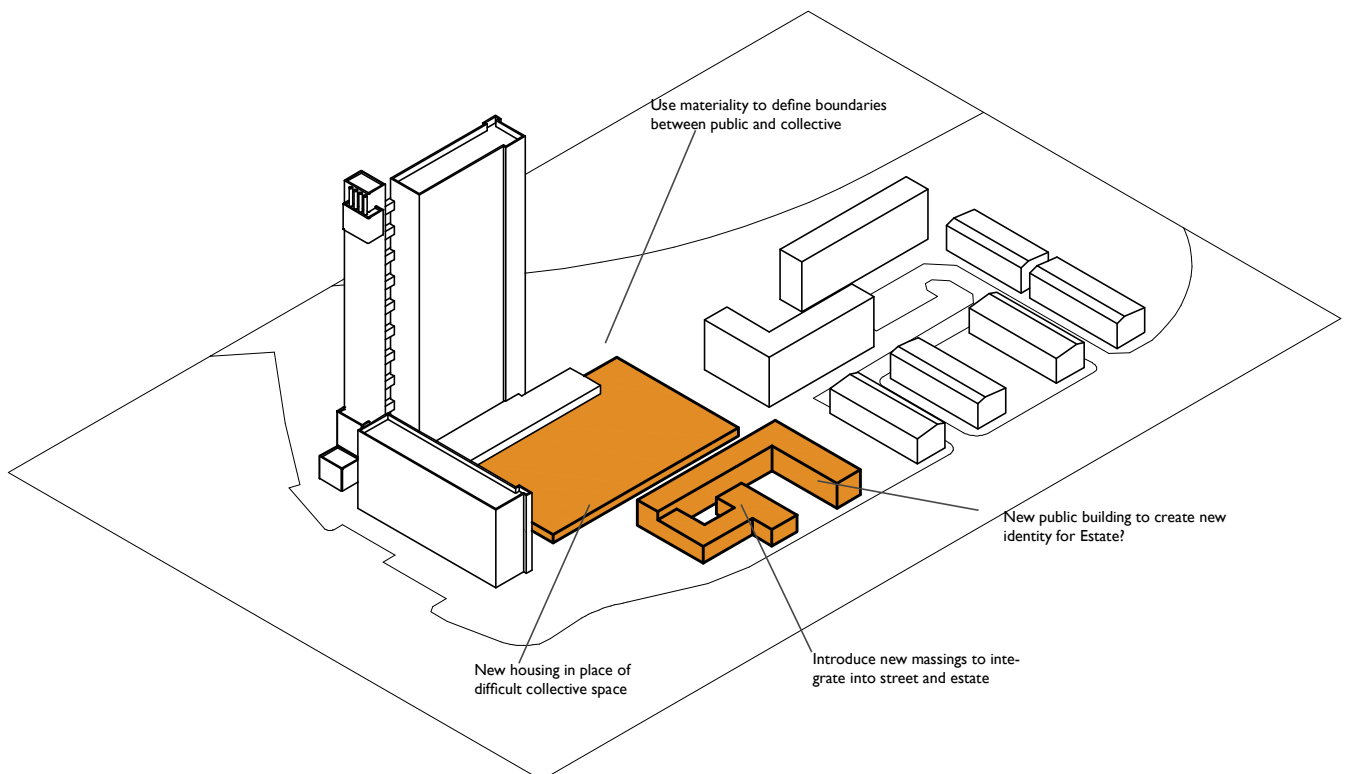grate into street and estate

Figure 7.3: Trellick Tower, Lessons from Warwick

Within this report the analysis of Trellick Tower in its original form found that the dwellings were designed and constructed well beyond the Parker-Morris space standards of the time, and even compared to today's London Housing Design Guide recommendations still provide adequate space for their residents. The problems begin to emerge when one looks beyond the private dwellings to the collective and public spaces. For the most part the ambiguity between these realms in the original design resulted in an anonymity beyond the dwelling. Given the fact that so many residents had to use one primary circulation route and this was also open to the general public it became impossible to know exactly who was a resident and who was not. The overlap between collective and public, and the subsequent abuse of the collective realm from non-resident drug addicts and gangs led to fear amongst residents over the lack of security. At ground level public spaces suffered from a lack of passive surveillance, sheltered by canopies and decks such that residents in the tower could not oversee what was happening in these spaces. Subsequently crime and violence became commonplace.

Adding a controlled lobby, closing areas of the service tower and demolishing the elderly care home and car-park have reduced the number of spaces where crime and anti-social behaviour can occur. Most poignantly the listing of the building as a Grade II* has dramatically altered public perception of the brutalist architecture away from the connotations of crime and social disorder they associate with council estates, to the more socially utopian ambitions the style hoped to embody. Paradoxically the listing of the building introduces a dilemma where more radical intervention to further reduce crime or improve quality of life is not easily possible. As a result several design issues remain which negatively contribute to anti-social behaviour.

When considering the relationship of the tower to the surrounding context becomes clear that poor boundary definitions still exist between the Communal courtyard space of the tower and 'Meanwhile gardens' to the North. Improving the definition of the boundary between these spaces would clarify the distinction between the public park and the intended collective nature of the communal deckspace.

In a similar fashion the relationship of the tower and estate to Elkstone Road requires strengthening, as currently a large coach park and dense vegetation create an isolating, inactive barrier between the street edge and the estate. As the primary approach route to the estate it is worth considering strategies to create a more welcoming entrance, and reduce the visibility of the service yard below, thus reducing isolation and improving the perception of the estate for both residents and passers-by alike.

Within the estate the nature of the ground floor circulation is in need of intervention. The elevated concrete walkways across former deck-level are too enclosed and create a claustrophobic, rat-run feeling due to lack of choice of route and reduced visibility. The severe demolition of the carpark has compromised the circulation across the site, and thus strategies should be considered to create new routes which offer more open, flexible paths across the site.

Although the demolition of the car park ultimately reduced crime in the area, its current use as a Graffiti-Pit still creates strong negative perception of the estate; with low passive- surveillance and low environmental quality. The use and appearance of this space is worthy of reconsideration to better improve the visual perception and reduce the severe, violent character of the estate.

As has been seen with many council estates their harsh stylistic distinction compared to the surrounding context often makes them east to identify and stereotype. With Trellick and the Edenham Estate this is particularly evident along the Golbourne Road. Nevertheless the listed nature of the entire estate makes this difficult to address, and indeed the recent interest in Brutalist architecture and design may in time alter public perception of this style.

Within Trellick Tower itself opportunities exist to reuse abandoned or under-utilised spaces. In particular the communal room and Boiler room within the service tower are worthy of re-investigation and reuse, as is currently being pursued by John McAslan +Partners. Such

Service tower, source of vandalism and crime

Car park, source of vandalism and crime

Ground floor lobby, no access control

Collective open space, under utilised

Elderly care home, blocking the connection to the street
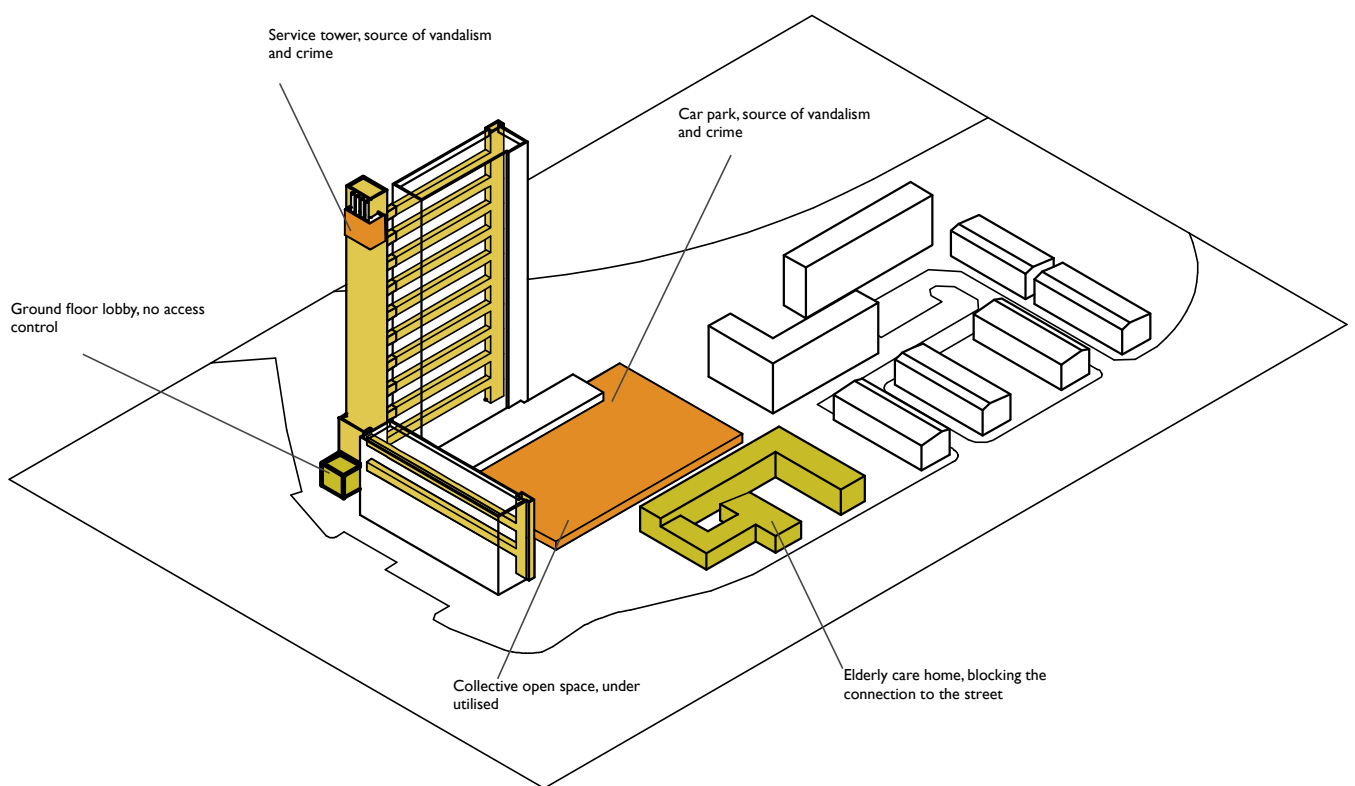
Figure 7.4: Trellick Tower interventions over time

spaces may be worthy of renovation into new communal facilities for residents and the local community, or equally could be converted into dwellings adding additional dwellings in an area of housing shortage. As previously mentioned the listed status of the building acts as a barrier to such interventions, despite the positive impacts they might have.

Additional supporting social functions should also be considered. As is typically the case within council estates there is a lack of everyday facilities (gym, corner-shops, pharmacies), despite the density of their inhabitation. Moreover the lack of facilities for residents on site to improve their recreation, education, and wellbeing has both a stigmatising and isolating effect. Including such facilities greatly improves the quality of life for residents of the estate and offers a positive path for residents to overcome many of the social issues which are attached to living on a Post-War Council Estate.

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Figure 7.5: (Right) Trellick Tower from Golbourne Road
Source: Creative Commons

Figure 6.1: Trellick Tower viewed from the Grand Union Canal
Source: Author

Council housing in the United Kingdom has a strong negative perception. In part this is due to its physicality; large, imposing concrete high-rises in a severe terrain of open-space. Accounts of life within these estates frequently paint pictures of a compromised standard of living, either due to the poor quality of construction and maintenance, or the behavior of the residents of the estate. Few buildings embody these virtues as strongly as Trellick tower, the high-rise element of the Cheltenham estate in West London.

"The nightmare would start moments after entering the lobby. Stench of urine, beer and stale sweat would seep from shadows, the lights would be smashed again and the corridor vandalised into gloom"

Rory Carroll , *How did this become the height of fashion,* The Guardian, March 11, 1999.

Through the locations of these estate vary across the United Kingdom several universal conditions exist within all of them. Anne Power conducted research into the living standards within British post-war housing estates. Through her research she uncovered several criteria which create conditions where anti-social behaviour can occur:

- *Lack of security*
- *Neglected spaces*
- *Ground floor activation*
- *Concealed spaces*
- *No feeling of community*
- *Isolated Dwellings*

Anne Power, *Property before People*, 1987.

It is the concern of this research to uncover the means of transforming council estates in order to positively address the living conditions within them.

The relevance of this problem is enormous. These issues are not limited to estates within London, but are widespread across all council estates in the UK, as well as most of the European countries that deal with council, or state-provided mass housing. Therefore, it is important to understand the root-cause of these issues. Was it due to the cold Brutalist style,? Or due to management? Poor dwelling design? Or was it due to a misinterpretation of modernist architecture in the UK? Or possibly politics or economics. It could even be fabricated by the media or even just a perceptive issue. What is clear is that there is a mix of factors at play which resulted in this scenario; and of course, the true cause of the problems is a combination of some, or maybe even all of them. This report is made to investigate how architecture and the design of space contributed to conditions which accommodated anti-social behaviour, and how, through transformation the problems created can be alleviated.

Research Question:

How can the transformation of British post-war council housing reduce anti-social behavior?

Hypothesis:

The unclear definitions between truly public and collective space within the design of Trellick tower was the largest architectural / spatial cause of anti-social behaviour

Subquestions:

1) Which spaces within Trellick tower contribute to anti-social behaviour?

2) Have subsequent transformations adequately addressed this issue?

3) How could similar buildings address this issue?

4) How could the remaining issues within Trellick tower be resolved?

Figure 6.2: Trellick Tower viewed from the Grand Union Canal
Source: sabotagetimes.com

Approach:

What issues were present at Trellick?
How did the design of the building contribute this?
How did the definition of collective space influence the attitudes of the residents?
How did transformation help to resolve the problems?
How was collective space articulated within Trellick?
Why does that reduce anti-social behavior?
What problems still exist within Trellick tower?
How do other projects, through transformation, further define and articulate collective space to reduce anti-social behaviour

METHOD STATEMENT

Trellick tower

Architect:	Ernö Goldfinger
Year:	1972
Location	North-Kensington, London
Units:	217

Warwick Estate

Architect:	LCC
Year:	1962
Location	Westminster, London
Units:	300+

The aim of this research is to determine how the articulation of collective space affects the living standards of a housing project; using Trellick tower as the main source of analysis.

This research is divided into four sections. An overview of post-war social housing will first set the context of the time in which Trellick Tower was designed and constructed; allowing the reader to grasp the Utopian ambitions of the era, and the ideals of the architecture that hoped to deliver this dream. This will be conducted through extensive literature research.

The second section will discuss the material realisation of Trellick tower. This will be carried out using analytical drawings, specifically highlighting the connection between the canonical architecture of the time and the realisation of these concepts within the building. At this point analysis into the shortcomings of these design features will also be conducted to understand specifically which features of the building worked well or poorly, and which were responsible for the demise of Trellick tower from an icon of modernity to a ghetto of relative deprivation. A conclusion in the form of a shortlist of issues will sum up the problems with Trellick tower as it was circa. 1980.

The identified issues, specifically concerning collective spaces will then be used to assess the recent transformations to Trellick tower, and the Warwick estate; where intervention was both more radical and physical.

Warwick estate is in West London, quite close to the Trellick tower. This estate, consisting of 6 21-storey residential high-rises has recently been transformed in order to overcome several issues with the collective and public space around these buildings. This estate shows many similarities with the Trellick tower such as the time in which it was built and the area it is situated in.

Comparative graphic analysis between all three of these projects will highlight the array of strategies adopted to address problematic collective spaces. From this an evaluation of the impacts of these interventions, both positive and negative, will be undertaken to quantify the successes and shortcomings of each design strategy.

To conclude a matrix showing the range of issues arising from poorly defined public space will be formulated along with the strategies implemented to alleviate these problems. This will form the basis of a list of recommendations suggesting appropriate transformation strategies for Trellick and other council-estates.

Introduction

Context

Context of Council Housing

Trellick
Plan analysis

What issues require a transformation to improve?

Findings/Problems

Warwick
Estate

Trellick
Tower

Comparing different approaches to similar problems

How can these transformation strategies improve Trellick?

Conclusion(s)

General conclusions

Trellick conclusions

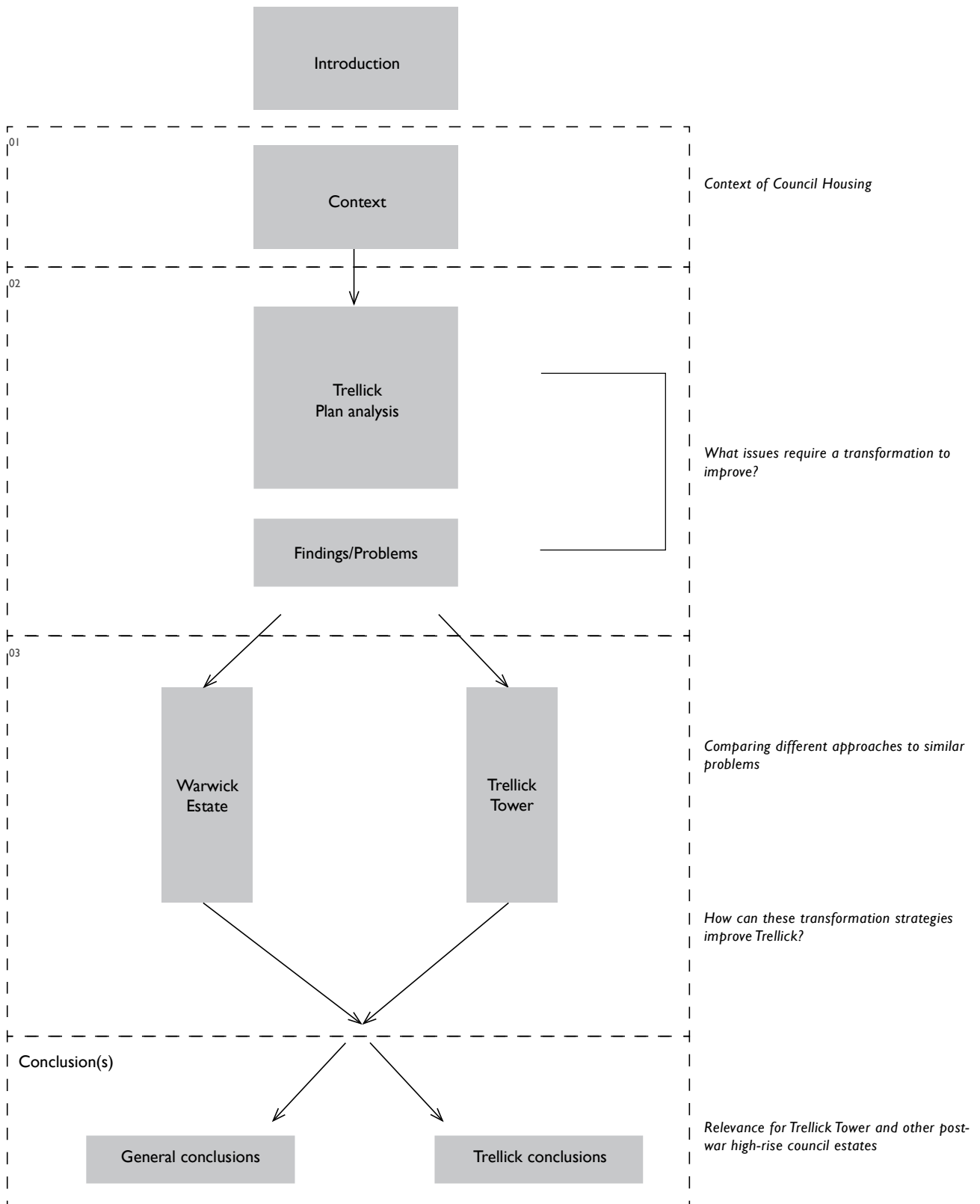*Relevance for Trellick Tower and other post-war high-rise council estates*

Figure 6.3: Method Diagram

Anti-social behaviour

Antisocial behavior is a form of public behavior in which causes, or is likely to cause harassment, alarm or distress to one or more persons not in the same household. Such behavior is often seen by other people as a nuisance or even dangerous. Antisocial behavior can occur consciously, as in case of vandalism, but also unconsciously through ignorance or indifference. In this report only intentional anti-social behavior is considered

Source: House of Commons Home Affairs Committee (UK). Anti-Social Behaviour: Fifth Report of Session 2004-2005, Volume 1. 16.

Articulation

The extent to which boundaries are clearly and logically defined. Such definition results in a clarity of interpretation by multiple users and distinctions within the built environment that imply and support the intended use of space.

Source: Pierre von Meiss. Elements of Architecture: From form to place. (London: Routledge, 2011). 80.

Council Housing

Synonymous with public housing in mainland Europe, council hosing is state-provided housing for large homogeneous working-class populations, maintained by local councils.

Source: Alison Ravetz. Model Estate: Planned Housing at Quarry Hill, Leeds. (Oxon: Routledge, 2013). 3.

Estate

A large, planned area of higher density housing than is possible with typical row housing. Estates typically contain a uniformity or standardisation of homogeneous housing typologies and architectural expression. Typically designed by a single architect and constructed by a single contractor.

Source: Alison Ravetz. Model Estate: Planned Housing at Quarry Hill, Leeds. (Oxon: Routledge, 2013). 4.

Private Space

Private space is the space that is only accessible to the owner or tenant of that space.

Source: Susan Kent. Domestic architecture and the use of space. (New-York: University of Cambridge, 1990). 90.

Public Space

Public space if the space that is accessible to all members of the general public. It is a physical place where a large part of public life takes place. Most public spaces are located in the open air, but also freely accessible public buildings and institutions may be defined as public space.

Source: Susan Kent. Domestic architecture and the use of space. (New-York: University of Cambridge, 1990). 90.

Brutalism

A raw, expressive form of architecture, defined by an extensive use of concrete (*Beton-Brut*) and emphasis upon the massing of buildings which was popular between the 1950's and 1960's. This movement also describes an aspirational architecture which aimed to reflect social ideas, industrial means and humane goals.

Source: Stephen Sennott (Ed). Encyclopedia of 20th-Century Architecture. (London: Fitzroy Dearborn, 2004). 180.

Collective Space

Collective space refers to the interstitial spaces between the privacy of the individual dwelling and the publicness of a street. It is a space where only a collection of residents, or permitted members of a group are allowed to enter and use. In the case of a housing complex this will thus define internal spaces such as circulation space and communal zones such as laundries, common rooms; or outdoor playspaces behind a controlled threshold.

Source: Susan Kent. Domestic architecture and the use of space. (New-York: University of Cambridge, 1990). 90.

Gentrification

Gentrification is a term used to refer to the upgrading of a neighborhood or district in social, cultural and economic fields. The renewal of the district is often accompanied by a significant rise in real estate prices.

Source: Loretta Lees, Tom Slater and Elvin Wyly. Gentrificaiton. (Oxon: Routledge, 2008). xv.

High-rise

High-rise is a term that is often used for describing tall buildings. Officially, in The Netherlands, the term high-rise applies to buildings which require the presence of a lift according to the building act. In the UK this can mean buildings between Seven and Ten floors (23-30m).

Source: Knoke ME, Managing Editor, CPP. High-rise structures: life safety and security considerations. In: Protection of Assets Manual . (Alexandria, VA: ASIS International; 2006). 7.

Listed

The Statutory List of Buildings of Special Architectural or Historic Interest is the list that English Heritage places historic monuments in the United Kingdom upon. Buildings on this list are referred to as listed buildings. This list includes buildings, bridges, monuments, statues and war memorials. The list distinguishes between three types of listings:

Source: Department for Culture, Media and Sport. Principles of Selection for Listing Buildings. (UK, 2010). 4.

Grade I	Buildings of particular importance
Grade II*	Buildings of 'more than special interest'
Grade II	Buildings of special interest

Cheltenham Estate

The Umbrella name for the Edenham Estate and Trellick Tower as part of Kensal New Town

Trellick Tower

The Iconic brutalist 31-storey high rise apartment building

Edenham Estate

The low and medium-rise row housing and apartment buildings that are at the base of Trellick Tower. This estate was also designed by Erno Goldfinger.

Meanwhile Gardens

The publically-accessible parkland that is located behind Trellick tower and the Edenham estate along the Grand Union Canal.

Westbourne Green

The area containing the Warwick, Brindley and Westbourne estates. It is situated around a central green space, which was formerly the Hamlet of Westbourne. Each of these estates contains an identical high-rise typology, giving the area a distinct character.

Warwick Estate

A sub-estate of Westbourne gardens that has undergone the most pronounced transformation in the area.
The Estate was approved in 1961 and contains three identical high-rise apartment buildings:

Princethorpe House
Wilmcote House
Gaydon House

Source: http://ukhousing.wikia.com/wiki/ Warwick_Estate

Brindley Estate

The estate adjacent to the Warwick Estate. Construction began in 1963, with an extension in 1966. Final completion was in 1968, containing 3 tower blocks:

Oversley House
Polesworth House
Brinklow House

Source: http://ukhousing.wikia.com/wiki/ Brindley_Estate

Source: Jan Gehl, Lars Gemzøe, New City Spaces (Copenhagen, The Danish Architectural press, 2006).

Protection

The ability of a design to create spaces where users feel safe from any potential threat.

Standing and Staying

The capacity of a building to provide spaces in the collective and public realms that act as focal points, where residents feel comfortable to dwell outside their own private apartment, such as communal decks, sitting areas, playspaces and planters.

Traffic

The movement of people or vehicles through an area.

Hearing and Talking

The capacity of a building to provide spaces in the collective and public realms where residents feel comfortable to interact with others.

Routing

The path from the public street to the private dwelling. How this is arranged and what a resident or visitor has to pass along this route has a profound effect on how comfortable they feel within the building.

Climate

The capacity of a building to moderate the prevailing environmental conditions of the spaces in and around it. Categories of consideration include wind, solar orientation, heat-gains and loses and waterproofing.

Comfort

The ability of a space to provide for the needs of a user.

View

The capacity of a building to provide good orientation and view to local landmarks and points of significance.

Unpleasant Experiences

The results of crime, violence and anti-social behavior. This can range from graffiti, verbal abuse, to smells and unpleasant odors within the building. In the most extreme cases it can result in physical abuse, assaults and murder.

Enjoyment

The capacity of a space to create atmospheric conditions that a user finds enjoyable and positively affects their wellbeing.

Scale

The ratio of the relationship between a user and a space. Enjoyment of a space is dependent upon the number of users and the size of the space, Small spaces for a large volume of users does not result in a comfortable situation, likewise overly large spaces for too few people has a perceived feeling of isolation.

Aesthetics

The design of a building or space such that it creates spaces that are visually stimulating and pleasing to its users, with residents gaining enjoyment from the combination of materials, lighting, proportions and quality of finish of the building .

Figure 6.4: Trellick Tower from Hormead Road
Source: Author