London Shocks: A Comparative Analysis of Urban Political Institutions and their Responses through Fire, Pollution, and War

being a thesis submitted in fulfilment of the

requirements for the degree of

Doctor of

History

in the University of Hull

by

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October 2023

Acknowledgements

Through shocks both global and personal, this thesis could not have been written without the support and guidance I am fortunate to have received since this thesis began. I am deeply indebted to my supervisors, Dr Amanda Capern and Professor Andy Jonas. Thank you for your unwavering support, expertise, and patience throughout the last five years. Our supervision sessions have truly been a highlight of this project. I would also like to express my gratitude towards the White Rose Doctoral Training Programme and the Economic and Social Research Council for funding the research.

Many thanks to the staff at the London Metropolitan Archives for their support during the long days I spent there, and especially for helping me delve through bundles of papers on my hunt for Bazalgette's letters. I would also like to thank my friends and colleagues Lauren and Emily for the many conversations in our office, both work-related and not. This thesis is all the better as a result.

Finally, I am extremely grateful for the friends and family who have kept me going on days both good and bad. Emma, Rayan, Peter, and Harrison, thank you for helping me through to the end and the countless teas and chats we have had. Thank you to my family for your encouragement and understanding. Special thanks to my parents for your constant support and immense patience. I could not have done this thesis without you.

Abstract

The modern history of London, and ultimately its transformation into a global or world city, can be told through its transformative shocks. Here, the focus will be on the Great Fire of 1666, the Great Stink of 1858, and the Blitz of the Second World War. The aim of the thesis is to compare the responses of London's political institutions to each of the three shocks being examined, analysing the physical infrastructural developments they instigated or advanced, as well as the urgent, short-term factors that limited the extent of what could be achieved. The lens of London's political institutions has been chosen due to their crucial importance in directing the city's infrastructural development as well as to examine the transformation of London's political authority as it shifted – or was 'rescaled' – from the local to the regional and national scales. As such, documents related to these institutions form the majority of the primary sources used in this thesis. Whilst the selected shocks have received substantial attention, the core interdisciplinary methodology and analytical lens of London's political institutions provide a unique perspective in this thesis from which to approach the historic crises from a different angle. Three main conclusions are reached: firstly, that urgent, short-term financial and demographic needs prevented many beneficial infrastructural developments from occurring following the Great Fire and the Blitz despite the long-term improvements to urban liveability and metropolitan industry these developments would have created. This is highlighted by the particular success of the responses to the Great Stink in achieving the ideals of its planners compared to those for the Great Fire and the Blitz. Secondly, London's political institutions gained greater powers and authority when previous powers were not sufficient to meet the challenges posed by the shocks. Part of this involved 'rescaling' London's governance; new political institutions were created at spatial scales (such as metropolitan or regional) that were broadly commensurable with the acquisition of necessary fiscal and infrastructural capacities. Finally, this thesis concludes that vast infrastructural developments cannot be made from the piecemeal responses to 'slow-burn' crises – sudden shocks are instead needed to trigger the urgent necessity for changes to be made.

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List of Abbreviations

EMS   Emergency Medical Services

GLA   Greater London Authority

GLC   Greater London Council

LCC   London County Council

LMA   London Metropolitan Archives

MBW   Metropolitan Board of Works

NHS   National Health Service

PWLB   Public Works Loan Board

ULEZ   Ultra Low Emission Zone

Chapter 1 Introduction

I know others have treated already of the same subject, and given a laudible account of the

City of London, but Gold may be often told over without fouling the fingers. … My hearty

prayers to Heaven are, for the incolumity, and welfare of this Great City, for the aversion of all

Judgements, and that she may still flourish with affluence of all Earthly felicity. – James Howell

(1657)[1]

1.1   Premise, Aim, and Methodology

London is a unique city, entrenched within its history whilst constantly modernising and looking towards the future. Through its international past the city has become a twenty-first century microcosm of global diversity with a range of immigrant communities and multiple-generation residents. The global and the local have become entwined to an irreversible extent in the making of London into a modern world city.[2] Through a range of international businesses as well as the London Stock Exchange, the City of London holds influence over the global economy whilst nearby Westminster contains the seat of national government. Similarly, a history of empire and commerce has contributed to London's modern importance, transforming seventeenth-century "Londinopolis" into a truly global metropolis.[3] Through this process, shocks of fire, pollution, and war have directed its urban infrastructural development and shifted its political authority to meet new challenges even as its spatial and demographic size has increased across the centuries. The modern history of London, and ultimately its transformation into a global or world city, can be told through its transformative shocks. Here, the focus will be on the Great Fire of 1666, the Great Stink of 1858, and the Blitz of the Second World War.

This thesis focuses principally on the city's internal (as opposed to its national or international) turning points of historic development: how London's responses through these norm-shattering shocks have informed its infrastructural transformation into the global and vibrant metropolis it is today. 'Shock' is defined as something that cannot be sustained, in this case, by a city. The crisis being defined as such does not have to be immediate or sudden, just a point that is reached when the problem at hand becomes unsustainable and a resolution is

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[1] J. Howell, 'To the Renowned City of London', in *Londinopolis; an historicall discourse or perlustration of the City of London, the imperial chamber, and chief emporium of Great Britain* (London: J. Streater, 1657), f. 2.
[2] D. Massey, *World city* (Cambridge: Polity Press, 2007), 4-5.
[3] Howell, *Londinopolis*.

necessary. This new perspective on London's historic infrastructural development is examined through the lens of the city's political institutions, from the local and regional bodies to the national influence of Parliament itself. The responses to the historic shocks demonstrate an underlying narrative running through the centuries covered by this thesis, that being the gradual expansion of authority held by these political institutions and the shifting of power from the local (such as the City of London and surrounding boroughs) to the metropolitan, regional, and national levels as London's financial and demographic needs (as well as its international importance) expanded over time. The shocks that form the focal point of each chapter are times of particular change for this process, the states of crisis being used to overcome barriers to infrastructural development by shifting authority upwards to political bodies with greater spatial scope and capacity to meet the challenges highlighted by each shock. However, the imposition of urgent, short-term factors (primarily financial and demographic) that needed to be met prior to the allocation of resources into the long-term future of the city often prevented the most beneficial infrastructural developments from taking place despite the transformed political authority. This thesis, then, is a story of London's urban infrastructural and institutional developments, examined over the course of several centuries, through the shocks that so crucially defined it and the short-term financial and demographic factors that limited and directed the available opportunities.

The aim of the thesis provides focus for this story. It is to compare the responses of London's political institutions to each of the three shocks being examined, analysing the physical infrastructural developments (most notably improved housing following the Great Fire and the Blitz, and the sewerage system following the Great Stink) they instigated or advanced, as well as the urgent, short-term factors that limited the extent of what could be achieved. The lens of London's political institutions has been chosen due to their crucial importance in directing the city's infrastructural development as well as to examine the transformation of London's political authority as it shifted – or was 'rescaled' – from the local to the regional and national scales.[4] The impact of these political institutions in tackling each of the shocks will be compared throughout each chapter to analyse their effectiveness in informing the long-term infrastructural development of the city, judged against the ideals of their time as shown through the development plans created. To achieve the aim of this thesis, the following research questions have guided the discussion of each chapter:

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[4] N. Brenner, *New state spaces: urban governance and the rescaling of statehood* (Oxford: Oxford University Press, 2004), 5.

- To what extent did the shocks inform London's urban infrastructural development?
- How did the authority held by London's political institutions shift in scale and scope in response to the challenges posed by the shocks?
- What impact did the urgent, short-term financial and demographic factors have on limiting what could be achieved following the shocks?
- What was the relationship between the transformation of political authority and the spatial and demographic growth of London across the centuries?
- To what extent do the responses to the shocks demonstrate London's ability to survive and flourish in the face of adversity?

This thesis will argue that urgent, short-term financial and demographic needs prevented many beneficial infrastructural developments from occurring following the Great Fire and the Blitz despite the long-term improvements to urban liveability and metropolitan industry these developments would have created. This is highlighted by the particular success of the responses to the Great Stink in achieving the ideals of its planners compared to those for the Great Fire and the Blitz. The nineteenth-century responses were more successful largely due to the solution not requiring an upheaval of the city's population, industries, and land- and property-based interests. In comparison, the plans that followed the Fire and the Blitz would have further disrupted the return to 'normal' London life, with this return being viewed as more important to achieve than the benefits which the plans would have provided in the long-term. The idealistic plans represented a further disruption that London's political authorities were rarely willing to take. The growing authority held by London's political institutions over the centuries was required due to the increasing spatial and demographic size of the city, and each shock involved the creation of new political institutions or the granting of increased authority to existing ones (most notably to Parliament itself) to meet the challenges and opportunities posed by, or brought to light by, the shocks. The relationship between London's size (both spatial and demographic) and the authority held by its political institutions during these times of crisis is a key theme throughout each chapter.

The selection of the shocks themselves forms a crucial element of the methodology. The Great Fire, the Great Stink, and the Blitz were chosen due to their distinct and long-lasting impact on the physical (built environment) and institutional (political and governance) infrastructure of London. Each represent a significant turning point in the city's history, with the Great Fire and the Blitz most directly demonstrating this due to the immense destruction that they encompassed. The Great Stink also led to a substantial shift in London's infrastructural history despite the lack of a similar destruction. However, for this thesis the Great Stink additionally serves as a crucial point of comparison between the shocks to demonstrate an occurrence of

successfully planned long-term development as opposed to the prioritisation of urgent, short-term factors that characterised the responses to the Fire and Blitz.

The responses to each shock can also be used to demonstrate the changing nature of London's political authority across the centuries, granting them an additional purpose that influenced their selection. The primary focus of this thesis is on the relationship between London's physical infrastructural development and the three selected socio-environmental shocks (or shocks to the built environment). This focus led to a decision to ignore exclusively political shocks that did not directly inform the development of London's physical infrastructure, despite their importance in the development of political authority. Most notably, this includes the replacement of the Metropolitan Board of Works (MBW) with the London County Council (LCC) in 1889. Exclusively political shocks such as this did not directly inform the development of London's built-up infrastructural environment and so were excluded in favour of those that did. Care was taken in selecting shocks that fulfilled the criteria of an environmental crisis that led to infrastructural development as well as involved an alteration of London's existing political authority and future topography. The COVID-19 pandemic similarly led to a re-evaluation of which shocks were to be used to illustrate the main conceptual themes of the thesis: an initial inclusion of Brexit – the UK's decision to leave the European Union – as a modern point of comparison with the historical shocks was cut to improve the clarity and thematic structure of the thesis as well as in response to time and travel limitations imposed by the pandemic. Additionally, the same level of analysis could not be provided for this shock as for the others due to the ongoing nature of Brexit's outcome. Separating the economic, political, and demographic results of Brexit from those of the pandemic similarly proved to be a complication that could not be resolved without a much longer-term study being conducted. The potential this holds for future research will be touched upon in the Conclusion chapter.

The uniqueness of this thesis is in its trans-historical comparative methodology. The selected shocks are discussed and compared through the lens of London's political institutions, thereby filling a gap in the literature. Excellent studies have already been made that view each shock in isolation (such as Field's *London, Londoners and the Great Fire of 1666* [2018] and Halliday's *The Great Stink of London* [2009]), or highlight particular thematic phases (such as Kishlansky's *A Monarchy Transformed: Britain 1603-1714* [1997] that examines the seventeenth century through the political developments of the reigns of each Stuart monarch), or explores an entire century in London's history (such as White's trilogy that covers the eighteenth,

nineteenth, and twentieth centuries). [5] However, few examine and compare institutional responses to shocks across different time periods. Similarly, London has inspired a number of investigations of its emergence and function as a global city (such as Sassen's *The Global City: New York, London, Tokyo* [1991] and Massey's *World City* [2007]), but these rarely consider the political institutional responses that underpinned London's internal infrastructural transformation across the centuries. [6] Whilst this thesis does not directly use a global city methodology due to its focus on political rather than economic institutions, the existing global city literature has served as inspiration in understanding the modern iteration of London that the historical developments created.

The responses of the respective political institutions to each shock demonstrate core themes that guided London's development during these times of crisis. By comparing these responses across the centuries, a greater understanding can be achieved of why London's infrastructure and associated political institutions developed in the directions that they eventually did. The limitations that governed what was possible to achieve changed across the centuries, but the ideals that influenced the development plans following each shock demonstrate the lasting opportunistic desire to improve London for both its population and its industries despite these restrictions. The similarities between the selected shocks additionally justifies their comparison. Despite their fundamentally different natures of fire, pollution, and war, each provided an upheaval of political authority as well as opportunities for long-term infrastructural development. The responses of London's political institutions can be compared to explore in greater detail how this upheaval as well as these opportunities were managed during each shock. London's shocks altered the course of the city's infrastructural development. However, the idealistic plans created during each one demonstrate examples of how London's development could have been drastically different without the overwhelming prioritisation of urgent, short-term financial and demographic needs.

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[5] J. F. Field, *London, Londoners and the Great Fire of 1666* (London: Routledge, 2018); S. Halliday, *The Great Stink of London: Sir Joseph Bazalgette and the cleansing of the Victorian metropolis* (Cheltenham: The History Press, 2009); M. Kishlansky, *A monarchy transformed: Britain 1603-1714* (London: Penguin Books, 1997); J. White, *London in the twentieth century: a city and its people* (London: Vintage, 2008); J. White, *London in the nineteenth century: a human awful wonder of God* (London: Vintage, 2008); J. White, *London in the eighteenth century: a great and monstrous thing* (London: Vintage, 2013).
[6] S. Sassen, *The global city: New York, London, Tokyo* (Oxford: Princeton University Press, 1991); Massey, *World city.*

1.2   A Note on Methods

Records from London's political institutions held at the London Metropolitan Archives (LMA) have formed the core of the archival sources selected for this thesis. These have been used to reflect the analytical focus on the responses of these institutions to the chosen shocks, allowing for an insight into why certain responses occurred and the processes that defined the following infrastructural developments. Additionally, these sources can be used to track the alterations in the authority held by the political institutions. Practical travel limitations caused by the COVID-19 pandemic telescoped the period of research in London and limited the variety of archival research that could be conducted during this thesis to those sources contained at the LMA as these were deemed the most useful for the thesis. However, sources available online as well as through other means of access have been used to support this research to counter the impact of COVID-19.

Hansard has also been useful to understand the involvement of Parliament and how these shocks were responded to in relation to national concerns. This is at its clearest in the Blitz chapter when London was only one city of many to suffer during the Blitz (albeit receiving the most severe attention from the enemy during the war). As such, Parliament's responses were often national in scope but with special provisions for the capital. However, this national involvement is also present in the other chapters when the country was asked to contribute towards paying for the resolutions to London's shocks, in the form of a charitable brief following the Great Fire and loans from Parliament following the Great Stink (although Hansard itself is only useful for the latter of these due to it having not existed for the former). Whilst the focus on the internal development of London has been maintained, the national impact of its shocks has been addressed when necessary to provide further context to the responses made.

Whilst the methodology of this thesis is primarily historical, certain elements of a geographical methodology are used to provide a greater depth of analysis by implementing an interdisciplinary perspective. The spatial implications which the responses to the shocks had on London's infrastructure draw from geographical concepts of urban development and contribute towards contextualising the city's changing use of space across the centuries. Academic sources from both disciplines have been used throughout the thesis to apply this interdisciplinary perspective to each shock, and more importantly to the analytical comparison between them that explores the long-term development of London's infrastructure as well as its political authority.

1.3   The What, Where, and When of 'London' as an Urban Political Space

London's population shifted drastically across the time period covered by this thesis. This increase directly contributed towards the Great Stink and also became a significant factor of consideration as London's planners prepared for the post-war world in the 1940s. From approximately half a million at the time of the Great Fire to around 740,000 a century later in 1760, London's population had reached 1,096,784 by the time of the first reliable census in 1801. By 1860, not long after the Great Stink, it had nearly tripled to become 3,188,485.[7] Finally, by the start of the Second World War, 8,615,000 people could call London their home.[8] The shocks covered in this thesis interacted in different ways with the population. The Great Fire left thousands homeless, and the Fire Records that make up the bulk of the research conducted for chapter 3 document the conflicts and the considerations that had to be made in the process of rehousing the population. The human waste of London then directly contributed to the immense pollution of the Victorian metropolis, with the Great Stink of 1858 being the result. The shock proved vital in pushing Parliament into authorising the necessary infrastructural developments that modernised the city. By the early twentieth century, the vast population was being viewed with unease as officials looked for ways to reduce the overall figure, with the new towns outside of the Green Belt being one of the most significant results of this following the Second World War.

Just as London's population had drastically increased, the city's spatial extent had also expanded continuously since the seventeenth century. The maps below visualise this growth. Figure 1.1 shows London in the 1690s, the map having been started by Wenceslaus Hollar though not published until after his death (as shown by the double portrait of King William III and Queen Mary II, therefore dating the completion of the map to after their joint installation

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[7] C. Emsley et al., 'London history - a population history of London'. *Old Bailey Proceedings Online* (2018). Available online: https://www.oldbaileyonline.org/static/Population-history-of-london.jsp#a1815-1860 [Accessed 12/3/2024].
[8] White, *London in the twentieth century*, 27.

Figure 1.1 Map of the City of London, c. 1689-1694

as monarchs in 1689).[9] Although the ancient City still makes up a significant amount of the overall built-up region, London expands far beyond the Roman walls particularly in the west. The extreme suburban expansion of London in the following century and a half is shown in figure 1.2, Wyld's New Plan of London published in 1848.[10] The outline of the City of London is highlighted in red, but it has started to appear much like it does today: the small but powerful core of a sprawling metropolis. The expansion to the south of the Thames is particularly notable, having been largely underdeveloped in Hollar's map. Figure 1.3 brings London into the twentieth century, being an Ordnance Survey published in 1933.[11] Here, the built-up region expands beyond the borders of the map to the north and south, demonstrating the extent of the nineteenth- and early twentieth-century expansion.

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[9] W. Hollar, *Map of the City of London*. c.1689-1694. Available online: https://commons.wikimedia.org/wiki/File:17th_century_map_of_London_(W.Hollar).jpg [Accessed 25/3/2024].

[10] J. Wyld, *Wyld's new plan of London*. 1848. 2 7/8":1 mile. Copyright information: Wyld's New Plan of London by James Wyld, image © London Metropolitan Archives (City of London).

[11] Ordnance Survey, *London*. 1933. 3":1 mile. Copyright information: London published by the Ordnance Survey, image © London Metropolitan Archives (City of London).

Figure 1.2 Wyld's New Plan of London, 1848

The changing demographic and spatial shape of London across the centuries has made it impossible to maintain a single set of parameters with which to define 'London' throughout every chapter. For this, the thesis does not use a single "territorially bounded, economically determined or institutionally given starting point" for every chapter, drawing on the methodology towards urban politics expressed by Rodgers et al. [12] Instead, the spatial boundaries used for each chapter are those established and, in some respects determined, by the existing political institutions of the time as well as what contemporaries themselves would have understood as 'London', gradually expanding across the centuries. For the Great Fire the spatial boundaries are those that the Fire Court had influence over, being the area destroyed by the Fire itself. For the Great Stink these limits are expanded to those controlled by the MBW due to their crucial significance in building the sewers and drainage system that removed much of the pollution from the Thames. Finally, for the Blitz chapter the spatial boundaries include the entire built-up metropolitan area as well as its growing influence outside the Green Belt; this much larger inclusion is because the development plans created during and immediately after the war viewed London holistically despite the strict limitations of which areas the LCC

[12] S. Rodgers et al., 'Where is urban politics?'. *International Journal of Urban and Regional Research*, 38, 5 (2014), 1551-1560:1556.
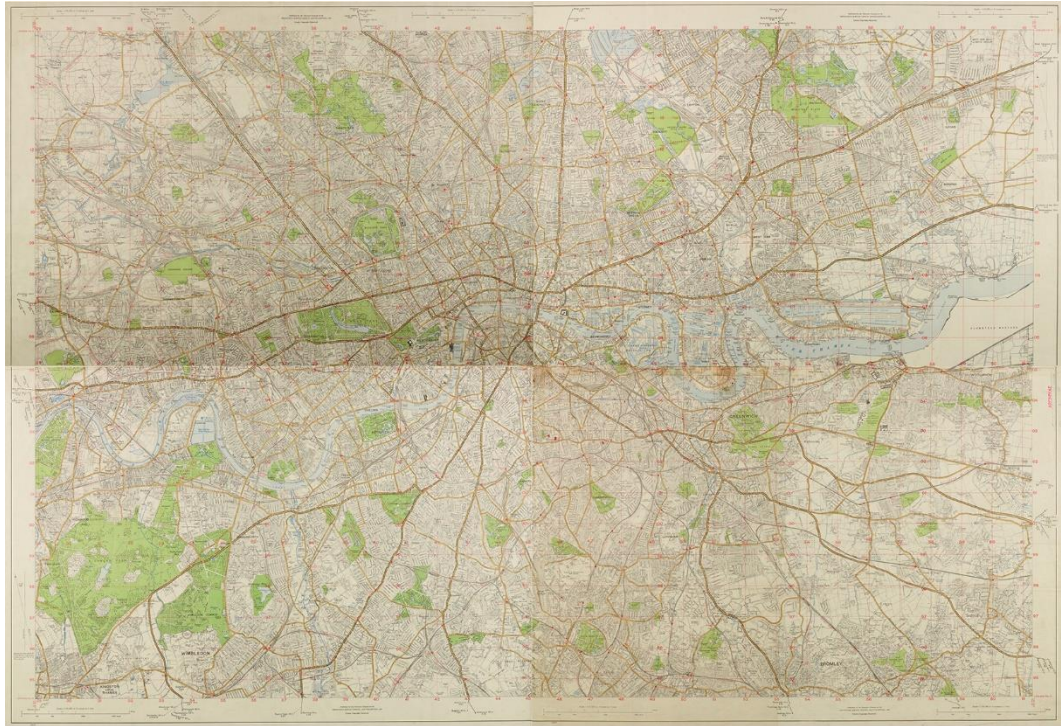
Figure 1.3 London Published by the Ordnance Survey, 1933

controlled. Abercrombie's *Greater London Plan*, for example, focused on these built-up areas outside of the LCC's control despite there not being a political authority expansive enough to implement its proposals. The responses to the Blitz similarly saw a greater desire for a Green Belt to control the boundaries of the built-up metropolitan area and the creation of new towns to direct its expanding population outside of the densely populated inner city. As such, limiting the spatial boundaries of this chapter solely to those controlled by the LCC would be too restrictive to understand the overall impact of the Blitz on London's infrastructural development.

The temporal boundaries of each chapter are similarly specific to their contained shock. In defining these limits, care has been taken to maintain the focus on direct responses to the shocks themselves. London's infrastructural development has continued constantly since the Great Fire and a complete history of this process is outside the scope of this thesis. As with the spatial boundaries this restriction is most noticeable in the Blitz chapter as the actual rebuilding process itself merged quickly into this continuous urban development, occurring for the most part separately from the Blitz rather than being a direct response to the shock as was the case for the rebuilding following the Great Fire. As such, that chapter instead focuses primarily on the ambitious – albeit idealistic – developmental plans that were created during and immediately following the war and the urgent, short-term financial and demographic factors that prevented their full implementation. Strict temporal boundaries would only interfere with this more relevant focus on direct responses to each shock.

1.4   Thesis Structure

The chapter outline of this thesis is chronological in basis. The shocks are approached in order and each in a chapter of their own, with comparisons made between them throughout the thesis. The literature review in chapter 2 places this thesis within the existing academic literature, explaining how it contributes to fill a gap in the research. A range of historic, geographical, and crisis literature will be examined to explore how this thesis fits alongside them, either through sharing themes or by approaching similar topics from a new angle. The resulting thesis is unique and has attempted to be field-defining in its approach.

The Great Fire is the focus of chapter 3. The Fire Court is the main political institution examined and its Decrees form the core of the archival sources used. This institution directly interacted with those landowners and their tenants who were involved in the rebuilding process and provided a certain degree of structure by resolving disputes or allocating responsibility. However, there was not an attempt for any political institution to be granted an overarching level of authority following the shock beyond the limited powers conferred on the Fire Court, itself being given only a set term in which it would sit. Responses from the monarchy, Parliament, and City of London Corporation were similarly restricted, focusing more on restoring the economic function of the city than on progressive infrastructural development beyond those intended to reduce the risk of future fires. As such, this chapter argues that whilst London's political institutions were effective in quickly rebuilding the city's infrastructure, their responses should be seen as the temporary result of extraordinary circumstances rather than the creation of a new state of political authority or resulting in the implementation of idealistic development plans. London was largely rebuilt in its historic form, landed interests proving too powerful for a complete restructuring of the city layout. This contributes to the overall thesis argument by discussing how these demographic and financial factors limited what could be achieved. The chapter additionally provides a significant point of comparison with the Blitz chapter due to the similarities between these shocks as well as the frequent comparisons that contemporaries themselves made during the 1940s.

Chapter 4 moves onto the Great Stink. The MBW and Parliament both play significant roles in resolving the shock and as such this will be reflected in the substantial focus on both political institutions within this chapter. Context will be provided for how London's demographic and infrastructural development had created such a pungent pollution problem and the reluctant actions of Parliament to resolve the shock will be discussed. The Great Stink resulted in an ultimate authority over London's infrastructural development being granted to the MBW and set a precedent for significant projects such as the sewerage and drainage works being funded through loans from Parliament. The municipalisation efforts that went into addressing

the unsanitary condition of London's drinking water will also be explored, demonstrating the limitations of the institutional responses to the Great Stink despite their comparative success at resolving the shock itself. This chapter will demonstrate how a shock could result in a successfully planned infrastructural development when urgent, short-term financial and demographic factors did not interfere with the intended long-term beneficial developments. With this, the responses to the Great Stink provide a useful point of comparison with the Great Fire and Blitz, succeeding in achieving long-term goals when the responses to the latter two had been restrained.

Finally, chapter 5 examines the Blitz. As the political institution with the largest spatial responsibility over London, the LCC commissioned the plans for the city's post-war development that form the central focus of this chapter. These include Holden and Holford's *Final Report for the City of London*, Forshaw and Abercrombie's *County of London Plan*, and Abercrombie's *Greater London Plan*. However, the national scope of the Blitz required Parliament's involvement to an unprecedented extent, with responses having a national focus albeit with special provisions for the capital. As such, both of these political institutions are examined substantially throughout this chapter. These have been chosen over the local borough councils due to the much more expansive authority they held. Additionally, the local borough councils were too numerous and the space within this thesis is too limited for the specific, localised responses of each council to all receive comprehensive attention.

This chapter additionally examines how the social reproduction needs of London's population (such as decongestion and improved access to green spaces) were planned for in the Abercrombie Plans, epitomising the wartime desire for progressive urban development focused on liveability.[13] Despite the limited impact of these plans on London's post-war development, the imagined ideals of the time demonstrate the focus on planned regional reconstruction, similar to that which had been desired after the Great Fire though ultimately abandoned. Though the plans for post-war development were similarly restricted in their overall success, the implementation of the Green Belt in the 1950s and the creation of new towns beyond the Belt

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[13] 'Social reproduction' refers to the creation and reproduction of social systems that contribute to social relations, such as those systems that lead to improvements in health and welfare. Bakker & Gill add that, "while variegated and uneven across scales, locations, and jurisdictions, [social reproduction] is nevertheless increasingly shaped by the power of capital in a global process of accumulation that is, in turn, premised on the commodification of labor, society, and nature". Although this is a process that has increased over time, as explained by Bakker & Gill, an ideal London in the post-war period would still be defined by this impact of "the power of capital" on social systems and relations. I. Bakker & S. Gill, 'Rethinking power, production, and social reproduction: toward variegated social reproduction'. *Capital & Class*, 43, 4 (2019), 503-523:504.

to support London's immense population demonstrate a greater degree of success in planned regional reconstruction than the seventeenth-century predecessors had managed. This is the contribution of this chapter to the overall thesis argument, showing the progression of political authority into more powerful and spatially encompassing institutions to be able to achieve long-term goals as well as the urgent, short-term financial and demographic needs that were created by the shock.

The transformation of political authority across the centuries is shown through each chapter, demonstrating how political institutions developed in response to each shock to meet short-term needs whilst aiming to fulfil beneficial long-term goals for infrastructural development. By comparing the responses of these political institutions across the centuries, a greater depth of understanding can be achieved of London's long-term infrastructural development and how the shocks impacted this by highlighting the priorities of their times. Direction was provided through which factors contemporaries decided to prioritise, with short-term financial and demographic factors needing to be overcome before long-term goals could be achieved. London's national and international importance (and the wealth this provided) allowed the city to constantly modernise throughout its history. The political responses to its shocks demonstrate the limitations to these modernisation efforts even whilst its planners idealistically looked towards the future.

Chapter 2 Literature Review

London is a labyrinth, half of stone and half of flesh. It cannot be conceived in its entirety but can be experienced only as a wilderness of alleys and passages, courts and thoroughfares, in which even the most experienced citizen may lose the way; it is curious, too, that this labyrinth is in a continual state of change and expansion. – Peter Ackroyd[1]

London is a giant subject. 'The Great World of London' was how Henry Mayhew described it in the 1850s and 100 years on it had roughly tripled in size and population. At some time during that monstrous expansion London became literally unknowable. There could never be a definitive history or biography of the city and its people. Every aspect of life there can fill a book, or several. … So yet another book on London needs no justification, because there will always be more to say. – Jerry White[2]

2.1 Introduction

Many authors have studied London, with the resulting literature covering a wide variety of topics and perspectives from which to view the metropolis. Whilst the selected shocks have received substantial attention, the core interdisciplinary methodology and analytical lens of London's political institutions provide a unique perspective in this thesis from which to approach the historic crises from a different angle. Much of the existing literature has an inherent economic focus due to the importance of finance to London's history as well as to the broader development of global cities. This is reflected in sources that discuss London's overall historical development as well as in sources that directly concern the individual shocks that make up the focus of this thesis, albeit without the trans-historical comparative element that provides the uniqueness of this research. Similarly, urban planning and geographical literature has considered extensively how London's economic position has informed its standing on the national as well as international stage, emphasising the coming together of global processes and social relations in the making of London into the UK's pre-eminent global city.[3] Whilst this thesis draws inspiration from this interdisciplinary literature, it finds opportunity in the limitations of studies that focus exclusively on London's global financial role and how this has influenced the infrastructural development of the city. This is particularly as it often comes at the expense of

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[1] P. Ackroyd, *London: the biography* (London: Vintage Books, 2001), 2.
[2] White, *London in the twentieth century*, xxi.
[3] Massey, *World city*, 7-8.

knowledge of how London's modern political institutions and much of its built infrastructure reflect particular responses to historical shocks. Although much has already been written about each of the shocks examined here, few studies draw trans-historical comparisons and establish continuities across extended time periods, which is the ambition – and uniqueness – of this thesis.

This chapter will examine the various literatures on London to demonstrate how the thesis contributes towards current understandings of London's historical infrastructural development. Firstly, sources concerning the city's overall history or specific centuries will be discussed in section 2.2 to examine how this thesis fits alongside the broad narrative of London's development. Due to the extended time period covered, this literature tends to include a comparative element which this thesis likewise offers. Additionally, this section will discuss literature that directly concerns the selected shocks of the Great Fire, the Great Stink, and the Blitz to introduce the themes and topics that will guide the analysis of each chapter. Section 2.3 briefly discusses the relationship of the global city literature to this thesis, before examining London's spatial development through a historical and political perspective. Finally, section 2.4 will examine literature concerning urban crises to consider how the themes of vulnerability and resilience relate to this thesis before section 2.5 concludes the chapter. Throughout this chapter, the differences that separate this thesis from the existing literature will be discussed whilst acknowledging the similarities that the methodology has drawn upon.

2.2   The Making of a World City

The literature that concerns London's overall history often includes some element of comparison between events to analyse the city's long-term development and its eventual emergence as a global metropolis. Specific perspectives are used to direct these discussions, focusing on key themes such as the development of the built environment. The methodology of this thesis expands on this to make comparison over time a central analytical tool, drawing on the key themes of the chosen shocks to explore how they each influenced London's infrastructural development as well as the transformation of political authority over time.

Sources that examine the entirety of London's history are naturally the most expansive and provided context for long-term developments, drawing together key themes across the course of centuries. Ackroyd's *London: The Biography* (2000), for example, is an extensive examination of the capital's history dating from its prehistoric origins until the start of the twenty-first century. It is primarily a social history but delves into architecture and urban built

form to tell the story of a city that is "half of stone and half of flesh".[4] Despite providing a great depth of detail, Ackroyd considers himself simply a "stumbling Londoner" expressing his love for the city which he calls home, he is "not a Virgil prepared to guide aspiring Dantes around a defined and circular kingdom".[5] With this, he demonstrates his view that London cannot be defined, organised, or even conceived in its entirety, being too large and containing too much history for this to be possible in a single work. This is shown in the gaps Ackroyd leaves. He does not attempt to fully explore London's political history, particularly in relation to the monarchy and to Parliament, and isolates London by not attempting to place its history within a national perspective. The source is primarily a social and local history.

Jenkins's *A Short History of London: The Creation of a World Capital* (2019) complements Ackroyd's focus on London's social history by providing a different approach to London's vast history, an examination of its political and geographical past. London's geography and architecture receives particular attention in this book, with Jenkins noting that his work "is chiefly concerned with the evolution of London's appearance".[6] The changing architecture of the city is particularly well-documented throughout the chapters devoted to the latter half of the twentieth century and the first two decades of the twenty-first, though the focus on architecture does somewhat take away from the creation of an overall history of London. This is particularly notable in Jenkins's examination of key historical events and the crises under study in this thesis. Events such as the Great Fire and the Blitz receive little attention in favour of the development of London squares and housing. Nevertheless, the focus on architecture does provide a detailed examination of how the city rebuilt following these crises and as such the source has a particular use for this thesis separate from that provided by other London historians such as Ackroyd.[7]

Porter's *London: A Social History* (1994) follows Ackroyd's focus on the social life of the city whilst adding in a greater focus on London's economy and politics. Although not to the same extent as Jenkins, Porter also details the developments in London's architecture throughout the early modern and modern period, and so provides a depth and range of topics in between those

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[4] Ackroyd, *London*, 2.
[5] Ackroyd, *London*, 2.
[6] S. Jenkins, *A short history of London: the creation of a world capital* (London: Viking, 2019), 2.
[7] Architectural histories of London abound, see for example: A. Sutcliffe, *London: an architectural history* (London: Yale University Press, 2006); M. Butler, *London architecture* (London: Metro Publications, 2019). Sir Nikolaus Pevsner's Architectural Guides series, published between 1951 and 1974, notably has six separate volumes covering London. This is in comparison to only one volume covering Birmingham that additionally includes the surrounding Black Country, and no volume at all for either Leeds or Manchester despite their national importance and size.

provided by Ackroyd and Jenkins. Unlike his two successors, Porter focuses almost entirely on the period between the late Tudor period and the end of the twentieth century, with only a single chapter covering the period between London's ancient formation and the mid-sixteenth century Reformation. The period focused on in this source, specifically between 1570 and 1986 (between the opening of the Royal Exchange and the abolition of the Greater London Council [GLC]), is explained by Porter as being the period in which London became "the world's greatest city" due to its self-governance and its growth being directed by its mercantile interests.[8]

The discussion of London's government and politics is introduced by a scathing review of the Thatcher Government's reforms on London, in particular the abolition of the GLC which ended the city's ability to self-govern and increased its reliance on Parliament. Although self-governance was restored following the creation of the Greater London Authority (GLA) in 2000, six years after this book was published, Porter's pessimism concerning the future of London primarily related to the city's lack of a local, self-contained government to represent its mercantile interests which had proven so successful between 1570 and 1986. It is the freedom which the city had to follow market trends and forge its own path forwards to generate revenue from the profit-making activities of the city's merchants which Porter believes was key to its historical success. Removing this freedom led Porter to the grim conclusion that "London is not the eternal city; it had its hour upon the stage".[9]

The interconnected role of politics and economy in London is heavily represented within Porter's book, particularly in relation to the city's various shocks. For example, he writes that following the Great Fire "the first responsibility was to restore business as usual", and "the Court of Common Council and the Court of Aldermen secured quarters at Gresham College" (notably named after Sir Thomas Gresham, the founder of the economic sanctum of London, the Royal Exchange).[10] Despite this focus on politics and economy alongside the social history of London, this particular source does not delve into much detail concerning the city's shocks. Any inclusion of the post-Fire and post-Blitz responses are brief, more intended to set up Porter's discussion of the social and political developments of the eighteenth and late twentieth centuries. The responses to the Victorian hygiene crises and the Great Stink receive greater attention due to their relevance as social history, but the source remains far more useful for contextualising

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[8] R. Porter, *London: a social history* (London: Penguin Books, 1991), 1.
[9] Porter, *London*, 1.
[10] Porter, *London*, 109.

London's political developments over the centuries than as a useful description and analysis of the city's shocks.

Ackroyd, Jenkins, and Porter have all contributed towards contextualising the chosen shocks within this thesis. Although the shocks are isolated and directly compared here, they must be viewed as integral aspects of London's overall history rather than providing the full picture itself. For this, the thesis draws from Ackroyd's awareness that the entire history of London cannot be conceived in a single work.[11] By examining the development of London's infrastructure and political authority in response to three shocks separated by centuries, this thesis aims to explore the demographic and financial themes that interfered with long-term infrastructural planning. These themes form vital aspects of London's overall history that are touched upon in the sources discussed above but do not receive sufficient analytical depth due to the focus on telling a narrative of the entire history of London. Whilst providing the opportunity for trans-historical comparisons to be made, this expansive temporal boundary restricts the analytical depth that can be achieved for specific themes. For this, literature with shorter temporal boundaries can complement these larger studies.

The centuries in which the chosen shocks took place each have a broad range of literature associated with them, each focusing on specific themes just as the sources above did for their long-term narratives of London's history. The use of political institutions as the core analytical focus of this thesis directed which sources were selected. Kishlansky's *A Monarchy Transformed: Britain 1603-1714* (1997) provides an excellent narrative of the seventeenth- and early eighteenth-century political reforms that specifically concerned the monarchy. Although this source does not focus only on London, the developments that concerned the monarchy and Parliament during this century (and particularly during the 1660s) provide a context for the national and international events that influenced how contemporaries viewed the Great Fire. Events such as the Civil Wars, Restoration, and the Anglo-Dutch Wars feature prominently in this source and contextualise the political institutions that responded to the Great Fire within the bigger picture. However, the Fire itself receives very little attention, highlighting how this source prioritises a much broader geopolitical and national perspective.[12] Healey's *The Blazing World: A New History of Revolutionary England* (2023) covers a similar time period as Kishlansky and additionally shares the limited attention granted to the Great Fire, with no mention of the

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[11] In this, he shares the opinion expressed by White in this chapter's epigraph: "There could never be a definitive history or biography of the city and its people. Every aspect of life there can fill a book, or several". White, *London in the twentieth century*, xxi.
[12] Kishlansky, *A monarchy transformed*, 213-215.

rebuilding process due to the national focus. [13] Although these sources provide a greater analytical depth for the development of political authority during this century (particularly Kishlansky on account of his focus on political development as well as his much shorter temporal boundaries than the broader narratives discussed above), by taking a national perspective they do not focus on London's specific developments despite the city's crucial political importance.

A more local context is provided by Lincoln's *London and the Seventeenth Century: The Making of the World's Greatest City* (2021) and Griffiths & Jenner's *Londinopolis: Essays in the Cultural and Social History of Early Modern London* (2000). Whereas both sources maintain extensive temporal boundaries, similar to Kishlansky and Healey (with Griffiths & Jenner spanning the sixteenth through early eighteenth centuries and with minimal attention granted to the Great Fire), Lincoln's particular focus on London's infrastructural and political developments that saw it become "the World's Greatest City" provides it with significant relevance for this thesis. [14] In particular, the initial political responses to the Great Fire that initiated the rebuilding process are discussed in detail. [15] However, the rebuilding itself only receives minimal attention, and the Fire Court proceedings are only briefly mentioned. [16] Due to Lincoln's specific focus on the seventeenth century, no attempt is made to compare the shock to London's future crises such as the Blitz despite the thematic similarities. Her focus on London is shared by Jordan's *The King's City* (2017). Jordan uses a political perspective to discuss London during the reign of Charles II, with the book primarily being a history of the city itself with the King being woven into the narrative rather than being the sole focus. The Great Fire is discussed in depth in the relevant chapters, fully integrating the shock into the context of London during the 1660s. [17] Fraser's biography, *King Charles II* (2002) achieves a similar examination of the King's reign though focuses on the man himself rather than London more broadly. As such, Fraser's examination of the Great Fire is primarily concerned with responses regarding the King and the developments in political authority are limited to this monarchical perspective. [18] Lincoln, Jordan, and Fraser all directly examine London, but the nature of their studies prevents a

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[13] J. Healey, *The blazing world: a new history of revolutionary England* (London: Bloomsbury Publishing, 2023), 344-347.

[14] P. Griffiths & M. S. R. Jenner (eds.), *Londinopolis: essays in the cultural and social history of early modern London* (Manchester: Manchester University Press, 2000); M. Lincoln, *London and the seventeenth century: the making of the world's greatest city* (London: Yale University Press, 2021).

[15] Lincoln, *London and the seventeenth century*, 208-211.

[16] Lincoln, *London and the seventeenth century*, 209-210.

[17] D. Jordan, *The king's city. London under Charles II: a city that transformed a nation – and created modern Britain* (London: Little, Brown, 2017). See chapters 12 and 13 in particular for this narrative of the Great Fire.

[18] A. Fraser, *King Charles II* (London: Phoenix, 2002), 320-324.

sufficient analytical depth from being granted to the post-Fire rebuilding process. Similarly, their limited temporal boundaries create a gap in the research for comparisons to be made to London's future shocks.

For literature specifically concerning the Great Fire, a large variety of sources exist that approach the topic from differing perspectives. Rideal's *1666: Plague, War and Hellfire* (2017), for example, places the Fire into the context of the two coexisting crises that London also suffered through during that fateful year, the Great Plague and the Second Anglo-Dutch War.[19] Tinniswood's *By Permission of Heaven: The Story of the Great Fire of London* (2004) provides extensive detail of the shock itself, which is often only summarised in sources with broader scopes.[20] Field's *London, Londoners and the Great Fire of 1666* (2018) analyses the social, economic, and cultural impact of the shock on the Londoners who lived through it, such as using nominal linkage to examine residential patterns in Hearth Tax assessment records.[21] Journal articles such as Field (2011), Jenner (2017), Lahav (2020), and Coffman et al. (2022) provide depth on different aspects of the rebuilding process, most notably the financing of the rebuilding process which is covered by Field and Coffman et al.[22] Most notably for this thesis, Tidmarsh (2016) analyses the purpose of the Fire Court in the context of the right to civil jury trial in the USA, therefore providing a trans-historical comparison that mirrors the comparisons between shocks that are made within this thesis.[23] Although this literature is extensive in its coverage of the Great Fire, further depth can be achieved by analysing the infrastructural development of London that followed the Fire through comparisons with the Great Stink and the Blitz.

The history of Victorian London has received extensive academic attention due to the substantial political and infrastructural developments that occurred during the nineteenth century. Works such as Wilson's *The Victorians* (2003) provide a broad social history of the people who made up the era, recognising London's importance as the heart of a global empire whilst still retaining an international perspective.[24] For a more local analysis, White's *London in*

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[19] R. Rideal, *1666: plague, war and hellfire* (London: John Murray, 2017).
[20] A. Tinniswood, *By permission of heaven: the story of the Great Fire of London* (London: Pimlico, 2004).
[21] Field, *London, Londoners and the Great Fire of 1666*, 3.
[22] J. F. Field, 'Charitable giving and its distribution to Londoners after the Great Fire, 1666-1676'. *Urban History*, 38, 1 (2011), 3-23; M. S. R. Jenner, 'Print culture and the rebuilding of London after the Fire: the presumptuous proposals of Valentine Knight'. *Journal of British Studies*, 56 (2017), 1-26; A. Lahav, 'Quantitative reasoning and commercial logic in rebuilding plans after the Great Fire of London, 1666'. *The Historical Journal*, 63, 5 (2020), 1107-1131; D. Coffman et al., 'Financing the rebuilding of the City of London after the Great Fire of 1666'. *Economic History Review*, 75, 4 (2022), 1120-1150.
[23] J. Tidmarsh, 'The English fire courts and the American right to civil jury trial'. *The University of Chicago Law Review*, 83, 4 (2016), 1893-1941.
[24] A. N. Wilson, *The Victorians* (London: Arrow Books, 2003), 365-366.

the Nineteenth Century: A Human Awful Wonder of God (2008) provides an overview of the capital's social, cultural, and infrastructural history, with the detailed description of the embankment of the Thames being of particular relevance for this thesis due to their construction being a direct response to the Great Stink.[25] Flanders' *The Victorian City: Everyday Life in Dickens' London* (2013) tells a social history of the metropolis through the lens of Charles Dickens' works, "to look at the streets of London as Dickens and his fellow Londoners saw it".[26] Picard's *Victorian London: The Life of a City 1840-1870* (2006) succinctly explores a vast array of topics, from food, health, and education to the infrastructural and environmental issues that plagued the Thames and London's streets.[27] The topics covered by Picard, particularly the infrastructural and environmental issues, were used as a point of comparison with the research in this thesis, with the impact of the Great Stink and the resulting resolution championed by Joseph Bazalgette described by Picard in some detail.[28] All of these sources approach Victorian London from differing perspectives, providing different frameworks from which to contextualise the developments of the century. Their broad natures do however create limitations in terms of their usefulness for this thesis, contextualising but not necessarily adding to the discussion surrounding the infrastructural developments that followed the Great Stink.

For the infrastructural development of London during this period, Hunt's *Building Jerusalem: The Rise and Fall of the Victorian City* (2005) provides an in-depth interdisciplinary analysis. Whilst not focusing exclusively on London, the capital's status as Britain's own metropolis and "Heart of the Empire" led to it receiving prominent attention nonetheless.[29] Hunt's aim is to explore "the people and principles who attempted to define the modern city, to shape the emergent terrain of industry, urbanisation and immigration on their own terms".[30] London is placed into the context of Victorian imperialism, combining the contemporary conceptualisations of urban space with the practical developments that defined Victorian industrialisation and imperial expansion. The Great Stink itself only receives brief attention, but the usefulness of this source has been the interdisciplinarity which it brings to the study of London's historical development.[31] This thesis shares this perspective, using geographical

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[25] White, *London in the nineteenth century*, 48-55.
[26] J. Flanders, *The Victorian city: everyday life in Dickens' London* (London: Atlantic Books, 2013), 12-13.
[27] L. Picard, *Victorian London: the life of a city 1840-1870* (London: Phoenix, 2006). For 'food', see chapter 13; for 'health', see chapter 15; for 'education', see chapter 19; for the Thames, see chapter 2; for London's streets, see chapter 3.
[28] Picard, *Victorian London*, 6-8; 32-33.
[29] T. Hunt, *Building Jerusalem: the rise and fall of the Victorian city* (London: Phoenix, 2005), 388.
[30] Hunt, *Building Jerusalem*, 7.
[31] Hunt, *Building Jerusalem*, 260-261.

understandings of urban space as a framework from which to analyse the post-shock infrastructural developments.

Fyfe's *By Accident or Design: Writing the Victorian Metropolis* (2015) views London from a different perspective to Hunt. Whereas *Building Jerusalem* examines the human agency in creating and conceptualising nineteenth-century urban spaces, Fyfe instead argues for the role that accident played in shaping the modern city and, more specifically, in developmental decision-making. Whilst not refuting the perspective of "the metropolis as the domain of shock, chance encounter, random associations, alienation, and wandering", he contends that "the oft-reported chaos of nineteenth-century cities demands reconsideration in terms other than [this] influential notion of modernity".[32] Fyfe's argument is instead that "the Victorians used such tropes, manifesting in accidents and their interpretation, to intervene in exclusionary discourses of urban knowledge".[33] Although this thesis does use the perspective of London as a "domain of shock", it is instead used as a tool to analyse the long-term political and infrastructural developments that took place *in response* to those shocks. 'Accident', or rather, those factors that unintentionally shape urban development, can coexist alongside a conceptualisation of London as a "domain of shock" and as an environment built by the intentions and consequences of political priorities. Short-term demographic and financial factors directed immediate responses to London's shocks with crucial implications for the long-term infrastructural development of the urban environment; whether defined as accidental or by design, this development is at the core of both Fyfe's work as well as this thesis.

However, the extended temporal boundaries allow this thesis to build on Fyfe's work. By making trans-historical comparisons between the chosen shocks, London's infrastructural development can be viewed from a long-term perspective. Individual developments can be isolated to analyse their impact on this process, whilst comparison with similar shock responses can provide a greater depth to this analysis. Fyfe's conceptualisation of London as an environment (both physical and imagined) built by "accidents and their interpretation" is specific to the "oft-reported chaos of nineteenth-century cities".[34] The focus of this thesis on London as a continuously developing environment defined by political priorities in response to

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[32] P. Fyfe, *By accident or design: writing the Victorian metropolis* (Oxford: Oxford University Press, 2015), 17.

[33] Fyfe, *By accident or design*, 18.

[34] Fyfe, *By accident or design*, 17-18.

disastrous shocks allows for comparison across centuries to reveal the bigger picture that these 'accidents' and 'interpretations' contributed towards.

The pollution of the Thames and dire environmental hazards of Victorian London were constant issues during the nineteenth century, spawning rapid developments and eventual solutions, and have been excellently summarised in Jackson's *Dirty Old London: The Victorian Fight Against Filth* (2015).[35] More specifically for this thesis, Halliday's *The Great Stink of London: Sir Joseph Bazalgette and the Cleansing of the Victorian Metropolis* (2009) discusses the infrastructural causes and solutions of the Great Stink, briefly delving into the political quagmire in London's governance that the crisis raised due to the questions of authority and responsibility for cleaning the river pollution.[36] The broader context and impact of the Great Stink on the social and political life of London is explored in Ashton's *One Hot Summer: Dickens, Darwin, Disraeli, and the Great Stink of 1858* (2018).[37] This literature examines the Great Stink, its causes, its consequences, and its impact on London's infrastructural development extensively. Its discussion of the role played by Parliament to respond to the Great Stink demonstrates a distinct similarity to this thesis but provides little discussion on the broader role of the Great Stink in London's long-term development. This thesis fills this gap by making comparisons with the Great Fire and the Blitz. It tracks the political responses to each shock to analyse their respective impact on London's infrastructure and political administration. By doing so, it contributes to the literature on the Great Stink by placing it into the context of this long-term development.

Whilst the development of the main sewerage system was perhaps the most direct infrastructural response to the Great Stink, the creation of the Embankments to hide away the pipes was indelibly connected. Porter's *The Thames Embankment: Environment, Technology, and Society in Victorian London* (1998) describes the extensive back-and-forth of plans, finances, and responsibility from the 1830s onwards that saw the Embankments take decades to materialise. The calls for and creation of local piecemeal embankments since medieval times and most notably by Wren following the Great Fire were yet to result in a large-scale renovation of the waterfront by the time of the Great Stink, despite renewed attention in recent decades. The mid-nineteenth century saw an increased awareness of London's status as an imperial city with the Thames taking a central role. As Porter writes,

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[35] L. Jackson, *Dirty old London: the Victorian fight against filth* (London: Yale University Press, 2015).
[36] Halliday, *The Great Stink of London*, 71-76.
[37] R. Ashton, *One hot summer: Dickens, Darwin, Disraeli, and the Great Stink of 1858* (London: Yale University Press, 2018).

"The rapid growth of the metropolis, its transformation as a financial and political center of world empire, and its central role in overseas trade made its inhabitants conscious of its world status. It also made them aware of the shabby, provincial appearance of London's streets, public buildings, and waterfront. Unflattering comparisons with St. Petersburg, with Venice and Rotterdam, and especially with Paris, appeared in the newspapers and journals. … Just as the Great Stink of 1858 finally drove officials to authorize a sewer system, so it also made them aware of the disparity between the metropolis and its wretched riverfront. The late eighteenth century image of the capital as a gigantic 'wen' or parasite upon the country was overlaid, in part, by an image of an imperial city whose appearance, especially to foreigners, had economic and cultural importance for the whole kingdom".[38]

The extreme pollution could potentially affect international business. Besides fitting Victorian sensibilities of politeness by hiding away the main drainage, the Embankments held a crucial role in beautifying the most important highway in London. Both people and goods entered or left the capital on a vast array of boats and ships; for many, the waterfront was their first impression of imperial London.

Porter connects this image of the capital with the practical technological and political policies that guided London's infrastructural development during these crucial decades. The Great Stink is viewed as the shock that finally forced action on an issue that had stalled for decades. For example, he describes the City of London's failed petition to Parliament in March 1840 to embank both sides of the Thames (renewed in both 1841 and 1842 with similar results due to Crown attorneys challenging the claim to the river bed), with the issue languishing in the Court of Chancery until 1857.[39] With nearly two decades of failed plans before the Great Stink, the success that followed it demonstrates the transformative influence of a major shock in instigating political responses and pushing forward infrastructural developments. Porter's narrative and in-depth analysis of the works that followed the shock justifies viewing the Great Stink as being equal to the Great Fire and the Blitz in this transformative influence. He similarly notes the importance of the successful construction of the sewerage and Embankments as being crucial to the MBW's improved reputation, "[leading] the MBW to reform its public financing

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[38] D. H. Porter, *The Thames Embankment: environment, technology, and society in Victorian London* (Akron, Ohio: University of Akron, 1998), 129.
[39] Porter, *The Thames Embankment*, 138.

and build a bureaucratic organization, making it the largest and most resourceful metropolitan agency in London".[40] Porter demonstrates the importance of the Great Stink (and especially the subsequent responses to resolve its underlying causes) to both London's infrastructural as well as political development.

Moving into the twentieth century, Hebbert's *London: More by Fortune than Design* (1998) explores the similar themes of 'accidents' and 'interpretations' as discussed by Fyfe, focusing primarily on the late twentieth century. This source combines history with town planning and geography to explore the post-war development and modernisation of London in the context of the city's growth since Roman times. Whilst this brief description paints a very broad picture, Hebbert explains his aim is to "search out the connections of history and geography which explain the distinctive character of London and account for its pre-eminence as a world city".[41] By casting a long-term narrative net going back to Roman London, Hebbert achieves this aim by exploring the cultural heritage that directed London's development into the global financial capital it had become by the end of the twentieth century. By using the theme of 'fortune' to explain this development, Hebbert adopts a similar perspective to that of Fyfe's focus on 'accidents' in directing Victorian growth. For example, the "fortuitous arrival of the North American developers of Canary Wharf" proved so effective at directing the financial future of the metropolis that it "shift[ed] the entire centre of gravity of the metropolis eastwards, counterbalancing Edward the Confessor's Westminster developments of a 1000 years earlier".[42] Although this thesis does not bring the discussion into the late twentieth century as Hebbert does, it shares his argument that post-war developments occurred independently of any grand plan that the wartime architects had designed. As such, this thesis contributes to Hebbert's argument by delving into the plans that were made and the short-term factors (so similar to Hebbert's interpretation of 'fortune') that prevented their implementation.

The Blitz holds a much more central role in literature concerning twentieth-century London than the Great Stink did in those sources concerned with the nineteenth. The extent of the rebuilding necessary to restore what had been lost during the war heralded comparisons with the Great Fire from contemporaries. This importance is clear in White's *London in the Twentieth Century: A City and its People* (2008), with the section on infrastructural and architectural development split into two chapters roughly divided 'before' and 'after' the Blitz

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[40] Porter, *The Thames Embankment*, 242-243.
[41] M. Hebbert, *London: more by fortune than design* (Chichester: John Wiley & Sons, 1998), 9.
[42] Hebbert, *London*, 14.

by each discussing half of the century.[43] Whereas Porter had taken a pessimistic view of London's late-twentieth-century development with his comment that London had its hour upon the stage as mentioned above, White notes that his work when first published was described by reviewers as having an optimistic tone. Although this had not been his intention, he adds, "they were no doubt right. It is difficult to see London's resilience in the twentieth century, and its capacity to bounce back from terrible reverses, in anything other than positive terms".[44] Whilst the initial publication dates are one reason for this difference in interpretation, this thesis shares White's optimistic outlook with London's ability to "bounce back" from its historical shocks being a key theme throughout each chapter.[45] The redevelopment plans that form the focus of chapter 5 particularly demonstrate this, with idealistic opportunities seen in the aftermath of the Blitz even while large areas had been reduced to ruins.

Another of White's works, *The Battle of London 1939-45: Endurance, Heroism and Frailty under Fire* (2021), specifically discusses the metropolis's own story throughout the Blitz. Whereas other sources concerning this crisis tend to explore it from a national perspective, viewing London as simply one of many recipients of the bombing campaigns (albeit one of the most intensively hit), this book allows White to explore the topic with greater depth and direct attention on local accounts. The narrative primarily discusses the war itself chronologically, but briefly considers the attempts at preparation in the decades prior as well as the long-term future impact which the Blitz (and the resulting plans for rebuilding) had on London's infrastructure.[46] However, this discussion is very limited in its scope, and is explored in much greater depth in White's *London in the Twentieth Century*. This thesis contributes to this literature by providing a closer examination of the rebuilding plans and by placing the Blitz within the long-term context of London's overall political and infrastructural development through comparisons with the other chosen shocks.

The sources discussed in this section each use extended temporal boundaries to provide an outline of the people, events, and developments that are contained within their respective purviews. This methodology limits the usefulness of this literature for this thesis due to the

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[43] White, *London in the twentieth century*, see chapter 1 ('London Growing: 1900-1950') and chapter 2 ('London Remade: 1951-99').
[44] White, *London in the twentieth century*, xiii.
[45] Porter's work had been first published in 1994 as opposed to White's in 2001. The lack of a metropolitan-wide government, independent from Parliament, had been the primary reason for Porter's pessimism, and so the establishment of the GLA in 2000 can account for White's comparative optimism.
[46] J. White, *The battle of London 1939-45: endurance, heroism and frailty under fire* (London: The Bodley Head, 2021), 334-341.

specific shocks being examined more broadly rather than in depth. However, the context that they provide places the shocks within the long-term developments of the centuries in which they took place. By comparing between the chosen shocks and analysing the intentions as well as the actions of the political authorities that responded to them, this thesis aims to contribute towards this literature by linking the individual shocks into the long-term infrastructural development of London. The methodology of this thesis has been similarly shaped by urban geographical and political literature that explores how the city's historical development created the living metropolis that it is today. This has been briefly touched upon in the discussion of Hebbert's *London* above but will be explored further in the following section.

2.3   The Politics of Urban Development

The geography of London's past has crucially informed its modern position in the global economy. Whilst this thesis only touches briefly on London's modern global status, the main focus is instead to develop a historical perspective from which to examine the chosen shocks and resulting infrastructural developments internal to London. Although the literature that discusses this long-term transformation of London's international role has inspired the methodology of this thesis, it is important to note that this thesis does not use a global city methodology. The focus of the thesis on political rather than economic institutions (as well as shocks that were not inherently economic in nature) does not align directly with the focus on economic processes and systems that define global city conceptualisations. However, this thesis aims to contribute towards the global city literature by providing a perspective that is not primarily economic. It views London not just in terms of its financial centre but more broadly as a city that adapted its regional political authority in response to vast shocks, drawing from Robinson's criticism of global city theorising as unrepresentative of broader urban functions.[47] Rather than seeing London's past solely as a process of political decisions leading to economic expansion and ultimately the formation of a global city, this thesis demonstrates that during some of the most significant times of infrastructural and political development the short-term needs of London's population were viewed as crucial factors *alongside* the city's financial

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[47] J. Robinson, *Ordinary cities: between modernity and development* (London: Routledge, 2006), 97. Robinson notes how the focus on the economic centres of cities reduces them down to this limited area, often at the expense of socially and culturally important aspects of cities. Reducing London down to its financial hub – the City of London – ignores the vast geographical expansion of the city over the prior centuries which has defined its more recent development. Robinson notes how the capital is "poorly served by a reduction of its complex, diverse social and economic life to the phenomenon of globalisation", even going so far as to claim London is "certainly poorly described as a 'global' city" (pg. 97).

restoration and development. London's economic expansion coexisted with infrastructural transformation that prioritised social reproduction factors such as rebuilding housing.

Literature that does not approach London as a global city per se deploys a variety of different themes and perspectives from which to view the metropolis. Those that are particularly relevant for this thesis are ones that examine London's spatial development through a historical or political perspective. Those that consider London's continuous expansion and encroachment into the countryside over the centuries, as well as those that approach London as an industrial centre of the nineteenth and early twentieth centuries, have additionally informed the methodology of this thesis. This section will approach this literature thematically to examine how it has achieved this, as well as how this thesis can contribute to the overall literature.

Historical geographies of London are perhaps the most relevant for this thesis due to the direct examination of the relationship between the city's urban development and the process of modernisation. For example, Ogborn's *Spaces of Modernity: London's Geographies 1680-1780* (1998) achieves this by examining eighteenth-century London through the processes that defined its modernisation, including "individualisation, the formation of 'the public sphere,' commodification, bureaucratic rationalisation, state formation, and the transformations of time and space through communications innovations".[48] This perspective is used to analyse the modernisation of London through the examination of specific spaces, such as the Magdalen Hospital and the Vauxhall Pleasure Gardens. Although presenting a primarily social understanding of London's historical development, Ogborn has contributed to this thesis through his exploration of how urban processes advanced in relation to social improvements and attempted (though not always successful) modernisation efforts. In particular, the post-Fire developments are discussed from the perspective of the architect John Gwynn (1713-1786) who wrote with disappointment over London's failure to adopt Christopher Wren's rebuilding plans, leading to an inconvenient and inelegant city layout by the time he was writing in 1766.[49] This thesis adds to Ogborn's research by approaching the Great Fire and resulting development of London from a political perspective, using the relevant institutions to examine why the city's modernisation attempts were limited in their success by the private interests of landlords and their tenants.

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[48] M. Ogborn, *Spaces of modernity: London's geographies 1680-1780* (London: The Guilford Press, 1998), 1.
[49] Ogborn, *Spaces of modernity*, 98-104.

Williamson's *Coping with City Growth During the British Industrial Revolution* (1990) brings this question of urban modernisation into the nineteenth century. He makes use of comparisons with modern city growth in developing nations to analyse how demographic change and insufficient urban investment informed the immense growth of Britain's cities during their nineteenth-century industrialisation.[50] This theme of 'coping with city growth' during a time of demographic and economic upheaval shares both Ogborn's focus on modernisation processes as well as similarities with the examination in this thesis of infrastructural and political developments in response to periods of intense shock. For London specifically, Martin's *Greater London: An Industrial Geography* (1966) continues this narrative by exploring London's early twentieth-century industrialisation and post-war recovery (up to the point of its publication). This thesis builds on Williamson's and Martin's works to explore the long-term development of London's infrastructure and its political institutions as part of this process of modernisation, moving away from the industrial focus used by these authors to provide a political perspective on London's shock-related development.

City growth resulting from economic centralisation is conceived by Molotch (1976) "as the areal expression of the interests of some land-based elite".[51] In this, he adapts Williamson's concept that city growth was merely coped with as an effect of demographic and industrial development to argue that it is instead an intended outcome of resource investment, aided by the elites' utilisation of governmental authority (both local and otherwise) to prioritise their own locality over that of their competitors. The elites in this case are property developers who derive revenue principally from the redevelopment and sale of land and property within the jurisdictional boundaries of their host city. To that end, efforts are made to ensure that a local government's political authority and infrastructural capacities can be organised in such a manner to ensure future investments continue to flow into the locality. Nevertheless,

> "the political processes at work in civil societies are [often] much broader and deeper than local government's particular compass … Its boundaries do not coincide with the fluid zones of urban labor and commodity markets or infrastructural formation; and their adjustment through annexation, local

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[50] J. G. Williamson, *Coping with city growth during the British industrial revolution* (Cambridge: Cambridge University Press, 1990), 5-7.

[51] H. Molotch, 'The city as a growth machine: toward a political economy of place'. *American Journal of Sociology*, 82, 2 (1976), 309-332:309.

government reorganization, and metropolitan-wide cooperation is cumbersome, though often of great long-run significance".[52]

Molotch's analysis has particular resonance for this study of London within this thesis, not least in terms of the role of propertied interests in transforming the built environment and political institutions of London following the Great Fire as well as the Great Stink and the Blitz. Grooms & Boamah (2018) have used Molotch's concept of the city as a growth machine to discuss potential solutions "to significantly mitigate urban social inequity and injustice" through improved urban planning practice. The resources and powers of political institutions would be utilised to achieve this.[53] This echoes Forshaw and Abercrombie's plans for London following the Blitz, where the powers held by the LCC as well as Acts of Parliament were to be used to improve the city's liveability through the incorporation of green spaces and the separation of industrial from residential zones. By analysing political responses to urban shocks and their impact on the overall infrastructural development of London, this thesis contributes to this literature by providing an examination of the challenges that urban planning has historically faced when attempting to incorporate social improvements in London's development. As shown by the Great Fire and the Blitz, times of crisis have simultaneously provided the most opportunities as well as the most difficult challenges to infrastructural improvement due to urgent, short-term demographic and financial factors preventing the prioritisation of long-term infrastructural improvement. A greater understanding of how London's future development can prioritise these social and infrastructural improvements can be achieved by examining how London's historical development proceeded during these times of crisis.

Viewing cities in terms of their broader regional development, particularly in a national as well as international context, is used in geographical literature to evaluate the impact of the city's geography on the political and economic development of a national state. Jonas & Moisio (2018) propose a new conceptual framework for examining city regionalism – the expansion and consolidation of the institutions of urban governance well beyond the pre-existing jurisdictional limits of the city into the wider region – through the geopolitical processes that operate "within and beyond the national state".[54] With this perspective, city regionalism can be understood "not solely as the medium and outcome of territorial reorganizations *internal* to the state – important

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[52] D. Harvey, *The urbanization of capital: studies in the history and theory of capitalist urbanization 2* (Oxford: John Hopkins University Press, 1985), 153.
[53] W. Grooms & E. F. Boamah, 'Toward a political urban planning: learning from growth machine and advocacy planning to "plannitize" urban politics'. *Planning Theory*, 17, 2 (2018), 213-233:213; 225.
[54] A. E. G. Jonas & S. Moisio, 'City regionalism as geopolitical processes: a new framework for analysis'. *Progress in Human Geography*, 42, 3 (2018), 350-370:351.

as these are – but also a decisive moment in the *internationalization* of the state itself" (Jonas and Moisio's emphasis).[55] This thesis does not directly view London through its structures of city regionalism. However, this contributes to this literature by examining how national political decisions often informed the internal development and institutional transformation of London during times of crisis. The responses to the Blitz in particular and desires to limit the city's outward expansion during the mid-twentieth century significantly contributed to the modern political geography of London as an emergent 'city region' of national and international importance.

2.4   Crises, Vulnerability, and Resilience

The study of modern urban crises draws on the themes of vulnerability and resilience to better understand how immediate responses can be used to improve the sustainability and survivability of cities. Historical examples are used to analyse modern risk factors and to suggest improvements to response measures through policymaking and awareness of infrastructural vulnerabilities. Whilst this thesis focuses exclusively on the historical shocks of London, it contributes towards this literature's understanding of the city's political and infrastructural responses in the immediate aftermath of these times of crisis. London's vulnerability and resilience over time are demonstrated throughout the thesis, with a particular focus on the responses that shaped the city's infrastructural development into its modern form. This section will examine how this literature uses the themes of vulnerability and resilience in its study of urban crises to demonstrate how this thesis contributes towards it.

Urban vulnerability to environmental crises is highly localised and subjective to unique factors depending on the city's geography. Although London does not suffer the same hazard risk as other cities that endure crises such as floods or earthquakes, the human impact on an environment in the making of a crisis is a familiar theme both throughout the city's history as well as within this thesis. Bankoff et al.'s *Mapping Vulnerability: Disasters, Development and People* (2004) highlights this connection between human activity and environmental discord, stating that "the nature of disasters is rooted in the co-evolutionary relationship of human societies and natural systems".[56] The authors demonstrate the increasing nature of this in the modern world, with the influence of industrialised societies on the environment impacting the global vulnerability to ecological disaster at a much greater rate than before. However, historical

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[55] Jonas & Moisio, 'City regionalism', 351.
[56] A. Oliver-Smith, 'Theorizing vulnerability in a globalized world: a political ecological perspective', in G. Bankoff et al. (eds.), *Mapping vulnerability: disasters, development and people* (London: Earthscan, 2004), 10-24:24.

vulnerabilities resulting in a period of crisis can similarly be associated with societal (and particularly urban) mismanagement and abuse of environmental resources. This is shown in Bankoff et al.'s *Flammable Cities: Urban Conflagration and the Making of the Modern World* (2012), in which the authors discuss a variety of historical fires that have occurred since the seventeenth century and claim that "the majority of urban fires have been anthropogenic", supporting the notion of the modern 'Anthropocene Age'.[57] This thesis contributes to this literature by exploring how urban vulnerabilities that resulted in environmental crises informed the infrastructural development of London. In particular, the discussion of the Great Fire of London provides additional analysis to that included in *Flammable Cities* to contribute towards the understanding of how the crisis affected London's infrastructural development.

Vulnerability is paired with the complementary theme of resilience in Pelling's *The Vulnerability of Cities: Natural Disasters and Social Resilience* (2003). Although the book focuses on three cities in the Global South (Bridgetown, Barbados; Georgetown, Guyana; Santo Domingo, Dominican Republic), its relevance to this thesis is shown with its examination of "the influence of contrasting institutional/political relationships on the (re)production of human vulnerability to environmental hazard in cities".[58] Pelling proposes improvements to governmental and non-governmental policies, such as the construction of appropriate housing that improves the resilience of urban environments.

Omand's *How to Survive a Crisis: Lessons in Resilience and Avoiding Disaster* (2023) shares Pelling's examination of vulnerability and resilience, whilst focusing on policies (from the individual through to the national) that can be put into place to improve the latter. Making use of Omand's extensive experience within various Government positions (most notably as Director of the Government Communications Headquarters), this source provides a critical examination of how political authority has been used to protect national interests since the Second World War. Omand explains the particular relevance of his book to the twenty-first century as "we face increasing threats – security challenges that have human agency behind them – as well as all the hazards arising from the impersonal forces of nature and the risk of large-scale accidents that

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[57] G. Bankoff et al., *Flammable cities: urban conflagration and the making of the modern world* (London: The University of Wisconsin Press, 2012), 4; A. Moore, 'The Anthropocene: a critical exploration'. *Environment and Society*, 6 (2015), 1-3.

[58] M. Pelling, *The vulnerability of cities: natural disasters and social resilience* (Oxon: Earthscan, 2003), 163.

the increased complexity of society brings".[59] His principal theme of resilience is shown through examples of how national interests were protected during times of particular risk, such as during the 2012 London Olympics. This is similar to the examination of shocks and political institutional responses within this thesis.

Omand's differentiation between 'sudden impact' and 'slow-burn' crises is a particularly beneficial perspective that is also shared by this thesis, with the Great Fire and Blitz being primarily sudden impact crises and the Great Stink a slow-burn one. Omand notes the particular risk posed by slow-burn crises due to their trait of having been frequently overlooked or insufficiently resolved, allowing the problem to fester until it poses a major risk.[60] Acknowledgement and early resolution prevents this from occurring, something inadequately attempted during the pollution issues of the 1830s and 1840s. This differs from sudden impact crises that benefit greatly from distinct policies being put into place ahead of the crisis with all involved actors understanding their role to prevent the situation from unravelling out of control. Following the Great Fire, this took place with the construction of fire-resistant buildings as well as the establishment of fire emergency services and the fire insurance industry to limit the destructive capabilities of future conflagrations. However, the shock was a necessary precursor for these developments to take place.

A different perspective on crises is provided by Klein's *The Shock Doctrine: The Rise of Disaster Capitalism* (2008). This critique of neoliberalist economic policies examines how *laissez-faire* capitalism has been directly imposed on countries such as Chile, Poland, and Russia in the second half of the twentieth century during times of crisis. In each case, access to crisis relief was used by the US and international organisations as forceful encouragement for their respective governments to adopt suitable neoliberalist policies. Klein explores how approaches towards this economic model developed since the 1950s, notably including how its supporters identified crises as being ideal opportunities to encourage governments to privatise public industries and make them available to a globalised market. Using this perspective, crises are viewed positively as opportunities to make a profit, with international relief being withheld to

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[59] D. Omand, *How to survive a crisis: lessons in resilience and avoiding disaster* (London: Viking, 2023), 1. The truth of this statement has been seen recently with the rapid global transmission of the COVID-19 pandemic. Its overlap with the outcomes of Brexit – better defined as a 'shock' than a 'crisis' – has informed the development of this thesis as noted in the Introduction chapter. Omand notes the particular vulnerability of the twenty-first century for crises to overlap ("It is a characteristic of the times we are living in that a crisis doesn't wait for the last one to end – or conclude before the next one erupts" [pg. 2]), though his statement would feel equally familiar to a Londoner living through the Second Anglo-Dutch War, Great Plague, and Great Fire during the mid-1660s.
[60] Omand, *How to survive a crisis*, 2-3.

deliberately worsen the crisis. The state of shock created in a country's population reduces opposition and encourages the government to adopt more extensive privatisation.

Although the theme of crises as opportunities for development is shared by this thesis, it additionally shares Klein's criticism of adopting neoliberalist policies in the wake of such shocks. Klein notes how a full adoption of neoliberalist policies during a crisis relied on authoritarian displays of power from the country's government and directly contributed to worsening living conditions and rising poverty rates.[61] Where opposition existed, violence, kidnappings, and torture were used to prevent further unrest.[62] As described within this thesis, government regulations were used following all three shocks to theoretically prevent a profit from being made at the expense of the common good, which is most notably seen in how property prices were frozen during the Blitz. Privatised land development was then used following the Second World War to allow London to rebuild quickly, but strong oversight from both local and national political institutions again kept these developments accountable. Whilst this thesis concludes that shocks can still be used in the twenty-first century as opportunities for vast infrastructural developments to be made, the economic policies that underline how these developments are made are crucial to ensure that they do not come at the expense of urban living conditions.

Whilst Pelling, Omand, and Klein use modern examples of crises, the same themes of vulnerability and resilience are explored within a historical context in van Bavel et al.'s *Disasters and History: The Vulnerability and Resilience of Past Societies* (2020). In particular, the authors claim the book "introduces the field of 'disaster studies' to history", thus being a substantially interdisciplinary work, and that they "explicitly show the relevance of studying past disasters to better understand the social, economic, and political functioning of past societies".[63] Whilst this thesis focuses primarily on the effect of crisis responses from political institutions on the infrastructural development of London, the thematic similarities with van Bavel et al.'s work are

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[61] "The bottom line is that while Friedman's economic model is capable of being partially imposed under democracy, authoritarian conditions are required for the implementation of its true vision. For economic shock therapy to be applied without restraint – as it was in Chile in the seventies, China in the late eighties, Russia in the nineties and the U.S. after September 11, 2001 – some sort of additional major collective trauma has always been required, one that either temporarily suspended democratic practices or blocked them entirely". Additionally, Klein notes that a full implementation of neoliberalist policies has always created a "permanent underclass of between 25 and 60 percent of the population". For the need for authoritarian conditions, see N. Klein, *The shock doctrine: the rise of disaster capitalism* (London: Penguin Books, 2008), 11; for the creation of a permanent underclass, see page 405.
[62] Klein goes further and directly compares the enforced adoption of neoliberalist policies during a crisis with the physical and psychological torture of individuals. Klein, *The shock doctrine*, 17
[63] B. van Bavel et al., *Disasters and history: the vulnerability and resilience of past societies* (Cambridge: Cambridge University Press, 2020), 1.

clear. However, this thesis explores a new angle due to the authors' focus on biophysical "shocks and hazards" such as "seismic activity, droughts, high water tables, and epidemics".[64] They explain that "political and economic crises, war, and other human-made shocks may figure in the text, not per se, but as factors sharpening the effects of natural hazards or interacting with them".[65] This thesis therefore contributes to this emerging field of literature by exploring the impact of these "human-made shocks" on London's infrastructural development through the lens of the city's political institutions.

Resilience and the ability to rebuild following a crisis is central to this thesis, being a defining trait of London's history. Literature that concerns resilience differs from those sources with vulnerability as a central theme in that the focus is shifted to after the disaster has taken place rather than the preparation that can take place in anticipation of one occurring. As such, resilience is the more relevant theme for this thesis. Aldrich's *Building Resilience: Social Capital in Post-Disaster Recovery* (2012) merges these two themes, whilst maintaining the focus on resilience, due to his examination of how past disasters (though still modern) can be used to improve the resilience of cities in anticipation of future crises. Although he uses case studies of earthquakes, a tsunami, and a hurricane, he explains how subcategorising these as 'natural' as opposed to 'man-made' is "increasingly problematic" due to the extensive human impact on the environment during the Anthropocene Age, a topic also explored by Bankoff et al.'s *Mapping Vulnerability* as discussed above.[66] Moreover, resilience expressed through the improvement of social capital (being the "resources embedded in one's social networks") is relevant for both 'subcategories' of disasters.[67] This thesis contributes towards this literature by examining the impact of human agency on London's environmental disasters. Both the Great Fire and the Great Stink were a combination of human activity and environmental impact, with only the Blitz being the result of human agency alone.

Vale & Campanella's *The Resilient City: How Modern Cities Recover From Disaster* (2005) shares Aldrich's focus on disaster recovery but places it within an explicitly urban context. The book uses examples of cities from the nineteenth century through to the early twenty-first century that suffered some type of disaster (whether 'natural', such as the Mexico City earthquake in 1985, or 'man-made', such as the damage inflicted on Berlin during the Second

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[64] Van Bavel et al., *Disasters and history*, 2.
[65] Van Bavel et al., *Disasters and history*, 2.
[66] D. P. Aldrich, *Building resilience: social capital in post-disaster recovery* (London: The University of Chicago Press, 2012), 3.
[67] Aldrich, *Building resilience*, 13.

World War) to explore why cities are naturally resilient, with the authors describing them as being "among humankind's most durable artifacts".[68] Of particular relevance for this thesis is the book's focus on 'The Politics of Reconstruction' in Part III, in which the authors explore how

> "sometimes resilience is carefully cultivated by dominant public authorities seeking renewed legitimacy; at other times an urban disaster serves as an occasion to demonstrate the resilience of ordinary citizens, determined to use traumatic events as a means to redirect the balance of power in their society. … Resilience is always a function of political power".[69]

Both types of resilience described by the authors here are present in this thesis. Post-war recovery in the mid- to late 1940s was inherently political, being used as a tool of both political parties in the 1945 election. Alternatively, the post-Fire recovery of the late 1660s and 1670s was largely used by landowners to reassert their property rights, even at the expense of governmental desires for a planned London. This thesis contributes to this literature by exploring how London's political institutions responded to the chosen shocks, demonstrating the city's resilience during times of crisis and how political power was utilised to shape the following infrastructural development.

London's history of disasters has received some attention within this literature despite the frequent focus on higher risk cities that have suffered more extreme environmental disasters. For example, Luckin & Thorsheim's *A Mighty Capital under Threat: The Environmental History of London 1800-2000* (2020) examines a range of environmental hazards that have plagued London during the nineteenth and twentieth centuries, such as industrial pollution and disease-ridden water supplies. The essays that make up this volume directly use a political perspective from which to analyse these hazards and the infrastructural developments that were made in response to them. The authors explain that each essay "acknowledges the complexities of successive London government systems and the ways in which mainstream political and social history can be linked to and enriched by detailed knowledge of the development of infrastructure and public utilities".[70] They add that this suggests "a provisional framework for

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[68] L. J. Vale & T. J. Campanella, 'Introduction: the cities rise again', in L. J. Vale & T. J. Campanella (eds.), *The resilient city: how modern cities recover from disaster* (Oxford: Oxford University Press, 2005), 3-23:5.

[69] Vale & Campanella, 'Introduction', 19.

[70] B. Luckin & P. Thorsheim, 'Introduction: environment and daily life in London, 1800-2000', in B. Luckin & P. Thorsheim (eds.), *A mighty capital under threat: the environmental history of London 1800-2000* (Pittsburgh: University of Pittsburgh Press, 2020), 3-21:21.

future forays into the modern urban-environmental history of the British capital".[71] This thesis aims to link together the political and infrastructural development of London during the selected times of crisis to achieve the precedent made in Luckin & Thorsheim's book. By doing so, this thesis will contribute towards this literature to advance current understanding on how London's infrastructural development has been defined by its environmental crises.

2.5   Conclusion

This chapter has discussed a variety of sources selected from their respective literatures. No attempt has been made to be all-encompassing due to the extensive nature of the research already conducted and vast number of sources published, but the contributions that this thesis can make to the overall literature have been discussed and justified. There is a notable gap in the literature in telling the story of London's long-term infrastructural development through its history of crises which this thesis aims to fill. Additionally, the lens of the city's political responses is used to further tighten this immense topic. The shocks that have been chosen for this thesis, whilst themselves not entirely comprehensive of London's enormous history of disasters, crises, and environmental hazards that have influenced its infrastructural development, exemplify some of the most significant turning points in this long history. Their relative modernity as opposed to disasters such as Boudicca's destruction of London in 61 CE or the Black Death in 1348-1349 allows for a greater relevance in the discussion of how London became the global, living city that it is today.

Whilst the literature discussed in this chapter demonstrates a significant research gap for this thesis to fill, inspiration has been drawn from it for the creation of the methodology and research questions. London's modern status as a global city has led to questions on how it has attained and maintained this status despite its history of crises, managing to not only survive but also flourish in the face of adversity. London's political institutions played an integral role in this development over the centuries. The transformation of local political authority, and ultimately its abolishment in 1986 that was so derided by Porter prior to its revival in 2000, drastically altered London's political identity whenever it occurred. The role of London's historical shocks in the creation of new political authorities has been greatly under-represented in the literature. In isolation, discussions of each shock note their respective political developments, such as the creation of the Fire Court following the Great Fire or the establishment of the MBW to resolve London's growing pollution crisis, or even the

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[71] Luckin & Thorsheim, 'Introduction', 21.

transformation of land development rights during the Second World War with the creation of the Central Land Board. However, the trans-historical comparative methodology used in this thesis allows for a greater understanding of why these political developments occurred when they did, to meet the challenges posed by the respective shocks. This focus on the political institutions creates a lens through which to examine the impact of London's shocks on the city's infrastructural development and, ultimately, the internal developments that took place in the process of London becoming a modern globalised city.

The next chapter will bring the narrative to the first shock of the thesis, the Great Fire of 1666. This event not only highlights the financial priorities in rebuilding efforts that would suffuse the majority of London's future crisis recovery responses, but also demonstrates how an environmental disaster can inform the city's political administration. London's built infrastructure was transformed by the shock, leading to the creation of a modernised, fire-resistant city.

Chapter 3 Opportunity and the Fire Court Following the Great Fire

[The Fire] was a National judgement, because *London* was the *Metropolis* of the Land, because the Beauty, Riches, Strength, and Glory of the whole Kingdom lay in *London*: and it was not the inhabitants of the City who alone did suffer by this Fire, but the whole Land more or less, do, and will feel the smart hereof. – Thomas Vincent (1667)[1]

Haste is seen everywhere, London rises again, whether with greater speed or greater magnificence is doubtful, three short years complete that which was considered the work of an age. – Dr Thomas Gale, The Monument Inscription (1677)[2]

3.1   Introduction

The Great Fire of 1666 transformed London, forcing the city to engage in the largest reconstruction project in its history so far. Opportunity was seen in the ashes of the wooden, cramped, medieval capital and London's political institutions sprang into action, defining the direction that the city's development would take while private individuals such as Christopher Wren designed impressive plans to completely redesign London. And yet, the extent of this influence was limited: the King, Parliament, and the Fire Court could set out the rules of reconstruction and settle disputes between landowners and their tenants, but the actual rebuilding process was mostly left in private hands. Interest holders, whether landlords, tenants, family members, or even minors or wards with inherited ownership were expected to take on the immense cost and rebuild rapidly to restore the economic function of the city. Meanwhile, the City of London Corporation took on the cost of rebuilding some of the city's most important buildings, notably St Paul's Cathedral itself. London's growth had given it a vital role both nationally as well as increasingly internationally as Britain's ambitions expanded, creating the desperate need for a swift recovery from the Great Fire. London's economy must be allowed to continue, and the shock saw the creation of new developments such as fire insurance companies to aid the protection of individuals following times of crisis by providing a financial safety net. This similarly stimulated economic growth as London's businesses grew ever larger in the eighteenth century and beyond, the immense financial loss caused by fire could be protected

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[1] T. Vincent, *God's terrible voice in the city* (London, 1667), 64.
[2] T. Gale, *The Monument* [Inscription]. London, 1677.

against to a certain extent and so London's identity as a city of manufacturing and export was encouraged to flourish.

The Great Fire had followed political turmoil, plague, and war in the previous two decades, and yet this shock would transform the medieval city into one of renovation and modernisation. The developments in response to the Fire were all-encompassing though not transformative in structure. Houses of wood were rebuilt in stone, cramped roads with overhanging buildings were restored with wide streets and neat, stable buildings, and medieval churches were replaced by fashionable new designs or removed altogether with the city skyline already stacked with church spires. In the decades that followed the Fire, London grew from its devastation and embraced a restorative policy which saw buildings such as the Royal Exchange and St Paul's Cathedral rebuilt through the efforts of the City of London Corporation to revive the city's economic and spiritual essence. Although rooted in disaster, the responses to the Great Fire enabled these long-term developments to occur at a speed and consistency that would have been otherwise impossible, benefiting the city as it entered a new era of international wealth and responsibility. Vale & Campanella explain it was this international economic position that encouraged the rapid recovery: "however charred, the City still marked the centre of world trade connections. Disaster spurs reinvestment and creative destruction as long as the source of urban economic strength remains fundamentally unaffected. Capitalism, in this sense, outflanks catastrophe".[3] The spirit of restoration and modernisation had been unleashed, initiating an expectation of improvement that saw contemporaries complain that the Great Fire reconstructions were already outdated by the time the final developments were being made. This was an issue that would be echoed throughout the following centuries and particularly as the city once again had to rebuild in response to the Blitz.

The Fire Court was the central political institution responsible for settling disputes between landowners and tenants during the rebuilding process, having been created by the Fire of London Disputes Act of 1666. As such, the Court will be the primary institution examined in this chapter. The Court decided who would be responsible for carrying out the rebuilding itself and how much contribution (if any at all) other interested parties would give towards the construction work either through direct financial contributions, term extensions, or rent abatements. This Act was designed to settle disputes and the urgency in passing it so soon after

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[3] L. J. Vale & T. J. Campanella, 'Conclusion: axioms of resilience', in L. J. Vale & T. J. Campanella (eds.), *The resilient city: how modern cities recover from disaster* (Oxford: Oxford University Press, 2005), 335-355:347.

the Fire demonstrates the pressing desire of Parliament to recover the city and its vital financial services. The Court prioritised speed whilst hearing the cases brought forward to them, deciding the vast majority of cases within a day, and grouping those that were brought by the same petitioner to be decided together. By doing this the Court contributed to the rapid rebuilding process, preventing London from remaining in a ruinous state and repairing its economy by ensuring businesses could reopen as soon as possible following the Great Fire. Those tenants who refused to rebuild or pay contribution were instead forced to surrender their interest or lease to prevent the obstruction of the rebuilding process, placing the landlord in a beneficial position that ensured their advantage in any negotiations. The importance of the Fire Court in restoring the city cannot be overstated. The repeated extensions of the Court's term and the expansion of its jurisdiction demonstrate the indispensable role which this political institution played following the Fire.[4]

The temporal and spatial boundaries of this chapter must be imposed to frame the analysis. The immediate aftermath of the Great Fire as well as the proceedings of the Fire Court in the following decade will form the primary focus of the chapter. However, earlier building efforts will be referenced when relevant to provide a point of comparison and to demonstrate the extraordinary nature of the Great Fire responses. The impact of this rebuilding effort will similarly be evaluated by examining some of the attitudes towards London that were held by eighteenth century commentators, bringing the temporal boundaries forward. As such, this chapter will draw from evidence earlier on in the century as well as in the following century to provide context to its analysis, whilst focusing primarily on the immediate aftermath of the Fire. The spatial boundaries are much more specific however due to the relatively small size of London during this period compared to that covered by later chapters. The immediate area impacted by the Great Fire is the primary spatial boundary for this chapter, but some of the broader developments such as the creation of the fire insurance industry had a wider impact. As such, 'London' as it was known to contemporaries is the overall spatial boundary, only being

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[4] Parliament extended the Fire Court's term and expanded its jurisdiction on three separate occasions. After its original retirement on 31st December 1668 (resulting in what Doolittle describes as "a rush of activity before the Act's expiry" throughout the month), the Court was revived in 1670 with a new end date of 29th September 1671. This was then extended to 29th September 1672, with a final revival in 1673 extending its end date to 25th February 1676. Each extension or revival increased the jurisdiction and responsibilities of the Court in response to issues or limitations discovered since its previous re-enactment, such as allowing for the Court to rule over cases involving other fires occurring since the Great Fire. During the decade in which the Fire Court was active, 1,585 decrees were made, 16 of which involving other fires. I. Doolittle & P. Jones (eds.), *The Fire Court: calendar of the judgements and decrees of the Court of Judicature appointed to determine differences between landlords and tenants as to rebuilding after the Great Fire*, Volume III (London: The Corporation of London, 2020), vi; Tidmarsh, 'The English fire courts', 1913-1914.

a bit larger than the area destroyed by the Fire. The range of influence held by the relevant political institutions similarly informs the spatial limits examined in each chapter, with the limits in use here being mostly contained to the range of the Fire Court. As London's size greatly expanded during the following centuries and its political institutions gained greater levels of authority, later chapters will define very different boundaries that are dependent on the stage of development that London had then attained.

The argument of this chapter is that the responses from London's political institutions were crucial in their effectiveness in tackling the Great Fire and the following rebuilding developments, but that they should be seen as the temporary result of extraordinary circumstances rather than the creation of a new and permanent state of political authority. This is in comparison with the later shocks examined in this thesis which saw the establishment of a new normal, with the respective political institutions holding an advanced level of authority following the shocks. Whereas the responses to these later crises largely resulted from the changing needs of London that were emphasised by the shock, such as the need for greater central control over land usage to recover from the Blitz, the responses to the Great Fire were instead relatively short-term to resolve the immediate needs. The Fire Court, for example, did not see the creation of a permanent body to oversee the needs of fire management. This is unlike London's pollution issues of the mid-nineteenth century which saw the rapid creation of both the Commission of Sewers and the MBW within a decade, with the latter lasting until its dissolution and replacement in 1889. This argument demonstrates the changing nature of London's political institutions between the seventeenth and the twentieth centuries, with greater levels of authority as well as an increased reliance resulting from the rapid growth of the metropolis.

This chapter will illustrate the pivotal role played by political institutions in promoting the development of London during the recovery and rebuilding period following the Great Fire. Section 3.2 will discuss the context in which the Fire and the following rebuilding took place, examining the opportunistic outlook held by individuals such as Christopher Wren and Robert Hooke amidst the devastation as well as the practical, short-term factors that prevented their proposed city restructuring plans from taking place. This will be briefly contrasted against the more sombre emotional and spiritual responses of religious officials. Section 3.3 will move onto the respective roles of the City of London Corporation and the Fire Court, and section 3.4 will explore the responses of the Fire Court in greater depth. As mentioned above, this section as well as the continued discussion of the topic in section 3.5 will be the core focus of this chapter as the Court was the most prominent institution that contributed to the rebuilding of London. Section 3.4 will start by describing the role of the Fire Decrees in recording and memorialising

the Fire before moving on to establish the jurisdiction of the Court. The role of this institution in responding to the Fire will then be explored by examining two key factors that guided its proceedings: the desire for a rapid rebuilding process; and the expected quality of rebuilding and its impact on the development of London. Section 3.5 will engage with two additional key factors to continue this discussion of the Fire Court: the use of a specific covenant contained in the private property leases to prevent individuals from taking advantage of the disaster and to hold reluctant interest holders accountable; and the various methods of encouragement to rebuild used by the Court in its judgements. Each factor will draw on specific examples taken from the Fire Decrees to illustrate and analyse the role of the Court in the overall rebuilding process.

Following this discussion, section 3.6 will move onto how London's growing position as a dominant force of national influence created a need for increased institutional oversight of the reconstruction of the city following the Fire. This will be contrasted with the building efforts of the earlier Stuart monarchs to demonstrate the extraordinary circumstances in which the post-Fire rebuilding took place. The following decades after the Fire also saw renewed efforts at minimising the impact of future fires through financial means; the fire insurance industry will be explored as a direct response to the Great Fire and the role of private companies in directing this burgeoning industry. Section 3.6 will finish by examining the attitudes held in the eighteenth century towards London's post-Fire developments to indicate the lasting impact which the responses of the post-Fire political institutions had on London's overall development, before section 3.7 will conclude the chapter. Throughout, comparisons to the Great Stink and the Blitz will be made to demonstrate the evolving nature of the role played by London's political institutions across the centuries.

3.2   Contextualising the Great Fire: Plans, Blame, and Opportunity

By the end of the blaze, the capital of Britain lay in ruins. With the Great Plague just the year before the Fire, the poet Jeremiah Wells lamented in 1667 that God first "kill'd th' Inhabitants, then burnt the Town".[5] John Evelyn also elegantly summed up the devastation wrought by the Fire in his diary on 3rd September 1666, writing that "London was, but is no more".[6] The extent of the destruction was captured in a map by Wenceslaus Hollar, illustrating just how much of

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[5] Jeremiah Wells, cited in K. L. Mulry, *An empire transformed: remolding bodies and landscapes in the Restoration Atlantic* (New York: New York University Press, 2021), 27.
[6] J. Evelyn, *Diary*, 3rd September 1666. Available online:
https://www.pepysdiary.com/indepth/2009/09/02/evelyns-fire/ [Accessed 29/1/2021].

Figure 3.1 A map or groundplot of the Citty of London and the suburbs thereof, Wenceslaus Hollar, 1666.

the city had been burnt and in particular the number of churches destroyed (Figure 3.1).[7] The city had become a blank canvas on which planners such as Christopher Wren and Robert Hooke could draw up their ideal city layouts, none of which would come to fruition. As Lincoln explains, "the vital thing was to get London trading again to help pay for the cost of rebuilding; there was no time, money, or even administrative capacity for a redesign".[8] The opportunistic outlook shown by the planners in the rebuilding process was a response juxtaposed with the extreme loss with which the people of London had to accustom themselves, but also a response which would see fashionable new buildings constructed such as St Paul's Cathedral as well as see much of London's economic functions restored relatively quickly. The sense of loss and mourning was strong, but the beneficial impact which the disaster had on the future development of the city

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[7] W. Hollar, *A map or groundplot of the Citty of London and the suburbs thereof*. 1666. Available online: https://commons.wikimedia.org/wiki/File:Map.London.gutted.1666.jpg [Accessed 1/5/2023].
[8] Lincoln, *London and the seventeenth century*, 208. This sentiment is emphasised by Rideal, who explains that "private ownership of the city's shops, houses and storehouses, as well as the livery halls under the jurisdiction of the powerful city guilds, meant that there was a vested interest in sustaining the status quo". The limiting factors against a complete transformation of London's structure were not simply restrictive due to circumstance but were instead actively hostile. Rideal, *1666*, 216.

would be long-lasting. The Fire Court was central to this rapid restoration, but it was not responsible for creating transformative improvements to the city as would be the case for future political institutions such as the MBW following the Great Stink. Rebuilding following the Great Fire was limited by the insufficient authority of London's political institutions, inadequate funds, and the immense necessity to quickly restore the city's economic functions.

The Fire had occurred at a critical moment in London's history, a time in which imperial ambitions fuelled expansion and economic growth and the capital was reaping the benefits of a steadily growing role in international trade, most notably including the slave trade.[9] As a result, the Great Fire threatened more than just the social cohesion and identity of London; it also compromised the very economic bedrock on which Britain relied. Indeed, Tidmarsh argues that this "economic devastation" was actually greater than the social dislocation, "for in a world of limited investment opportunities, a great deal of London's wealth was tied up in the leases and subleases of buildings turned to ash".[10] Alternatively, it can be argued that the "economic devastation" was greater than the social dislocation not due to the limited investment opportunities, but instead due to the legal position of landed property as paramount in British economic structures. The widespread destruction of so much landed property had drastic implications for the future of Britain's economy if the reconstruction process was not undertaken quickly enough. Five-sixths of all the buildings within the city walls were burnt down, with many outside in the west also being destroyed, and at least sixty-five thousand people were displaced.[11]

The official cause of the Fire stated by the King and Church – being that it was an act of God to punish the city for the sins of its people – justified passing on the cost of rebuilding private properties to the landlords and tenants. The result of enemy action (as feared by Londoners in the immediate aftermath of the Fire) may have been treated very differently by London's authorities, such as the possibility of greater national governmental responsibility or the use of retaliatory action and looting to contribute towards the immense cost of rebuilding. As it was, the system of private responsibility encouraged (or, rather, forced) individuals to think about how they would afford to rebuild, with those who owned multiple properties being particularly affected by this. As will be discussed later in this chapter, Nicholas Barbon was one such

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[9] For the role played by the slave trade in Britain's increasing wealth during the seventeenth century, and particularly the stimulating impact of plantation wealth on London's industrial innovation, see T. Burnard & G. Riello, 'Slavery and the new history of capitalism'. *Journal of Global History*, 15, 2 (2020), 225-244:234.
[10] Tidmarsh, 'The English fire courts', 1902-1903.
[11] Jordan, *The king's city*, 210.

individual placed in this unfortunate position, and it is likely that this contributed to his early involvement in the fledgling fire insurance industry. The "economic devastation" as described by Tidmarsh encouraged contemporaries to explore new instruments of finance and this had significant implications for London's financial industries in the following decades.

In the short-term however, the economic power of London had been crippled. This created the need for urgent reconstruction to ensure Britain's continued overseas trade expansion and the fulfilment of imperial ambitions. But opportunity was also seen in the flames, potential routes to improvement were quickly mapped out and brought before those in power. The post-Fire plans aimed to create greater economic efficiency through methods such as reducing the land-based travel time (and therefore the greater expense) of goods by creating storage warehouses on the banks of the Thames, allowing cargoes to be removed from boats and quickly stored before going on to their final destination. As the docks connected London's trade to mainland Europe as well as the rest of Britain (most notably the coal mining areas of the north east of England), the rebuilding plans viewed London as vital for the economic health of the nation. This desire to improve the economic function of the city directed the opportunistic outlook held by the planners. Christopher Wren, John Evelyn, Robert Hooke, Richard Newcourt, and Valentine Knight all proposed plans which would completely redesign London with renewed structure and organisation, with a direct focus on economic efficiency. The most well-known of these planners, Christopher Wren, would indeed be benefited immensely by the opportunities provided by the Fire despite his plan going unused. Downes writes that "Wren might never have been more than the first of a line of Oxford scholars with architectural interests, but for two circumstances: the great fire [sic] of London and his appointment as surveyor-general of the king's works".[12]

Though most of the plans were received with appreciation from the King and the City of London Corporation, Knight would instead be imprisoned for publishing and making publicly available his proposed plan as it contradicted the royal narrative of the King's losses. It had suggested a way in which Charles could expropriate the land and profit from the Fire, a fear already rampant in the weary London population (Figure 3.2).[13] The economic function was

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[12] K. Downes, 'Wren, Sir Christopher (1632-1723), architect, mathematician, and astronomer'. *Oxford Dictionary of National Biography* (2012). Available online: https://doi.org/10.1093/ref:odnb/30019 [Accessed 11/4/2023].

[13] Jenner, 'Print culture', 16; V. Knight, *Several propositions and schemes were offered to rebuild the City of London after the Great Fire 1666*. 1750 (Original 1666) [Broadside]. The British Museum, London. Available online: https://www.britishmuseum.org/collection/object/P_1866-0407-265 [Accessed
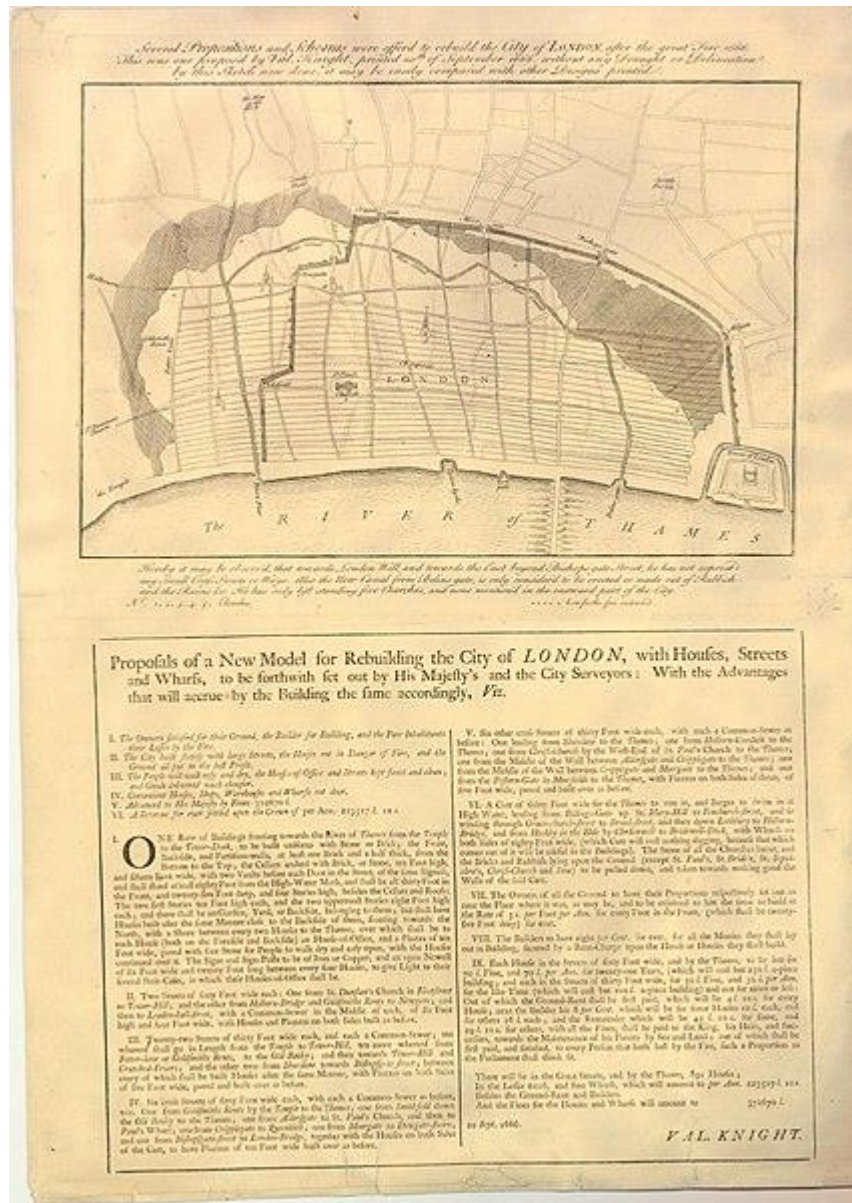
Figure 3.2 Several Propositions and Schemes were offered to Rebuild the City of London after the Great Fire 1666, Valentine Knight, reprinted 1750 (original 1666).

prioritised due to London's central role in both national and international trading, and some saw the Fire as an opportunity to redevelop the city to increase the profit of trade as well as the value of the land. Lahav notes that safety from fire, central markets, warehouses along the Thames to store and dispatch goods, wider roads to save money and time in circulating goods, and improved connectivity between commercial landmarks such as the Royal Exchange and the Guildhall would all contribute to achieve this by "perfecting the city's economic function".[14] Lahav goes on to write that, although the city planners were not the first to think about cities in

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1/5/2023]. The issue was contained in section IX, which suggested that a portion of the rent for the rebuilt properties should be paid to the King and his heirs.

[14] Lahav, 'Quantitative reasoning', 1117-1121.

terms of their economic function, "planners after the Great Fire were the first to focus on the internal organization of the built environment, as a factor in determining the city's economic success".[15] The Fire had provided an opportunity to rearrange the spatial organisation of the built environment within London's boundaries, fitting Harvey's view of cities as being "built for the circulation of capital".[16] The rebuilding plans following the Fire demonstrate this new economic thinking, viewing London's geography and use of space as a mechanism of financial improvement.

The post-Fire planners share this trait with those that planned the developments of the Great Stink and the Blitz. In all three cases, the viability of an improved economic focus and standard of living became core concepts of the plans for London's continued development. The shocks had provided the opportunities for this rethinking to take place and idealistic plans were made even if the financial ability to put these into practice was restricted. Abercrombie's plans for the County of London as well as the Greater London region following the Blitz are examples of this, with vast improvements such as beneficial road layouts envisaged but ultimately abandoned due to changing needs over time and the inability of Britain's post-war economy in the 1940s and 1950s to afford the developments. Bazalgette's sewerage works and drainage system likewise were made possible in the 1850s by Parliament's eventual willingness to provide loans to the MBW, but this same lack of finance had resulted in the stagnation of London's infrastructural development for over a decade whilst the pollution problems continued to grow. Whilst Bazalgette's plans were able to become a resounding success, those that followed the Great Fire and the Blitz were all limited in their effectiveness to create beneficial change in the development of London by the short-term needs of the economy. This was due to the requirement of housing for the city's population as well as the need to revitalise the city's industries (two factors that were nonetheless intrinsically connected following both the Fire and the Blitz). London's use of space may have been viewed as a mechanism of financial improvement following these shocks, but the ability of London's political institutions to actually act on these plans was severely limited by the critical conditions and urgent human needs that were created by the shocks.

In the event, the immense restructuring as proposed by the planners following the Fire did not occur, with the rebuilding process mostly resulting in a city structure that closely

[15] Lahav, 'Quantitative reasoning, 1121.
[16] S. Zukin, 'David Harvey on cities', in N. Castree & D. Gregory (eds.), *David Harvey: a critical reader* (Oxford: Blackwell Publishing, 2006), 102-120:103.

matched the previous layout. Wealthy landowners, property rights, and fears of monarchical overstepping presented an insurmountable legal, political, and financial challenge which doomed any hopes for a complete transformation of London. However, economic efficiency was still improved despite much of the city simply being rebuilt following the pre-existing spatial structure. Field notes that "London's economic function was able to continue mainly because its core – shipping – was largely unaffected by the Fire".[17] Indeed, the survival of the city's key industrial infrastructure encouraged the rebuilding to proceed quickly, houses and warehouses were needed for Londoners to get back to work. Although London's industries relied heavily on the Thames and the exportation of goods, Field's note that the city's economic function was able to continue only tells half the story. The Fire significantly interrupted London's economy as workers were still required and, as noted above, houses were needed for this. With such a large percentage of London's workforce made homeless, accommodation was the primary requirement for London's economic function to continue and this contributed to the Fire Court's focus on a rapid rebuilding process. Future developments would aim to improve the shipping industry, a desire for increased efficiency that had been initially conceptualised by the opportunistic planners following the Fire. The context of rebuilding was therefore one of new thinking and the hope of innovative restructuring, with a desire to rebuild the economic bases quickly to restore London's primary functions. The city reborn anew would be primed for industrial efficiency, quickened by the opportunistic thinking brought about in the aftermath of the Fire.

In addition to economic recovery, emotional and spiritual restoration took a key role in the responses of government and religious officials. The widespread distress in the immediate aftermath of the Fire was palpable and individuals sought to allocate blame, whether directed at groups such as Catholics and the French or assigned to the sins of Londoners themselves.[18] While emotions ran high with fear and sorrow, these accusations were followed by rumours of an uprising and claims of an imminent Catholic invasion spread across London. Many instead placed the blame of the Fire on the sins of the people, using the opportunity to preach for greater piety and to bring the nation closer to God. This was notably the official perspective of political institutions such as the monarchy and the Church of England, and it was used to assuage

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[17] Field, 'Charitable giving', 22.
[18] The Fire started in Thomas Farriner's bakery, though Farriner himself repeatedly denied any responsibility. An inscription on the Monument blamed a Catholic conspiracy as the origin of the Fire and this remained on display until the nineteenth century. In 1986, 320 years after the disaster, the Bakers' Company finally issued an apology for the Fire. S. Halliday, *Newgate: London's prototype of hell* (Stroud: Sutton Publishing, 2006), 40.

fears of foreigners whilst encouraging a more pious lifestyle. By doing this, a different type of opportunity was seen in the Great Fire, being one of spiritual development rather than infrastructural improvement. This echoed the responses to previous disasters such as the Great Plague of 1665 and the earlier outbreak of 1625. *The Cities Safetie*, published in 1630 following the death of 35,000 people during the 1625 plague, explains how "there is no safetie to Cities, not united unto God, from any other meanes whatsoever".[19] Any disaster could therefore be applied to the sins of the citizens if a more practical explanation was not available.

This blame allocated to sins was institutional in origin, coming directly from the established Church as an attempt to encourage pious behaviour. The prayer given throughout England and Wales on 10th October 1666 as the fast day appointed to commemorate the Great Fire demonstrates this, pleading with listeners to remember how "the Scripture moveth us in sundry places, to acknowledge and confess our manifold sins and wickedness".[20] Religion could provide a community with a productive focus in times of tragedy as well as encourage refraining from negative responses which took advantage of the crisis, such as theft.[21] Calls to improve the spiritual development of London came alongside the more practical improvements made following the Fire; both responses were seen as necessary to prevent future disasters from visiting the city.

London's political institutions played an important role in the spiritual recovery of the population, directing the strong emotions and blame that had consumed the masses towards the more beneficial goal of moral improvement. This was similar to the careful monitoring of London's morale during the Blitz, intended to keep the city fighting as an integral aspect of the war effort. By maintaining the goodwill of the people following the Great Fire, London's authorities hoped to direct their attention towards the rebuilding process. This was particularly notable due to the city's recent history of political disruption, having sided against the monarchy during the civil wars. The fear that Charles could follow in his father's fate was undoubtedly a prominent factor in his direct involvement in London's recovery efforts: by being seen to support the city's population during their time of greatest need he could prevent further unrest. The monarchy was therefore a crucial political institution during the immediate aftermath of the Fire,

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[19] R. Jenison, *The cities safetie: or, a fruitful treatise (and useful for these dangerous times.) on Psal. 127.1* (London, 1630), 10-11.

[20] Church of England, *A form of common prayer to be used on Wednesday the tenth day of October next, throughout the whole kingdom of England and dominion of Wales being appointed by his Majesty a day of fasting and humiliation in consideration of the late dreadful fire which wasted the greater part of the city of London* (London, 1666), 1.

[21] Lincoln, *London and the seventeenth century*, 89.

though Charles's responses were necessarily self-serving to a certain extent just as Parliament's eventual resolution to the Great Stink would be nearly two centuries later. London's political institutions were essential participants in the aftermath of the city's shocks, but an effective response was more likely if they could derive some benefit from the action.

3.3   Institutional Responses to Rebuild: The City of London Corporation and the Fire Court

Although the rebuilding of London's housing was left to landlords and tenants, and the Livery Companies restored their own halls, the City of London Corporation was not entirely free of responsibility. Over the decade and a half following the Fire, the Corporation was responsible for rebuilding the Guildhall, Bridewell and Newgate Prisons, and the Sessions House, as well as the city's markets, water conduits, and compters (debtors' prisons). They additionally contributed towards the rebuilding of fifty-four churches and St Paul's Cathedral. [22] Six commissioners were appointed by the King and the Corporation to create a survey that would aid these rebuilding efforts, as well as to provide an organisational structure for the rebuilding of the city's housing. Financing the Corporation's rebuilding efforts required the introduction of a new coal tax, the revenue from which would be used alongside the pre-existing methods of borrowing from the Corporation's treasury, the Orphan Fund, and loans from wealthy individuals. However, the long-term nature of the coal tax meant that the initial funding was insufficient to afford the grand designs called for by the optimistic planners. An already precarious financial situation that "had already entered the danger zone at once became desperate". [23] Despite this, Coffman et al. have explored the success of the Corporation in funding their restricted rebuilding efforts, particularly due to its strong reputation for upholding its financial commitments over the previous century and the resulting low interest rate that individuals were willing to accept upon making their loans. [24] Although a complete redesign was unaffordable, trust in the Corporation's reliability allowed the rebuilding efforts to progress.

The introduction of the coal tax to help fund the Corporation's rebuilding efforts demonstrates the inadequacy of London's existing fiscal structures and financial methods to cope with the shock. Parliamentary action was needed to authorise the coal tax, similar to the loans made to the MBW following the Great Stink in the late 1850s and 1860s. In both instances, national assistance was required for London to recover from its disasters. Coffman et al. have

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[22] Coffman et al., 'Financing the rebuilding', 1122.
[23] T. F. Reddaway, *The rebuilding of London after the Great Fire* (London: Jonathan Cape, 1940), 178.
[24] Coffman et al., 'Financing the rebuilding', 1127; 1138.

noted that the Corporation was unable to convert the commercial opportunities presented by the newly rebuilt city into sources of rental income, ultimately leading to their financial default in 1683, though added that this is unsurprising despite the opportunities due to "the period's inherent political, religious, and social instability".[25] Whereas it could be expected that landlords would gain a long-term benefit from the rebuilding process as they would own improved housing in a more fire-resistant city, leading to the possibility of higher rents over time, the Corporation was unable to achieve a similar level of long-term financial success. The landlords and their respective tenants were benefited in this by the actions of the Fire Court.

The reconstruction of London could only take place with strong judicial support to resolve disputes and the jurisdiction within which the Fire Court operated had been initially determined by the King's proclamation on 13th September 1666. This would later be expanded upon and officially legalised in the Rebuilding of London Act of 1667, later being adjusted with an Act of the same name in 1670.[26] The proclamation set out the initial guidelines for those wishing to rebuild, of particular note being the need to rebuild with brick and expanding the width of prominent streets such as Fleet Street and Cheapside whilst forbidding the construction of tight lanes and alleys unless "upon mature deliberation the same shall be found absolutely necessary".[27] Tinniswood writes that this proclamation "was arguably the most important single document in the entire history of London" due to its role in outlining the government's intention to regulate the efforts of individuals during the rebuilding process. It "launched England on a course which would involve executive, legislature and judiciary in half a century of activity".[28] This created a precedent of institutional control over building regulations following fires and it would indeed have a long-term influence; courts of judicature in the same style as the Fire Court would be established as late as the nineteenth century following particularly large urban fires

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[25] Coffman et al., 'Financing the rebuilding', 1145.

[26] The jurisdiction of the Fire Court would also be further adjusted when Parliament extended the term of the Fire Court in 1671 and 1673.

[27] Charles II, *His Majestie's declaration to his city of London, upon occasion of the late calamity by the lamentable fire* (London, 1666), 5. Available online: https://www.proquest.com/books/his-majesties-declaration-city-london-upon/docview/2240898735/se-2?accountid=11528 [Accessed 27/9/2021]. This development of using brick as a common external building material was long-lasting but not absolute; the new regulations only applied to central London following the Great Fire and restrictions on timber buildings were not entirely upheld by the second half of the eighteenth century. Timber remained common as a building material prior to the 1780s and between one-fifth and one-third of insured properties used timber in London buildings up to the end of the eighteenth century. R. Pearson, 'Fire, property insurance, and perceptions of risk in eighteenth-century Britain', in G. Clark et al. (Eds.), *The appeal of insurance* (London: University of Toronto Press, 2010), 75-106:86.

[28] Tinniswood, *By permission of heaven*, 193. The immense project of rebuilding St Paul's Cathedral is the primary cause of this "half a century of activity", taking until 1710 to be completed whilst most of the city had been rebuilt within a decade and a half of the Fire.

across the country.[29] Although the guidelines outlined by the King's proclamation would be expanded upon and given parliamentary backing later on in the year with the passing of the first Rebuilding of London Act, the proclamation demonstrates a distinct royal involvement within London affairs which directly clashed with the city's desire for autonomy and self-governance.

The Fire Court was key in providing the practical guidance necessary to rebuild London. It was the most involved political institution in the recovery process, interacting directly with the city's population to resolve disputes that had arisen. The Court provided a crucial guiding hand in a process that had otherwise been left to private efforts, enforcing the guidelines prepared by the King and Parliament and preventing the rebuilding from being unduly delayed. The records of the Court – the Fire Decrees – provide exact and thorough details about the proceedings of this judicial body in the late 1660s and 1670s as responsibility was allocated and the city was rebuilt. The Decrees are vital to understanding the responses of the Fire Court towards the recovery and rebuilding of London following the Great Fire. To ensure the Decrees of the Court could be abided by and referred to in case of a further disagreement, the Fire of London Disputes Act determined

> "that the Judgements and Determinations which shall be made betwixt partie
> and partie by authoritie of this Act shall be recorded in a Booke or Bookes of
> Parchment to be provided for that purpose … to remaine as a perpetual standing
> Record, unto which all persons concerned or which shall be concerned shall or
> may repaire to view the same, and thereout to take Copies of all such
> Judgements and Determinations as shall relate to him her and them".[30]

This allowed for the judicial aspect of the rebuilding process to be carefully documented, providing a distinct and yet unintentional memorialisation of the great lengths taken by London's legal system which were necessary to rebuild the city. Alongside the Monument and annual feast days, the Fire Decrees provided an account of the Great Fire that recorded the responses of individuals directly affected. This ensured that the developments made to the City in the aftermath of the Fire would become a crucial part of the story of London's geographical and architectural history.

The institutional direction provided for the building regulations is similar to the rebuilding work conducted by contractors following the Blitz, though in this case it was not

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[29] Tidmarsh, 'The English fire courts', 1921.
[30] *Fire of London Disputes Act 1666*. 18th & 19th Charles II, Chapter 7 (London), s. iv.

controlled by a court. If the quality was not up to a government-regulated standard, either the offending contractor would be asked to improve his work or, if unwilling or unable to return, a new contractor would be commissioned and reimbursed by the original contractor. This importance of quality after both the Great Fire and the Blitz demonstrates that although the speed of recovery was an important factor in London's rebuilding following these shocks, it was not to come at the expense of quality. The respective political institutions were willing to go to great lengths to ensure insufficient work would not be left to cause further issues. Most notably, London's officials in the late seventeenth century wanted to avoid another Great Fire from occurring. The building regulations were used to manage the rebuilding process without the financial responsibility that direct control would have necessitated.

The involvement of London's political institutions and the King in particular was necessary to aid the recovery following the Great Fire and reinvigorate the city's trade, but it signalled a shift within city affairs where autonomy was sacrificed by necessity for the perceived national benefit provided by the capital. The economic interests of London were gradually aligning with those of the national state as the country's role in international trade and the slave trade increased, with the capital inevitably taking on the central role in this production and exportation due to its size as well as political and financial importance. The fears held by London that their autonomy was threatened by the monarchy in particular are demonstrated by the wariness of the King to bring his troops within the city walls to help the recovery efforts following the Fire. This was especially the case given the civil wars and the monarchical over-reaches that had prompted them were still within living memory. Additionally, a rumour had been circulating that the King intended to buy up all of London to facilitate the rebuilding process.[31] The gradual deterioration of the power of the London Livery Companies contributed over time to this loss of autonomy, having been worsened by debts incurred during the 1640s and 1650s, the damage suffered by the Fire, and the following deregulation to allow workers from outside London to be brought in to help rebuild.[32] The building trades in particular, so necessary to the recovery of

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[31] Tinniswood, *By permission of heaven*, 190. The wariness shown by Charles in bringing troops into London is a far cry from the confidence shown by his grandfather, James VI & I. When an angry crowd of 300 people freed three apprentices sentenced to be whipped after they had insulted the Spanish ambassador in April 1621, James personally went to the Guildhall and threatened to garrison London at the City's own expense if order was not maintained. His motivation had been to preserve a fragile peace with Spain, but this demonstrates the confidence with which the monarchy could intrude on the City's autonomy at the start of the seventeenth century. A freedom that was lost following the Civil Wars and Interregnum, even in the harrowing state that London found itself in following the Great Fire. Lincoln, *London and the seventeenth century*, 34.
[32] W. F. Kahl, *The development of London Livery Companies: an historical essay and a select bibliography* (Massachusetts: Harvard Graduate School of Business Administration, 1960), 2.

London, lost their exclusivity rights of operation within the city due to the huge demand as well as the desire for the rebuilding to be rapidly completed.[33] However, it would not be until the 1680s that this process of institutional weakening would be accelerated by reforms and the loss of charters to truly make an impact on London's autonomy.[34] The fast creation of the Fire Court was intended to provide immediate reassurance that the King would not over-step his power and quelled the rumour that he may take advantage of the Great Fire to expand his royal domain across London. However, the Court as well as the Fire itself nevertheless contributed to reducing the city's ability to self-govern due to the precedent it established of royal and parliamentary involvement as well as the long-lasting damage the Fire did to the Livery Companies, the bastions of London's independence.

The involvement of political institutions within London's affairs may have been necessary to respond to the exceptional requirements of the recovery process, but this had a severe effect on the city's autonomy. Additionally, the developments made to meet London's needs during this period were limited in their long-term impact due to the extraordinary circumstances in which they were created. For example, the Fire Court greatly informed the rebuilding of London but did not have a long-term effect on the city's governance or development once the Court came to an end. In contrast, the responses of the respective political institutions during and following the Great Stink as well as the Blitz established a new sense of permanent political authority and involvement within London's affairs. Moreover, there was a gradual increase in the expectation of this involvement over the centuries. By the time of the Blitz, there was no question about who would be responsible for the rebuilding process whereas even just less than a century previously, during the 1850s, the debate had been strong enough to delay the response to London's pollution issues to the point of crisis. The responses of London's political institutions to the Great Fire demonstrate an even more embryonic stage of this development. Their involvement resulted in the creation of extraordinary circumstances that were limited in their long-term influence, but they established a precedent of governmental involvement that would only increase over the following centuries.

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[33] Mulry, *An empire transformed*, 31.
[34] M. Knights, 'A city revolution: the remodelling of the London Livery Companies in the 1680s'. *English Historical Review*, 112, 449 (1997), 1141-1178:1173-1175.

3.4 The Fire Court: Jurisdiction and Rebuilding Expectations in the Fire Decrees

The Rebuilding of London Acts are consistently referred to throughout the Fire Decrees, directing not only the judgements made but also determining the city's appearance and development for much of the next century. The most important points had already been established in the King's proclamation on 13th September 1666, but the Acts provided a greater depth and regulated the finer details to ensure that the rebuilding would be consistent across London. Of greatest importance were the guidelines which the first Rebuilding Act established for the four types of houses allowed to be rebuilt, those being the "least sort of Houses" which fronted by-lanes, the "Second sort" which fronted streets and lanes of note, the "Third sort" which fronted high and principal streets, and finally the "Fourth and largest sort of Mansion houses" intended for citizens or others of importance and which did not fit into the previous categories.[35] These guidelines were intended to aid builders in their selection of materials and planning, allowing buildings to be constructed much faster and with greater uniformity. This aimed to achieve what Charles had desired for the city in his proclamation and demonstrates the innovative attitude adopted in the face of disaster, the development "of a much more beautiful City then is at this time consumed".[36] This aspect of the Rebuilding Act was intended for the builders themselves rather than the Fire Court, however it demonstrates the attitude of governmental involvement without the financial responsibility. The political institutions of the monarchy and Parliament took the main role in deciding London's architectural future but passed on the cost to private landlords and their tenants.[37]

The effects of the Fire Court on the rebuilding process were soon apparent. Whereas Christopher Wren's churches and most notably St Paul's Cathedral would take decades to be entirely rebuilt (if they were at all – many were replaced by other types of building if their function was no longer deemed worthwhile for the cost), housing and buildings related to London's economy such as the Royal Exchange and the Custom House were rapidly restored by the City of London Corporation to reduce the lasting consequences of the Great Fire. The Court instead focused on resettling London's population, an integral aspect of recovering the city's

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[35] *Rebuilding of London Act 1667*. 19th Charles II, Chapter 8 (London), s. iii.

[36] Charles II, *His Majestie's declaration to his city of London*, 3.

[37] The creation of these guidelines followed a greater trend of institutionalising property development and real estate practices. 'Pattern books' first appeared in the 1650s and were designed to aid in the buying and selling of properties, as well as in calculating suitable values and yields. By institutionalising this growing industry, the additional capital generated was crucial in funding London's geographical expansion. W. C. Baer, 'The institution of residential investment in seventeenth-century London'. *The Business History Review*, 76, 3 (2002), 515-551:550-551.

economy. The records of the Fire Court demonstrate how the speed of rebuilding was of primary importance to the Decrees, with constant references being made to this particular aim. Those ordered to rebuild were told to do so "with all convenient speed" or "without unnecessary delay", and these phrases were commonly used throughout almost every Decree in which the Court decided on who should have the right to rebuild or granted terms to a rebuilder.[38] The desire to remove hindrances in the rebuilding process became evident when the Court forced unwilling parties to surrender their leases, relinquishing their interests and allowing a separate party to start rebuilding.

It is notable that properties owned by the Livery Companies as well as religious and political institutions such as the Church and the City of London Corporation are under-represented amongst the cases brought to the Fire Court. These institutions represented 39 per cent of the property owners in Court cases, a figure which would have been further increased had it been proportionally representative.[39] This indicates that institutions were very willing to settle cases outside of Court, likely because of the time and financial costs that repeated visits to the Fire Court would have entailed. As these institutions owned large numbers of properties, this made settling outside of the Court more appealing particularly due to the difficulty in rebuilding all of them quickly to restore their rental income. Additionally, the greater number of resources available to these institutions allowed them to offer beneficial rebuilding encouragement more easily to their tenants. This included temporarily reducing the rent to encourage the tenants to undertake the costs of rebuilding. Baer agrees with this, noting that the under-representation of institution-owned properties in the Fire Court Decrees is due to the tendency and ability for institutions to offer generous rebuilding terms, reducing the need for the Court's involvement.[40] For example, of the 300 tenancies affected by the Fire that were leased by the City of London Corporation, "barely a dozen of their lessees petitioned the Court for relief".[41] The records of the Fire Court therefore only provide a limited snapshot of the

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[38] London Metropolitan Archives, City of London, *Fire Decrees [5]*. CLA/039/01/006, 11; 16. These particular quotations were taken from the pages referenced here, but as noted in the text above these were common phrases throughout the Fire Decrees.

[39] W. C. Baer, 'Landlords and tenants in London, 1550-1700'. *Urban History*, 38, 2 (2011), 234-255:246.

[40] Baer, 'Landlords and tenants', 245.

[41] P. E. Jones (ed.), *The Fire Court: calendar to the judgement and decrees of the Court of Judicature appointed to determine differences between landlords and tenants as to rebuilding after the Great Fire*, Volume II (London: William Clowes & Sons Ltd, 1970), iii. The terms of encouragement to rebuild that were granted by the Corporation outside of the Fire Court were noted by Jones to have been "at least as favourable" as those granted by the Court itself. He explains that whereas the Court was limited to granting leases that had a term of up to 61 years, the Corporation had granted 63 leases of 81 years within two years of the Fire. Those tenants that did take the Corporation to Court petitioned only for a

rebuilding process, but remain highly indicative of the speed in which London was rebuilt. Properties could not remain undeveloped without being sold off for another owner to rebuild, and the loss of rental income encouraged landlords (particularly large institutions that owned many properties and relied on this income as a significant revenue source) to rebuild as quickly as possible without the delays encumbered by the interference of the Court.

Political institutions were effective in responding to the needs of the rebuilding process following the Great Fire, but the willingness of institutional landlords to settle cases outside of the Fire Court demonstrates that London was not entirely reliant on this direct involvement. Even private individuals did not always require the services of the Court if a settlement could be reached and there were no legal requirements such as the absolution of a previous lease. Although the Court undoubtedly played a vital role in responding to the Great Fire, it was not as all-encompassing as the responsibility undertaken by political institutions to the future shocks of the Great Stink and the Blitz. The MBW, for example, used the plans of their own City Engineer Joseph Bazalgette to build the sewerage works of the nineteenth century, and the LCC directly commissioned Sir Patrick Abercrombie and John Henry Forshaw for their own *County of London Plan* rather than having it privately submitted as had happened for the plans following the Great Fire. These political institutions were expected to express greater authority and control over the shock recovery process than the Fire Court had, indicating the changing role of London's political institutions over time. Additionally, the Fire Decrees were a form of prerogative proclamation of a monarchical government. Private individuals had to rebuild their own properties at their own expense, a distinctly more involved process for the people of London than would be expected following the Great Stink and the Blitz. Despite its effectiveness in responding to the Great Fire, the Fire Court should be seen as an extraordinary response rather than the establishment of a new normal in terms of institutional authority. Private forces in the seventeenth century held greater sway over the city's development than their successors in the nineteenth and twentieth centuries, albeit with the monarchy maintaining a position of significant political authority.

As the time since the Fire increased, more cases began appearing in Court in which the relevant properties had already been rebuilt and a Court ruling was only needed to grant legal confirmation of terms already agreed between the relevant individuals or to settle disputes. This was the case for Sir Mathew Holworthy, Knight, who agreed to rebuild a house in Rood Lane on

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reduction of rent, and even those were sometimes due to their land having been reduced for public improvements such as street widening or the open quay by the Thames. Jones (ed.), *The Fire Court*, ii-iii.

behalf of Martha Loe. He had been unaware of the annuity payments associated with the property which he had already rebuilt by the time he discovered these payments needed to be made. Holworthy brought the case to the Fire Court on Tuesday 12th May 1674 with the intention of resolving whether he should pay the annuities or if Loe should, though the latter had previously refused. After a long debate, the Court ruled that Holworthy should pay the annuities himself but that the total could be deducted from the annual rent which he paid to Loe.[42] The fact that the property in question had already been rebuilt by Holworthy was central to this resolution, but also demonstrates the range of disputes with which the judges were faced. The responsibilities of the Fire Court shifted over time as cases in which the relevant properties had already been rebuilt were gradually becoming more frequent and the issues at hand were not simply about identifying who was responsible for rebuilding the property. The requirement for landlords and their tenants to rebuild quickly also led to more of these types of cases being brought to the later Fire Court sessions, as disputes occurring after the rebuilding had been completed became more common.

The speed of the rebuilding process was facilitated by the Court carefully limiting who was summoned to attend sessions. The tenants or interest holders brought to the Court cases were not necessarily the individuals who lived in the properties at the time of the Great Fire, or the only individuals impacted by the Court Decrees. The records occasionally mention unnamed and uninvited sub-letting under-tenants who were nevertheless required to abide by the rulings of the Court, having been excluded to aid the swift conclusion of Court cases and simplify the rebuilding process. These were usually the poor or the working classes, those who were unlikely to be able to devote the necessary resources to the rebuilding process. Their exclusion disadvantaged them if their landlord decided on a direction that resulted in their displacement, but when this was likely the Fire Court encouraged the landlord to come to terms with the under-tenants to prevent them from being entirely disadvantaged.

One such case of this is the petition brought to Court by the house owners Charles Chambrelan and his minor sister Hester Chambrelan on Friday 12th July 1667. Their tenant, John Andrews, refused to rebuild citing an inability to pay the predicted cost of £700 and instead desired to surrender his lease to allow the petitioners to rebuild. Chambrelan had offered beneficial terms to encourage Andrews to rebuild, including an increased term and a reduced rent or a contribution of £500 towards the rebuilding if Andrews would continue at the old rent. However, if he continued to refuse, Chambrelan was willing to be the rebuilder if Andrews paid

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[42] LMA, *Fire decrees [8]*. CLA/039/01/009, 50-52.

a contribution of £100 towards the rebuilding and continued his current lease. Andrews is noted in the Court record to have had an under-tenant who paid him "a great rent for part of the said house" on top of a £20 fine paid for the initial leasing of the premises and this is used by the petitioners as a reason why Andrews should be encouraged by the Court to be the rebuilder.[43] This under-tenant goes unnamed throughout the record, but as the Court declares that Andrews is to be allowed to surrender his lease (with a contribution of £40 towards the rebuilding and by paying all rent due from before the Fire) it is similarly declared that Andrews must come to terms with his under-tenant for them to also surrender their lease. He is given until the following Christmas to do this, but the under-tenant is forced to abide by the Court proceedings despite having not been given the chance to attend and contribute to the Court session. The institutional responses of the Court towards the Great Fire and the rebuilding process included the displacement of tenants who either could not afford to rebuild or, as in the case cited here, were simply obstacles in the Court's mission to facilitate a rapid and efficient rebuilding process.[44] This was necessary to ensure the speed of rebuilding as cases could be settled much faster with fewer relevant parties involved, and the expected inability for under-tenants to contribute substantially to the rebuilding process made them the most likely to be excluded. The poor were distinctly disadvantaged by this arrangement, being the most likely to be involved as sub-letting under-tenants with no voice in the Court proceedings.

Although the rebuilding process was encouraged to be completed as fast as possible, the detailed and exact regulations provided by the Rebuilding Acts aimed to create a high quality and consistency of building to be maintained across London. The Court Decrees attempted to ensure that this would indeed take place, expressing in the majority of records that the rebuilders are to produce

> "one or more good and substantiall new mesuages with good and sufficient
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> materials in such manner and forme as by a late act of Parliament lately made
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> for rebuilding the City of London it is directed and prescribed".[45]

Conformity was just as important as the materials. For example, Henry Chitty's petition heard in the Fire Court on Wednesday 3rd June 1668 described a passage which was to be increased by nine feet because the adjoining houses were to be set forward to improve the

[43] LMA, *Fire decrees [1]*. CLA/039/01/002, 664.
[44] LMA, *Fire decrees [1]*. CLA/039/01/002, 663-666.
[45] LMA, *Fire decrees [2]*. CLA/039/01/003, 165. Cases occasionally diverted from this exact wording, but consistently maintained the same meaning.

street conformity.[46] Promoting the beauty of London became an important response to the Fire. The largely medieval city centre had burned away to be replaced by modern brick and stone construction, a development that protected it from suffering an architectural calamity on the same scale as the Great Fire until the Blitz of the Second World War. In particular, the night of 29th/30th December 1940 is known as the Second Great Fire of London, emphasising this comparison. The standardisation of the four types of building outlined in the Rebuilding Act of 1667 aimed to accomplish this increased protection from fire, aided and reinforced by the Fire Court Decrees. The builders proved willing to follow the directions, particularly as this standardisation was cheaper when purchasing materials.[47]

The street conformity and house standardisation improved the appearance of London but expanding the streets to prevent the spread of fires had expensive implications for those who lost land as a result. The ground rent which landlords could charge would be reduced accordingly. This was referred to by the Court records when relevant to a case but compensating those who owned the land staked out was not a direct responsibility of the Court.[48] Instead, the Court handled the implications which this would have on the ground rent and ensured that the rent of the tenants was adjusted accordingly if more land was not purchased to maintain the size and value of the rebuilt property. Thomas Edwards' petition heard in Court on Friday 17th June 1670, for example, explained that the greatest part of the ground had been taken away by the city for a passage to be constructed leading to a new nearby market, leaving not enough land remaining to sufficiently build a house. The land was owned by the Dean and Chapter of the Collegiate Church of St Peter in Westminster and as they also owned the adjoining land, Edwards purchased some of it to ensure that a similar size property to the one destroyed by the Fire could be rebuilt. As a result, the annual rent of 20 shillings and a couple of hens remained unabated by the Court, though Edwards' term was increased by 29 years to make it up to a total of 60 years.[49]

Although an exceptional situation, land could instead be taken from a street and added to a landlord's ground if this achieved an alternative aim. Robert Phelps' petition heard at Court

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[46] LMA, *Fire decrees [3]*. CLA/039/01/004, 29-30.

[47] E. McKellar, *The birth of modern London: the development and design of the city 1660-1720* (Manchester: Manchester University Press, 1999), 71-73; Lincoln, *London and the seventeenth century*, 210.

[48] Although not a responsibility of the Fire Court, later fire courts would have an expanded range of responsibilities that included the ability to compensate landowners for any land of theirs which was taken for public improvements or for any other reason, enabled by using a jury. Tidmarsh, 'The English fire courts', 1921.

[49] LMA, *Fire decrees [5]*. CLA/039/01/006, 44-46.

on Thursday 23rd April 1668 provides an example of this occurring for a messuage located in Fleet Street. To improve the uniformity of the street, the Court ruled that "there is some ground to bee taken in and laid to the ground demised out of the street".[50] Bringing the house forwards in this manner improved the beauty and standardisation of London which was particularly important for major streets such as Fleet Street. The rarity of this type of situation being mentioned in Court suggests that the purchasing of extra land on which to rebuild primarily involved land that had previously contained a property but which the landlord had decided to sell rather than rebuild on. This also demonstrates the importance of maintaining and increasing street sizes following the Fire to reduce the ease with which fire could spread between buildings, a response encouraged and enforced by London's political institutions to prevent future disasters from occurring.

Speed and quality were therefore both significant factors that the Fire Court took into consideration in its responses to the Great Fire. By leaving the cost and actual rebuilding process to private individuals, London's political institutions expected the city to be restored at a much faster pace as responsibility was divided. Parliament did not need to somehow find the funds as they did during the Great Stink, though that later shock would indeed be much cheaper than the estimated cost of rebuilding London following the Great Fire. This is despite the sewerage and drainage systems having been the most expensive infrastructural project in London's history at the time.[51] Similarly, by improving the building quality of the city's houses it was hoped that another disaster could be avoided, reducing the long-term cost of managing London's built geography. The responses of the political institutions to the Great Fire were made with the city's future in mind, but the temporary nature of the Fire Court meant that London's political administration did not see a similar renovation. Whereas the responses to the Great Stink and London's broader pollution issues of the 1850s would see a consolidation of the city's management into the political institutions of Parliament and the MBW, the creation of the Fire Court was only temporary and did not have a similar long-term impact. By the mid-nineteenth

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[50] LMA, *Fire decrees [2]*. CLA/039/01/003, 138.

[51] The cost following the Great Fire was estimated by contemporaries to be £10 million (estimated by Trebilcock as being a quarter of the annual national income) compared to the £6.5 million it took to build Bazalgette's sewerage, drainage system, and embankments. Even without taking into consideration inflation over time, the difference in cost is significant. Additionally, the funds provided by Parliament following the Great Stink were split over the following two decades and provided to the MBW on the provision of it being a loan to be repaid with interest across a period of 40 years. This expectation of having the loans returned undoubtedly made the immense upfront cost more tolerable. Improvements and Town Planning Committee, *The City of London: a record of destruction and survival, and the proposals in the final report of the consultants* (London: Architectural Press, 1951), 149; C. Trebilcock, *Phoenix assurance and the development of British insurance volume I, 1782-1870* (Cambridge: Cambridge University Press, 1985), 4; Ashton, *One hot summer*, 284.

century, the monarchical control demonstrated by the King's proclamation had been subsumed into the political authority held by Parliament and, eventually, the MBW.

3.5 The Fire Court: The Covenant to Repair and Encouragement to Rebuild

The decisions made by the Fire Court relied heavily on the leases held by individual tenants, frequently citing a specific covenant contained within. This stated that the tenant was responsible for the property to be repaired and upheld until the end of their term and left in the same condition as it was when the lease was first made, with possible legal action being taken if the property had been left damaged. Protecting tenants from the potential issues presented by this covenant, particularly by an immoral landlord, became one of the Fire Court's most important responsibilities. This was resolved either by providing term extensions or by dispelling the legal responsibility for the tenant to be held accountable to their covenants, often achieved by surrendering the lease itself. Referencing this covenant during Court proceedings allowed the judges to determine and allocate responsibility much faster than otherwise would have been possible and therefore achieve the Court's aim of removing barriers in the way of the rebuilding process. Nevertheless, the covenant was occasionally used by landlords to threaten tenants to rebuild.

This was the case for the petitioner and tenant Christopher Whitehead whose petition was heard at the Fire Court on Tuesday 14th April 1668. The property in question, a messuage located on the west side of Shoe Lane in St Bride's Parish, was to be inherited by the minor orphan Sybilla Sympson upon reaching maturity and in the meantime her guardian, Sybilla Hemsworth, managed the property in her stead. Hemsworth expected the tenant Whitehead to pay her the rent due and to rebuild following the Fire, citing the 44 years he still had remaining in his term. She had threatened that if he refused then "some advantage would be taken against him upon the aforesaid covenant".[52] The Fire Decree notes that this was "contrary to all equity and conscience", though it is not clear if this simply repeated Whitehead's own words from his petition or if it was a judgement being made by the Court official documenting the case.[53] Regardless, Whitehead was willing to rebuild and an agreement had already been reached between the parties prior to their appearance in Court. Confirming this agreement, the judges decreed that the rent would be discharged between the time of the Great Fire and Midsummer

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[52] LMA, *Fire decrees [2]*. CLA/039/01/003, 165.
[53] LMA, *Fire decrees [2]*. CLA/039/01/003, 165.

1668, after which Whitehead would pay a peppercorn of rent for the following ten years before returning to the pre-Fire annual rent of £14.[54]

Whitehead's case demonstrates how the covenant to repair could be crucial in resolving a dispute, even if it functioned primarily as a threat to encourage reluctant tenants to rebuild. It provided a written agreement that the Court could choose to either uphold or dispel, demonstrating a contractual way of thinking about government whilst affirming the ultimate political authority held by the Fire Court on behalf of the King. Despite the unique circumstances created by the Great Fire, leases were to be upheld unless a special dispensation could be acquired from the Fire Court. As such, the Court could be seen to be protecting private interests whilst aiming for fairness in the rebuilding process. The contractual way of thinking about government is shown in this interaction between private interests and the Fire Court.[55]

This contractual way of thinking about government was particularly expressed with John Locke's concept of legitimate governance derived from a social contract of public consent in the second of his *Two Treatises of Government*.[56] Waldron has argued that the long-term development of political institutions "cannot be seen as a single intentional or consensual process", but that individual steps can and should be analysed in contractarian terms, with Locke's examination of political governance being a key example of this.[57] Following the Great Fire, immoral landlords were able to abuse the covenant to repair in existing leases despite the extraordinary situation. The Fire Court was necessary to dispel the tenant from suffering from the consequences of unforeseeable circumstances. This shows how contractual agreements were relied upon even when the original circumstances in which they had been created no longer applied. The moral implications of this development are outside the scope of this thesis, but the increasing prevalence of this contractual way of thinking about government can be seen in the debates surrounding the later shocks. In particular, this includes the excuse provided by the Government in Parliament as to why it was not their responsibility to resolve the pollution of the Thames during the Great Stink. They cited the Metropolis Management Act of 1855 as

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[54] LMA, *Fire decrees [2]*. CLA/039/01/003, 164-165.

[55] By the late seventeenth century, this contractarian manner of governance had been used by the Court of Chancery for over a century to mediate in cases involving property deeds, leases, and other forms of housing interest. As such, its use by the Fire Court was not a new development but it does demonstrate the awareness of how the Great Fire – and the rigidity of privately agreed leases upheld by the law during unexpected circumstances – could potentially be abused for personal gain.

[56] J. Locke, 'The second treatise: an essay concerning the true original, extent, and end of civil government' (1689), in I. Shapiro (ed.), *Two treatises of government and a letter concerning toleration* (London: Yale University Press, 2003), 100-209:101.

[57] J. Waldron, 'John Locke: social contract versus political anthropology'. *The Review of Politics*, 51, 1 (1989), 3-28:3.

having vested the responsibility in the newly created MBW, placing the contractual legal agreement above the sensibilities of doing what was necessary to resolve the crisis. This was similar to how the covenant to repair was to be upheld following the Great Fire unless dispensation was acquired from the Fire Court. However, unlike during the Great Stink, the Fire Court was unencumbered by the separation of responsibility between political institutions. As such, the Court was particularly effective in playing its own part in the shock recovery process in a manner that later political institutions struggled to do as a result of this split authority between separate institutions. Namely, the struggle between London's regional authority and Parliament itself created particular problems in the later centuries as Parliament's authority grew.

The Fire Court judges occasionally used the covenant to repair to hold certain tenants accountable, such as in the case of John Bathurst against his landlords, the Company of Skinners, heard in Court on Tuesday 17th November 1668. The Court had declared that Bathurst would have 34 years added to his current term, with the annual rent rising from £6 to £10 for these added years only. Bathurst opposed this, stating that the rebuilding would cost him £1,000 and any rent increase would force him to give a much higher contribution towards the loss caused by the Fire than the Skinners would be paying. With a response that suggests the judges were tiring of Bathurst's attempts at frustrating the Court's wishes, they declared that he either "accept those termes and build or that his Petition bee dismissed and that hee bee left to bee sued at Law for breach of his covenant to repaire".[58] Without any further issues, the quelled Bathurst accepted the Court's offer.[59] This highlights the importance of the Fire Court in preventing this covenant from being used unjustly, but also how the Court judges themselves could use the covenant to enact justice when deemed necessary. The invoking of this covenant is a response of the Fire Court to ensure nobody could take advantage of the Great Fire for their own profit or used maliciously against a tenant, as well as to assign responsibility to rebuild as in the case of Bathurst. In the right circumstances, a tenant could even be discharged of their accountability to uphold this covenant.

William Smith was one such individual who received this benefit, whose one-quarter interest in a great cellar owned by William Warne had resulted in harsh treatment following the Fire. Smith's term had been due to end at Midsummer 1668 but the annual rent of £10 had gone unpaid for the final two years as a result of the Fire. This was the situation for the majority of

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[58] LMA, *Fire decrees [4]*. CLA/039/01/005, 19.
[59] LMA, *Fire decrees [4]*. CLA/039/01/005, 18-20.

cases brought before the Fire Court, with continued rent payments prior to a Fire Court Decree being a rare exception rather than a common occurrence. By the time Smith's petition was heard at the Fire Court on Wednesday 5th May 1675, Warne had already had him arrested and brought before two separate courts of law to demand the arrears of rent owed to him since the Fire, totalling £20. The covenant to repair had been held against Smith as the reason why he still owed the money and his eventual petition to the Fire Court aimed to have the covenants within his lease discharged to prevent future legal action being taken against him. This demonstrates the contractual way of thinking about government mentioned above, with the written agreement being prioritised by the courts of law despite the extraordinary circumstances. Although Warne himself did not appear at Court despite being given a second chance to contest the ruling, the Fire Court decreed that Smith would be discharged from his lease with no need to pay the rent from the time of the Fire until the end of his term. This was on the condition that he paid the two months' rent of the Michaelmas quarter of 1666 as this was the period before the Fire, a common requirement attached to most Court Decrees. The amount of interest which Smith held in the great cellar was a crucial element of this decision, had he owned the interest of more than just a quarter of the cellar it is likely that he would have had to pay some more contribution towards the rebuilding in accordance with the covenant to repair.[60]

The cases of Christopher Whitehead, John Bathurst, and William Smith demonstrate the varied ways in which this covenant to repair contained in the property leases could be used following the Great Fire, either by the tenants themselves or the Court judges, and either maliciously or with honest intentions. References to this covenant in the petitions and in the Court records reveal how it was used as a response to the Great Fire, and the subsequent disputes the Fire caused, to prevent individuals from taking advantage of the disaster for their own benefit. This was an ideal similarly held during the Blitz, as property prices were frozen at their pre-war rate to prevent the severe wartime fluctuations from allowing some to take advantage, whilst protecting those whose properties were damaged or destroyed by enemy action from being forced to sell at an unfairly low price. The Fire Court used the covenant to repair as an institutional response in situations where tenants refused to be held accountable to rebuild or contribute relative to their interest, and it became a vital tool to encourage financial responsibility to be shared between the relevant parties as much as feasibly possible. The institutional landlords such as the City of London Corporation and the Livery Companies undoubtedly benefited the most from this; due to the multi-tiered system of tenants and under-

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[60] LMA, *Fire records [8]*. CLA/039/01/009, 131-132.

tenants, these institutional owners could often greatly reduce their share of the cost whilst reaping a large percentage of the profit once the properties were rebuilt. Although the use of this covenant to aid the sharing of financial responsibility was necessary for some cases, the vast majority brought before the Fire Court featured tenants eager to rebuild or pay their contribution in order to restart their businesses and revitalise London's economy.

Petitioners who hoped to receive encouragement to rebuild were usually the tenants themselves looking for terms from either their landlords or the relevant interest holders from whom they received their lease. The Fire Court could serve as an impartial third party to oversee discussions or simply ratify agreements already made, but their role in this process was crucial to ensure the terms granted were fair for all parties involved. As previously mentioned, the Fire of London Disputes Act ensured that the Decree records of the Court were available to be viewed and have copies taken by anyone related to a specific case. This allowed them to be a vital point of reference in the case of a future dispute or situation where a party did not abide by the terms agreed by the Court. This occurred in the case of Edward Woodward, whose petition against William Butler was heard in Court on Wednesday 27th May 1674 and unsuccessfully aimed to reverse the decision of a previous Court hearing from Friday 5th December 1673 in which Butler had been the petitioner and Woodward the defendant.[61] By referring to the previous decree, the Court was able to resolve this return visit to ensure the encouragement was fair in accordance with the amount of interest held by each party.

The exact details of encouragement granted by the Court varied from case to case but mostly fell into the categories of either term extensions, rent reductions (which could be temporary or permanent for the remainder of the lease), or a combination of both. Occasionally contributions were made directly towards the rebuilding through payments of money, but term extensions and rent reductions were usually viewed as adequate contributions from landlords towards the loss of the Fire with tenants taking on the full cost of rebuilding in exchange for these conditions. Direct financial contributions were instead often given by those intending on surrendering their lease to allow another interested party to rebuild in their stead, such as Richard Cotton who on Friday 19th May 1671 chose to pay 100 marks to surrender his lease rather than rebuild.[62]

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[61] LMA, *Fire decrees [8]*. CLA/039/01/009, 46-49; 58-60.
[62] LMA, *Fire decrees [6]*. CLA/039/01/007, 185-186.

This institutional response from the Fire Court demonstrates a high level of state regulatory intervention, creating a legally binding agreement between the relevant parties that enforced the sharing of the rebuilding cost upon the risk of being sued. This again demonstrates the contractual way of thinking about government during the late seventeenth century, and the need for Court liability is likely due to the perception that individuals would otherwise take advantage of the circumstances created by the Fire. In his *The Anatomy of Melancholy* (first published 1621), Robert Burton had explained the new tendency for individuals, and particularly the poor, to make use of court services to resolve their disputes. He states,

> "now for every toy and trifle they goe to law, … they are ready to pull out one anothers throats, and for commodity *to squeeze blood, … out of their brothers heart*, defame, lye, disgrace, backbite, raile, beare false witnesse, sweare, forsweare, fight and wrangle, spend their goods, lives, fortunes, friends, undoe one another, to enrich an *Harpy* Advocate, that preyes upon them both" (Burton's emphasis).[63]

This negative impression of both court officials as well as the individuals who made use of them suggests that the fears over the Fire being taken advantage of may not have been entirely unjustified. The creation of the Fire Court then would allow governmental involvement through the careful regulation of the rebuilding process, providing some structure to reduce the possibility that individuals could take advantage of the Fire.

The individualised terms granted by the Court were calculated by taking into consideration a variety of factors such as the location of the property, term length left on the current lease, and the previous annual rent amount. Most cases were resolved with both a term extension and an abatement of rent. For example, on Thursday 21st November 1667 as encouragement to rebuild Edward Nurse was granted a term extension of 40 years and his annual rent of £25 was abated entirely until Christmas 1668, reduced to £14 for the following year, and then increased to £15 for the remainder of the lease.[64] In some cases, however, the Court decreed only an extension of the tenant's term with the annual rent remaining at its pre-Fire rate. On Tuesday 28th April 1668, William Evans asked the Court for an extension of his term at the old rent of £7. This was granted and his term was increased by an additional 20 years.[65]

[63] R. Burton, *The anatomy of melancholy*, 2nd edition (Oxford, 1632), 35. Available online: http://eebo.chadwyck.com/search/full_rec?ACTION=ByID&SOURCE=pdfdownload.cfg&ID=99857401 [Accessed 15/4/2023].
[64] LMA, *Fire decrees [1]*. CLA/039/01/002, 673-677.
[65] LMA, *Fire decrees [2]*. CLA/039/01/003, 174-176.

In contrast, on Friday 10th June 1670 the petitioner Daniel Shatterden asked for a rent reduction from £8 to 4 marks, the latter having been the annual rent for the property from before he had taken his lease. This was refused, the Court declaring that "by law they cannot abate any of the said rent or decree any ceasing of the payment of the said rent since the fire". Instead, 37 years were added to his term to make it up to a total of 60 years, the largest increase the Court could make as stated in the second Rebuilding Act (1670).[66] These cases suggest that annual rent totals which were already deemed to be quite low could not be further reduced if it would mean the rent would be less than the ground was worth, and the encouragement to rebuild that was granted by the Court would be adjusted in these cases.

Not all petitioners came to Court seeking terms to rebuild or to resolve a dispute with other interested parties. Instead, a Court decree could be granted as security to reaffirm a tenant's rights outlined in their lease in a situation where a malicious party could question the legality of the lease. This was the case for the petitioner Daniel Vivian, whose case heard at Court on Friday 1st July 1670 aimed to simply provide security that his lease and term would be respected if he chose to rebuild and if his landlord, Sir Charles Lloyd, died. The lease had been signed by Lloyd but did not properly protect Vivian's tenancy when Lloyd's interest in the property was inherited by his son and heir apparent because his interest (the authority on which Lloyd relied to make Vivian's lease) was tied directly to his lifetime, with the lease potentially being made void upon his death. The Fire Court was able to provide this security and reaffirmed Vivian's right to rebuild, protecting him in case Lloyd's son called into question the lease signed by his father and attempted to evict Vivian.[67] The type of encouragement granted by the Court could therefore differ depending on the specific needs of the case, though term extensions and rent abatements remained the most common. Providing security against potential future conflicts of interest was inherent in the Court decrees and records, as demonstrated previously with Edward Woodward's petition against William Butler which relied on the documentation of the pair's former case to resolve their second case in Court. Cases like Vivian's, in which a case was brought to Court specifically for this security with no mention of further encouragement to rebuild, were rare. In Vivian's case it is possible that terms of encouragement had been previously provided by Lloyd, but the lack of a mention of such terms in the Court record of his petition suggests that this was not the case.

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[66] LMA, *Fire decrees [5]*. CLA/039/01/006, 21-22:21; *Rebuilding of London Act 1670*. 22nd Charles II, Chapter 11 (London), s. xviii.
[67] LMA, *Fire decrees [5]*. CLA/039/01/006, 20.

Occasionally, a petitioner's request for encouragement to rebuild could be refused by the Court if it was deemed preferable for another interested party to rebuild instead. This could be done to hasten the rebuilding process or to respect the greater interest of a party, but the cases resolved with this outcome would also specify directions that could be taken to provide the rejected petitioner with security of their own lease or financial compensation in case of a forced surrender. Richard Kinsey was one such petitioner who came before the Court on Thursday 3rd December 1668 hoping for terms of encouragement to rebuild, however his landlord Nicholas Grice, Esquire, similarly wished to rebuild and desired to buy Kinsey's interest to do so. The Court decided that Grice should be the rebuilder, but on the condition that he should provide Kinsey with a new lease of the property upon reasonable terms once the rebuilding had been completed. If Grice chose not to start rebuilding by the following Candlemas (2nd February) then he was expected to buy Kinsey's interest in the property for £150 and allow Kinsey to surrender his lease. This resolution to the petition demonstrates the flexibility of the Court in deciding who ought to rebuild when multiple parties claimed a desire to do so and how compensation would be granted to those who were forced to surrender their interest. Grice's decision is not recorded in the Court Decree, but the benefits provided to Kinsey in case of either outcome demonstrate the range of support available from the Court to respect a party's interest in a property regardless of the outcome.[68]

Encouragement could similarly be sought from the Fire Court for an interest holder or guardian to rebuild a property on behalf of a landlord who was a minor or ward. This is outlined in the second Rebuilding Act which states that in such a case it is the responsibility of the Court to

> "order or decree a Lease or Leases against such Infant or Infants and their Trustees for any terme or termes of years not exceeding Fifty one years in the whole to such Father Mother or other person that shall or will undertake the rebuilding of such Houses at and under such Rent or Rents, and under such Covenants, Conditions and Agreements as they the said Justices and Barons or any three or more of them shall thinke fit and adjudge".[69]

Upon reaching maturity, the minor owner was required by this Act to accordingly execute the lease designed by the Court. This responsibility of the Court was necessary because minor

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[68] LMA, *Fire decrees [4]*. CLA/039/01/005, 11-12.
[69] *Rebuilding of London Act 1670*, s. xxv.

owners could not rebuild themselves or grant a lease to another individual to rebuild in their stead. A Court order was required for this lease to be made to ensure that properties were not left in a ruinous state and automatically put on sale as a result. This measure would both protect existing landowners as well as allow the city to be rebuilt as quickly as possible.

Cases of this sort became more common in the 1670s as more time had passed since the Great Fire and the owners of the properties were more likely to have died, leaving a child as their heir. One such case of this was brought to Court on Friday 17th June 1670 by Thomas Boyes, who had made an agreement with the guardian of two minor heirs of six messuages located in Fleet Street. He would rebuild in exchange for a lease of 51 years at the annual rent of £40, first being paid Midsummer 1671, and had brought this agreement to Court for the judges to decree it accordingly.[70] Boyes was the next friend of the children – *procien ami* – or the legal guardian for the purposes of the Court session due to them still being minors under the age of 21, but direct relatives could also fulfil this role. In another case, Robert Flatman was the uncle of two underaged heirs who also desired encouragement to rebuild to prevent the children's properties from being put on sale. However, unlike Boyes he wanted a lease so that he could rent out the properties for an under-tenant to rebuild on his behalf. The Court agreed to this, granting him a term of 51 years at the annual rent of £12, with any extra rent he made from his under-tenant going directly to the children.[71]

Obtaining encouragement from the Court so that a petitioner could let a property to an under-tenant to rebuild was not uncommon following the Great Fire and was not only used during situations involving a minor owner. When William Burrough and his wife petitioned the Court in a hearing on Wednesday 3rd June 1668, they desired a term extension so that they could grant encouragement to their under-tenants to rebuild the 13 messuages with which the Court case was concerned.[72] Two of the messuages were leased to John Wynn, who appeared in Court on the same day with a separate petition against Burrough and his wife. In the former Court hearing the judges had granted Burrough and his wife an added term of 40 years to their lease, and Wynn's term was then increased by 39 years as it could not extend longer than his landlord's own term.[73] Multiple cases involving the same property were usually grouped together to take

[70] LMA, *Fire decrees [5]*. CLA/039/01/006, 26-27.
[71] LMA, *Fire decrees [7]*. CLA/039/01/008, 176-177.
[72] LMA, *Fire decrees [3]*. CLA/039/01/004, 26-27.
[73] LMA, *Fire decrees [3]*. CLA/039/01/004, 30-32.

place on the same day, increasing the likelihood that all relevant parties would appear in Court and for the same judges to hear all of the related cases.

Using the Court to negotiate the terms in which under-tenants rebuilt on behalf of their landlords demonstrates the versatility of Court proceedings and range of situations brought before the judges in the aftermath of the Great Fire. This level of complexity is understandable given the sheer magnitude of rebuilding London, but referring to a single court all of the disputes which came up whilst completing this immense project shows how managing the fallout of the Great Fire became centralised and reliant on London's political institutions to be resolved. Tenants relied on the Fire Court to provide encouragement for them to rebuild, just as landlords relied on it to both ensure their properties were indeed rebuilt as well as that they did not have to pay the entire cost. The direction in which London was developing as a national and increasingly international economic power necessitated a centralised response to ensure the city would recover from the Great Fire as quickly as possible and in a way that encouraged further development.

The vital importance of the Fire Court to the process of rebuilding London demonstrates the reliance placed on the responses of this political institution following the Great Fire. The encouragement granted to rebuilders and the quick resolutions to disputes prevented properties from being left in a ruinous state for long periods of time, and the attempts to spread out the financial responsibility for rebuilding across the relevant interest holders aided the Court's intention for no single individual to unfairly have the entire financial burden. The aristocratic landowners, only rarely directly called to Court, were the least affected group in terms of bearing the cost.[74] When they were involved, their responsibilities were usually limited to granting terms to their tenants to rebuild on their behalf. Moreover, they gained a crucial long-term benefit: their property and land became more valuable in the more robust and fire-resistant city due to the improved building standards. Whereas the tenants who rented these properties only saw a temporary benefit for the remainder of their leases (particularly if they themselves had under-tenants providing them a source of income), the aristocratic landowners had no such deadline imposed on them for when they would lose their interest in the property and land. They could continue collecting rent and making a profit whilst the tenants and under-tenants (primarily consisting of the poor) lost the most from the Fire.

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[74] Baer, 'Landlords and tenants in London', 245.

The responsibility that the rebuilding process would run smoothly was ultimately held by the Fire Court, directing individuals caught in disputes and providing some level of accountability from those with interest who were reluctant to contribute. Despite the importance of these institutional responses, they must be seen as extraordinary due to the circumstances created by the Great Fire rather than a new method of political authority in London. Mediation of courts through equity in property deeds, leases, and other forms of housing interest had been constant activities in the Chancery as well as the equity side of the Exchequer, but the urgent necessity to rapidly rebuild as well as the imposition of new building standards made this response to the Great Fire unique. Additionally, the short-term nature of the Fire Court and the following return to normality in terms of the political response to property disputes demonstrates the unusual nature of the Court rather than the establishment of a new form of political authority. This is not to say the Fire Court had no long-term impact whatsoever. Tidmarsh has argued that it was the responsibility of the Court to adjudicate disputes without the presence of a jury that informed the current powers of the American Congress, specifically the ability "to abrogate the use of juries in federal civil litigation" and the impact of this on the right provided by the Seventh Amendment to a federal civil jury trial.[75] The jurisdiction of the Fire Court in the late 1660s and 1670s therefore had an immense impact on civil proceedings to this day, albeit in a different country.

Following the success of the Fire Court, other Courts of Judicature were established to respond to other large fires. These included the Great Fire of Northampton in 1675, the Southwark fire of 1676, the Warwick fire of 1694, the Tiverton and Blandford fires of 1731, the Wareham fire of 1762, and the Chudleigh fire of 1807.[76] On each occasion, the concept of a fire court was revived to handle the influx of legal cases which needed to be decided, though these later courts held more authority to improve the efficiency of the rebuilding process. For example, they were able to create regulations for the new buildings, a task which London's Fire Court had relied on Parliament to complete through the passing of the Rebuilding Acts.[77] This difference can be attributed to simple efficiency improvements being made over time with the London Fire Court being used as a model, but also the complexity in rebuilding a city of such size and national importance as London required a greater level of control over the rebuilding process. Parliament's direct involvement was necessary to quickly revitalise the nation's capital through architectural improvements and increased fire resistance, increasing the value of property and

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[75] Tidmarsh, 'The English fire courts', 1893.
[76] Tidmarsh, 'The English fire courts', 1921.
[77] Tidmarsh, 'The English fire courts', 1921.

land in the city. London's political institutions each played significant roles in responding to the Great Fire, and the precedent established by the Fire Court allowed future fires across the country to be responded to effectively and with improved efficiency.

Compared to the respective political institutions that responded to the Great Stink and the Blitz, the creation of the Fire Court was a direct short-term response to manage the extraordinary circumstances created by the Fire. The Court contributed significantly to the rebuilding process despite the restrictions imposed by private forces that ensured London would be rebuilt with its familiar layout. Their prioritisation of speed and quality urged landlords and their tenants to rebuild as quickly as possible whilst constructing a more robust, fire-resistant city, resolving disputes that would interfere with this process and providing encouragement to rebuild through beneficial terms that created a fairer distribution of the costs. A precedent of institutional involvement had been established, despite how temporary it had proven. The later shocks redefined London's relationship with political institutions on a more long-term, concrete basis. The improved clarity and authority provided to the MBW by the Metropolis Local Management Act Amendment Bill in 1858, as well as the power of compulsory public acquisition provided to local borough councils by the Town and Country Planning Act in 1947, were both responses to their respective shocks that entirely altered the authority held by London's political institutions. This strengthened them against the private forces that had interfered following the Great Fire to prevent a complete redesign as envisaged by the planners.

3.6 Means and Results of Rebuilding: Charity, Fire Insurance, and Eighteenth-Century Criticism

The rebuilding of London could not have been achieved so rapidly without the Fire Court. The increasing influence of the capital on the national economy and social trends was not dramatically hindered by the Fire due to these institutional efforts. London maintained its influence, even continuing to grow more influential going into the final decades of the seventeenth century and directing national trends and developments. Wrigley notes that "whereas pre-industrial cities might grow large and powerful without in any way undermining the structure of traditional society, a city like London in the later seventeenth century was so constituted sociologically, demographically and economically that it could well reinforce and accelerate incipient change".[78] Going into the eighteenth century, London's growth directly influenced national developments, most notably the burgeoning northern industrial towns that

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[78] E. A. Wrigley, 'A simple model of London's importance in changing English society and economy 1650-1750'. *Past & Present*, 37, 1 (1967), 44-70:54.

supplied London's expansive population. Whereas "the greatness of London depended, before everything else, on the activity in the port of London", this industry of trade supplied and encouraged further production and industrialisation throughout England.[79] The origins of the Industrial Revolution – whether driven by production or consumption or a combination of the two – can be seen in the dominating impact of London on the nation and increasingly also further afield throughout the early modern period but particularly during the final decades of the seventeenth century.[80] As Berg notes, by the eighteenth-century London was "the hub of [a] commercial empire, … the centre for the distribution if not the production of luxury and middling-class consumer goods".[81] The Great Fire allowed London to be remade, creating a city that prioritised industry and contributed to national growth.

Although the Fire was used opportunistically to improve the efficiency of London's shipping industry through measures such as the creation of warehouses along the Thames and the reduction of land-based travel of goods to reduce the associated costs, the spirit of redevelopment was not new to the post-Fire city. The monarchy had attempted to express control over London's development throughout the century. In 1615, and in reference to a famous quote from Emperor Augustus to directly imply that London is the 'new Rome', James I had described his own renovations made to London: "Wee had found Our Citie and Suburbs of London of stickes, and left them of Bricke, being a Materiall farre more durable, safe from fire, beautifull and magnificent".[82] This was not the overall refurbishment of which would happen out of necessity following the Fire, but James' hyperbole demonstrates that the need for London's redevelopment had been known since the first decades of the century. Charles I continued this immense task, setting building regulations within months of succeeding to the

[79] R. Davis, *The rise of the English shipping industry* (London: Macmillan, 1962), 390.

[80] M. Berg, *Luxury and pleasure in eighteenth-century Britain* (Oxford: Oxford University Press, 2007); J. de Vries, *The industrious revolution: consumer behaviour and the household economy, 1650 to the present* (Cambridge: Cambridge University Press, 2008); J. Humphries, *Childhood and child labour in the British Industrial Revolution* (Cambridge: Cambridge University Press, 2010), 40-41.

[81] Berg, *Luxury and pleasure*, 93.

[82] J. F. Larkin & P. L. Hughes (eds.), *Stuart royal proclamations volume i: royal proclamations of King James I, 1603-1625* (Oxford: Oxford University Press, 1973), no. 152 (16 July 1615), 345-347:346. Augustus had boasted that he found Rome made of brick and left it clothed in marble. James only went so far in his comparison, the final product of his efforts being one only of brick. The beautiful excess of a marble-clad Rome was perhaps too Popish of an image for the Protestant King. Of course, just as Augustus's Rome was not built predominantly of marble (with Carter noting that the Roman historian Cassius Dio did take this claim to be metaphorical despite his predecessor Suetonius taking the extent of the transformation, if not the resulting marble, literally), James's London still primarily contained wooden houses. However, his recognition that brick would be much safer from fire can be seen as somewhat ironic given the great conflagration of his grandson's reign. G. Suetonius Tranquillus, *The twelve Caesars*. Translated from Latin by R. Graves (London: The Whitefriars Press, 1957), 66; J. M. Carter (ed.), *Suetonius: Divus Augustus* (Bristol: Bristol Classical Press, 1982), 128.

throne. Most notably, he ordered that no new buildings should be built within the city walls or its suburbs unless it is on the foundations of a former house. Preventing further overcrowding in areas already tightly filled with buildings was a key aim of this proclamation, but exact measures and specifications were also provided for factors as varied as the heights of building stories and the proportions of windows.[83] New buildings were to have brick or stone walls, with exact sizes also provided for the bricks.[84] The extent of the detail provided in this proclamation would be echoed in the building regulations given after the Great Fire, but these later guidelines differed in the impact which they had on the development of the city.[85]

This difference in the scope of the impact was out of necessity, post-Fire builders had a blank (albeit rubble-filled) canvas to work on and to recreate the city centre. But the extent of institutional authority expressed by the monarchy, Parliament, and the Fire Court in directing the rebuilding process also differed; the earlier guidelines were announced by Charles I but did not require further institutional oversight unless they were disobeyed. The role played by the Fire Court and the need for its input to resolve disputes (even after a house had been rebuilt) ensured a level of institutional control which had not been necessary for Charles I's proclamation. Coupled with London's growing national influence and importance, institutional authority over the post-Fire rebuilding process allowed the extent of the disaster to be mitigated.

The Great Stink and Blitz saw similar but increased levels of oversight from their respective political institutions. The MBW was directly in control of the sewerage developments following the Great Stink, with its own Chief Engineer Joseph Bazalgette having been the architect of the plans being followed. Parliament oversaw the financial regulation by controlling

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[83] Lincoln, *London and the seventeenth century*, 70.

[84] J. F. Larkin (ed.), *Stuart royal proclamations volume ii: royal proclamations of King Charles I, 1625-1646* (Oxford: Clarendon Press, 1983), no. 9 (2 May 1625), 20-26:24.

[85] By the end of the nineteenth century, new guidelines concerning the construction of wooden buildings were formalised in the London Building Act of 1894. These buildings could only be constructed upon the consent of the LCC, demonstrating the enhanced authority of London's political institutions, though in the following years this was not always strictly followed. Similar misgivings arose for the Society of Architects following the passing of this Act for the clause on wooden structures, as it required the interior of hotels, lodging houses, refuges, and shelters with above 100 beds to be made of fire-resistant materials whereas under 100 beds could have wooden interiors. This provided limitations for owners of properties with over 100 beds, as well as difficulties as frequent inspections were expected by the Society to be required to prevent this clause from being broken. The building regulations following the Great Fire therefore far from resolved the issue of wooden buildings in London, but they did mark a firm development in the institutional responsibility to prevent future disasters from happening on the same scale as the Great Fire. For the Act itself, see *London Building Act 1894*. 57th & 58th Victoria, Chapter 213 (London: HMSO), s. vii; for an example of the London Building Act being ignored, see LMA, *Wooden structures*. LCC/AR/BA/01/009; for the misgivings of the Society of Architects, see E. Marsland, 'The London Building Act of 1894'. *Journal of the Society of Architects*, 2, 4 (1895), 89-104:91.

the loans granted to the MBW that funded the infrastructural works. Similarly, in the 1940s the LCC directly commissioned the Abercrombie Plans that aimed to modernise the city and Parliament prevented undesired development through the creation of the Central Land Board. The private market could purchase and develop land, but this required permission from the Board. These institutions for both shocks, but primarily for the Great Stink, were directly in control of the redevelopment process unlike the Fire Court which left the rebuilding to private individuals, demonstrating an increase in the involvement of political institutions in London's post-shock development.

Officials had been aware of London's vulnerability to fire damage for decades prior to the Great Fire, as demonstrated by the renovations and regulations made by early Stuart monarchs. The failure to adopt transformative measures to prevent such a disaster from occurring until after one already had can be similarly seen during the nineteenth century. The growing demand since the 1830s for improved sewerage and the creation of a Thames embankment met with similar failures until after the Great Stink forced measures to be taken by Parliament. As discussed previously in the Literature Review, plans to embank the Thames had languished in the Court of Chancery between 1842 and 1857. The Great Stink served as the crucial catalyst for the vast political response and infrastructural development that saw the completion of the main drainage system as well as the Thames Embankments within two decades of the shock.[86] Just like how the Stuart monarchs had been aware of London's vulnerability long before the Great Fire, in the nineteenth century the groundwork had been laid by extensive plans and debates during the first half of the century. But the Great Stink, like the Great Fire, was the necessary shock that finally triggered the transformation of London's infrastructure.

Charity aid also played a role in ensuring London's influence could continue uninterrupted following the Great Fire. The charitable brief started on 10th October 1666 and continued in the following weeks, ultimately raising a total of £16,486.92 with nearly 30 per cent being given by London and the surrounding counties.[87] In a study of the charitable giving following the Great Fire, Field explains that despite this total raised by London, it was low compared to the city's usual charitable donation totals. This is to be expected considering the extent of the destruction caused by the Fire as well as the donation fatigue, resulting from the

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[86] Porter, *The Thames Embankment*, 138.
[87] Field, 'Charitable giving', 7.

charity given for relief from the Great Plague the previous year.[88] However, Field also notes that geographical distrust of London may have reduced the amount which people were willing to give. An earlier brief from 1655 asking for donations towards helping the Vaudois Protestant group in the Savoy raised over £40,000, more than double the amount raised for the brief following the Great Fire.[89] Field explains this antipathy towards the capital may have resulted from distrust in London as a city of rebellion, a view held by many Royalists with the civil wars in such recent memory, as well as a certain resentment from provincial towns at the increasing centralisation in London of the national economy.[90] Despite this, he adds that the 1666 brief was comparably higher than the St Paul's Cathedral brief in 1678 (which only raised £7,329.97) and potentially indicates that the "magnitude of the Fire may have overwhelmed some of these negative perceptions".[91] Charitable relief as an institutional response to prominent societal issues would become more common and increasingly undertaken by private charitable organisations in the eighteenth and nineteenth centuries, but the development of financial safety nets was also a direct institutional response to the Great Fire.

The extent of the damage inflicted by the Great Fire as well as the economic and contractual way of thinking in the late seventeenth century soon led to the development of a new type of financial safety net. The first fire insurance business for which evidence survives – the Fire Office (originally known as the 'Insurance Office for Houses') – was created by Nicholas Barbon and his associates, having been "Perfected and Settled" by September 1681.[92] Although this business first started trading fifteen years after the Great Fire, plans for building insurance had been proposed in the direct aftermath of the shock and it is possible that Barbon had started a predecessor to the Fire Office as early as 1667.[93] A 1681 advertisement promoting the services of the Fire Office explains that "it is the Intent of the *Insurers*, that Houses Insured, that are Blown up, and Pulled down, as well as Burnt down, should be Re-built at the Charge of the *Office*, or receive Satisfaction in Money", specifying that the property loss must have been caused "*by*

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[88] Field, 'Charitable giving', 7.
[89] Field, 'Charitable giving', 7.
[90] Field, 'Charitable giving', 7-9.
[91] Field, 'Charitable giving', 9.
[92] Fire Office, *September, the 16th. 1681. An advertisement from the Insurance-Office for Houses, &c*. (London, 1681), 1. Available online: https://www.proquest.com/books/september-16th-1681-advertisement-insurance/docview/2240882111/se-2?accountid=11528 [Accessed 22/12/2021].
[93] R. Sheldon, 'Barbon, Nicholas (1637/40-1698/9), builder and economist'. *Oxford Dictionary of National Biography* (2008). Available online: https://doi.org/10.1093/ref:odnb/1334 [Accessed 22/12/2021]; P. S. James, 'Nicholas Barbon – founder of modern fire insurance'. *The Review of Insurance Studies*, 1, 2 (1954), 44-47:45.

reason of Fire"; this anticipated the growing concern of arson being used to defraud insurance companies in the second half of the eighteenth century.[94]

The Fire Office contributed as a somewhat delayed commercial response to the Great Fire, but Barbon had also been directly involved with the rebuilding process. He is listed in the topographical surveys compiled following the Fire as having paid for (and therefore owned, rented, or had an interest in) the survey of 27 foundations, demonstrating the personal impact which the Fire had on him. Only one person had paid for more surveys to be conducted than Barbon.[95] Barbon would go on to become prominent in the rebuilding process and the expansion of London, leading the redevelopment of the Strand and linking the city with Westminster.[96] His entrepreneurial interest in property placed him in a suitable position to move into the insurance industry. Drawing from the enormous public losses resulting from the Great Fire, he would later confidently assert that if his insurance had been operating during the time of the Fire then all losses would have been compensated.[97] By providing a private institutional recovery option following fires, Barbon was seen to be supporting the commonly accepted maxim of government "*That the private concerns should suffer, rather than the Publick be Undone:* because, in the Welfare of the Publick, *All* are concerned".[98] This connected the use of insurance to the desires of commonwealth and shared risk, proposing that private commercial support networks could assist with the recovery efforts of future crises. The short-term nature of the Fire Court and otherwise hands-off approach of London's political institutions to the Great Fire may have encouraged the development of private organisations to fill this societal need. The reluctance of Parliament to fund the necessary sewerage and drainage system in the 1850s shows that this was not entirely resolved even two centuries later, but the highly involved responses of London's political institutions to the Blitz demonstrate the long-term development.

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[94] Fire Office, *From the Insurance-Office for Houses, on the back-side of the Royal-Exchange* (London, 1681). Available online: https://www.proquest.com/books/insurance-office-houses-on-back-side-royal/docview/2240860121/se-2?accountid=11528 [Accessed 22/12/2021]; Pearson, 'Fire, property insurance, and perceptions of risk', 93.

[95] Richard Fryth(e)/Frith had 41 surveys conducted, however it is uncertain whether these all referred to the same individual or multiple people with the same name. Similarly, multiple surveys conducted on the same street could refer to additional surveys being conducted on the same foundations, a possibility also applicable to Barbon's surveys. P. Mills & J. Oliver, *The survey of building sites in the City of London after the Great Fire of 1666*, Volume 1 (London: London Topographical Society, 1967), 107, 123.

[96] Sheldon, 'Barbon, Nicholas'.

[97] James, 'Nicholas Barbon', 45.

[98] Anonymous, *An enquiry, whether it be the interest of the city to insure houses from fire and whether the insured may expect any advantage thereby, more than from the Insurance-Office already setled* (London, 1681), 2. Available online: https://www.proquest.com/books/enquiry-whether-be-interest-city-insure-houses/docview/2240891263/se-2?accountid=11528 [Accessed 23/12/2021].

London's vital importance in creating the fire insurance industry is a direct result of being the setting for the Great Fire. The disaster inspired the development of new methods of financial support, with compensation companies developing in the city. This was aided by the increasingly financial and contractual way of thinking about government that had seen London prioritise economic efficiency and growth to such a large extent, particularly following the adoption of Dutch financial techniques in the aftermath of the Glorious Revolution.[99] The financial revolution featured key innovations including the establishment of the Bank of England in 1694 and the stock exchange, as well as increased parliamentary authority due to the creation of the Civil List in 1698 that resulted in the curtailment of monarchical autonomy as parliamentary grants were subsequently relied upon for revenue to a greater extent.[100] These developments set the stage for London's future international prominence, establishing an economic system that allowed the insurance market initiated by Barbon to flourish as financial investments became common.[101] It would not be until the eighteenth century that fire insurance companies would become better organised and utilised by a greater proportion of Londoners, with the Sun Fire Office starting in 1710.[102] By 1796, the Sun Fire Office was still a dominant force in the London insurance market, with the Sun estimating their share as 38 per cent of the London market and 60 per cent of the provincial market except for those few areas where local companies were active.[103] The capital's role as a financial powerhouse was growing, shaped by the developments made in the long aftershock of the Great Fire. As Trebilcock notes, "the

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[99] However, Dickson has argued that Dutch society had been a model of influence as early as the 1660s. Perceived factors of economic growth such as religious toleration were viewed by individuals such as the first Earl of Shaftesbury (died 1683, notably in Amsterdam) as providing significant practical benefits, but these would have only limited influence until the Glorious Revolution. Religious toleration would seem particularly impossible during much of Charles II's reign. P. G. M. Dickson, *The financial revolution in England: a study in the development of public credit, 1688-1756* (London: Macmillan, 1967), 4.

[100] N. Sussman, 'Financial developments in London in the seventeenth century: the financial revolution revisited'. *The Journal of Economic History*, 82, 2 (2022), 480-515:480; UK Parliament, *The financial revolution*. Available online: https://www.parliament.uk/about/living-heritage/evolutionofparliament/parliamentaryauthority/revolution/overview/financialrevolution/ [Accessed 17/4/2023].

[101] Sussman & Yafeh have found that these financial reforms of London's institutions following the Glorious Revolution took over half a century to be reflected in the market. Credibility in the new institutions took time to be established, but the unstable political environment also contributed to this delay. They found that domestic instability and major wars contributed to a much greater extent to financial development in the short-term, with institutional change instead being much more important for the long-term development. N. Sussman & Y. Yafeh, 'Institutional reforms, financial development and sovereign debt: Britain 1690-1790'. *The Journal of Economic History*, 66, 4 (2006), 906-935:908; 926.

[102] L. Whitehead & J. Nex, 'The insurance of musical London and the Sun Fire Office 1710-1779'. *The Galpin Society Journal*, 67 (2014), 181-216:181.

[103] L. D. Schwarz & L. J. Jones, 'Wealth, occupations, and insurance in the late eighteenth century: the policy registers of the Sun Fire Office'. *The Economic History Review*, 36, 3 (1983), 365-373:366.

incineration of the City provided one of the most forceful free advertisements that the insurance man has ever received".[104]

Despite the optimistic revival following the Great Fire and increasing influence over the nation, Londoners were beginning to criticise the decrepit state of the city by the start of the eighteenth century. "The work of an age", spoken of so highly on the Monument, became quickly archaic.[105] In 1715, the architect Nicholas Hawksmoor complained that "We have noe City, nor Streets, nor Houses, but a Chaos of Dirty Rotten Sheds, always Tumbling or taking fire, with winding Crooked passages (scarse practicable) Lakes of Mud and Rills of Stinking Mire Running through them".[106] John Evelyn shared this disappointment, expressing his belief that London had been filled "with Rubbish and a thousand Infirmities" following the rebuilding.[107] Post-Fire London was viewed as a missed opportunity to develop a modern and rational city along the lines of the plans submitted by individuals such as Christopher Wren. Indeed, Wren was still alive when Hawksmoor made this comment about the city to which Wren had contributed so much. The city which, a century before, had been described as a "great, vast, durtie, stinking cittie" was again being seen with similar sentiments despite experiencing an extensive remodelling.[108] The rapid growth of London (both in terms of population and sheer physical size) and the need for constant development had promoted its worsening condition, a problem which reached a tipping point during the hygiene and pollution crisis of the mid-nineteenth century.[109] However, this awareness demonstrated by Hawksmoor that London required further development and rebuilding was not a matter which would ever entirely go

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[104] Trebilcock, *Phoenix assurance*, 4.
[105] Gale, *The Monument*.
[106] Nicholas Hawksmoor, cited in White, *London in the eighteenth century*, 40.
[107] John Evelyn, cited in McKellar, *The birth of modern London*, 30-31.
[108] William Trumbull, cited in Lincoln, *London and the seventeenth century*, 8.
[109] In contrast with the belief that the condition of the City was worsening over time, an eighteenth-century London physician did note one long-term benefit of the extensive post-Fire remodelling. In 1759 William Heberden attributed the lack of a major plague outbreak since 1665 to "the greater freshness and purity of the air of London, since the rebuilding of it after the great fire; the streets being made wider, and the inhabitants not crowded so closely together", as well as the "great quantity of water from the Thames and the New river, which … has washed the houses so plentifully, and afterwards running down into the kennels and common sewers, constantly hinders, or weakens the tendency to putrefaction". There is an irony that, for much of the next century and culminating in the Great Stink of 1858, the increased access to water combined with the growing city population would cause new outbreaks of water-borne diseases with a similar frequency to that of plague in the previous centuries, most notably the cholera outbreaks of the mid-nineteenth century. W. Heberden, 'Preface', in T. Birch (Ed.), *A collection of the yearly bills of mortality from 1657 to 1758* (London, 1759), 12; P. Slack, 'Perceptions of plague in eighteenth-century Europe'. *Economic History Review*, 75, 1 (2022), 138-156:151.

away – the debate over whether London should maintain its history or become modernised is still a heavily contested subject to this day.[110]

By the second half of the eighteenth century, the criticism of London's post-Fire rebuilding had only deepened. John Gwynn wrote in his *London and Westminster Improved* (1766) that,

"a new city arose on the ruins of the old, but, though more regular, open, convenient and healthful than the former, yet by no means answered to the characters of magnificence or elegance, and it is ever to be lamented (such as the infatuation of those times) that the magnificent, elegant and useful plan of the great Sir Christopher Wren was totally disregarded and sacrificed to the mean, interested and selfish views of private property".[111]

Gwynn goes on to explain that, had Wren's plan been followed, "the metropolis of this kingdom would incontestably have been the most magnificent and elegant city in the universe".[112] But private interests had interfered with the ability of London's political institutions to command a sweeping redevelopment project: "private property and pitiful mean undertakings, suited to the capacities of the projectors, have taken place of that regularity and elegance which a general plan would have produced, and nothing seems to have been considered but the interest of a few tasteless builders".[113] London's post-Fire redevelopment had been successful in allowing life in the city to restart, with housing and the economy being prioritised much as the plans for the post-Blitz period similarly highlighted these factors, but the city that entered the eighteenth century was disappointing to contemporaries when compared with what could have been. By 1766, more recent development had not improved the city's appearance in Gwynn's view, it was "inconvenient, inelegant, and without the least pretension to magnificence or grandeur … with this additional aggravation, that the builders had it in their power to have made the city appear

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[110] Even St Paul's Cathedral, the greatest and most ambitious of the post-Fire redevelopments, has not escaped the modern incarnation of this debate. The redevelopments of its surrounding street setting following the damage sustained during the Blitz were being called into question by the end of the twentieth century, with some hoping to 'restore' the Cathedral's setting to its pre-Blitz state. R. Thorne, 'The setting of St Paul's Cathedral'. *The London Journal*, 16, 2 (1991), 117-128:117.

[111] J. Gwynn, *London and Westminster improved, illustrated by plans* (London, 1766), 3.

[112] Gwynn, *London and Westminster improved*, 3-4.

[113] Gwynn, *London and Westminster improved*, 5.

infinitely more despicable than it does, by opposing order and elegance to confusion and absurdity".[114] As Ogborn states, for Gwynn, "London was clearly a disappointment".[115]

Against the private interests of landowners, London's political institutions could not put into place the grandiose plans of Wren and his contemporaries. Parliament and even the King himself could not overcome this vanguard of ancient property rights. This question of how large-scale redevelopment could occur in the face of private ownership would only be resolved following the Second World War when a much more powerful Parliament could introduce the concept of compulsory public acquisition to a weakened nation, desperate for reprieve from the costs of war. Even here, however, Parliament was willing to sell publicly acquired land to private owners if it would aid the reconstruction process and allow the city to be rebuilt at a faster pace. But most notably, Parliament would still maintain control as permission would have to be sought through the Central Land Board to ensure that land use still followed the plans of the Government. Gwynn's frustration over "the old cry of private property and the infringement on liberty" centred on his desire to prioritise the public good in redevelopment plans, and although these private interests would never be entirely overcome, the post-war developments demonstrate the increased authority of and reliance on London's political institutions since the Great Fire.[116]

3.7 Conclusion

The importance of political institutions to the recovery and rebuilding of London following the Great Fire cannot be overstated. They demonstrate the increased role of government in the lives of Londoners and exemplify the utility of their responses in times of crisis. The most prominent of these institutions, the Fire Court, established a dominant regulation over the rebuilding process in order to uphold the accountability of all relevant parties whilst preventing individuals from taking advantage of the situation. Disputes were concluded quickly, allowing the rebuilding process to be rapidly completed with fair encouragement provided for the rebuilders. The

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[114] Gwynn, *London and Westminster improved*, 5-6. Gwynn explains elsewhere in this book that "for want of such a publick direction, those very buildings which might have been easily rendered its greatest ornament, are a melancholy proof of the necessity there was of adopting a well regulated plan" (page v-vi). This was a perspective shared in the late twentieth century by commentators similarly reflecting on the post-war reconstruction, though for this later case city planning was not so much the issue as architectural disappointments, with new blocks of flats being criticised heavily for their brutalist appearance.
[115] Ogborn, *Spaces of modernity*, 100.
[116] Gwynn, *London and Westminster improved*, vi; Ogborn, *Spaces for modernity*, 98-99.

modernisation of London, as outlined in the Rebuilding of London Acts, relied on the Fire Court to prevent disputes from interrupting the infrastructural development.

Direct control from a single political institution was necessary due to the direction London was developing in as a national and increasingly international economic power. This was to ensure the city would recover as quickly as possible so that attention could return to expanding its financial interests abroad. The growth of London's national importance and influence made this institutional reliance a requirement of future developments. Going into the following centuries, the size of the necessary financial contributions from Parliament and sheer scale of the shocks that the institutions were responding to made it impossible to achieve significant infrastructural and social improvements through other means. Bazalgette's sewerage, drainage system, and embankments following the Great Stink would have been impossible without parliamentary loans, the cost of the works being London's most expensive infrastructural project in its history at the time (this being due to the reliance on private individuals to rebuild following the Great Fire). The Fire Court had laid the foundations of direct governmental involvement to regulate the responses and possible outcomes of London's shocks. However, it did not establish a new normal in terms of political authority.

The creation of the Fire Court was ultimately a temporary and restricted effort to resolve the issues created by the Great Fire. It did not lead to the permanent establishment of a new political institution to regulate building projects in London or to improve the responses to urban fires. In this respect it is unlike the responses to pollution in the 1850s and to the bombing of London in the early 1940s, both of which resulted in the permanent creation of new authority held by political institutions to respond to the respective issues highlighted by their shocks. The Fire Court instead demonstrates an early example of this increasing political involvement in London life, unable to entirely control the rebuilding process as Parliament would aim to do following the Blitz due to the seventeenth-century limitations of political authority and the strength of private interests. The Court responded to the extraordinary circumstances created by the Great Fire but did not lead to the creation of a new normal of political authority. Additionally, Parliament's own involvement, and indeed the responses of the monarchy itself, was limited to the declaration of building regulations to improve London's structure, appearance, and resistance to fire, resulting in the desire for London to largely rebuild itself through the efforts of private landlords and their tenants. The City of London Corporation was able to complete their own rebuilding projects, but at an immense financial cost that contributed to the default of the city in 1683. The insufficiency of these efforts, lacking the centralised and conclusive planning so lamented by John Gwynn, is demonstrated by the regret expressed in the eighteenth century.

London's political institutions were therefore highly successful in their limited intended purpose of quickening the rebuilding process to allow the continuation of London's economy. However, they did not aim to establish a new form of political authority in the aftermath of the Great Fire as would occur during the pollution issues of the 1850s and the Second World War in the 1940s. The practical limitations of possibility had interfered with the idealised development of the city. The rapid growth of London's population created a need for constant housing maintenance, adaptation, and modernisation in the following century after the Fire which had proved impossible to sustain after the initial rebuilding period due to the lack of a centralised political institution to control this process. Despite this great need for large-scale improvements to be made throughout the eighteenth and early nineteenth century as London's infrastructural and increasingly hygienic issues grew, the redevelopment efforts that had followed the Great Fire proved impossible to recapture until London was once again pushed into extreme circumstances by the Great Stink of 1858. The post-Fire rebuilding process established the idea of efficient and effective responses from political institutions in the wake of a major shock, a precedent which would greatly influence the development of London in the following centuries as its population expanded to unprecedented levels.

Chapter 4 Infrastructural Transformation Following the Great Stink

I behold London; a Human awful wonder of God! – William Blake (1804)[1]

The importance of the improvement of the river is obvious to all, for not only has the Embankment added a handsome frontage to the side of the Thames, which previously had been a public eyesore, but it has also been the means of getting rid of the unequal deposits of mud in its bed, assisting the removal of the scour of the river, and consequently improving the health of the inhabitants of London. – Edward Walford (1878)[2]

4.1   Introduction

The environmental impact of London's growing population culminated in the Great Stink of 1858, the pollution of the Thames being so virulent that Parliament was forced to authorise the most expensive infrastructural redevelopment project thus far. The sewerage works and embankments that resulted from these efforts transformed the landscape as well as the infrastructural foundations of London, permanently improving the sanitary state of the Thames and the city that relied so heavily upon it. London's leading political institution of the mid-nineteenth century, the MBW, directed these developments with the aid of parliamentary funding, following the plans created by the Board's Chief Engineer Joseph Bazalgette. Unlike the Great Fire and the Blitz where overarching development plans went largely unused during the reconstruction process, the successful implementation of Bazalgette's plan was the result of the Great Stink requiring an infrastructural solution with minimal interference with the housing or economy of the metropolis. Long-term benefits were able to be made due to this unique situation, avoiding the short-term issues that so blighted the responses to the Great Fire and the Blitz.

As such, this chapter will examine the Great Stink as demonstrative of how vast infrastructural improvements could be made when urgent, short-term financial and demographic needs did not interfere with long-term plans. London was able to bounce back from the shock and create long-lasting change despite the immense cost. The requirement for

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[1] W. Blake, 'Jerusalem: the emanation of the giant Albion' (1804), in E. R. D. Maclagan & A. G. B. Russell (eds.), *The prophetic books of William Blake: Jerusalem* (London: A. H. Bullen, 1904), 42.
[2] E. Walford, *Old and new London: a narrative of its history, its people and its places*, Volume 3 (London: Cassell, Petter, Galpin & Co., 1878), 326.

funding from Parliament – and the ultimate willingness for the national political institution to provide this despite the initial reluctance – demonstrates the importance of London for the national as well as international benefit. London was the beating heart of a vast empire, its political and financial institutions making decisions that would have a global impact. This status as the heart of empire was the direct precursor to its modern status as a global city, and its ability to manage its own crises through the responses of its political institutions became indicative of its global responsibility of managing the empire.

Parliament's reluctance throughout the 1850s to fund the necessary developments was met by an increasingly frustrated media, particularly as the intense summer heat of 1858 continued to grow. This unwillingness was finally overcome by parliamentary business itself being disrupted by the horrid stench.[3] The question of institutional responsibility during this shock proved more complex than for the Great Fire and the Blitz, the former found its solution in the allocation of responsibility to private landlords and the latter in a much stronger reliance on central Government. The Great Stink, on the other hand, required parliamentary funding and yet was viewed as a regional infrastructural improvement, leading to enmity from provincial MPs that such a large amount of national funding was going towards it. The solution of a loan paid back with interest resolved the debate in the House of Commons, allowing the MBW to finally put into place their anticipated plan.

The result was the sewerage system and the embankments, and these were considered engineering marvels of the Victorian period. Yet, they were necessary improvements to the archaic system that had been disposing London's human waste for centuries. It simply could not cope with London's much-expanded population. The philosopher and legal reformer Jeremy Bentham had written in 1776 that "the age we live in is a busy age; in which knowledge is rapidly advancing towards perfection. In the natural world, in particular, every thing teems with discovery and with improvement"; to a Londoner living through the Great Stink this may have seemed somewhat premature, as the metropolis struggled with the consequences of its own

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[3] Although the Great Stink was undoubtedly the resulting effect of intensive human habitation on the urban environment, it is worth noting that the shock would not have occurred that year without the unusually hot weather. Just as the dry summer and heavy wind in 1666 turned a small fire into London's greatest conflagration, the intense heat of 1858 transformed the pollution of the Thames into an unrivalled source of truly horrid stench. Whilst this thesis focuses on the human causes and political responses to these shocks, the impact of abnormal weather conditions must also be acknowledged. As Ashton notes, in 1858 the "unprecedented, lasting, and oppressive summer heat" was the "backdrop to London living", being the crucial context behind the events of that year. Ashton, *One hot summer*, 286.

impact on the natural world.[4] However, just a few decades later, London had been truly modernised, demonstrating the rapid advancement so praised by Bentham. The results of Bazalgette's efforts transformed London just as rebuilding with brick had following the Great Fire, renovating and redefining the visual and infrastructural identity of the city.

To explore this shock and its impact on the development of London, temporal and spatial boundaries around the narrative must be put into place. This chapter has a much broader historical remit than the others due to the causes (the population growth of London and insufficient infrastructure to support it) being long-term issues that finally reached an apex in the particularly hot summer of 1858. Previous attempts at improving London's pollution issues (most notably those endorsed by Edwin Chadwick) had been unsuccessful - it took the shock of the Great Stink for a sufficient resolution to be made. As such, some of the eighteenth- and early nineteenth-century responses from London's political institutions that dealt with these causes are explored in this chapter to contextualise the responses to the Great Stink. In particular, the attempts to resolve London's water pollution issues and the resulting disease epidemics during the 1830s and 1840s are direct precursors to the debates of the 1850s, and as such these will be discussed when relevant. However, as with the other chapters, the vast majority of this chapter will deal specifically with the short-term responses to the Great Stink and overall outcomes of the redevelopment works that resulted from it. The temporal boundaries are therefore defined more by thematic relevance than exact dates so as to remain broad and include relevant discussions, whilst remaining topical to the Great Stink and specific to the chapter argument.

The spatial boundaries for this chapter are similarly broad. The nature of the Great Stink meant that the inner-city areas of London were the most impacted both by the shock itself as well as by the sewerage works and embankments that were constructed to resolve it. As such, these areas can be considered the primary spatial boundaries. However, this chapter will discuss the Great Stink through the lens of the political institutions of London, and the boundaries governed by these institutions were similarly impacted by the shock through the funds that were put towards resolving it. Parliament's loans to the MBW, for example, meant that the Great Stink had a national impact even whilst those involved viewed it as a regional infrastructural improvement that solely benefited the Greater London area. As the focus of this chapter is on the responses of these political institutions and how they informed the development of London,

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[4] J. Bentham, *A fragment on government* (London, 1776), i; F. Rosen, 'Bentham, Jeremy (1748-1832), philosopher, jurist, and reformer'. *Oxford Dictionary of National Biography* (2014). Available online: https://doi.org/10.1093/ref:odnb/2153 [Accessed 1/4/2023].

the spatial boundaries are better defined by this area of impact rather than by using specific regions of the city. The Great Stink was a shock debated on the national stage in the House of Commons and the infrastructural works that resolved it were funded by parliamentary loans, therefore making precise spatial boundaries unsuitable for the methodology of this chapter.

The relevant political institutions will be used to explore the effectiveness of their responses to the Great Stink. The argument is that despite the heavy reluctance of Parliament to enact the necessary developments due to the extreme cost, once the MBW had the necessary funding the responses were highly effective in resolving the pollution issues that had created the Great Stink. This is particularly the case in comparison with the Great Fire and the Blitz as short-term interests were able to be overcome due to the infrastructural nature of the resolution, reducing the impact on the people and economy of London. As such, the political institutions were able to devote greater attention to making progressive developments. The responses to the Great Stink demonstrate the increasing reliance on London's political institutions to overcome the city's crises, with the private efforts that had restored London following the Great Fire incapable of resolving the pollution of the Thames. This shift in responsibility towards the political institutions, and most notably Parliament, demonstrates an increasing willingness to be involved as well as a greater attempt at successfully enacting the desired progressive developments, even if this quickly evaporated when faced with a substantial price tag.

The structure of this chapter follows the timeline of the Great Stink, with contextual sections interposed throughout to provide a greater depth to the analysis. Section 4.2 explores the causes of the Great Stink, most notably including the vast population growth of the previous century. How the infrastructural developments relate to the 'age of reform' is also included. The importance of the Great Stink to the infrastructural developments that followed the shock is additionally justified. Section 4.3 continues this by discussing the pollution and sanitation issues as well as the initial institutional efforts of the early nineteenth century that inadvertently led to the Great Stink. This includes the role played by the MBW prior to 1858. Section 4.4 explores the responses of Parliament once the Great Stink began to interfere with their proceedings, discussing their reluctance due to the high cost and how the argument gradually shifted in favour of their involvement. This section will demonstrate how the scale of the Great Stink necessitated a greater involvement of Parliament and reliance on London's political institutions when private efforts had been, for the most part, sufficient following the Great Fire. Finally, section 4.5 will address the municipalisation efforts following the Great Stink that addressed the unsanitary condition of London's drinking water supply to explore how the sewerage works and embankments only went so far in achieving the improvement of the city's water pollution,

before section 4.6 will conclude the chapter. Throughout this chapter, as with the others, comparisons will be made to the Great Fire and the Blitz to analyse the comparative effectiveness of the institutional responses to the Great Stink. This will demonstrate the gradual increase in the involvement of London's political institutions and the necessity of this due to the ever-greater scale of London's shocks.

4.2 Problems of Population, Pollution, and Political Responsibility: The 'Age of Reform' and the Great Stink

The political responses to the Great Stink were largely informed by two institutions: Parliament and the MBW. The latter had only been established as recently as 1855 by the Metropolis Management Act and was intended to oversee the infrastructural improvements of the capital – ideal timing given the works that would be authorised following the Great Stink.[5] Of particular relevance for this chapter, it took over the responsibility of drainage from the Metropolitan Commission of Sewers, itself having only been created in 1848.[6] This succession, as well as the remit over infrastructural improvements, gave the responsibility for overseeing any sewerage developments to the MBW and in particular into the exceptionally capable hands of the Chief Engineer Joseph Bazalgette. The complex system of sewerage and embankments that Bazalgette would go on to design was the fundamental outcome of the Great Stink. This response drastically and permanently altered London's infrastructure in such a manner that the system is still in use to this day.

Despite this, at first the MBW had been viewed as little more than yet another of the various authorities vying for influence over London's infrastructural development. Porter explains, "The Metropolis Management Act of 1855 had given it responsibility for building and improving streets, naming and lighting them, and regulating building safety. Until the success of the Main Drainage and the Embankment was evident, however, these duties remained subordinate and often contested by vestry and City officials".[7] The Great Stink had triggered the necessary political responses that had previously been unforthcoming, as demonstrated by the Crown's consistent contestation of the City's parliamentary petition to embank both sides of the Thames since 1840. Whilst the construction of the main sewerage system and the Embankment was part of the gradual modernisation of London during the mid-nineteenth century, the extreme cost as well as the conflict of responsibility made this construction far from a certainty.

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[5] *Metropolis Management Act 1855*. 18 & 19 Victoria, Chapter 120 (London: HMSO).
[6] *Metropolitan Commission of Sewers Act 1848*. 11 & 12 Victoria, Chapter 112 (London: HMSO).
[7] Porter, *The Thames Embankment*, 242.

Pollution issues had plagued London for decades and the Great Stink was the crucial shock to finally push Parliament into resolving them.

This eventual resolution came during the 'age of reform', characterised by the revolution in government heralded most notably by the Great Reform Act of 1832. By lowering the property restrictions for the vote as well as enfranchising certain large cities that were previously unrepresented (most notably including the growing industrial cities Birmingham and Manchester), this Act doubled the voting population to approximately 800,000.[8] Lizzeri & Persico have proposed that the impetus to reform lay primarily in the increased value of public goods, most notably public health infrastructure "such as sewerage, waterworks, and paved roads".[9] Spending by local governments had increased from 17 percent of total government spending in 1790 to 41 percent in 1890, demonstrating the increased importance of these initiatives.[10] Tying together this popular desire for an improved public health infrastructure with the extension of the suffrage, Lizzeri & Persico concluded that "reform takes place when increased needs for public goods lead a majority of the elite to demand a redirection of the role of government away from special interest politics towards increased provision of the public good. … rapid urbanization created a strain on urban infrastructures and made necessary a large program of spending on local public goods".[11]

The desire to improve the polluted state of Britain's rapidly growing cities (and most notably London) as an element of reform came primarily from the view that the correction of moral failings was a key aim of the reform movement.[12] Pollution as representative of sin was a commonly held belief, with Ribner explaining that it was "concurrent with the completion of London's sewer system, [that] the association of the Thames with sin lost its attraction".[13] The polluted Thames had represented an immoral city, with disease the physical manifestation of that sin. However, reformism cannot be seen as the sole cause behind the sewerage and embankment developments from the late 1850s onwards, as demonstrated by the failure of Parliament to act sufficiently to resolve London's pollution issues in the years since 1832 despite

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[8] A. Lizzeri & N. Persico, 'Why did the elites extend the suffrage? Democracy and the scope of government, with an application to Britain's "age of reform"'. *The Quarterly Journal of Economics*, 119, 2 (2004), 707-765:737.

[9] Lizzeri & Persico, 'Why did the elites extend the suffrage?', 736.

[10] Lizzeri & Persico, 'Why did the elites extend the suffrage?', 711.

[11] Lizzeri & Persico, 'Why did the elites extend the suffrage?', 755-756.

[12] J. Innes & A. Burns, 'Introduction', in A. Burns & J. Innes (eds.), *Rethinking the age of reform: Britain, 1780-1850* (Cambridge: Cambridge University Press, 2003), 1-70:2.

[13] J. P. Ribner, 'The Thames and sin in the age of the Great Stink: some artistic and literary responses to a Victorian environmental crisis'. *The British Art Journal*, 1, 2 (2000), 38-46:44.

pressure from reformers such as Edwin Chadwick. For this, the Great Stink acted as the shock that stirred Parliament into action. Reformism had allowed for the possibility of drastic infrastructural improvement, but financial factors and questions of responsibility had prevented decisive action from being taken. The Great Stink provided the impetus for a direct Government response, in this case providing the funding for the Metropolitan Board of Works to engage in this immense infrastructural project, in a manner that reformism had allowed for but had thus far been inadequate to address.

Reformism had not been entirely ineffective, however. Chadwick represented a movement with growing concern over the sanitary health of the urban population, being its leader between 1834 and 1854. Following the contemporary belief in miasma theory, he was primarily concerned with eliminating odour through proper drainage and improved engineering.[14] His *Report on the Sanitary Condition of the Labouring Population of Great Britain* (1842) strongly inspired a national Health of Towns Association, which Porter notes "promoted 'the sanitary idea' in the manner of the anti-Corn Law and abolition crusades".[15] These 'crusades' were prominent aspects of reformism in the 1820s and 1830s, demonstrating the strong association of urban sanitation as a mid-nineteenth century reformist crusade. Indeed, attitudes concerned with who held responsibility for urban infrastructural improvement had to change dramatically before a solution to London's pollution issues could be seriously executed. In 1838, Chadwick's friend James Mitchell had advised him against an idea of public health based on new sewerage: "to remedy this [lack of drainage] is far beyond the powers of anybody to effect. The expense would be enormous. Who is to bear this expense?".[16] The idea of parliamentary responsibility was still viewed as farfetched. With the creation of governmental bodies such as the General Board of Health, the 1840s and early 1850s saw a gradual and growing acceptance of parliamentary responsibility for urban sanitation. Whilst the Great Stink directly necessitated a decisive response from Parliament, this occurred within the context of two and a half decades of sanitary reform pressure.

The MBW provided the local political authority to enact the development of the main sewerage and Thames Embankment, but the sheer scale of the project meant that the cost would be far in excess of any infrastructural improvement made thus far. For this, an Act of Parliament would be required. It was indeed the limited finances and the inability of Parliament

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[14] Ribner, 'The Thames and sin', 40.
[15] Porter, *The Thames Embankment*, 58.
[16] James Mitchell, quoted in C. Hamlin, *Public health and social justice in the age of Chadwick: Britain, 1800-1854* (Cambridge: Cambridge University Press, 1998), 7.

to decide where the money would come from that had allowed London's pollution issues to become so severe; a contribution to *The Times* in June 1858 complained about the "festering shores" of the Thames but an editorial a month later expressed that the newspaper had been campaigning for ten years for something to be done about the polluted river.[17]

The worsening state of the Thames had been brought about by the rapidly increasing population and industry of London, but by the middle of the century the entire city was covered in filth. Jackson notes that this immense amount of waste was "intimately connected with its unprecedented growth. … Waste products multiplied in due proportion".[18] In these conditions, the Thames was not spared. The Industrial Revolution had seen large amounts of manufacturing waste deposited into its waves, and the vast amount of household (and human) waste that resulted from the bloated population often found the same fate. By 1815 London had become the 'Metropolis of the world', the biggest city in terms of population and the centre of Britain's enormous empire. From 675,000 in 1750 to 1,096,784 in 1801, and nearly tripling by 1860 to reach 3,188,485 people, migration and geographical expansion had allowed London to become one of the busiest but also dirtiest urban centres on the planet.[19] A previously unimaginable population size and insufficient waste management infrastructure led to vast amounts of excrement, household rubbish, and dead animals being discarded into the Thames. Frequent cholera outbreaks throughout the century were the inevitable result of these conditions, caused by much of the population still being reliant on drinking polluted water supplies collected directly from the river. Contemporary commentators were aware that the state of the Thames worsened disease outbreaks, albeit wrongly attributing the reason to miasmas, and *Punch* highlighted this with a cartoon published on 3rd July 1858 (Figure 4.1) titled 'Father Thames

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[17] *The Times*, 'To the editor', *The Times*. 18th June 1858; *The Times*, 'Editorial', *The Times*. 21st July 1858.
[18] Jackson, *Dirty old London*, 2.
[19] A. Crymble et al., 'Modelling regional imbalances in English plebeian migration to late eighteenth-century London'. *Economic History Review*, 71, 3 (2018), 747-771:747; E. A. Wrigley, *People, cities, and wealth: the transformation of traditional society* (Oxford: Blackwell, 1987), 166; Emsley et al., 'London history - a population history of London'.

FATHER THAMES INTRODUCING HIS OFFSPRING TO THE FAIR CITY OF LONDON.
(A Design for a Fresco in the New Houses of Parliament.)

Figure 4.1 Father Thames Introducing his Offspring to the Fair City of London, 1858.

Introducing his Offspring to the Fair City of London'; the river's three 'children' being diphtheria, scrofula, and cholera.[20]

This connection between the increasing population and river pollution had been made by contemporaries, but earlier solutions had been limited to confining the poor rather than dealing with their waste. As such, by the mid-nineteenth century a range of private, subscription-based institutions as well as their public counterparts run by local parish authorities littered London's landscape. These often held the intention of providing work for their occupants or, more commonly, as an attempt to reform the morality of the poor. However, these institutions allowed for great numbers of London's population to be held together in densely packed locations within the city, having an inevitable impact on the amount of human waste being produced in these areas and a resulting vulnerability to disease outbreaks caused by unsanitary conditions. These institutions served as an attempt to resolve London's problem of managing its poor throughout the eighteenth and nineteenth centuries but did little to tackle the problems this would cause to the health and hygiene of the city.

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[20] J. Leech, 'Father Thames introducing his offspring to the fair city of London', *Punch*. 35, 3rd July 1858, 5.

This connection between London's population density problems and its pollution issues was particularly due to the immense number of the poor and the conditions of poverty in which they suffered. It was this density that overwhelmed the sewerage infrastructure of the 1850s, and notably the resulting cholera outbreaks of that century were largely the result of unhygienic living conditions and the poor resorting to polluted drinking water. These circumstances were hardly new for London, but the hitherto unrivalled population growth created greater strains on the infrastructure and lived environment than ever before. The city's political institutions had previously attempted to manage this population, particularly through the corralling of the poor, but little thought had been given to its waste.

The increased density and growing impoverishment of London's population were the inevitable results of these efforts to improve the city's economic expansion and spatial development. The parish authorities aimed to support the poor in the eighteenth century through the provision of institutions such as the London Workhouse, but charitable efforts were required prior to the New Poor Law due to their inadequacy. The union workhouses of the nineteenth century were a much-improved response from London's parishes, but they merely attempted to encourage London's poor to contribute to the economy rather than support an improved quality of living. By maintaining the extensive amount of poverty within the city, conditions remained unhygienic and drinking water was still drawn directly from the polluted Thames. This issue was the direct result of London's population rise, but the resulting increase in waste being deposited into the river was not adequately considered by the authorities until the creation of the Commission of Sewers in 1848. This political institution as well as its successor, the MBW, would finally move past the focus on London's population and tackle the pollution issues that had only worsened as that very population grew.

The scale of the nineteenth century pollution problem transformed London's political institutions in a manner that had been impossible in the seventeenth century. The MBW may not have been created with the explicit goal of resolving the water pollution issues or disease epidemics, but its role as the organisational body overseeing London's infrastructural improvements granted it a level of authority in the capital only previously mirrored by the City of London Corporation. The direct replacement of the MBW by the LCC in 1889 demonstrates the role that the MBW had been granted in London's governance: it proved to be London's leading political institution despite its predetermined focus on the city's infrastructure. The Fire Court created in the 1660s also had authority over the infrastructural redevelopment following the Great Fire, but this remained an advisory role intended to only intervene when conflicting private interests petitioned its involvement. The Court was regulatory with commissioning power rather than planning authority. Moreover, this did not result in the development of a

political body that had authority over London's rapidly expanded and expanding size, with the City Corporation still being the highest level of governance in the capital despite its resolute boundaries. The LCC still reigned over London by the time of the Blitz, but the need for a more encompassing authority to cover the greater London region was demonstrated by the lack of a sufficient governing body to enact Abercrombie's *Greater London Plan*. The Blitz itself would similarly not be directly responsible for the eventual creation of the GLC in 1965, but it did highlight the need for a more expansive authority just as London's pollution woes and the resulting Great Stink had in the 1850s. Each shock highlighted the inadequacy of London's existing political authorities to cope with the scale of their respective crises, but with different levels of success in responding effectively.

4.3 Sewage, Pollution, and the Deceased: Institutional Efforts Prior to the Great Stink

Attempts to improve the liveability of London were not aided by the city's political make-up. Even by 1866, with the MBW in existence and providing at least some guidance to the city's development, the *Illustrated London News* could still report that,

> "The metropolis may really be said to exist, rather than to live. Putting out of sight the City Corporation, whose sphere of rule, however, is ridiculously limited, London is an inorganic mass of humanity, from which the one thing that humanity most needs – to wit, government by an intelligent will – is utterly absent. It has no unity, nor is it capable, as such, of being swayed. It possesses, of course, the materials of immense power, which for want of due organisation are converted into helplessness. It resembles a crowd, the very size of which deprives it of all self-guidance and control".[21]

Even the management of urban essentials such as utilities were provided instead by private companies:

> "Large human interests, merely for want of some methodising energy, lie weltering in perpetual chaos. Light, air, water, health, locomotion, order – to say nothing of convenience, beauty, grandeur, moral influence – all are mere matters of chance in what may be called the metropolitan districts. The common good is nobody's business. The things which are indispensable to municipal life

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[21] *Illustrated London News*, 'Metropolitan Municipalities', *Illustrated London News*. 48, 5th May 1866, 430.

falls under the management of companies and cliques, and, save so far as individual or organised charity prevents, the poor and the weak go to the wall".[22]

The municipalisation of London will be explored later in this chapter, but before this process begun in the final decades of the century, Londoners were entirely reliant on private enterprise. Fyfe notes that the magazine used vocabulary that was common throughout the nineteenth century to "explain the making of metropolitan form and the functioning of metropolitan life", consisting of transitional and indefinite language and demonstrating the consistent development that defined their age.[23] London was being transformed into a truly modern metropolis, but the lack of a firm political infrastructure to coordinate the "inorganic mass of humanity" led to difficulties in the city forming a distinct sense of urban identity.[24]

Attempts at resolving London's early nineteenth-century pollution issues were unsuccessful in persuading a reluctant and frugal Parliament to fund the necessary developments. Contemporaries were, however, very aware that something needed to be done, and perhaps the most vocal of these was Sir Edwin Chadwick, London's "sanitary dictator".[25] Though overly zealous at times (his antagonising actions having led to the dissolution of the Poor Law Commission as well as his removal from the Metropolitan Commission of Sewers), Chadwick was one of the most prominent advocates of sanitation reform in the first half of the nineteenth century.[26] His *Report*, discussed briefly above, demonstrated the unhygienic conditions in which much of London's poor lived and connected this with outbreaks of disease, arguing for an improved system of administration to counteract the growing problem. London's sewerage was particularly condemned, with Chadwick arguing it to be "a vast monument of defective administration, of lavish expenditure and extremely defective execution".[27] This criticism is not entirely surprising. No general statute concerning London's sewers had been passed since the 1531 Bill of Sewers and the local Acts which had since amended this Bill granted different levels of authority to the various localities.[28] Due to the sheer scale of the problem making any efforts by the local commission boards ineffective, little could be done to resolve London's pollution woes until the creation of the Commission of Sewers in 1848 provided an authority that could

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[22] *Illustrated London News*, 'Metropolitan Municipalities', 430.
[23] Fyfe, *By accident or design*, 14.
[24] *Illustrated London News*, 'Metropolitan Municipalities', 430.
[25] Luckin & Thorsheim, 'Introduction', 7.
[26] Halliday, *The Great Stink of London*, 36.
[27] E. Chadwick, *Report on the sanitary condition of the labouring population of Great Britain* (London: HMSO, 1842), 54.
[28] Halliday, *The Great Stink of London*, 32-33.

organise a unified response. However, even then steps could not be taken unless Parliament was willing to fund the necessary developments.

This reliance on Parliament echoed the need for the Rebuilding of London Acts of 1667 and 1670 following the Great Fire, as the authority of that national political institution was required for the necessary developments to be made. The early nineteenth-century parish authorities, in this case the local commission boards, did not have the finances or the overall mandate to enact sweeping redevelopment plans. Chadwick's focus on the "defective administration" expresses the desperate need for a central body, regional in nature, that was separate from the local commission boards as well as from Parliament to oversee the development of new sewerage.[29] As London's primary governing body was the City of London Corporation which had no authority outside of the square mile, a new political institution was required.[30] From this organisational as well as financial perspective, the creation of a new administrative body was a vital prerequisite to any successful attempt being made to resolve London's pollution issues. The Commission of Sewers was a suitable political institution for this task due to its authority over London's entire sewerage infrastructure, but its initial actions would instead contribute significantly to the deterioration of the Thames.

This decline would be due to a new way in which London's waste was discarded. Water-closets had been growing in popularity among the city's wealthier inhabitants throughout the early nineteenth century, but the Metropolitan Commission of Sewers Act gave the Commission the authority to enforce new as well as existing dwellings to build water-closets as an attempt reduce the number of cesspools within the city.[31] This shift was indeed necessary. In a letter dated 11th November 1831 and addressed to the committee in charge of responding to the 1831-

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[29] Chadwick, *Report on the sanitary condition*, 54.

[30] The need for an organisational body above the parish and, in the twentieth century, the borough level would similarly occur following the dissolution of the GLC in 1986, with no organisational administrative body replacing it until the establishment of the GLA in 2000. The question of London's overall governance had from the seventeenth century onwards been continuously frustrated by the City of London Corporation's attempts to maintain its independence particularly from Westminster, leaving the areas not controlled by the Corporation largely unmanaged until the mid-nineteenth century.

[31] Halliday, *The Great Stink of London*, 49. Chadwick was central to these efforts, promoting water-closets as a safer method of waste disposal. His importance to metropolitan sanitation debates during the 1830s and 1840s cannot be overstated: in a House of Commons discussion taking place on 2nd July 1858 concerning the impact which depositing sewage directly into the Thames had on the state of the river, Mr H. Berkeley sarcastically referred to "the reign of Mr. Chadwick, who was considered an authority for everything". House of Commons, 'State of the Thames – Battersea Park – Question', *Hansard Parliamentary Debates*. 2 July 1858, col. 875. Available online: https://hansard.parliament.uk/Commons/1858-07-02/debates/d31a1a2b-8dd7-42d0-9df3-5d757c42f426/StateOfTheThames%E2%80%94BaterseaPark%E2%80%94Question [Accessed 22/3/2023].

1832 cholera outbreaks, Henry Woodthorpe noted that London's cesspools "overflow to the serious injury and danger of the inhabitants", having not been emptied often enough due to the unaffordable cost for the largely poor population.[32] Combined with the sheer size of that population, this problem posed a severe risk to the health of the city. The building of water-closets was particularly enforced following the returning cholera epidemic of 1848-1849 as it was hoped that the new way of disposing human waste would reduce the injurious miasmas plaguing the city by clearing the air of much of the resulting stench. However, this solution alternatively discarded the waste directly into the Thames which was still the source of much of the city's drinking water supply.

Miasma theory entirely defined how contemporaries thought about London's water pollution issues and the Great Stink. It was defined as the transmission of disease through unhealthy vapours, meaning that bad smells were to blame. This had been the common belief for centuries and would continue to be until the development of germ theory in the 1880s, despite strong evidence being produced in 1861 by the renowned French chemist Louis Pasteur. Though the exact manner of transmission was being heavily debated by the early nineteenth century, this false belief in miasma theory directly influenced the responses to the Great Stink.[33] Bazalgette himself was not an exception to this, with his sewerage works being intended to reduce disease by clearing the Thames of enough pollution that the horrid stench and miasmas disappeared; the actual solution of purifying the Thames of much of its germs was instead an accidental outcome. Dr John Snow had linked the Broad Street cholera outbreak in 1854 (in which 500 people died across only ten days) to a polluted water supply by creating a map of the

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[32] LMA, *Collection of printed notices, memoranda, etc. and three MS. letters concerning cholera and precautions against cholera in Bengal, Odessa, and Europe*. COL/CC/HEB/04/003; Halliday, *The Great Stink of London*, 40.

[33] This debate was between the contagionist perspective, which was defined in *The Lancet* in 1843 as being "the transmission of a poisonous virus by immediate contact with some body in which it may exist" (with Fitzharris noting that exact methods ranged from chemicals to "invisible bullets"), and the anti-contagionist perspective, which was explained by the physician Neil Arnott in 1844 as "the poison of *atmospheric impurity* [sic] arising from the accumulation in and around … dwellings of the decomposing remnants of the substances used for food … and of the impurities given out from their own bodies". Although A. N. Wilson explains that the contagionist perspective was generally viewed by the medical community as outdated by the 1840s, both perspectives influenced how contemporaries viewed the risk posed by the Great Stink. However, this debate over miasma theory does demonstrate that scientific progress was being made into the origin of diseases, though it would have to wait until later in the century for the rise of germ theory. E. Wilson, 'Course of lectures on diseases of the skin; their history, pathology, and treatment'. *The Lancet*, 1 (1842-1843), 337-341:339; L. Fitzharris, *The butchering art: Joseph Lister's quest to transform the grisly world of Victorian medicine* (London: Penguin Books, 2018), 53; N. Arnott, 'Neil Arnott, Esq., M.D., examined', in *First report of the commissioners for inquiring into the state of large towns and populous districts*, Volume 1 (London: W. Clowes & Sons, 1844), 45-66:50; Wilson, *The Victorians*, 156.

area to trace who had been infected and where they had collected their water supply from (Figure 4.2), and his efforts succeeded in getting the local board of guardians to remove the pump handle.[34] His theory contradicted the existing consensus on miasma theory and it is notable that, rather than being purely based on opposing scientific evidence, *The Lancet*'s initial rejection of his theory was strongly influenced by the unpleasant notion that victims had been swallowing faecal matter.[35] Additionally, unhygienic burial practices resulted in contemporaries similarly viewing the overcrowded city graveyards as sources of disease-ridden miasmas, and although the belief in this transmission method was again erroneous, these locations did indeed create pollution and damage the health of the city.

This issue plagued all of the inner-city burial grounds, with the limited sanctified space imposing firm boundaries on where the corpses could be deposited. The graveyard at St Clement Dane's, for example, was so full that the gravedigger William Chamberlain reported that a new grave could not be made without cutting into existing ones.[36] Although the miasma theory would be disproven later in the century, it was not entirely wrong for some of the blame for London's epidemics to be laid at the feet of the deceased. The limited consecrated ground within the urban environment, as well as the unscrupulous undertakers willing to forsake their moral principles to make as much profit as possible, ensured that the graveyards were soon as overcrowded by the dead as the metropolis itself was by the living. These were prime locations for body-snatchers to take advantage of the dreadful conditions for their own nefarious purposes.[37] This, combined with an insufficient water supply infrastructure and sewage disposal system, created conditions in which the drinking water for much of London's population (whether piped directly to their homes or, more frequently, collected from either a local pump

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[34] S. J. Snow, 'Snow, John (1813-1858), anaesthetist and epidemiologist'. *Oxford Dictionary of National Biography* (2008). Available online: https://doi.org/10.1093/ref:odnb/25979 [Accessed 15/3/2023]; J. Snow, *John Snow's map showing the spread of cholera in Soho, London, 1855*. 30":1 statute mile (London: C. F. Cheftins, 1855). Available online: https://www.bl.uk/collection-items/john-snows-map-showing-the-spread-of-cholera-in-soho-london-1855 [Accessed 15/3/2023].

[35] P. Vinten-Johansen et al., *Cholera, chloroform, and the science of medicine: a life of John Snow* (Oxford: Oxford University Press, 2003), 11. *The Lancet* was quite articulate with its heavy criticism of Snow's theory, ridiculing him with the creative yet appropriate metaphor that "the well whence Dr. Snow draws all sanitary truth is the main sewer". *The Lancet*, 'Editorial'. *The Lancet*, 1, 1660 (23 June 1855), 635.

[36] C. Arnold, *Necropolis: London and its dead* (London: Pocket Books, 2007), 115.

[37] During this period, the only legal source of cadavers for London's anatomy schools were the bodies of criminals and this soon proved insufficient. The poor became the main victims of illegal body-snatchers willing to dig up the overflowing graveyards, and even more so once it became legal for anatomists to use the bodies of those who went unclaimed for forty-eight hours after death. Unsurprisingly, the recently deceased from institutions such as workhouses and hospitals became primary targets due to the disregard shown to the inhabitants as well as the limited contact with friends and family. Arnold, *Necropolis*, 107-110.
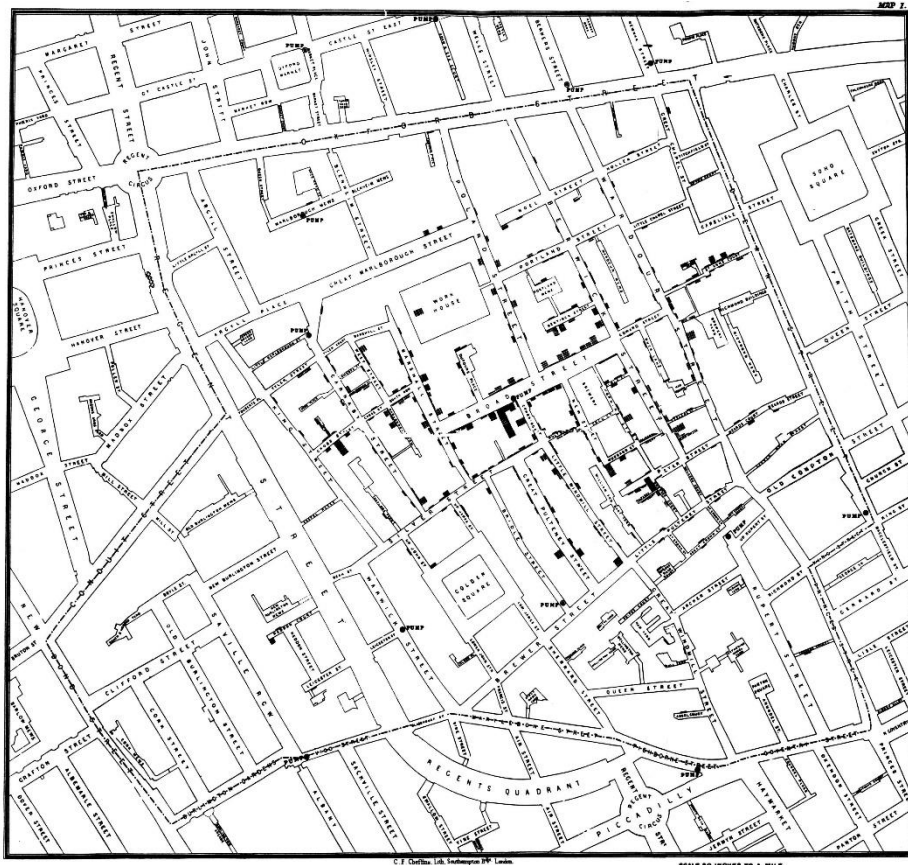
Figure 4.2 John Snow's map showing the spread of cholera in Soho, London, 1855.

or directly from the Thames itself) became dangerously infected by seeping fluids and even direct contact with the dead.[38] The personification of Death himself was to be seen crossing the river as 'The Silent Highwayman' in a *Punch* cartoon from 3rd July 1858, emphasising the deadly condition that the Thames had been reduced to (Figure 4.3).[39]

The eventual response to this particular outcome of London's overpopulation woes was to close the inner-city graveyards and to bury London's dead in newly built suburban cemeteries. These were conceptually institutional but were ran by private companies such as the General Cemetery Company rather than being municipal projects.[40] By the time the existing graveyards were closed and the creation of new inner-city graveyards forbidden by the Burial Act of 1852,

[38] This was most notable when water was collected or pumped directly from the Thames, in which it was common for dead animals to be disposed.

[39] *Punch*, 'The silent highwayman', *Punch*. 35, 3rd July 1858, 15.

[40] It is notable, however, that an Act of Parliament was required for the General Cemetery Company to be established. The Metropolitan General Cemetery Act of 1832 explained that this company would create a cemetery "at their own Costs and Charges", demonstrating the private nature of this company, and this came true the following year with the opening of Kensal Green Cemetery. *Metropolitan General Cemetery Act 1832*. 2 & 3 William IV, Chapter 110 (London: G. Eyre & A. Spottiswoode).

Figure 4.3 The Silent Highwayman, 1858.

seven cemeteries had been built within a six-mile radius of central London.[41] Of these, Abney Park Cemetery catered to the urban poor, choosing to not require the Anglican burial fees that made it difficult for families to afford a cemetery burial.[42]

Although this movement to suburban cemeteries heralded the pomp and splendour of Victorian funeral culture (a development embraced by the working classes despite the high costs), this allocation of burial ground for the poor and the assistance provided by 'burial clubs' allowed people from all classes to take advantage of the new cemeteries.[43] This solved the issue created by the closure of the local parish graveyards of what to do with the poor masses, and the movement of the dead outside of the city centre gradually improved the sanitary situation of the metropolis as historic burial grounds were converted into public gardens or otherwise developed and built over.[44] The expansion of London's boundaries and rapid spread of the

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[41] *Burial Act 1852*. 15 & 16 Victoria, Chapter 85 (London: G. E. Eyre & W. Spottiswoode). These cemeteries were Kensal Green (1833), Norwood (1837), Highgate (1839), Abney Park (1840), Brompton (1840), Nunhead (1840), and Tower Hamlets (1841). Arnold, *Necropolis*, 123-124.

[42] C. Brooks, *Mortal remains: the history and present state of the Victorian and Edwardian Cemetery* (Exeter: The Victorian Society, 1989), 28.

[43] Arnold, *Necropolis*, 188.

[44] In particular, campaigners hoped these public gardens would be used as parks for children to play in. The fact that this was not seen as a disturbing use of what had been overflowing, disease-ridden burial

suburbs soon threatened to recreate the risks of the inner-city graveyards, particularly as the new cemeteries themselves were quickly filling, but a solution was found in the new railways. The London Necropolis Railway transported the dead to Brookwood Cemetery, located in Surrey, and operated on a class system whereby a first-class ticket would ensure a luxurious journey for the corpse. London's perennial problem of what to do with its dead had found another solution: the creation of a necropolis, a true city of the dead.

The solution to London's graveyard problem was found not in the actions of the city's political institutions, but through the efforts of private companies to transport the dead outside of the built-up urban region. This mirrors Parliament's reluctance to resolve the Thames pollution issues due to the great financial commitment it would have involved, though the sheer scale and infrastructural nature of that crisis meant that it eventually became necessary despite the cost. Besides the stench itself, the main issue that the Great Stink caused was the pollution-induced diseases the Thames contained that were then consumed by London's population. Similarly, the close proximity to accommodation and the densely packed condition of the graveyards of inner London created severe sanitation issues, particularly with the aforementioned problems surrounding overflowing cesspools. Polluted water supplies were an inevitable result of this situation, with frequent cholera epidemics throughout the first half of the century demonstrating the extent of the problem. London's authorities were ineffective in tackling this issue, as shown by the failure of the parish churches to defend their graveyards against overcrowding as well as from the grave robbers that made use of this. Private institutions such as the General Cemetery Company and the various burial clubs provided a solution to this that those local parish authorities could not, and one that Parliament would only authorise if they did not have to fund it. Through these means, London's fight against water pollution was aided almost coincidentally, with miasma theory dictating the removal of the graveyards to external cemeteries rather than a desire to improve the water quality itself. Similarly to landowners and their tenants following the Great Fire, private individuals stepped up to resolve an issue that the political institutions were unable (or unwilling, in the case of Parliament) to fix.

By the start of the 1850s, the Commission of Sewers had begun to consider how the problem posed by the Thames pollution could be tackled. Forster's Scheme, created by Chief

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grounds demonstrates the close proximity to death that Londoners had as part of their ordinary lives. Graveyards could become playgrounds, echoing how bombsites were used by children as areas of exploration and play during the Second World War. J. Clifford, 'Greater London's rapid growth, 1800-2000', in B. Luckin & P. Thorsheim (eds.), *A mighty capital under threat: the environmental history of London, 1800-2000* (Pittsburgh: University of Pittsburgh Press, 2020), 22-45:37.

Engineer of the Commission of Sewers Frank Forster and presented to London's Court of Common Council on 13th March 1851, recommended building 39 miles of sewers to intercept and redirect the northern sewage.[45] This is much shorter than the 82 miles of sewers eventually planned by Bazalgette, but the overall cost and scale of the proposed project nonetheless led to little being done about the problem. Parliamentary funding was required. The various opposing interests, tiring anxieties, and unwavering pressures placed on Forster during the process of creating his scheme and in response to its submission contributed to his early death in 1852, to be succeeded by Bazalgette as Chief Engineer to the Commission.[46] Bazalgette would alter and improve Forster's scheme over the following years but opposing objections by Mr. F. O. Ward in 1855 would place intense pressures on the Commission's new leading engineer, mirroring the conditions that had led to the morbid fate of his predecessor. In a scathing review of Ward's public attacks on Bazalgette, the eminent civil engineer Robert Stephenson wrote to *The Times* expressing his frustration:

> "I cannot permit the attack made by Mr. F. O. Ward … on Mr. Bazalgette, Engineer of the Commission, to pass without remark. … I had an opportunity a few months ago … of expressing to him my opinion of the character of his objections to Mr. Bazalgette's plans and calculations. I told him then that I could characterize his objections as nothing better than puerile. I adhere to that word".[47]

Bazalgette himself appeared more patient with Ward, having entertained an interview lasting several hours with him the previous January despite making it clear early on that "his propositions were not new to me, and that I believe a more careful investigation of them would shew that many insuperable objections to them existed".[48] The letter detailing this encounter includes at the end a list of various attacks made by Ward throughout 1855: a total of twelve are included between 22nd January (the original interview) and 23rd October, ranging from requests for Bazalgette to reproduce his calculations in detail and insinuating "that I had

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[45] LMA, *Forster's scheme: report from members of Metropolitan Commission of Sewers to Court of Common Council on metropolis sewage, presented 13 Mar 1851*. COL/TSD/EG/05/01/002, 12.

[46] Halliday, *The Great Stink of London*, 54; D. Smith, 'Bazalgette, Sir Joseph William (1819-1891), civil engineer'. *Oxford Dictionary of National Biography* (2016). Available online: https://doi.org/10.1093/ref:odnb/1787 [Accessed 29/3/2023].

[47] LMA, *Letter from Robert Stephenson to editor of The Times concerning London drainage* (Saturday 3rd November 1855). COL/TSD/EG/05/01/023, 1-2; M. W. Kirby, 'Stephenson, Robert (1803-1859), railway and civil engineer'. *Oxford Dictionary of National Biography* (2008). Available online: https://doi.org/10.1093/ref:odnb/26400 [Accessed 16/3/2023].

[48] LMA, *Copy of statement of Bazalgette as to an interview had with F. O. Ward – 22nd January 1855*. COL/TSD/EG/05/02/003, 2.

improperly destroyed them to keep them out of view", to accusations of withholding Court documents.[49] It is no wonder that by the end of the year Stephenson would describe Ward's actions as puerile.

These interactions between Ward, Bazalgette, and Stephenson (however reluctantly for the Chief Engineer) demonstrate the difficulties that arose whilst trying to figure out a solution for the pollution of the Thames. Even before the Great Stink provided the final push to enact the widespread and necessary developments, the conflicting interests, ideas, and technical plans interfered within the political institutions to hinder the process. When a clear plan could be presented, as in the case of Forster's scheme, the creation of the plan itself and the conflicting commentators providing their own feedback were so hostile as to contribute to the author's death. Meanwhile, no all-encompassing plan could be authorised without sufficient funding to afford it, with the scale of the problem and proposed solution proving so immense as to require Parliament's aid. The eventual solution of Bazalgette's sewerage works and embankments may have largely been the result of one man's ideas, but his experiences as Chief Engineer of the Commission of Sewers, cooperation with London's Court of Common Council, and necessary reliance on parliamentary funding demonstrates the importance of London's political institutions in resolving the biggest environmental hazard London had faced since the Great Fire. Without these, Bazalgette's all-encompassing redevelopment plan would have been just as impossible to put into place as Wren's had nearly two centuries prior.

Unperturbed by Ward's attacks, Bazalgette would go on to retain his eminent position in the successor to the Commission of Sewers, the MBW. This Board superseded the authority of the Commission but contained a much broader range of duties, having the responsibility of authorising infrastructural developments throughout the growing metropolis.[50] Bazalgette's plan would not however be authorised until 1858, following the Great Stink. By this point, the condition of the Thames had worsened, with Professor Richard Owen's Presidential Address at the British Association for the Advancement of Science that year speaking of the "atmospheric impurity [of the river] from over-crowding", with the "increased noxious and morbid power" of

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[49] LMA, *Copy of statement of Bazalgette as to an interview had with F. O. Ward – 22nd January 1855*. COL/TSD/EG/05/02/003, 6-7.

[50] Following the construction of Bazalgette's sewers, for example, the Board and its direct successor the LCC spent much of the rest of the century directing the improvement of London's streets. This created its own range of debates over funding, with the Council being just as reluctant as the Parliament of the 1850s to fund the vital infrastructural improvements despite their much smaller (and resultingly cheaper) scale. LMA, *Improvements: contributions by LCC, successor to the Metropolitan Board of Works, 1889-1897 and extracts 1867. Letters re lines of improvement not altered to 1904*. COL/CC/ITP/03/01.

the "unintermitting and importunate odours" drawing the attention of all who lived nearby.[51] Owen's reference to the impact of the population on the environmental health of London is notable; the Great Stink was a direct outcome of London's intense population expansion and increased density. Or, more specifically, its waste.

4.4 The Involvement of Parliament: Governmental Reluctance and the Need for Funding

The particularly hot summer of 1858 and its accompanying stench finally interfered with parliamentary proceedings enough for something to be done. The issue was raised by Mr Brady in the House of Commons on 11th June 1858, noting that "it was a notorious fact that hon. Gentlemen sitting in the Committee Rooms and in the Library were utterly unable to remain there in consequence of the stench which arose from the river". Despite these conditions, the Chief Commissioner of Works Lord John Manners responded with his inability to do anything about the situation, claiming "that the River Thames was not in his jurisdiction".[52] In the meantime, parliamentary business continued despite newspapers from across the political spectrum calling on Parliament to resolve the situation.[53] On 12th June *Punch* criticised the Commons for discussing a newly introduced Poisons Bill when London was already being poisoned on a much larger scale:

> "It may have a limited beneficial effect, but while Two Millions of people in London are living over a far worse poison than an Apothecary can sell, and are inhaling it day by day until they are killed … these tiny measures are child's play. Cleanse the Thames, the stench whereof, this last beautiful week, has been perfectly Loathsome, and carry out a system of Sewage, and then attack the chemist's shops. How long is London to be poisoned because a ridiculous Vestry will not act, or allow any one else to do so".[54]

Lord Manners elaborated on the situation on the 15th, explaining that "Her Majesty's Government have nothing whatever to do with the state of the Thames", the 1855 Metropolis

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[51] R. Owen, 'Address of the President' in *Report of the twenty-eighth meeting of the British Association for the Advancement of Science; held at Leeds in September 1858* (London: John Murray, 1859), xlix-cx:cii; civ.

[52] House of Commons, 'State of the Thames – Question', *Hansard Parliamentary Debates*. 11th June 1858, col. 1921. Available online: https://hansard.parliament.uk/Commons/1858-06-11/debates/cc036633-4390-48ee-aab5-18dcfbeba632/StateOfTheThames%E2%80%94Question [Accessed 22/3/2023].

[53] Ashton, *One hot summer*, 180-182.

[54] *Punch*, 'Punch's essence of Parliament', *Punch*. 34, 12th June 1858, 233.

Management Act having granted the MBW "the whole jurisdiction over it … Her Majesty's Government can only exercise a sort of veto upon any plan which they may propose for its purification".[55] The dispersal of political responsibility since the seventeenth century is shown by how there had been a closer link between monarchical government and political response following the Great Fire. Parliament's dismissal of responsibility demonstrates the political conflict over which institution should bear responsibility for the Great Stink, with the Government's opinion (somewhat predictably) being that the MBW should take on the immense cost whilst being restrained by the Government's ability to veto any plans made.

This authority is comparable to the Central Land Board following the Blitz. Local councils had to submit development plans for their regions to this Board as well as the Minister of Town and Country Planning. These development plans were required to adhere to national plans for land use. Essentially, the Board and Minister had a veto. As this was a national policy rather than being specific to London as the Government's veto of the MBW had been, it demonstrates the increasing power of Parliament and the national Government over local authorities. Whereas in the seventeenth century the City of London Corporation had retained a certain level of autonomy from Westminster, by the nineteenth century the MBW had conditional autonomy dependant on the rights granted to it by parliamentary Act. This had been further prohibited by the twentieth, with the central Government holding an even greater level of authority over the LCC and its successors. Parliament increasingly played a greater role in London's self-governance during these centuries, but London's growing size also required political institutions to develop that could direct and organise the growing mass. The MBW and LCC fitted this position, governing the parish (and eventually the borough) authorities whilst being restrained to an increasing extent by Westminster.

Greater pressure was placed on the Government to clean the Thames on 18th June, despite their continued reluctance to take responsibility. Mr R. D. Mangles expressed that "a good supply of brandy and other condiments" would be necessary to cope through a steamboat voyage on the Thames to inspect its conditions, noting that another member of Parliament had already required "a large dose of the stimulating alcohol" for the same journey.[56] Canvasses

[55] House of Commons, 'State of the Thames – Question', *Hansard Parliamentary Debates*. 15th June 1858, col. 2113. Available online: https://hansard.parliament.uk/Commons/1858-06-15/debates/5dc16df6-9793-4aee-8829-21f58090e6cf/StateOfTheThames%E2%80%94Question [Accessed 22/3/2023].
[56] House of Commons, 'State of the Thames – Question', *Hansard Parliamentary Debates*. 18th June 1858, col. 28. Available online: https://hansard.parliament.uk/Commons/1858-06-

covered in chloride of zinc and lime had been used to cover the windows of Parliament, limiting (but not entirely removing) the stench that entered the building. This was in addition to the "four or five boat-loads of lime" deposited into the Thames as well as the lime spread over the mud banks, both notably near the Houses of Parliament to grant the greatest benefit to the MPs themselves.[57] This attempt to reduce the smell was satirised by *Punch* on 31st July in a cartoon titled 'How Dirty Old Father Thames was Whitewashed' (Figure 4.4), the dishevelled figure of Father Thames emphasising the state of the river.[58] These initial (and insufficient) responses from Parliament to the Great Stink were entirely with the aim of improving the conditions for Parliament itself, with the horrors being suffered by most of inner London's population only being noted on occasion. On 25th June for example, still with no clear resolution having been made, Mr Owen Stanley expressed to the Commons that "he was glad the evil had come home to themselves, as the public were the more likely to obtain, he hoped, a speedy relief".[59] Parliament had previously been content to leave the responsibility to the MBW despite an awareness that the cost far exceeded the means of that regional political institution, so long as the smell did not interfere too much with the MPs themselves. As Flanders notes, "nothing makes funds available more quickly than the discomfort of the ruling class".[60]

By 25th June, the discussion in the House of Commons still revolved around which political institution (Parliament or the MBW) should have the responsibility over funding the necessary improvements, but some progress was beginning to be made. Lord Manners still insisted that the Government bore no obligation for the state of the Thames, expressing that,

"on behalf of the Government, I distinctly repudiate that responsibility. The law gives us no power of action whatever in the matter and without legal power,

18/debates/76e50dcc-f37b-4987-a498-6fd7d6485aaa/StateOfTheThames%E2%80%94Question [Accessed 22/3/2023].

[57] House of Commons, 'State of the Thames – Question'. 18th June 1858, col. 36.

[58] *Punch*, 'How dirty old Father Thames was whitewashed', *Punch*. 35, 31st July 1858, 41.

[59] House of Commons, 'The State of the Thames', *Hansard Parliamentary Debates*. 25th June 1858, col. 422. Available online: https://hansard.parliament.uk/Commons/1858-06-25/debates/03e5dae5-90e7-4a3e-8c52-5375f27d4a25/TheStateOfTheThames [Accessed 22/3/2023].

[60] Flanders, *The Victorian city*, 224. This was not the first time MPs had suffered through a strong stench emanating from the Thames, with Hillier & Bell instead describing the Great Stink as "the apex of the problem" rather than a unique occurrence. It was this extremity of the stench caused by the particularly hot 1858 summer that finally pushed Parliament into action. J. Hillier & S. Bell, 'The genius of place': mitigating stench in the New Palace of Westminster before the Great Stink'. *The London Journal*, 35, 1 (2010), 22-38:23.

Figure 4.4 How Dirty Old Father Thames was Whitewashed, 1858.

even if the means were at hand, I need scarcely say it is impossible for any Government or body to supply a satisfactory solution to the difficulty".[61]

Additionally, however, Lord Manners did not put the blame for the lack of a swift solution on the MBW either. He explained,

"I have no wish whatever to throw the smallest blame upon that body, or any other authority vested with power for the better government of the metropolis. I believe that all parties have been actuated by the best and most honourable motives in their endeavours to fulfil those important functions that have been allotted to them. That they have not been able to arrive at a satisfactory conclusion in those matters appears to me to be a strong proof of the great difficulty of the question itself".[62]

He concluded his speech by expressing the willingness of the Government to "afford [the MBW] every assistance in our power to enable them to discharge their difficult duties with the greatest efficacy and effect".[63] Not long after, the Chancellor of the Exchequer added that it is the

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[61] House of Commons, 'The State of the Thames', col. 433.
[62] House of Commons, 'The State of the Thames', col. 434.
[63] House of Commons, 'The State of the Thames', col. 436.

responsibility of the Government to "furnish [the MBW] with those means which are adequate to the due fulfilment of duties. [That being] want of funds".[64] The Government's perspective was therefore that they still bore none of the responsibility for cleaning the Thames, but that they were aware the issue could not be resolved without providing the MBW with sufficient funds. With at least some clarity having been provided for the situation, the discussion then turned to how that funding would be acquired.

Funding was indeed the primary issue preventing a decisive resolution from being made. More specifically, how much of the cost Parliament, and therefore the nation, should cover, or if it should be entirely London's responsibility. Sir John Shelley had already expressed on 18th June that London's ratepayers should not cover the entire immediate cost, instead proposing that the Government should fund the MBW, "to be paid by instalments with interest … spread over a number of years".[65] In Shelley's opinion, it was the scale of the predicted cost that required Governmental assistance; he noted on 9th July that "the metropolis ought to pay for its own cleansing and drainage, but when the scheme exceeded those limits, the question was, whether London ought not to be assisted by the nation".[66] Mr Bentinck thought not, expressing his disapproval and stating "that the metropolitan public wanted the rest of the country to contribute towards the expense of improving the metropolis". Whilst he accepted London's importance as "the seat of the Court and Legislature", he did not think this gave it the right to put the expense of its own infrastructural improvements onto the country as a whole.[67] There was precedence for the nation to contribute towards the cost of London's improvements following crises, most notably demonstrated by the charitable brief collected in the aftermath of the Great Fire. However, the infrastructural nature of the improvements being suggested during the Great Stink created the impression that the money would be going towards local improvements rather than crisis recovery. This was a contentious issue; General Thompson compared the problem to a military attack, expressing that,

> "If an invading army attacked the metropolis, it would not be urged that the provinces ought not to assist. In like manner the danger of the Thames came here because it was the metropolis, because it was a collection of interests from the whole country. All human life ought to be a reciprocation of benefits. The

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[64] House of Commons, 'The State of the Thames', col. 441.
[65] House of Commons, 'State of the Thames – Question', col. 40.
[66] House of Commons, 'The Purification of the Thames', *Hansard Parliamentary Debates*. 9th July 1858, col. 1170. Available online: https://hansard.parliament.uk/Commons/1858-07-09/debates/c226feba-37d6-4908-9d2a-01833c9e3dba/ThePurificationOfTheThames [Accessed 22/3/2023].
[67] House of Commons, 'The Purification of the Thames', col. 1167.

time might come when provincial interests would look to the metropolis for assistance, and he was sure it would not be in vain".[68]

Whether under attack from an invading army of people or disease-ridden miasmas, London needed defending. In Thompson's view, it was the nation's responsibility to support this defence and, eventually, London might reciprocate this aid.

This question of national responsibility for London's issues would find a successor less than a century later in the responses to the Blitz. Parliament was much faster to take responsibility during this twentieth century shock, pressed by the extent of the damage inflicted as well as the severe risk to the country's economy if recovery was delayed for too long. However, the Blitz was a national issue, with cities across the country receiving severe damage from enemy bombs. Although London would finally be given the opportunity to assist the "provincial interests" referred to by Thompson, by this point Parliament's influence over local authorities across the country had grown so much that it was this political institution that was looked to for aid rather than London. Moreover, the metropolis itself had been on the front line of the Blitz, receiving most of the national damage and the most sustained period of attack. It was in no position to support its own recovery as well as the country's recuperation as a whole. As with the Great Stink, Parliament was called upon to assist in the recovery process. The question was no longer which political institution should front the cost for London's recovery following the Blitz - this debate had instead been replaced by the assumption that Parliament would take responsibility. The LCC and borough councils would use their local knowledge to inform the development process, but Parliament would either take on the expense or sell the land to transfer the problem to private interests. Their responses to the Great Stink demonstrate this transition to a heightened level of authority: it was initially expected that the MBW would take responsibility to make the necessary developments, with Parliament having the ability to veto undesired plans, but once it became clear that the cost would far exceed the MBW's means then Westminster was prepared to provide financial assistance.

The eventual resolution was finally proposed on 15th July. Benjamin Disraeli, the Chancellor of the Exchequer, put forward the Metropolis Local Management Act Amendment Bill to definitively adapt the Metropolis Management Act of 1855 to allow the MBW to clean the

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[68] House of Commons, 'The Purification of the Thames', col. 1166.

Thames. This Bill did not go unchallenged with Mr John Locke criticising the authority given to the MBW, sarcastically summarising the Government's perspective as,

> "We will place unlimited confidence in a body who have hitherto done nothing. They tell us they can do for three millions that which, up to the present time, they have always declared they could not do for less than five or six millions. Such is our confidence in them, however, that we will withdraw any wholesome restraint which has been placed upon them, leaving the matter entirely in their hands, and give them facilities for raising money to do – what, we don't know".[69]

Despite this, the Bill would go on to be successfully enacted.[70] Responsibility would be placed on the MBW and the Government "should guarantee capital and interest as to the sum of £3,000,000, provided the [MBW] raises this revenue of £140,000 a year for forty years, … which will place the financial operation under the control of the Treasury".[71] Despite this estimation that the entire project would cost £3 million, the actual figures would be "just over £4 million for the main drainage and £2.5 million for the embankments, with more spent on enhancing parks, gardens, streets, and bridges".[72] It was by far London's most expensive infrastructural project until then. London would still bear much of the cost with a special tax for forty years to raise the stated £140,000 annually, but this would not have been possible without Parliament's (and particularly Disraeli's) direct intervention in London's pollution woes.

Although the newspapers had been calling on Parliament to decisively resolve the Great Stink, the overall expense of the proposed solution as well as the uncertainty over its ultimate effectiveness led to some criticism. *Punch*, for example, published the poem 'Slow but Sewer' on 14th August 1858, the final three stanzas directly targeting Bazalgette's plans:

> Bazalgette and his Board of Works
> Must be benighted as the Turks,

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[69] House of Commons, 'Metropolis Local Management Act Amendment Bill – Leave', *Hansard Parliamentary Debates*. 15th July 1858, col. 1523. Available online: https://hansard.parliament.uk/Commons/1858-07-15/debates/9ef9ef98-2755-4e80-91b7-2314b8a42de7/MetropolisLocalManagementActAmendmentBill%E2%80%94Leave [Accessed 24/3/2023].

[70] In part, the *Illustrated London News* believed that the success of the Bill was "because people seemed to expect a mess but were ready to let the Metropolitan Board of Works take the responsibility – and blame – if the plan failed". Once again, Parliament had shown their reluctance to accept responsibility, but at least this time they had enacted the necessary measures for progress to finally be made. Ashton, *One hot summer*, 187.

[71] House of Commons, 'Metropolis Local Management Act Amendment Bill', col. 1514.

[72] Ashton, *One hot summer*, 284.

Of waste like this to think.

Besides, their tunnels, we all know,

On rainy days must overflow,

And make the river stink.

In no one project will you find

So many fallacies combined

As in this tunnel-scheme:

Its cost, immense: its profit, nil:

The sewage lost: the river still

A starved and stinking stream.

Rate-payers, up! 'Tis now or never;

"Sewage to soil and Rain to river;

Be this your battle-shout:

Be "Pipes and profit" your demand,

Not millions spent on tunnels grand,

To clean – your pockets out![73]

The expected issues included rainwater overflowing the sewers, recreating the problem caused by water-closets in the 1840s and 1850s. Additionally, *Punch* called for the continued role of the night soil men, collecting the waste from London's cesspools to be sold as fertiliser. This "sewage to soil" process would continue to be separate from the "rain to river" sewers, theoretically allowing a profit to be made whilst cleansing the Thames. The fact that this had been the previous system that had first led to the pollution of the river seems to have been missed, particularly with *Punch* not offering an alternative solution. Additionally, the discussions in Parliament surrounding the Metropolis Local Management Act Amendment Bill had made it clear that the intercepting sewers would ideally take the waste out of the metropolitan area as much as feasibly possible, "so that the metropolis should not be polluted by the reflux of sewage matter".[74] Although the outrage at the high cost can be seen as justified, Bazalgette's project was indeed necessary to resolve London's water pollution crisis.

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[73] *Punch*, 'Slow but sewer', *Punch*. 35, 14th August 1858, 71.
[74] House of Commons, 'Metropolis Local Management Act Amendment Bill – Leave', col. 1527.

Parliament's response to the Great Stink had been one of reluctance, leaving the problem to the MBW until it became clear that involvement was indeed necessary to resolve the pollution woes. Questions surrounding funding and responsibility were the main issues preventing decisive action and little could be done immediately to clear the urban air of the horrid stench. The responses from London's political institutions to both the Great Stink and the Blitz involved the creation of long-term plans intended to improve the infrastructure and design of the city through direct government oversight. This differed from the responses to the Great Fire, which sought to make improvements whilst recreating the previous design of the city due to the responsibility to rebuild remaining with private individuals. Although Parliament attempted to avoid the responsibility during the Great Stink, they still desired to maintain a veto over the improvement plans and were directly involved through their control of the funding loans. Additionally, Bazalgette's plans were created through his role as Chief Engineer to the MBW, echoing the LCC-commissioned plans by Holden and Holford for the City as well as those by Abercrombie for the County of London and Greater London following the Blitz. This differs from the plans made following the Great Fire, such as those by Wren, which had been created by individuals acting without direct institutional guidance. This shift in perceived responsibility in responding to the shocks demonstrates the increasing involvement over time of London's political institutions in the recovery and rebuilding process.

The attention of Parliament had finally been (successfully) directed towards the growing pollution problem and funding was granted to the MBW, but the entire system would not be finished until 1875. Land and properties needed to be purchased, with the Main Drainage Committee minutes recording a direct request to ascertain what would need to be purchased in order to construct the Northern High Level Sewer and the Main Outfall Sewer in particular.[75] Additionally, a Thames Embankment Committee was organised in 1862 following the Thames Embankment Act of the same year "to execute so much and so many of the powers … as relate to the purchase and acquisition of lands, rights, and interests, required to be taken or dealt with for making the Embankment and Roadway, and works connected therewith".[76] The scale of the project proved so enormous that the MBW had to purchase additional land only a couple of years later, authorised by the Thames Embankment Amendment Act of 1864.[77] The Southern Outfall Works, which would eventually become known as Crossness Pumping Station, would

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[75] LMA, *Main Drainage Committee minutes, vol. 1*. MBW/0965, 15th October 1858.
[76] LMA, *Thames Embankment Committee minutes, vol. 1*. MBW/1117, 8th August 1862.
[77] *Thames Embankment Amendment Act 1864*. 27 & 28 Victoria, Chapter 135 (London: G. E. Eyre & W. Spottiswoode).

open just a year later in 1865. This was met with celebration from *Punch* despite their previous misgivings over the cost of the project, publishing the cartoon 'Father Thames "Himself Again"' in 1865 (Figure 4.5).[78] The creation of the embankments was not entirely without hindrance as reported in the *Illustrated London News* in 1866, but these were quickly resolved: "The embankment of the north side of the Thames, from Westminster Bridge to Blackfriars, is being proceeded with as rapidly as possible. In such a gigantic undertaking unforeseen difficulties occur, which are promptly overcome by mechanical genius".[79]

Sections of the river had been embanked as early as the seventeenth century during the rebuilding efforts following the Great Fire but plans to fully embank the internal urban sections of the Thames during the nineteenth century had so far been fruitless. In 1844, commissioners appointed to inquire into the improvement of the metropolis presented a report to Parliament in which the embankment of the Thames was prioritised as having "the first claim to our attention", and much of the report was indeed devoted to various plans to embank the river.[80] A Bill was subsequently submitted to Parliament in 1845 to create an embankment from the Houses of Parliament to Blackfriars Bridge. In discussing the failure of this proposal on 25th June 1858, Mr Tite told the Commons that "the expense of which was estimated at the moderate sum of £300,000; but it was defeated by those carrying on business on the shores of the river, and to buy up the rights of all those who possessed wharves and wharehouses along the banks was out of the question".[81] Similarly to the rebuilding process following the Great Fire, private commercial interest defeated the desire for infrastructural improvement. This had not been the only attempt to embank the Thames in the early nineteenth century, but each had fallen foul either to lack of funding or, in the case of the City of London Corporation's own attempt in 1842, "government rivalry".[82] Westminster had gotten in the way of this attempt with the First Commissioner of Woods, Forests, and Land Revenues contesting the ownership rights to the riverbed with a lawsuit in the Chancery. Bizarrely, this would be the reverse image of the

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[78] *Punch*, 'Father Thames "himself again", *Punch*. 48, 15th April 1865, 151.
[79] *Illustrated London News*, 'The Thames Embankment', *London Illustrated News*. 48, 5th May 1866, 430. Bazalgette himself commented in August 1890 on how the drainage system was much more difficult to build than the embankments: "It was certainly a very troublesome job. We would sometimes spend weeks in drawing out plans and then suddenly come across some railway or canal that upset everything, and we had to begin all over again. It was tremendously hard work". The embankment, on the other hand, "wasn't anything like such a job as the drainage". J. Bazalgette, quoted in Ashton, *One hot summer*, 284.
[80] LMA, *First report of the commissioners appointed to enquire into and consider the most effectual means of improving the metropolis and of providing increased facilities of communication within the same*. COL/CHD/IM/05/002, 7.
[81] House of Commons, 'The State of the Thames', col. 427.
[82] White, *London in the nineteenth century*, 48-49.

FATHER THAMES "HIMSELF AGAIN."

"LOR BLESS YER R'Y'L 'IGHNESS! I AIN'T THE SAME RIVER SINCE I GAVE UP SCAVENGING, AND TURNED WATERMAN!"

Figure 4.5 Father Thames "Himself Again", 1865.

Government's refusal of responsibility in 1858, when they claimed the 1855 Act had given that responsibility to the MBW. It seems no matter who owned the rights prior to 1858, Westminster was determined to interfere to prevent progress from being made (or, more specifically, to avoid the necessary costs).

However, it is likely that this actually benefited London's long-term development. Earlier plans for these embankments did not always include the sewerage works that Forster's and Bazalgette's plans in the 1850s would, and the embankments alone would have only gone so far to reducing the pollution of the Thames. In 1878 Edward Walford would reflect that,

"perhaps in the event London has been fortunate, for if the work of embanking the Thames had been taken in hand in the days of our fathers or our grandfathers,

it is to be feared that it would not have been carried out upon the scale of magnificence that marks the work of Sir J. W. Bazalgette".[83]

Although Walford focuses on the appearance of the embankments here, it is clear that the sewerage works they contain would also not necessarily have been built so effectively had an earlier generation successfully taken the task upon themselves. As it happens, no progress in embanking the Thames would be made until the Great Stink put into motion the building of Bazalgette's sewerage system which required the embankment of the river, allowing that great engineer to make his magnificent mark on the capital. Walford would go on to claim that the Victoria Embankment in particular was "as a piece of engineering skill … second to none of the great achievements that have marked the Victorian era". [84] London's embankments demonstrate how infrastructural developments in response to the Great Stink as well as the vast population growth which caused it contributed to the construction of the modern metropolis. The institutional efforts of the MBW (and the funding from Parliament) were central to these developments. It had taken the Great Stink to finally push Parliament into action, with their earlier interference demonstrating the extent to which they were willing to go in order to avoid responsibility for the extreme cost of the embankments.

As Bazalgette's creations were nearing their completion during the 1870s, the question of how the sewers should be ventilated occupied much of the efforts of a particular committee within the MBW. Complaints had been reported throughout London of smells emanating from existing ventilation points for the sewers and the MBW was tasked with resolving these, as well as more broadly preventing the build-up of noxious gases within the sewers. As miasma theory still defined how contemporaries viewed London's pollution issues, these toxic vapours being emitted from the vents were believed to have been just as dangerous as the stench coming from the Thames in the 1850s, just on a much smaller scale. The Ventilation of Sewers Committee was created by the MBW to tackle this new issue, and their meeting minutes run from 9th July 1872 to 18th July 1876. Despite these extensive discussions of possible solutions, a firm resolution could not be reached. In the final entry of the minutes book the Consulting Chemist for the Committee, Thomas William Keates, explained,

> "It appears to me that all experience upon the question of the ventilation of
> sewers and the destruction of the foul gases which are generated from sewage

[83] Walford, *Old and new London*, 323.
[84] Walford, *Old and new London*, 323.

shows that it is useless to look for any general system which can be successfully applied to the whole of the sewers from the Metropolis … and what may and would be a remedy in one case may prove useless in another".[85]

Of the various plans which had been presented to the Committee during its sitting, Keates was heavily dismissive: "as a rule the great feature of those Schemes is their utter impracticability and the ignorance of the subject shewn by their projectors".[86]

This inability to find a suitable solution demonstrates the complexity of the problem posed by the sewerage system even after Bazalgette's original plans had been implemented. Bazalgette's success in directing the infrastructural improvements that resolved the Great Stink compares beneficially to the relatively indirect contributions that came about from the plans made during and after the Blitz, with changing ideals and financial limitations making a full implementation impossible for that latter shock. The condition of the Thames was not fully restored following the construction of the sewers, and additional improvements were still required to resolve issues such as the ventilation, but Bazalgette's improvements prevented another crisis of the same scale as the Great Stink from occurring. Luckin & Thorsheim describe the developments following the Great Stink as "more like a promising beginning than an end", adding that both severe as well as minor crises continued to occur.[87] Regardless, the sewerage system created a vast improvement from the stench and heightened risk of disease that had plagued London and its water supply for the first half of the nineteenth century, with the "Monster Soup" shown in William Heath's 1828 engraving being for the most part a hazard of the past (Figure 4.6).[88]

Although the condition of the Thames was gradually improving, London's water supply was still not entirely clean and miasma theory again dominated the narrative. As late as 1881 the water examiner for London, Colonel Frank Bolton, commented on the need for houses to remove "the poisonous effluvia and gases from the drains which would otherwise ascend through the pipe … thereby becoming a cause of fever and disease".[89] Although 'poisonous vapours' again took the blame for disease outbreaks rather than the polluted drinking water, Bolton's call to create a more hygienic infrastructure would contribute to improving the

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[85] LMA, *Ventilation of Sewers Committee minutes*. MBW/1127, 159.
[86] LMA, *Ventilation of Sewers Committee minutes*. MBW/1127, 159.
[87] Luckin & Thorsheim, 'Introduction', 8.
[88] W. Heath, 'Monster soup commonly called Thames water'. 1828 [engraving]. London.
[89] LMA, *Col. Bolton's monthly reports on water supplied to the metropolis*. MBW/1912, 1st December 1873.

Figure 4.6 Monster Soup Commonly Called Thames Water, 1828.

conditions. But whilst the water supply was still being collected from contaminated sources, there was still a risk of spreading disease. A report in 1879 explained that the water supply of many houses still contained "evils", with the tabular report documenting conditions such as "faint brownish green tint" from a house in Buxton Road and, most disturbingly, "a great deal of floating organic matter" in the water supply of a coffee house in Newington Causeway.[90] The city's water was still being collected directly from the Thames and often with very little attempt on behalf of the water companies to ensure its cleanliness or hygienic quality. Much reform was still required of these companies to improve these conditions and London's political institutions eventually turned their attention to these harbingers of contaminated water.

4.5 Municipalisation: Improvements to London's Utilities Following the Great Stink

The improvements made to the sewers and drainage facilities provide a crucial contribution to the story of London's development, but further depth can be ascertained by examining how these improvements were funded and by highlighting the differences between London and other urban centres regarding the growing national trend of municipalisation. Services such as water and gas were gradually being placed under municipal control during the second half of

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[90] LMA, *Reports by engineers, geologists and chemists on the metropolis water supply*. MBW/1913, 1; 262.

the nineteenth century, particularly in the rapidly growing northern cities where the speed of urban development and population growth placed pressure on the existing services, encouraging centralisation and local government control to ensure continued efficacy. [91] Similarly, Webster notes that infrastructural developments were increasingly being funded by municipal capital markets through private individuals and institutions rather than direct contributions from central Government.[92] This municipalisation had national benefits, as taking loans from the Government would increase the national debt and place a greater strain on the national economy. But municipalisation also empowered local authorities by increasing their independence and ensuring that local populations would pay directly towards local improvements, thereby experiencing "both the costs and the benefits" of these efforts at a time when individual participation in equity investing was gradually increasing.[93] This had been the primary argument of those MPs who opposed parliamentary involvement in the funding of London's sewerage improvements and embankments in 1858, though the size of the funding required made national aid mandatory.

London's situation was unique, both in the extent of the funding required and the means of acquiring that funding. Municipal authorities from other cities were increasingly taking loans from the Public Works Loan Board (PWLB) to finance societal improvements such as the building of schools as well as basic utility services and infrastructural improvements such as water supplies and sewers, with the PWLB loaning an average of £1.7 million per year between 1860 and 1876.[94] This figure was almost matched by the amount invested by the MBW for completing the Thames embankments and Bazalgette's drainage system alone, with £1.4 million being invested annually between 1865 and 1869.[95] However, to afford this the Bank of England had made around fifty loans totalling £5 million to the MBW between 1859 and 1869, guaranteed by the Treasury, demonstrating the extreme financial requirements needed to enact these developments as well as the role played by the national Government to ensure their success.[96] London was therefore unique in how its infrastructural developments were funded, unable to copy national trends due to the greater costs involved. For this, aid was sought from the national

[91] M. Falkus, 'The development of municipal trading in the nineteenth century'. *Business History*, 19, 2 (1977), 134-161:138.
[92] I. Webster, 'Making the municipal capital market in nineteenth-century England'. *Economic History Review*, 75, 1 (2022), 56-79:56.
[93] Webster, 'Making the municipal capital market', 61; G. Campbell et al., 'The liquidity of the London capital markets, 1825-70'. *Economic History Review*, 71, 3 (2018), 823-852:850.
[94] I. Webster, 'The Public Works Loan Board and the growth of the state in nineteenth-century England'. *Economic History Review*, 71, 3 (2018), 887-908:900.
[95] Webster, 'Making the municipal capital market', 66.
[96] Webster, 'Making the municipal capital market', 61.

Government to ensure the project could be completed. The deterioration of London's independence since the mid-seventeenth century can be exemplified by this reliance; the metropolis had grown too big and its infrastructural improvement projects too expensive to maintain the relatively local autonomy of its political institutions that was now being enjoyed by other cities.

Similarly unique was London's utilities supply, which resisted the increasingly common municipalisation process experienced by other urban centres. As previously mentioned, it was the rapid growth in size and population of these industrial northern cities that ensured the success of municipalisation efforts, but London resisted this nationwide trend despite similar circumstances of expansion during the eighteenth and nineteenth centuries. This was criticised in the 'Health of London and of other large Cities' report as part of the *Thirty-Fifth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England* in 1872:

> "If the whole of the people amounting in 1871 to 3,885,641 on a circle with a radius of 15 miles can be administered for police purposes from Scotland Yard, can they not be associated together in one community for the purposes of local government, with the City for the central point of its administration? A city is a Co-operative Society for the supply of common wants; and as the police now discharges the duties of defence which were formerly left to householders, and to parish constables; as common sewers carry away impurities which were formerly got rid of by each householder; so water, light, and perhaps heat, and force to a certain extent, may be provided by a sound municipal organization; in fact, almost every commodity in universal demand which can either only be supplied under monopolies, or be supplied imperfectly under competition. Under this head naturally fall the conditions of healthy existence".[97]

The reason for this territorial-political difference between London and the provinces was primarily a matter of established interests; the private companies which supplied these services to London were entrenched and reluctant to surrender their profitable industries to municipal control.[98] For example, it was not until the early twentieth century that the Metropolitan Water Board (founded in 1903) bought out the existing private interests in London's water supply

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[97] General Register Office, *Thirty-fifth annual report of the Registrar-General of births, deaths, and marriages in England (abstracts of 1872)* (London: HMSO, 1874), li.
[98] Falkus, 'The development of municipal trading', 138.

industry for a hefty £46.9 million.[99] Public control over the tramways fared a little better, having been taken over by the LCC in 1896, but the London gas supply remained in private hands until nationalisation in 1949.[100] The eventual success of utility municipalisation in the capital was an expensive affair for the political institutions buying out the private interests, but its delayed effectiveness demonstrates London's unique development compared with other urban centres across the country.

Municipal infrastructure investments such as those directed towards improving local water supplies and sewers increased over the course of the nineteenth century, particularly through the use of loans taken from the PWLB. The need for these improvements in London especially were well known, as shown by the reports created by the Metropolitan Water Examiner Frank Bolton mentioned above.[101] Bazalgette's sewers and drainage system were only part of the solution to London's water woes and further measures were required, such as those sought after by the Ventilation of Sewers Committee despite their failure to find an adequate resolution. Additionally, municipalisation of London's water supply aided the cleansing of the drinking water, as previously the private companies had largely kept to their own parts of London and these conditions failed to spur on quality improvements due to the lack of competition. Once the LCC took control of this water supply, the responsibilities that accompanied the rates and taxes taken from London's population forced an overall improvement to take place. This was aided by the improved quality of the Thames; the success of the sewerage infrastructure in reducing the pollution that entered the river allowed cleaner water to be taken and ultimately consumed.

Moreover, this local government investment in improving these public works and services can be directly linked with the national urban mortality decline between 1861 and 1900. Chapman notes that this investment was indeed the major contributor to mortality decline, explaining between 54 and 60 per cent of the almost 20 per cent decline in the second half of the century.[102] This conclusion reached by Chapman that "improvements in the sanitary environment" were the primary cause behind the urban mortality decline is argued successfully in contrast to McKeown's earlier theory that nutritional improvements and access to food supplies were the primary factors, with the introduction of hygienic improvements coming

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[99] Falkus, 'The development of municipal trading', 138.
[100] Falkus, 'The development of municipal trading', 138.
[101] LMA, *Col. Bolton's monthly reports*. MBW/1912, 1st December 1873.
[102] J. Chapman, 'The contribution of infrastructure investment to Britain's urban mortality decline, 1861-1900'. *Economic History Review*, 72, 1 (2019), 233-259:233; 235.

second.[103] Williamson indirectly questions this by arguing that "England was not constrained" by the growth limitations that would have been presented by an inability to provide food to its urban centres, but does not go as far as Chapman in placing the cause of urban mortality decline instead in the sanitary environment. [104] The municipal infrastructure investments that contributed to improving the urban space and subsequent mortality decline are particularly relevant for this chapter in terms of the improvements made by Bazalgette's sewers, suggesting this had a greater effect on reducing London's mortality rate than the municipalisation of the water supply which would not occur until several decades after. The uniqueness of London is therefore reduced when considering the reason behind its mortality decline, following a similar pattern to the national trend of improvements to the sanitary environment being the major contributor behind this urban development. The delays in municipalisation compared with other urban centres did not directly impede the reduction of London's mortality rate, though the financial cost of municipalisation was indeed greater and unique among Britain's cities.

London's slowness in adopting similar municipalisation efforts as Britain's other major cities indicates the unique challenges faced by the capital as it developed. Its many private interests were well-established by the late nineteenth century and the governing authorities and political institutions struggled to overcome these, despite the benefits brought about by municipalisation to other industrial cities. Although London's independence had greatly deteriorated by the late nineteenth century as shown by the huge loans guaranteed by the Treasury that were required to finance the embankments and Bazalgette's drainage scheme, the strength of its private interests demonstrates that the metropolis had become quelled but not entirely tamed. Westminster's attention was now needed to direct and fund its large-scale infrastructural projects, but private interests could still prevail against government desires (at least temporarily) if a profit could still be made.

The funding may have come from Westminster or, more specifically, the PWLB, but the MBW and its successor, the LCC, played an essential role in directing the city's infrastructural improvements in the late nineteenth and early twentieth centuries. Through this combined effort the national and regional political institutions of London embarked on vast development schemes that transformed life in the city, fundamentally altering the appearance and the physical (and often underground) infrastructure of the metropolis. These developments were

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[103] Chapman, 'The contribution of infrastructure investment', 234; T. McKeown, *The modern rise of population* (London: Edward Arnold, 1976), 153; 162-163.
[104] Williamson, *Coping with city growth*, 238-239.

not necessarily in response to a major shock such as the Great Stink, but the most important, the construction of the sewerage works and embankments, were crucial to reducing London's disease and mortality rate. These developments could not have been achieved without the assistance and cooperation of London's political institutions, with private companies instead working directly against the public interest if it was financially beneficial as in the case of the water utility companies. Funding these vast infrastructural ventures made Parliament's involvement a necessity, even if via loans that had to be paid back with interest, but the MBW and LCC still retained overall control of the exact developments being made. In this manner, London's political institutions maintained their relative autonomy whilst benefiting from Westminster's attention (even if this was given somewhat reluctantly due to the high expenses involved, as in the case of the Great Stink).

In comparison, the reconstruction efforts following the Blitz were directed by London's political institutions, but the cost and size of the projects proved so immense that development rights were often sold to private companies to reduce the burden on the authorities and to improve the speed of the reconstruction process. The Government had been able to support the funding of the sewerage works between 1858 and 1875, but the elongated nature of the project ensured that the cost could be spread across time. The urgent nature of the reconstruction process following the Blitz to support the recovery of the national economy prevented much of the cost from being similarly spread across the decades, though it is notable that the less urgent aspects of Abercrombie's plans were expected to take up to fifty years to complete. This is much more similar to the post-Fire period in the late 1660s and the 1670s with private interests taking the responsibility over the rebuilding process, though in this case it was primarily due to the lack of sufficient authority within the political institutions to take on the responsibility and costs. The responses of the MBW and Parliament to the Great Stink were therefore unique when compared with the responses of the respective political institutions to the Great Fire and the Blitz not only in how the developments were funded, but also in their relative success. Whereas the plans by Bazalgette did indeed go on to be used, reconstruction following the Great Fire largely just involved the recreation of the pre-Fire city with the redevelopment plans completely ignored. Similarly, the plans from the 1940s would also go unused due to becoming quickly out of date and being replaced by new ideas of how the city should develop.

Bazalgette's sewerage works proved one of London's most successful municipal projects of the nineteenth century. They still serve the capital's population to this day and even the grand wartime designs of Forshaw and Abercombie, for whom nothing was seen as too extravagant, saw little need to replace them. In their *County of London Plan* they wrote,

> "No great alteration in the complex and highly valuable systems of public services, which exist under the roads and streets of London, is envisaged in the new Plan. These services include sewers, electricity cables and ducts, gas, water and hydraulic mains, and post office cables. Generally, the trunk mains and many other services are under the principal roads, and an effort has been made, in evolving the scheme, to retain both these roads and their services wherever possible and practicable".[105]

The sheer cost of replacing these infrastructural necessities would have made a complete redesign extremely unlikely even had other aspects of the Abercrombie Plans been put into place, but the sufficiency of the existing sewerage systems in particular proves the effectiveness of Bazalgette's designs. They retained their place even in the ideal city imagined by Forshaw and Abercrombie over sixty years after their completion.

4.6   Conclusion

The responses towards London's hygiene issues of the mid-nineteenth century were defined by political institutions in the form of the various boards and committees created to tackle specific problems. The Commission of Sewers and its successor, the MBW, provided a unified institutional response towards improving the infrastructure of the metropolis, overseeing the efforts of committees such as the Thames Embankment Committee and the Ventilation of Sewers Committee that created a direct and focused response to specific matters. These institutions approached the sanitation problems created by London's growing population by focusing on the environmental impact and the infrastructural developments that were necessary to support the capital's inhabitants. As with the Great Fire, the Great Stink formed the catalyst for these developments, creating an urgent situation in which the authorities (and particularly the House of Commons) were left no choice but to respond. However, unlike the Great Fire, this shock had been a prominent issue for much of the previous decade as the pollution of the Thames steadily grew worse, with the Great Stink itself being a result of a combination between these conditions, the drastic population growth of the eighteenth and early nineteenth centuries, and the intense heat of the summer of 1858. The sewerage developments were an inevitable result of London's growing population, geographical expansion, and increased density over the previous century and a half, with the Great Stink being the crucial trigger. The necessity of infrastructural reform was made the clearest in the issues

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[105] J. H. Forshaw & P. Abercrombie, *County of London Plan prepared for the London County Council* (London: Macmillan and Co., 1943), 123.

surrounding the water supply as shown above, which alongside London's other main utilities experienced substantial developments throughout the final decades of the century and first half of the twentieth century that drastically impacted how London responded to its vast population.

The infrastructural nature of the developments made following the Great Stink was key to their success. Unlike following the Great Fire and the Blitz, both of which involving drastic interruptions of jobs and the economy as well as an intense need to quickly restore living conditions, the responses to the Great Stink could progress over the following decade and a half with only minimal interruptions to life in the city. Of greatest importance for the other shocks was the need to restore housing for London's population, creating a significant barrier for overall city reconstruction according to a new and improved plan. This short-term need of the population dominated the responses to the Great Fire and the Blitz in a manner that was irrelevant to the Great Stink, with the closest comparison being with the necessary land purchases that were authorised by Parliament in the early 1860s without a problem. Despite this significant difference separating the Great Stink from the Great Fire and the Blitz, the nineteenth century shock invites comparison due to the vast urban redevelopment project that stemmed from its occurrence. Indeed, its situational difference was to its benefit, leading to its success in achieving progressive change whilst the responses to the other shocks struggled to overcome the short-term needs to realise a similarly significant long-term redevelopment plan. Opportunity came from shock, and the infrastructural nature of the resolution to the Great Stink made it the most effective in making the most of that opportunity when compared with the Great Fire and the Blitz.

The Great Stink had only been made possible by the city's reliance on an archaic waste disposal infrastructure that could no longer support London's masses and an upgrade was indeed inevitable. However, the effectiveness and longevity of Bazalgette's designs demonstrates how successful the project's implementation had been. Sufficient pressure was required to finally motivate the House of Commons, with the result being the Metropolis Local Management Act Amendment Bill that had allowed them to make loans to the MBW for that political institution to put into place Bazalgette's plans, but once in place the construction process did not take long to begin. The shock of the Great Stink may have been the culminated environmental impact of London's vast population growth, but it had ensured that the necessary infrastructural developments could no longer be ignored and guaranteed that the city would develop in response to the needs of its population. London's political institutions led the developmental responses, though the MBW had been much more eager than its parliamentary overseers. The metropolis that entered the twentieth century was of a scale that would have been unimaginable to a Londoner of the late seventeenth, but the ingenuity of the Victorians

had created an infrastructure that supported a vast population and allowed for the continued expansion of the twentieth century.

Chapter 5 Optimism and Rebuilding Plans Following the London Blitz

Battered and dirty, worn and scarred, it swarmed with scores of different uniforms, and it spoke in a hundred different tongues. No matter where you were going in the United Kingdom, you had to go through London, and no matter how long you stayed you never saw it all. London was the babel, the Metropolis, the Mecca. London was It. – Sergeant Robert S. Arbib (1941)[1]

London, which is so vast and strong that she is like a prehistoric monster into whose armoured hide showers of arrows can be shot in vain. … we honour them for their constancy in a comradeship of suffering, of endurance, and of triumph. – Sir Winston Churchill (1941)[2]

5.1 Introduction

Any history of London's modern urban development would be remiss not to mention the Blitz. As the city entered the second half of the twentieth century, London's officials were faced with an unprecedented reconstruction project; one without close comparison since the Great Fire and, even then, one which dwarfed that historical event due to the vastly increased size of the modern urban conglomerate that London had become. And yet, as with the Great Fire and the Great Stink, opportunity was seen in crisis. The Blitz had provided an ideal moment to organise and tame the "prehistoric monster" that was London, providing structure to the functions of each separate and defined district whilst maintaining their historical roots.[3] Liveability could be improved whilst keeping the charm of London's sprawling and often contradictory nature. Plans were required and with bombs still falling across the capital, planners looked ahead to how they could transform what remained.

London's Victorian inheritance still defined the city's landscape in the 1940s. Whilst some of the building work would go on to gain a status of great architectural importance, much was seen as outdated or as obstacles to modernisation efforts. Slum clearance in the interwar period had accomplished so much towards creating an ideal city, but the Blitz continued and expanded this process with little to no discrimination in the target. The opportunity that this

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[1] Sergeant Robert S. Arbib, quoted in White, *The battle of London*, 235.
[2] W. Churchill, *Do your worst; we'll do our best* (14th July 1941). Available online: https://www.nationalchurchillmuseum.org/do-your-worst-well-do-our-best.html [Accessed 28/10/2022].
[3] Churchill, *Do your worst*.

provided became intrinsically linked for some with the war effort: in the foreword to the *County of London Plan*, the leader of the LCC, Lord Latham, wrote,

> "there is a long road to travel before London can become the city she ought to be. Most of us cannot expect to see more than the beginnings. But if we do not make these beginnings, if we do not set our feet on the right road, we shall have missed one of the great moments of history, and we shall have shown ourselves unworthy of our victory".[4]

For Latham the war was a starting point, a time for new beginnings that heralded an opportunity for growth. The extent of the damage inflicted by enemy bombs, however disastrous for the displaced population and the destruction of lives and livelihoods, removed many of the complicating factors that had previously prevented a full-scale spatial reorganisation of the city. In this, and in an echo of the conflagration nearly 280 years prior, fire had proven the most willing and yet undesired of allies in this clearing process.[5] Its "highly destabilizing character and literal erasure of constraints" were effective in reaching areas that the bombs had missed, "level[ling] nonviable infrastructure that had physically blocked radical reordering of urban space".[6] Much of London still remained after the war, the size of the city having prevented a full knock-out blow as Hitler had desired, but the vast number of damaged buildings and cleared land provided a starting point for London's optimistic planners.

The optimism of war as a time of rebirth was hardly new to many living through the Second World War. Only a few decades earlier, and distinctly ingrained in the minds of those who had lived through it, the First World War had seemed to offer similar opportunities for the development of London that were nonetheless missed. In his chapter on Central London in the book *London of the Future* (1921), Professor Stanley Adshead wrote, "never since the Great Fire has so unique an opportunity occurred for carrying out schemes of reconstruction on a colossal

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[4] Forshaw & Abercrombie, *County of London Plan*, iv.
[5] This comparison is particularly apt for the night of 29th/30th December 1940, which has been called the Second Great Fire of London due to the intensity of the air raid conducted and made especially effective due to the limited number of firewatchers in the City owing to the time of year. St Paul's Cathedral, famously photographed that night surrounded by flames, was an "emblem of this conflagration" that symbolised London's historic resilience against destruction and ability to rise again from the ashes. T. Allbeson, 'Visualizing wartime destruction and postwar reconstruction: Herbert Mason's photograph of St. Paul's reevaluated'. *The Journal of Modern History*, 87, 3 (2015), 532-578:541; A. Brooks, *London at war: relics of the home front from the world wars* (Barnsley: Wharncliffe Books, 2011), 35-36.
[6] N. H. Kwak, 'The politics of Singapore's fire narrative', in G. Bankoff et al. (eds.), *Flammable cities: urban conflagration and the making of the modern world* (Wisconsin: University of Wisconsin Press, 2012), 295-313:305.

scale. Let us see that we seize our opportunities, and accept our responsibilities, in a way worthy of so great an occasion".[7] Despite the much smaller scale of destruction to London that occurred during the war compared with its sequel, it is notable that Adshead still felt fit to compare the available opportunities to those that followed the Great Fire. Adshead had been directly involved in the slum clearance and redevelopment of the Cornwall estate in Kennington during the 1910s, and his position at London University as Professor of Town Planning from 1914 until his retirement in 1935 granted him an influential perspective from which to contribute to discussions on London's post-war development.[8] Planners during the interwar period were as aware as their contemporaries and successors following the Second World War that London's distinctive characteristics should be maintained and enhanced by any further developments rather than entirely changed. However, the interwar slum clearance was the most long-lasting of these changes due to the interruption of mobilisation and subsequently the war itself.[9] As the Second World War progressed and minds turned to what would remain after the final bombs had been dropped, the London officials and their planners were determined to get it right this time.

As with the previous chapters, but perhaps more importantly here due to the scale of London's development during the twentieth century, certain boundaries must be imposed. Firstly, the Blitz is the central shock of this chapter with which all urban developmental responses discussed are directly linked. The interwar issues such as slum clearance and decentralisation of the dense inner-London population were vital elements of the plans made during and immediately following the Second World War, but the potential for vast

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[7] S. D. Adshead, 'Central London', in A. Webb (ed.), *London of the Future* (London: The London Society, 1921), 141-151:151.

[8] A. Powers, 'Adshead, Stanley Davenport (1868-1946), architect and town planner'. *Oxford Dictionary of National Biography* (2004). Available online: https://doi.org/10.1093/ref:odnb/30344 [Accessed 16/1/2023].

[9] D. Gilbert, '*London of the Future*: the metropolis reimagined after the Great War'. *Journal of British Studies*, 43, 1 (2004), 91-119:93-94. Gilbert explains that, in the interwar period, "even the most radical or speculative contributions to the collection were careful to frame their ideas not as the root and branch application of new principles, but as an appropriate response to London's distinctive characteristics, often through contrasts with urban change in other Western cities". Similarities can be found with the Abercrombie Plans of the Second World War, in which the authors were determined to maintain the existing communities within London whilst still recognising the great need to remove some of the population to reduce density. In idealising the new towns which would support this moving population, Abercrombie similarly regarded the creation of a self-sustained community as being of central importance as opposed to merely removing the people but not the jobs from central London. Geographically, architecturally, as well as socially, the need to maintain London's various and often contradicting identities remained central to ideas surrounding the city's development throughout the first half of the twentieth century. For Abercrombie's view on this, see P. Abercrombie, 'Some aspects of the County of London Plan'. *The Geographical Journal*, 102, 5/6 (1943), 227-238:232.

redevelopment was only made available by the destruction inflicted by the Blitz. Whilst this chapter focuses primarily on the optimistic ideas and plans made during the war and the short-term factors that prevented their implementation in the late 1940s and early 1950s, the post-war developments that actually occurred are fundamental aspects of this topic and will be discussed when necessary. However, care is taken here to maintain the focus on immediate responses to the Blitz itself, as the overall development of London in the second half of the twentieth century is beyond the scope of this thesis despite the Blitz being key to this development. The point where the reconstruction of bomb-damaged London seamlessly melds into the continuous construction and internal development that has ever defined London's history is the temporal boundary of this chapter. Any attempt to pinpoint an exact date would only further distort the already murky grey zone that this inevitably is and run into an endless stream of countless contradictions as each area of London developed at its own pace following the war.

Secondly, London is too vast a city to discuss specific districts in any great detail without losing the intended focus on the overall picture of post-war urban and suburban development. The jurisdictional boundaries of this chapter are therefore much broader than the previous chapters simply due to the much-expanded nature of London's urban sprawl, but thematically they are the exact same: 'London' as it meant to contemporaries (and in particular the various governing authorities) is the spatial boundary. The greater metropolitan area held a similar importance to the discussions of post-war planners as the inner-city boroughs and districts controlled by the LCC. By maintaining a focus on the bigger picture of London's development in response to the Blitz rather than tracking the many minute, practical developments made, this chapter aims to delve into the broader themes that informed the post-war development plans and the political institutions that regulated their application.

Firm geographical boundaries that define London as fixed (despite creating consistency) would reduce the discussion to only those jurisdictional limits that can be directly compared across the centuries. This is a particular challenge for this chapter due to the vast reach of the Greater London region impacted by the Blitz compared with that of the Great Fire and the Great Stink. At the same time, however, the methodological focus on political institutions does impose some structure on the narrative. References to the measures put into place by Parliament, the LCC, or the metropolitan borough councils naturally relate to specific urban spaces (districts, neighbourhoods, and even the wider region) and therefore infer certain geographical boundaries. What is avoided is instead a generalised limit that compares exactly to that of previous chapters.

Overall, this chapter will argue that the responses to the Blitz were heavily guided and controlled by national, regional, and local political institutions to a much greater extent than the responses to the Great Fire, but much less successfully than the responses to the Great Stink. Stronger national governmental measures ensured a reliance on these institutions to enact a mass reorganisation that echoed the calls on Parliament and the MBW to solve the nineteenth century pollution of the Thames. However, situational factors such as the available finance as well as the interest of the private sector saw a very different outcome following the Blitz. Similarly, the inability (and unwillingness) of political institutions to finance the rebuilding following the Great Fire saw a near-complete reliance on the private sector. In comparison, an all-encompassing reorganisation of London that was controlled by a central authority appeared more likely following the Blitz. This was due to the greater regulation and control enjoyed by the national Government than they had been able to exercise during the seventeenth century. Particularly strong wartime powers additionally made this reorganisation appear more likely than it had during the 1660s, when the labyrinthian network of powerful private interests held by bickering landlords and their tenants were seen to have made mass redevelopment impossible. Moreover, the expanded size of twentieth-century London and the convenience of railways meant that large parts could still be devoted to housing and infrastructural needs, even whilst efforts were made to limit the seemingly endless population growth and the geographical expansion of the city.

In part, this greater reliance on the national institution of Parliament for London's responses to the Blitz is due to the national scope of the shock, requiring a centralised response to ensure the adequate allocation of resources. National responses such as the Town and Country Planning Act (1947) and the Government Compensation Scheme did not separate between London and the nation as a whole because this was viewed as unnecessary; although the intensity of the Blitz was increased for London compared to the rest of the country, similar responses were required in cities such as Hull and Coventry as they were in London. National responses provided by Parliament were interpreted by London as part of the bigger picture alongside their own regional responses. But the impact that the national scope of the Blitz had on London's responses should not be overstated. Although this was an important factor that was relevant for Parliament's own responses, regional political institutions such as the LCC and the City of London Corporation worked independently and *alongside* parliamentary responses. The size and importance of London as the seat of national government made it the primary target for much of the Blitz and so the extent of the damage inflicted required extensive rebuilding plans organised by the regional political institutions. Whereas the mid-nineteenth century pollution issues had resulted in a standstill whilst proper responsibility struggled to be

adequately allocated, during the Blitz the LCC and City of London Corporation worked alongside parliamentary measures to quickly prepare rebuilding plans for the upcoming peace. The Blitz may have seen an expectation for greater responsibility to be held by Parliament compared to the previous shocks, but this upscaling of political power at the time of shocks relied on the powers held by London's regional political institutions being sufficient to play their own roles in responding to the Blitz.

However, the optimism during the war would be met in the following years by the stark realities of short-term needs eclipsing the opportunistic desires of London's political authorities and their planners, and this will be demonstrated in the chapter's argument. Surviving parts of the city made overall reconstruction impossible without British demolition finishing the work started by German bombs. Although the *Architectural Review* had claimed in 1941 that the wartime destruction of worthy historic architecture "must be regarded as burnt-offerings on the altar of reconstruction", it appeared that the sacrifices were unable to sufficiently satisfy the architectural gods to ensure suitable replacements.[10] Certain elements of the plans could be incorporated, such as keeping the skyline surrounding St Paul's Cathedral clear to restore the magnificence originally intended by Wren but gradually obstructed by nearby expansion. However, much of London simply developed in response to short-term needs and the unforgiving pull of the open market rather than in accordance with the grand ideas of the wartime planners. "As after the Great Fire," Jenkins explains, "London could not wait for dreams".[11]

Ultimately, the purpose of this chapter is to demonstrate how London's political institutions had much greater control in their responses to the Blitz than their predecessors did in their responses to the Great Fire, but that they were similarly unsuccessful in enacting the most ambitious of redevelopment plans. For this, the Great Stink had more success due to the fewer restraints imposed by urgent, short-term financial and demographic needs. This chapter demonstrates that this greater means of enacting political power did not lead to greater success in achieving long-term beneficial goals for the improvement of London. The urgent, short-term financial and demographic needs during times of shock (most notably rehousing the population following the Blitz) inevitably need to be prioritised. However, they can therefore come at the expense of substantial redevelopment plans (such as the Abercrombie Plans) that require

[10] 'Foreword', *Architectural Review*, 90 (1941), 1-3:2.

[11] S. Jenkins, 'The proud city: Patrick Abercrombie's unfulfilled plan for rebuilding London'. *History News Network*. 30 August 2020. Available online: https://historynewsnetwork.org/article/177124 [Accessed 4/1/2023].

greater resources and the opportunistic willingness that arises during times of shock to make drastic redevelopments.

The structure of this chapter will reflect the focus on the immediate responses to the Blitz by examining the plans and reports made in preparation for the post-war reconstruction as well as the political institutions that guided this process. As mentioned above, the actual reconstruction of London took place over the course of decades following the war and changing circumstances as well as financial and political limitations quickly saw much of the original plans become quickly outdated. As such, the actual reconstruction of London was not so much in response to the Blitz, instead being part of the continuous urban and, in particular, suburban development that has always defined the city's history. The plans themselves form the core of this chapter to maintain the analytical focus on direct responses to the Blitz itself.

The plans discussed in this chapter include the Uthwatt Report (1942), the *Consultants' Final Report to the Improvements and Town Planning Committee* (1947), and the Abercrombie Plans, including the *County of London Plan* (1942) and the *Greater London Plan* (1943). Overall, these plans aimed to ensure contemporaries were prepared for the upcoming peace and that London was ready to rebuild itself to continue its vital economic functions. Moreover, these plans were intended to make use of the Blitz and the war more broadly as a moment of opportunity to enact ambitious and idealistic redevelopment plans for the greater benefit of London's future.

The Uthwatt Report was commissioned by Parliament, specifically the Minister of Works and Buildings, to analyse what steps could be taken during the war to prevent issues and delays resulting from land ownership rights from hindering reconstruction. As this chapter will discuss, the report recommended the creation of a Central Land Board to control land development projects, a measure that would come to pass with the Town and Country Planning Act (1947). The *Consultants' Final Report*, produced by Charles Henry Holden and William Holford on behalf of the City of London Corporation, aimed to rebuild the City of London in a manner that respected its extensive history and vital function as the economic hub of the metropolis. It was designed to be flexible, fitting alongside plans for the rest of London that were commissioned by the LCC. These were the Abercrombie Plans, separated into the County of London controlled by the LCC and the Greater London region that would not have a suitably expansive political institution until the creation of the GLC in 1965. These plans aimed to rebuild London in a manner that improved liveability by, for example, creating green spaces, reducing population density, separating industrial zones from residential areas, and constructing ring roads around

London to improve transportation. Each of these reports and plans will be discussed in detail throughout this chapter.

Section 5.2 outlines the political planning responses to the rebuilding process, focusing on the role of the Uthwatt Report in preparing the country for the eventual peace and its impact on the Town and Country Planning Act (1947) that permanently altered the rights of British landowners. Section 5.3 brings the discussion to the heart of the metropolis with the plans for redeveloping the City of London and the financial factors that prevented the desired improvements to liveability. Section 5.4 explores how the social reproduction needs of London's population (most notably the improved access to medical care through the creation of the National Health Service [NHS]) were met in the Abercrombie Plans through improved urban design, decentralisation, the incorporation of green spaces throughout London, and greater opportunity for transport to reduce congestion. This section considers how these plans epitomise the wartime desire for progressive urban development focused on liveability, despite their relatively low actual impact on the redevelopment process. Section 5.5 examines London's immense need for housing in the immediate post-war period and the impact this had on the direction which the rebuilding process took. The long-term impression of this development is briefly discussed in comparison with the similar developments following the Great Fire. Section 5.6 focuses on the Green Belt and New Towns that constrained and defined London's external growth, analysing how the city's need for housing led to the imaginary boundaries of the metropolitan region spreading beyond the real limits imposed by the Green Belt. Section 5.7 shifts the discussion from land to population as London's medical needs during the war are examined. It considers how the unique environmental circumstances of the city led to the creation of new attitudes towards medical decentralisation and, ultimately, why the social reproduction needs of the population are taken up at the national level as opposed to a reliance on local- or metropolitan-level political institutions. The chapter is concluded in section 5.8.

5.2 Political Planning Responses to Rebuilding London: The Uthwatt Report and the Town and Country Planning Act (1947)

It was not long into the Blitz when minds turned to how London could recover from the damage following the war. On 31st October 1940, less than two months since the bombs had begun to drop on the capital, the Court of Common Council expressed gratitude to the national Government on behalf of the City of London Corporation for establishing the Ministry of Works and Buildings. They additionally stated their further desire for a scheme concerning the post-war planning of London. Specifically, they asked the Government for an advisory committee to be appointed that could "confer with the Authorities concerned and to submit recommendations as to the lines upon which post-war planning should be carried out and as to

any amendment in the Law which may be necessary to secure a simplified and more direct procedure for the replanning, where necessary, of damaged areas".[12] Over the following years, various recommendations and plans would be put forward regarding what form the post-war recovery should take and what the metropolis should look like once attention could be given to healing from the scars of war. National recommendations such as the incorporation of a central planning authority to restrict the unfettered ability to develop land would see some success with the Town and Country Planning Act of 1947, but other, more specific, plans that directly concerned London would see limited implementation.

The planning of post-war London was a crucial Government response to the Blitz in order to improve wartime morale. More immediate responses such as the clearing of debris were important to maintain morale and to keep London working and fighting, but to enter peacetime unprepared would prove disastrous.[13] Lord Reith, the Minister of Works and Buildings, stated to the House of Lords,

> "The end of the war will see the release of a flood of demand and effort for physical reconstruction – for the rebuilding of battered cities and for developments of all kinds in town and country – which, unless adequate channels and controls are fixed and set in advance, will overflow into confusion and all manner of ill. Planning system and plans must be ready. We know, indeed, what unpreparedness for war has meant. To be unprepared for peace may be far more serious".[14]

This sentiment was shared by the City Engineer F. J. Forty, who wrote to the LCC's Improvements Special Sub-Committee that, "on the coming of peace … there will inevitably arise conflicts of purpose which will not easily intermarry". He named three separate forces of interest that would try to direct the rebuilding process: firstly, the long-term comprehensive plan that required a

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[12] LMA, Minutes of the Court of Common Council, 31st October 1940. *Post-war planning: reconstruction*. COL/CC/ITP/03/016.

[13] The division of responsibility over how each government authority would respond to the immediate problems caused by the Blitz had been debated since 1935. Borough councils had the local knowledge to undertake the most effective responses to restore any damages on infrastructure, such as road restoration or salvaging sewers, whereas the LCC had the authority to oversee collective organisation of, for example, the fire and rescue services. London's unique size, political complexity, and warring factions for control resulted in a greater need for preparation than for the rest of the country, particularly with the expectation that it would be the primary target of any aerial warfare conducted. LMA, Table indicating the authorities responsible for air raid services. *Air raid precautions: division of responsibility between LCC and Metropolitan Borough Councils*. LCC/CE/WAR/01/029.

[14] The Times, 'Planning after the war', *The Times*. 18th July 1941.

continuous and sufficient administrative machinery to handle the necessary applications for new road works and rebuilding; secondly, the returning population would demand accommodation in order to return to their normal business, with many wishing to return to the same property they had before the war and being impatient with any administrative delays; thirdly, the Government would want to encourage enterprises that would restore the influx of rates and taxes. Forty warned the Sub-Committee that the fastest and easiest route to progress – "making the best of what remains and to patch up around it" – would be to the detriment of the organised, overarching plan for redevelopment that the City of London Corporation had in mind. Forty was aware that this would lead to no better of an outcome than that which followed the Great Fire and directly made this comparison. The same forces of private property interests would once again "determin[e] the future of the City".[15]

The destruction that had been wrought upon London by the Blitz required extensive planning and administrative preparation to ensure that the immediate post-war period was prepared for the short-term population needs and able to work on achieving the long-term redevelopment goals. As there was no knowing when the war would end, preparations needed to be made quickly. Wartime architects and planners viewed the damage with a sense of optimism and opportunity, and for these individuals "ruination was a necessary or inevitable precursor to reconstruction".[16] London's officials were determined to make effective use of the opportunities provided by the Blitz and post-war Britain would be a fresh start, with London the beating heart of a modernised country.

The publication of the Uthwatt Committee's interim report in July 1941 brought direct attention to what actions could be taken during the war to prepare Britain for the eventual peace. There was a general feeling that not enough had been accomplished thus far, with a growing acknowledgement that a central planning authority at the national scale was needed to coordinate the rebuilding process and prevent local authorities (or greedy speculators) from chasing short-term financial gains to the detriment of the national benefit. The Uthwatt Committee's interim report strongly recommended the introduction of this central planning authority as an integral step to modernising the country.[17] This aligned with the views of

[15] LMA, Letter from F. J. Forty, City Engineer, to the Worshipful the Improvements Special Sub-Committee, 11th July 1941. *Post-war planning: reconstruction*. COL/CC/ITP/03/016, 2.

[16] A. Page, *Architectures of survival: air war and urbanism in Britain, 1935-52* (Manchester: Manchester University Press, 2019), 110.

[17] House of Commons, 'Uthwatt Committee (Interim Report)', *Hansard Parliamentary Debates*. 17 July 1941, col. 734. Available online: https://hansard.parliament.uk/Commons/1941-07-

Parliament, with the First Viscount Samuel directly stating to the House of Lords that the war was an opportunity "to create a better Britain", one free from slums or houses crowded around main roads where building was cheapest and the most convenient.[18] The expectation that peace would bring an end to the national unity and readiness for sacrifice created by wartime conditions engendered a sense of urgency to enact changes, particularly to the organisational structure of authority before personal and departmental prejudices could interfere with the overarching Government vision of the post-war rebuilding process.[19] A central planning authority was indeed necessary; moreover, it needed to be created whilst local concerns were distracted by the war effort to prevent the unwilling interference of short-term interests.

The *Final Report* of the Uthwatt Committee, published in September 1942, confirmed the great need for a national-scale central planning authority and set out the responsibilities it would hold. The aim detailed in the report was for the developmental rights of undeveloped rural land to be vested in the state, creating a control for the possibly limitless expansion of cities whilst also providing for the best possible use of land to maximise its financial value. Private owners could still develop their own land but only so long as it was approved by the central planning authority; fair compensation would be provided for the loss of the landowner's development rights.[20] The report stopped short of suggesting that control of urban development should also be directly vested in the state, instead recommending the continued responsibility

17/debates/b17617e6-d646-4c70-9460-0a6f491cb719/UthwattCommittee(InterimReport) [Accessed 10/11/2022].

[18] House of Lords, 'Post-War Reconstruction', *Hansard Parliamentary Debates*. 17 July 1941, col. 865. Available online: https://hansard.parliament.uk/lords/1941-07-17/debates/7bf1dc59-52c4-439a-a0d8-40753fe1ade5/Post-WarReconstruction [Accessed 10/11/2022]. Viscount Samuel specified that his support was for a central planning 'authority', meaning a Minister, as opposed to a committee. He believed that "what is needed is not yet another co-ordinating Committee of the kind to which this Government are so passionately devoted but an individual Minister, and a Minister with effective powers, to whom local authorities will be able to look for guidance and stimulation" (col. 862). In this he would not be disappointed: although the Town and Country Planning Act of 1947 did indeed create a Central Land Board, local authorities would report to a Minister of Town and Country Planning to coordinate the developments. This avoided the delays and other issues of communication a committee would find when trying to coordinate between separate government bodies and Ministers, instead having a central authority with legitimate power to make decisions.

[19] Forshaw and Abercrombie's *County of London Plan*, discussed later in this chapter, similarly noted the desperate need for the wartime efficiency and the willingness to sacrifice to carry on once peace returned to the country if its proposals were to be accepted: "we have learnt the value of planning for war; peace will demand speed and efficiency no less. The energies, sacrifices and bold financial measures that the war has called forth will be more necessary in time of peace". The haphazard development that defined London's growth for so much of its history needed to come to an end if the metropolis was to truly modernise and become "an ordered, more healthy and more beautiful town". Forshaw & Abercrombie, *County of London Plan*, 153.

[20] Ministry of Works and Planning, *Expert committee on compensation and betterment: final report*, September 1942. Cmd 6386 (London: HMSO), 27.

of permission being granted by local governments. However, these bodies would be required to follow any restrictions imposed by the central planning authority to suit the national interest, particularly in regard to the reconstruction of war-damaged areas. The Uthwatt Report made it clear that this would be more effectively carried out if local authorities were given the power of compulsory public acquisition.[21] This would remove the potential obstacles of private interests interfering with the efforts of the central planning authority to restore the war-damaged reconstruction areas.

The details of how this would have applied to London were not directly stated in the Uthwatt Report due to its purpose as a guiding document of recommendations rather than of actual policymaking. However, more specific plans that considered the organisational complexities of London's governance later came about in the form of the Abercrombie Plans. Whilst London remained a central concern for those in power throughout the war, particularly due to the immense damage inflicted by the Blitz, an overall national perspective was viewed as necessary to make the most of the redevelopment opportunities provided by the war. London would go on to see some developments that had been recommended by the Uthwatt Committee, specifically the limits placed on the physical expansion of the city and a greater focus on urban planning, but these were issues for London that were already being discussed in the 1930s. Wartime discussions on the development of London adapted these previous issues in response to the destruction resulting from the Blitz, but this was more seen as an opportunity to achieve those previous desires and realise attendant urban development interests rather than an obstacle to prevent further development. By this point, desires to reform the metropolis were too ingrained in the minds of London's officials and too necessary for the overall liveability of the city to simply vanish at the outbreak of war. This was particularly the case with the war's promise of mass destruction and the subsequent opportunity to rebuild from the ground up.

The Uthwatt Report, partly as a result of its advisory nature and partly due to its focus on rural rather than urban land ownership, therefore had little immediate impact on the overall development of London. However, it demonstrates the extent to which the war was being viewed by many – especially property owners and developers – as an opportunity to enact mass change on a national level to wholly improve land use for financial gain.[22] Rather than directly informing London's development, the report played a greater role in highlighting the

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[21] Ministry of Works and Planning, *Expert committee*, 2.

[22] This matches Molotch's concept of "the city as a growth machine", in which governmental authority (whether local or otherwise) is used to achieve local financial growth. Molotch, 'The city as a growth machine', 309.

possibilities inherent in an all-encompassing redevelopment of national land ownership rights, providing an outline that could be discussed and refined to produce a comprehensive guide to post-war development. It was this spirit of improvement that saw London become a great target of those urban planners and growth interests who were intent on rebuilding the metropolis in a manner that befitted its truly global nature.

Though a potential solution to both the destruction caused by the war as well as the rapidly expanding cities encroaching on agricultural land, the idea of a national central planning authority was not unanimously agreed upon. An analysis of the Uthwatt Report and the thematically similar Scott Report (1942) was published in *The Economic Journal* in April 1943, criticising the introduction of a central planning authority for taking more control than the public would desire. The article instead argued that market forces would already push the developments that were desired and restrict the unwanted ones without need of an authority to control the process:

> "If it is in the social interest to use land in agriculture, why is it necessary (we must ask) that a Central Planning Commission should be created with the inevitable five-year plan, to do what the price system is doing already? And if the price system is not doing it, is that not evidence that we in aggregate do not want it done? This is the crux of the problem".[23]

Although written in regard to the Scott Report which focused more heavily on rural land use, there is no doubt that this analysis was similarly applicable to the Uthwatt Report (discussed later in Robinson's article) which suggested the same use of a central planning authority.[24] The author's reference to the Soviet five-year economic development plans adds to the critique: not only would it violate private ownership rights, but it would enforce centralisation in a Stalinist manner. Private interests – especially those interested in property redevelopment in the inner-city districts of London – would indeed attempt to interfere with the implementation of the recommendations suggested by the Uthwatt Committee. However, the much greater state involvement following the Blitz than that which had followed the Great Fire (as well as the improved ability and preparedness of the Government to act, aided by the longevity of the war)

[23] A. Robinson, 'The Scott and Uthwatt Reports on land utilisation'. *The Economic Journal*, 53, 209 (1943), 28-38:31.
[24] M. Tichelar, 'The Scott Report and the Labour Party: the protection of the countryside during the Second World War'. *Rural History*, 15, 2 (2004), 167-187:167-168.

ultimately saw an advanced form of the recommendations made by the Uthwatt Report implemented into law with the Town and Country Planning Act of 1947.[25]

This Act proved a milestone in permanently altering the rights of British landowners. Permission was now necessary in order to develop any plot of land, defined as "the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land".[26] The power to grant this permission was vested in local planning authorities, though these in turn were instructed to carry out a land survey every five years and report this to the Central Land Board and the Minister of Town and Country Planning. Through this process, land development rights were essentially nationalised under a complex system of local authorities, providing a clear path forward for governmental control over the necessary rebuilding of war-damaged land. During the war, Abercrombie had noted that the LCC did not possess sufficient authority to enact the developments he and Forshaw had recommended in the *County of London Plan* due to their planning powers being "originally intended to apply to suburban growth: the powers still retain that bias [in 1943] and are seen at their worst when applied to densely built-up centres of towns and the open countryside".[27] The 1947 Act had granted the LCC the planning authority to accomplish its goals for the redevelopment of the county, further reducing the autonomous power of the private sector and granting it instead to local and regional political institutions.[28]

This captured the overall aim of the recommendations proposed in the Uthwatt Report, with specific details such as granting local authorities the power over compulsory public acquisition also enshrined into law.[29] It ensured that private interests could not interfere with governmental development plans if an area was designated as requiring comprehensive

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[25] J. W. Brunyate & C. V. J. Griffiths, 'Uthwatt, Augustus Andrewes, Baron Uthwatt (1879-1949), lawyer'. *Oxford Dictionary of National Biography* (2004). Available online: https://doi.org/10.1093/ref:odnb/36618 [Accessed 2/3/2023].

[26] *Town and Country Planning Act 1947*. 10 & 11 George VI, Chapter 51 (London: HMSO), s12.

[27] Forshaw & Abercrombie, *County of London Plan*, 143.

[28] The individual metropolitan borough councils as well as the LCC would have the authority to grant development consent, and which body would have the responsibility would depend on the specific circumstances. One such example is when a temporary building was to be constructed that did not exceed 200 square feet in area or seven feet six inches in height and was also not in conformity with the local development plan. In this case, the LCC would be the relevant authority to grant this development consent due to the possibility that the construction could interfere with the overall development plans for the area. Regardless of the specific authority, this power was still held by a political institution rather than the private sector with the aim that the post-Blitz reconstruction of London could receive a greater level of organisation and planning than that which had followed the Great Fire. LMA, Proposed regulations for the London County Council regarding special and temporary buildings and structures, appendix B. *Temporary buildings – general papers*. LCC/CL/TP/01/096, 4.

[29] *Town and Country Planning Act 1947*, s38.

development or if the land was necessary to ensure the development or redevelopment of an adjacent plot. This was crucial in aiding local efforts to rebuild war-damaged areas whilst limiting the possibilities for delay that private interests may have imposed. By 1948, for example, 115 acres of inner London's land had been acquired by the City Corporation for rebuilding or selling on to be developed by private investors, with the Town and Country Planning Act ensuring that these developments required governmental permission and so followed the local plans for the use of land.[30] Whilst the acquired land was not necessarily entirely comprised of war-damaged plots, it is clear that the Blitz drastically impacted the willingness of local authorities to acquire land for redevelopment.[31] The displacement of vast sections of London's population and the annihilation of so much of the city's housing created dire conditions that needed to be resolved as quickly as possible following the war, with local borough councils bearing much of this responsibility. Due to such a pressing need, the availability of damaged land for compulsory acquisition was viewed with opportunistic zeal.

5.3 The Redevelopment of the City of London: The "Fascination of a Nightmare"

Meanwhile, the City of London was facing its own challenges in deciding how it should be redeveloped. Although some recommendations had been made earlier in the war and a plan by City Engineer F. J. Forty would be made (and rejected) in 1944, a plan for the redevelopment of the City that was deemed acceptable by the City of London Corporation would not appear until 1947. *The Consultants' Final Report to the Improvements and Town Planning Committee* was commissioned by the Corporation and created by Charles Henry Holden and William Holford. Holden had worked extensively on designing stations for the London Underground as well as the University of London's central building in Bloomsbury, and Holford had been the principal advisor of the Ministry of Town and Country Planning until 1947.[32] These experienced architects produced a plan that took careful consideration of the City's position as the commercial centre of the metropolis whilst respecting its vast history, explaining that "the design aims at renovating

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[30] White, *London in the twentieth century*, 48.

[31] Land was also obtained to protect existing open spaces as well as prominent buildings that had suffered damage in the Blitz. Holland House in Kensington was one such building, with the Seventh Earl of Ilchester selling the property to the LCC in 1952. The building was not rebuilt following the war, but this public acquisition of the land allowed it to be protected from private development and for the surrounding Holland Park to remain an open recreational space within inner London. *London County Council (Holland House) Act 1952*. 15 & 16 George VI & 1 Elizabeth II, Chapter 5 (London: HMSO).

[32] C. Hutton & A. Crawford, 'Holden, Charles Henry (1875-1960), architect'. *Oxford Dictionary of National Biography* (2021). Available online: https://doi-org.hull.idm.oclc.org/10.1093/ref:odnb/33927 [Accessed 2/2/2023]; M. Miller, 'Holford, William Graham, Baron Holford (1907-1975), architect and town planner'. *Oxford Dictionary of National Biography* (2004). Available online: https://doi-org.hull.idm.oclc.org/10.1093/ref:odnb/31245 [Accessed 2/2/2023].

the damaged fabric of this ancient City as quickly as possible and with deference to its history and traditions; but always with an eye to forming a new pattern, suited to the needs and tastes of the time, rather than to refashioning an old one".[33] It was crucial that the recommendations made in this plan were viewed alongside the broader plans for the metropolis as a whole. To achieve this, the architects provided a similar level of flexibility as that present in the Abercrombie Plans in an attempt to prevent any potential conflicts from appearing even whilst viewing the City as, for the most part, a self-contained commercial "neighbourhood".[34] Ultimately, "the City's plan of reconstruction must be a contribution to that of London as a whole, and not a contradiction of it", and the plan did indeed possess traits that would have made it an ideal extension of the Abercrombie Plans into the historic metropolitan centre.[35]

In particular, one such trait was the imperative to start the rebuilding process with the war-damaged areas. The air raids had been successful at clearing the ground in areas with older buildings, which itself was viewed as beneficial for modernisation attempts. Ideas about achieving this redevelopment mirrored the view of the war overall as a fresh start to create a new London, with a comparison to the Great Fire again being made: the destruction of much of 'old' London "could very well show an advance in current practice equal in its own century to that made after the Great Fire of 1666".[36] The scale of the destruction made it a common comparison, though the earlier shock had resulted in the greater extent of damage within the ancient City walls. The built-up nature of the Greater London region in the twentieth century meant that the Blitz saw a larger "volume of building" destroyed than the Fire, "but socially and economically the earlier disaster was by far the greater, for in those days the City comprised nearly all of London" (Figure 5.1).[37] Both shocks left large areas of land ripe for rebuilding, with all-encompassing plans for redevelopment starting in both cases with the damaged land before expanding into the surviving areas to create a more efficient and modern city. Moreover, these

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[33] C. H. Holden & W. Holford, 'The consultants' final report to the Improvements and Town Planning Committee', in Improvements and Town Planning Committee, *The City of London: a record of destruction and survival, and the proposals in the final report of the consultants* (London: Architectural Press, 1951), 265-323:306.

[34] Holden & Holford, 'The consultants' final report', 268.

[35] Holden & Holford, 'The consultants' final report', 307.

[36] Holden & Holford, 'The consultants' final report', 278.

[37] A total of 437 acres of total loss are given for the Great Fire, compared to 225 for the Blitz. As such, the larger volume of building destroyed in the Blitz is due to the greater prevalence of taller buildings in the twentieth century. Only 75 acres were left untouched within the City walls following the Fire, but the much-expanded City of London (being 660 acres in the 1940s) by the time of the Blitz meant that a greater amount of the City survived the Blitz, particularly due to London as a whole being of a vastly bigger size by the twentieth century and the air raid damage therefore being more spread out rather than contained to the City. Improvements and Town Planning Committee, *The City of London*, 141; 149.

developments needed to be started as quickly as possible in the post-war period not only due to the dire need for housing within the capital but also for the benefit of the City: "if [rebuilding] is not programmed now according to a long-term plan of redevelopment it will occur as expedience requires and is certain to result in a high proportion of the war-damaged area being covered by temporary buildings, to the detriment of both the reputation and the function of the City".[38] Due primarily to the lack of a central body organising the redevelopment process following the Fire (the Fire Court being lamented as only resolving disputes rather than guiding the rebuilding itself), the City of London Corporation was eager to control the rebuilding process as closely as possible. The private interests of speculative developers were again viewed with suspicion and likely to oppose the common good if left unchecked.

Public land acquisition was the tool that would aid this goal. Holden and Holford's report recommended for areas of extensive war damage to be subject to this, and in particular most of the 104 acres of City land that had suffered the most damage, resulting in being marked out as "total loss" land. In addition, some plots that surrounded this total loss land should also be publicly acquired to allow for "good boundaries and provide well-shaped building plots".[39] This was especially important for the City due to the historic ownership of certain plots and myriad periods of development across the centuries. Holden and Holford explained,

> "as in other ancient centres, the execution of street improvements and redevelopment in the City has hitherto been gravely hampered by the awkward shape, small size, and separate ownership of plots. The irregularities of form and the interlocking of different premises inherited from past conditions have made it nearly impossible to devise efficient layouts for commercial activity or an environment for workers comparable with those which modern design could provide".[40]

Vast areas of London, and in particular the City, had been cleared of these historic obstacles to progress by the Blitz. Land ownership issues still remained even with extensive enemy bombing, just as they had interfered so strongly with the redevelopment plans following the Great Fire. The most significant of these issues following the Blitz was uncontrolled speculative building that conflicted with local development plans. This would be prevented by public acquisition by the local borough councils. Similarly, this would allow the authorities to preserve "one of the

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[38] Holden & Holford, 'The consultants' final report', 307.
[39] Holden & Holford, 'The consultants' final report', 309.
[40] Holden & Holford, 'The consultants' final report', 305.

most striking and most cherished inheritances" of the Blitz, that being the open view of St Paul's Cathedral.[41] Holden and Holford believed that every effort should be put towards restricting any development that would interfere with this view, in particular through the continuation of height restrictions in the surrounding area even as buildings in other districts of London would be allowed to grow taller. With this, St Paul's would serve as a lasting symbol of survival through the Blitz, just as it had symbolised the rebirth of London during its construction following the Great Fire. Its survival through the war, as if ordained by God, would ensure that the history of the City would be preserved even as London's planners looked forward towards the future.

Street improvements were a crucial element of this progressive thinking as highlighted by the architects, with extensive planning to prepare for the expected rise in car travel following the war in order to prevent congestion issues on a much larger scale than those that had already plagued London for so much of its history. To achieve this, the report recommended "the prohibition of parking on all main streets, provision of public car parks for 4,500 vehicles, with a like number in private or commercial garages, a wider distribution of bus routes, the enforcement of loading facilities within the curtilages of properties, and the occasional arcading of pavements".[42] Similarly, and in a move that would echo that taken by the authorities following the Great Fire although for a very different reason, street widening was recommended for those areas in which congestion would be most likely to occur. Holden and Holford were eager to prevent as much unnecessary 'through traffic' from entering the City as possible to aid this attempt at decongestion. Although some would be necessary due to the central nature of the City, those travellers who had no business in the City at all should instead be diverted onto the relevant arterial roads.[43] Unfortunately, however, the 'A' Ring Road that would have aided this, and which was promoted with so much optimism by the *County of London Plan*, was abandoned, with this happening so soon after the war that the 1951 reprint of the Holden and Holford report had to include a note explaining this (See Figure 5.2 for the road plan suggested in the *County of London Plan*).[44] London's road systems would indeed receive modernising updates in the decades following the war, including the desired street widening to allow for the increased traffic load. However, similar to the fate of so many of the wartime and immediate post-war recommendations for the redevelopment of the metropolis, the City proposals would be

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[41] LMA, *Town planning: consultant's final report, letters and observations*. COL/CC/ITP/03/014, 8.
[42] Holden & Holford, 'The consultants' final report', 312.
[43] Holden & Holford, 'The consultants' final report', 280.
[44] Holden & Holford, 'The consultants' final report', 290; Forshaw & Abercrombie, *County of London Plan*, 62. Copyright information: County of London Plan – Road Plan by Alec A Bellamy and Eveline Felce for the London County Council, image © London Metropolitan Archives (City of London).

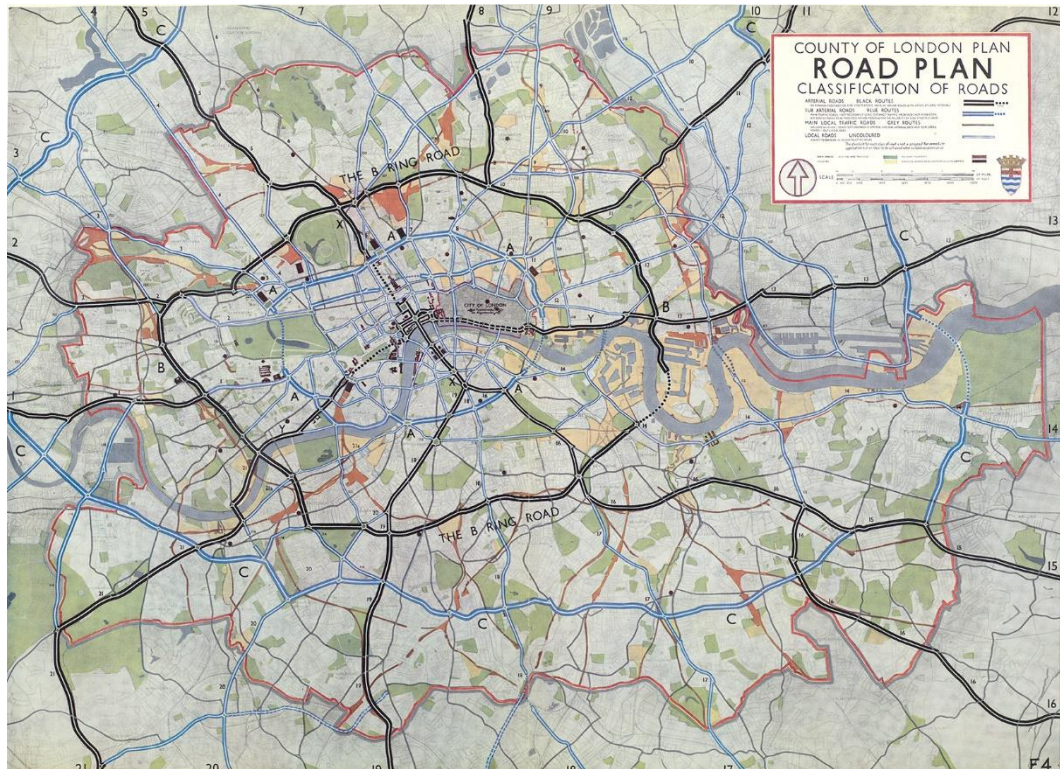abandoned in response to changing financial, industrial, and population needs as the century progressed.

Figure 5.1 Diagram of Proposed Road System proposed in the *County of London Plan*, 1943.

The feedback to the report by Holden and Holford was largely positive but expressed a range of suggestions and minor adaptations. In his review of the 1951 republication of the report, T. F. Reddaway expressed that "replanning London has the fascination of a nightmare" due to the extreme complexity of relevant factors that needed to be taken into consideration for any functional plan. Nonetheless, Reddaway viewed the report with optimism for how it closely tied together the development of the City alongside the rest of London.[45] Moreover, the City was to be the shining centre of the metropolis. Within a printing of some of the main points of the 1946 interim report in *The Architects' Journal*, the article authors expressed that "the City cannot afford mediocre architecture" and should attempt to retain any existing picturesque visages that had survived the Blitz.[46] The authors believed that Holden and Holford's report made great attempts to achieve this, particularly through protecting the setting of St Paul's Cathedral by controlling the height of buildings, with this measure similarly allowing for sufficient daylight in downstairs offices.

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[45] T. F. Reddaway, 'Review', *The Town Planning Review*, 23, 1 (1952), 86-88:86.
[46] LMA, *Town planning*. COL/CC/ITP/03/014, 6.

The initial feedback for the interim report, provided by the Auctioneers' and Estate Agents' Institute of the United Kingdom, similarly praised Holden and Holford's ideas. It expressed gratitude for their intention to preserve and respect the newly open setting of St Paul's whilst removing much of the through traffic that did not need to be in the City.[47] These observations of the Institute did however warn against "the deliberate creation of amenity for visitors to the City at the expense of its primary commercial function" as tourism could quickly interfere with the City's industries and businesses if services and conveniences tied up too much useful real estate that could serve a better purpose.[48] Just as it had following the Great Fire with the rapid rebuilding of its financial institutions, the City needed to lean into its commercial function during any redevelopment to ensure that it could maintain its historic importance. For the same reason of protecting "the City's future position as a commercial centre", the observations also recommended that the rebuilding process should begin as soon as possible to prevent "a prolonged period of uncertainty" from forcing too much industry to move elsewhere as contemporaries feared.[49] This concern was due to the room for expansion and convenient transport links provided by the new towns that were severely restricted in the dense, built-up inner city, potentially being attractive enough for expanding industries to relocate. The limited availability of resources for the rebuilding process meant that priorities needed to be made for the most urgent developments such as improving the streets to relieve congestion, but any delays that would severely impede the commercial function of the City needed to be prevented (or at the very least reduced) at all costs. This desire for speed in the rebuilding process was shared by the Bishop of London's Committee for the City Churches as severe weather had already caused the deterioration of some of the damaged churches that were intended to be restored.[50] This created a further strain of resources as the City had to balance its vital industrial needs alongside its places of historic and cultural interest, both powerful voices in City affairs.

How the City would respond to the destruction of its many historic churches was indeed a central question of the post-war rebuilding process. Holden and Holford's *Final Report* concluded that "the City Churches are recommended for preservation, with the exception of those proposed by the Bishop of London's Committee for conversion into Church Institutes or

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[47] LMA, *Town planning: consultant's interim report; preparation and observations*. COL/CC/ITP/03/012, 2-3.

[48] LMA, *Town planning: consultant's interim report; preparation and observations*. COL/CC/ITP/03/012, 2.

[49] LMA, *Town planning: consultant's interim report; preparation and observations*. COL/CC/ITP/03/012, 2.

[50] LMA, Letter from the Bishop of London's Committee for the City Churches (2nd July 1947). *Town planning*. COL/CC/ITP/03/014.

for the sale of sites already cleared".[51] Forshaw and Abercrombie had previously agreed with this sentiment in their *County of London Plan*, citing how they "form an important element in the appearance of London", but had expressed concern over their locations. They wrote,

> "In many cases the reasons for the selection of their sites no longer apply, owing to changes in the districts in which they are situated; housing at the centre has depreciated, populations have fluctuated, and the larger families and newly-married have migrated to the outer areas. These changes and many more have had notable repercussions on the churches. The various church authorities are reviewing the position with regard to the numbers and location of their buildings. Many of the churches have been destroyed or damaged by enemy action and questions as to their demolition, reconstruction or redundancy, as well as the future use of vacant sites, will arise and will need to be settled in collaboration with the church authorities and in conformity with the ultimate replanning schemes for the various districts".[52]

As predicted by Forshaw and Abercrombie, this concern over location and population change would influence which churches were chosen for rebuilding. This was made more difficult by the hasty treatment of the churches immediately after they had been damaged, necessitated by the danger they posed to surrounding buildings and nearby onlookers. Larkham and Nasr explain that due to this risk as well as the sheer number of damaged properties, "there was little time to evaluate their structural condition. Anything considered potentially dangerous was often summarily cleared, usually by military personnel, especially the Royal Engineers and Pioneer Corps. Thus, structures that survived the explosive or fire damage were, in many cases, subsequently lost".[53] However, despite these locational concerns and possible mistreatment in the name of safety, one notable City church that was eventually reconstructed was St Nicholas Cole Abbey. But much like after the Great Fire, there would not be a quick resolution.

Following its damage on 10th May 1941 and subsequent clearing of debris, an anonymous memorandum from 14th August of the same year observed that re-habitation of St Nicholas' would only be accomplished "at great cost" and "although it is practically possible to

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[51] Holden & Holford, 'The consultants' final report', 313.
[52] Forshaw & Abercrombie, *County of London Plan*, 140.
[53] P. J. Larkham & J. L. Nasr, 'Decision-making under duress: the treatment of churches in the City of London during and after World War II'. *Urban History*, 39, 2 (2012), 285-309:288-289.

rebuild this Church … it would be more economical to build a new Church".[54] Permission to reconstruct the church was only granted more than a decade later in October 1958, with the rebuilding process itself being completed between 1961 and 1962.[55] Despite the cultural importance of London's churches, the material and financial shortages following the war resulted in urgent practical necessities such as housing being prioritised. Additionally, and again in direct comparison to the rebuilding process following the Great Fire, not all churches were rebuilt following damage sustained in the Blitz. St Mary Aldermanbury and St Dunstan-in-the-East were two such City of London parish churches, being built originally during the medieval period, damaged by the Great Fire and rebuilt by Wren, only to meet their final end in the war. However, their sites have since been turned into public gardens, accomplishing the wartime desire expressed notably by Holden and Holford for more small open spaces within the City of London.[56]

As with the Abercrombie Plans, the *Final Report* produced by Holden and Holford had been commissioned by the London authorities to make use of the unexpected planning opportunities that opened up because of the destruction during the Blitz. There had already been the need for a vast redevelopment and modernisation of the City prior to the war due to the changing industrial and technological advances of the twentieth century. In particular, this included the growing need for streets that were appropriate for a population increasingly reliant on car travel. The extensive war damage allowed the authorities to enact wartime measures that pushed aside the competing private interests of landowners and speculative developers to prioritise the necessary infrastructural improvements. The Blitz was central to the development of London during this period, with the ancient City of London being seen as the leading example for the modernisation of the entire metropolis. The war-damaged areas were planned to be the first zones tackled by the rebuilders and a superior infrastructure put in place to support the rapidly changing needs of the population as the City entered the second half of the century. Similarly, the greatly cleared setting of St Paul's Cathedral would be maintained as a lasting symbol of survival following the Blitz. These planned improvements were carefully controlled and approved by the authorities to support their overall vision for the future of the metropolis, and as such the Blitz was used to directly inform London's development. Like the Great Fire

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[54] LMA, Memorandum titled 'St. Nicholas, Cole Abbey', dated 14th August 1941. *St. Nicholas Cole Abbey, with Memo. of 1941 also included*. COL/CC/ITP/03/033.
[55] LMA, *City churches*. COL/CC/ITP/03/032, 3.
[56] Improvements and Town Planning Committee, *The City of London*, 75.

before it, opportunity was seen in disaster and the authorities were eager to create an improved London from the ashes of the old.

However, again like the Great Fire, the redevelopment plans were fated to improve London only indirectly. Many suggestions such as the widening of certain streets to reduce the historic congestion issues as well as the imposition of height restrictions around St Paul's would indeed be implemented in the following decades, but this was not due to a direct following of the plans by Holden and Holford or by Forshaw and Abercrombie. Instead, London's changing needs quickly made these plans outdated as new demographic and commercial requirements replaced even the most forward-thinking ideas of the mid-1940s. The rapidly rising financial industries soon saw the need for further office space to be provided, whilst the reduced reliance on dock work and the Thames as a primary mode of transport for London's imports and exports (overtaken in 1975 by the growing role of airports to transport commerce) drastically altered London's development from what had been expected only a few decades before.[57] The wartime and immediate post-war plans for the rebuilding of London had been intended to take place over roughly fifty years, but the London that entered the twenty-first century had developed in response to needs that were absolutely unimaginable to the wartime planner.

London's international importance granted it a demographic and commercial momentum that forcefully encouraged these developments to take place to further its role as an international financial centre. That this was at the expense of the plans proposed during and following the war demonstrates the complexity of London's development in response to its historic shocks. Even the most beneficial plans to improve liveability could only guide whilst demographic and commercial developments took priority. The rapid and unprecedented technological advancement during the second half of the twentieth century meant that London had to adapt quickly to new international circumstances to maintain its commercial industries, with finance rising to prominence during these decades. This chapter focuses on the wartime and immediate post-war plans due to this momentum overtaking London's development in the

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[57] In 1964 the port of London represented a third of the UK's imports and exports, but by 1975 this had fallen to about 12 per cent whilst airports, primarily Heathrow and Gatwick, had increased to 15 per cent. This was in response to the changing nature of London's industries, but a turbulent period of strikes and fierce opposition to work conditions by the dock labour force between 1966 and 1981 also provided a significant contribution to this shift from water to air transport. Additionally, the improved flexibility of road travel compared to the use of trains saw the rise of lorries to transport commerce from the 1920s onwards, with inner-city manufacturing moving westward to more ideal locations for this mode of transport as well as better opportunities for expansion. Decentralisation of industry may have been aided by the Blitz and promoted by the authorities in the post-war period, but the changing nature of London's infrastructure in the first half of the century created the ideal circumstances for this to take place. White, *London in the twentieth century*, 202-203; 204-206.

decades that followed the war. The optimism that infused the plans created in direct response to the Blitz would be discarded as London adapted for the new world of finance and technology, with these factors instead influencing the city's development rather than the Blitz. In this, London's twentieth century shock proved no different to its predecessor in the 1660s, as the urgencies of population and industry took precedence over creating a healthier, more liveable, city.

5.4   The Abercrombie Plans: Progressive Urban Design and Liveability

The Abercrombie Plans, proposed by the planners Sir Patrick Abercrombie and John Henry Forshaw, truly represent the wartime desire for progressive urban development. This planning was on a scale that reflected London's immense physical expansion across the previous centuries: the plans "represented the most systematic attempt to reorder London's physical and social environment since Wren's grandiose vision for rebuilding the city after the Great Fire of 1666".[58] That this same opportunity was perceived following the First World War, and yet this is still able to be claimed about the plans for after the Second World War, demonstrates the failure of contemporaries to successfully enact the changes that were idealised in the 1910s and 1920s, most notably by *London of the Future* (1921) as mentioned above. Comparisons to the Great Fire were frequent due to the level of destruction inflicted by the Blitz, as well as due to the opportunity with which the crisis was viewed, and in Abercrombie London had found its new Wren. However, much like the fate of the post-Fire rebuilding plans, few of Abercrombie's ideas for London would become a reality. The 1943 *County of London Plan* would go unused by the LCC, who would make a new plan based on the Town and Country Planning Act of 1947, with the Greater London region not having a sufficient authority to implement Abercrombie's expansive 1944 plan of that region until the creation of the GLC in 1965.[59] The short-term needs of the returning population and the desperate necessity for new housing would take priority over Abercrombie's long-term vision for London's development.

Abercrombie himself viewed the Blitz just as Wren had the Great Fire; whilst expressing sorrow at the immense loss, overt optimism provided a glimmer of hope for the post-shock future. In his writing about the *County of London Plan* in *The Geographical Journal* in 1943, Abercrombie noted that,

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[58] F. Mort, 'Fantasies of metropolitan life: planning London in the 1940s'. *Journal of British Studies*, 43, 1 (2004), 120-151:120.
[59] White, *London in the twentieth century*, 42.

"A plan for London has of course been wanted for the last twenty years, but its scope has been enormously enlarged by the action of the enemy in doing so much destruction. Much as one deplores the dreadful and the most pitiful human suffering that has occurred not only in life but in other personal loss, there is no doubt that the damage that has been done by the enemy has provided us with an opportunity for producing something very much better than we had before".[60]

London required an organising hand to guide its development and the Blitz had provided an opportunity of unrivalled possibilities. Abercrombie was the perfect individual to provide this guiding hand: he had been editor to the *Town Planning Review* from 1910, Professor Adshead's successor to both the position of Lever Professor of Civic Design at Liverpool University in 1915 as well as the position of Professor of Town Planning at London University from 1935, and member of the royal commission on the distribution of the industrial population in London (the Barlow Royal Commission – the final report of which was published in 1940) that sought to make recommendations towards addressing regional imbalances from 1937.[61] Alongside his co-author for the *County of London Plan*, John Henry Forshaw, who had been appointed as Deputy Chief Architect to the LCC with the special responsibility of town planning in 1939 and then Chief Architect in 1941, Abercrombie had the experience and the influence to be the architect behind that exact glimmer of hope for the progressive and all-encompassing development that the Blitz seemed to offer.[62]

The *County of London Plan* focused exclusively on the inner-city part of the wider London region controlled by the LCC, with the exception of the City of London.[63] This allowed Forshaw and Abercrombie to direct their attention to the densely populated inner region and provide exact advice for the LCC, whilst separating the outer sections of London for which the council had no influence to organise the post-war developments. The *County of London Plan*

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[60] Abercrombie, 'Some aspects of the County of London Plan', 232-233.
[61] M. Miller, 'Abercrombie, Sir (Leslie) Patrick (1879-1957), town planner'. *Oxford Dictionary of National Biography* (2011). Available online: https://doi.org/10.1093/ref:odnb/30322 [Accessed 17/1/2023].
[62] A. Saint, 'Forshaw, John Henry (1895-1973), architect and urban planner'. *Oxford Dictionary of National Biography* (2013). Available online: https://doi.org/10.1093/ref:odnb/105005 [Accessed 17/1/2023].
[63] For the historic and financial centre of the metropolis, see section 5.3 for the *Final Report* prepared by Holden and Holford. These proposals were thematically very different from the Abercrombie Plans due to the increased focus on finance and business; displacement of population and industry were more relevant for the regions covered by Forshaw and Abercrombie. The heart of London was to remain functionally the same after the war, the presence of institutions such as the Bank of England that were vital to the running of the nation and Empire prevented any further development.

itself was only intended to provide a broad summary of what would be required to develop London into a more suitable and liveable city after the war, with no exact plans being made due to the flexibility required and the likelihood that circumstances would change.[64] Specific local investigations were intended as necessary precursors before any developments could be made, with boroughs expected to form their own plans and coordinate with the national central planning authority to ensure they fit the overall vision. The authors were highly aware that any exact plans they created would very quickly be seen as outdated, with constant adjustments being made as new developments occurred and different ideals replaced the dreams of previous years. As they wrote in the final chapter that functionally took the role of a conclusion, "it is axiomatic that there can be no finality in a living city".[65] The *County of London Plan* therefore focused more heavily on what steps could be taken immediately after the war and the factors that would need to be considered for them to occur, with the overall development of London being planned out for a timescale "of, say, fifty years".[66] Notably, the authors at times viewed the Blitz with positivity, believing the damaged bombsites should be the first locations for redevelopment and reconstruction before moving to more intact but still outdated areas (or, quite simply, areas that could serve a superior function with enough redevelopment) in order to enact an altogether comprehensive redevelopment.

Housing was given the highest priority by the planners, reflecting the great need of London to house its anticipated returning population once the war had ended. Although decentralisation was a central theme of the *County of London Plan*, particularly within the densely populated County of London, the Blitz had provided the opportunity to relocate and separate residential districts from industrial zones to achieve the authors' goal of a happier and healthier urban living. Within the LCC region, the East End and South Bank districts were selected as the most prominent areas for this rehousing to take place.[67] These were notably areas with close associations with industry and, whilst the authors intended for there to be a firm separation between living areas and working areas, this was expected to continue.[68] The plans

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[64] "the long-term development of the Plan must remain flexible, to meet the changing needs of progress and enable adjustments to be made without vitiating the whole scheme". Forshaw & Abercrombie, *County of London Plan*, 145.

[65] Forshaw & Abercrombie, *County of London Plan*, 145.

[66] Forshaw & Abercrombie, *County of London Plan*, 145.

[67] Forshaw & Abercrombie, *County of London Plan*, 146.

[68] The Blitz had already resulted in certain industries moving away from their historic centres, with the badly hit central London seeing its engineering and clothing industries move to the suburban north-west of London, the Home Counties, and elsewhere in the country. Similarly, whilst London remained a major location for the rearmament industry in the late 1930s, with the three existing munition factories

for the South Bank in particular directly stated as an aim the "closer integration of Southwark as a residential and industrial community, with the industry situated at the northern end and reasonably separated from the housing".[69] This area was perceived as particularly effective as a region for reconstruction due to heavy bombing: "relatively extensive bomb damage and a correspondingly high incidence of dilapidation have made a scheme of this nature much more practicable than would otherwise have been the case".[70] In highlighting this opportunity, the authors note the importance and usefulness of this location with optimism for its future potential. London still needed extensive rehousing schemes despite the goal of decentralisation; not enough houses had survived undamaged to support the desired population figures and the planners aimed to limit this development to specific residential districts. The Blitz had provided the opportunity, and the planners intended to maximise the benefits.

Traffic decongestion and improved road access were similarly awarded high priority status in the *County of London Plan*. As with all of the recommendations, flexibility was key and only broad directions of which parts of London should be linked by new roads were provided. The initial proposals, intended to be enacted as soon after the war as possible, were directed primarily towards the area south of the Thames. Along with their plans for housing and the overall redevelopment of the South Bank, this was intended to provide this region with a renewed sense of identity in keeping with its historic importance: "In earlier times the south bank, with its Globe Theatre, Paris Garden, and its other centres of attraction, was a vital and popular district of London. There is little reason why it should not recapture some of its former lively spirit".[71] Greater road access would improve the longevity of this southern part of the London region, particularly with the increase in cars that the authors anticipated for the post-war period. Eventually, with the complete application of both of the Abercrombie Plans, these roads would contribute to a set of four ring roads within and surrounding the Greater Metropolitan Area. These would allow access from inner London to the planned open spaces

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increasing to fourteen between 1935 and 1939, a further eleven were built in Wales, north-west England, and Nottingham where it was deemed safer; "to concentrate so much of the nation's productive capacity in one place, apparently so vulnerable to destruction from the air, seemed strategic madness". Many office jobs were similarly relocated, with the civil service moving many departments away from the capital. White notes that this push of industry and commerce out of London during the war was greater than at any time since the Great Fire, with the First World War having instead seen a greater concentration of manufacturing and distribution within the capital than ever before due to the much lower threat of bombing. White, *London in the twentieth century*, 195-196.

[69] Forshaw & Abercrombie, *County of London Plan*, 135.
[70] Forshaw & Abercrombie, *County of London Plan*, 135.
[71] Forshaw & Abercrombie, *County of London Plan*, 135.

within the city as well as the Green Belt that would constrict its external growth, creating and enhancing recreational access for the dense urban population.

The *Greater London Plan* was designed to merge seamlessly with the *County of London Plan*, expanding the geographical remit to the greater metropolitan area whilst building upon the principles and ideas initially expressed in the former plan. Of this comparison, Abercrombie wrote, "compared with the County of London and the City Plans, it is extensive in place of intensive in nature and in general its characteristic will be receptive and developing, instead of decentralising and replanning".[72] Certain parts of the Greater London region would be intended to receive the removed population of the County of London, particularly through the creation or expansion of new towns. However, Abercrombie stressed the importance of maintaining any undeveloped areas and in particular the protection of the Green Belt, with a key exception being that certain towns within the Belt could still continue to grow "for a limited period till their planned size is reached".[73] A certain amount of inner London's population needed to be dispersed to the towns within or the new towns beyond the Green Belt, but care needed to be taken to prevent these towns from growing too large and appearing to continue the built-up sprawl of London into this undeveloped recreational area.

As previously mentioned, it would take until the creation of the GLC in 1965 for a sufficient governing body to exist that had the authority to enact the *Greater London Plan*, by which time it was already considered outdated due to the modernising developments that had occurred since the war as well as changing ideas of what the future of London should look like. The *Greater London Plan* had relied on the creation of such a body, drawing on the recommendation of the Uthwatt Committee that a central planning authority was needed to direct the national rebuilding process with close cooperation with regional governing bodies.[74] Whilst this would allow for the creation of, and provide the authority over, a master plan that covered all of the Greater London region, Abercrombie had something else in mind for how this would transition into actual developments made at the local level. He recommended the division of the region into a series of joint planning committees that represented their contained local borough councils. These would need to be small enough to "maintain local interest and contact" and would be given the responsibility to prepare and administer redevelopment schemes that conformed with the overall regional plan.[75] This was similar to how local authorities in other

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[72] P. Abercrombie, *Greater London Plan 1944* (London: HMSO, 1945), 5.
[73] Abercrombie, *Greater London Plan*, 15.
[74] Abercrombie, *Greater London Plan*, 5.
[75] Abercrombie, *Greater London Plan*, 18-19.

urban locations across the country would control their own rebuilding efforts whilst still conforming to any directions provided by the central planning authority. However, the size of London (as well as the lack of an existing and suitable governing body) supported the suggestion of a variety of localised bodies with the connections to their borough councils and the authority to manage their own redevelopment schemes. Additionally, this would help to facilitate local interests in property development. The planning rights would effectively be fractured in a manner that encouraged the survival and enrichment of London's historic local communities. Through this process, the great urban mass of lives and architecture could be modernised and restructured respectfully, looking forwards to a post-war world even as beneficial aspects of the past were maintained.

The Abercrombie Plans were intended to be read as a singular proposal for the future development of London. Alongside the separately prepared proposals for the City of London (prior to the succession of the report by Holden and Holford), Abercrombie summarised that "these three complementary studies are each investigations into parts only of the one and indivisible Metropolis, whose boundaries are invisible to the naked eye, unrealised by the normal citizen – save when indicated by rate demands – and unmeaning to the planner".[76] The necessary separation of the County of London from the Greater London region into two publications had more to do with the boundaries and limits of influence of the LCC than an intentional desire of Abercrombie's to divide London into two distinct regions. By the end of the war, the bomb damage had been indiscriminate in the extent of London it had impacted, and an overall cohesive plan was required to prevent the opportunistic and sporadic development that had defined so much of London's history. Market forces could be allowed access to the land in order to share the cost (and consequential rewards) of redevelopment, but these needed to be aligned with the plans of the borough councils and controlled by a strong legal backing to prevent an incoherent and sprawling mess from rising yet again from the remains of war. The Town and Country Planning Act of 1947 would do much to achieve this, but new distractions as well as the constant shift and pull of short-term factors would limit the overall effectiveness of the Abercrombie Plans.

In clearing so much housing and increasingly obsolescent architecture, the Blitz provided Forshaw and Abercrombie with the opportunity to approach London with few physical barriers to complete redevelopment. What the foreign bombs left untouched, local demolition would complete when necessary. Despite these opportunities, their plans took careful consideration

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[76] Abercrombie, *Greater London Plan*, 1.

of existing local communities and sought to enhance rather than remove their historic importance. Indeed, community "dominated the aim" of the plans, "at one end the community of the Capital of the Empire, at the other the communities of simple people whose work and existence happen to lie within this imperial metropolitan region". [77] Both needed to be accommodated and enhanced by the plans, ensuring that the metropolis could continue its combined roles of both national as well as international importance, even as the Empire appeared poised to become a thing of the past. London was being viewed as a living and global city, the recommendations of the plans respecting its population, its history, and its international importance. The advanced infrastructural improvements were intended to improve the conditions for life in the capital as well as to organise the sprawling mess that London had become. Within a larger regional "structured coherence", specific districts would be given specialised roles, with residential areas separated from the industrial and improved travel conditions reducing overall commute times.[78] Decentralisation could be achieved by drawing the population out to the new towns surrounding the Green Belt, creating self-contained communities that did not rely on a daily migration into the capital to simply reach their jobs. Many of these developments had been desired before the war, but the Blitz provided the motivation and opportunity for plans to be made.

In particular, the theme of decentralisation at the heart of the Abercrombie Plans was aided drastically by the Blitz and the evacuations that had already taken place. The destruction of so much of London's housing particularly aided this to prevent the metropolis from returning to its pre-war population figures. Although it was believed that the post-war years would see the return of much of the population that had previously either evacuated or gone to war, as well as new individuals drawn to the financial opportunities presented by the rebuilding efforts, this relied on enough housing being available. The Abercrombie Plans aimed to resolve this issue by creating new towns outside London as well as specific housing estates within London, with the expectation that this would reduce the historic density problems whilst still allowing

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[77] Abercrombie, *Greater London Plan 1944*, 20.

[78] Harvey explains that "the class relation between capital and labor tends … to produce a 'structured coherence' of the economy of an urban region". The spatial separation of residential from industrial as envisaged by Forshaw and Abercrombie demonstrates this "structured coherence" as an ideal spatial layout for the future of London. As Cloke & Goodwin add, albeit in regard to rural areas as opposed to Harvey's focus on the urban, this coherence "enables the daily reproduction and substitution of labour power … thus the ensemble of institutional norms, relations and practices that form any particular mode of regulation are actually playing a role in constructing and maintaining a localized coherence suitable for the production of surplus value". Harvey, *The urbanization of capital*, 139-140; P. Cloke & M. Goodwin, 'Conceptualizing countryside change: from post-Fordism to rural structured coherence'. *Transactions of the Institute of British Geographers*, 17, 3 (1992), 321-336:326.

Londoners to access their jobs within the inner city by using the fast and efficient public transport innovations that had steadily transformed London since the early nineteenth century. Housing was a core aspect of the rebuilding process and until permanent accommodation could be provided, homelessness and temporary buildings were the inevitable result. The Blitz had provided London with an opportunity to review and reorganise its population and housing was the key to achieving this.

5.5   Short-Term Realities of Rebuilding: The Urgent Demographic Need for Housing

Concerns over London's immense population size were key to the plans being made. The desire to reduce the overall population of the built-up urban region had been a prominent discussion during the interwar years and in particular the 1930s. The mass evacuations, displacement, and infrastructural opportunities that were made available by the war were viewed as opportunities to finally achieve this. The previous decades had seen much of inner London's population removed to the suburbs as their growing appeal pulled the middle class away from the central city; this was aided by the commercial redevelopment of areas once dominated by housing as this pushed out the working class, unable to afford the expensive remaining properties. Fast and efficient transport links enabled the population to live further away from the city centre whilst still maintaining their inner-city jobs. Between 1921 and 1939, around 650,000 people moved away from inner London, with over 80 per cent of this occurring in the 1930s.[79] Although this reduced the congestion of the historically overcrowded city centre, by the start of the war London's overall population was still able to reach 8,615,000. This was the highest it had ever been and a figure that would not be exceeded until the twenty-first century.[80] However, the London that entered the Second World War would not be the same in terms of its population as

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[79] White, *London in the twentieth century*, 22.

[80] White, *London in the twentieth century*, 27. However, due to the nature of urban growth, some academics define London's population with different spatial boundaries. In *The World Cities*, Peter Hall talks of a "distinct metropolitan region" that for London includes nineteen smaller contiguous regions that contribute to the economic and infrastructural livelihood of the capital. By including these, Hall places the London metropolitan area at a population of 12,036,900 in the 1971 Census, or 21.8 per cent of the total United Kingdom population (with only 7,452,346 being within the Greater London region itself). Due to the dispersed nature of this population, this does not affect the point made above about the overcrowded nature of London shifting over the course of the twentieth century, but it does demonstrate the continued growth of London's influence despite the barriers to expansion imposed by political efforts, such as the Green Belt. Notably, Hall concludes that even this definition of a metropolitan area is no longer entirely accurate, explaining that, by the 1970s, "growth is dispersing outward in ever-increasing circles, to a ring of smaller metropolitan areas beyond the central one. The movement into this wider metropolitan complex is not a trend that will easily be reversed, whatever the official policy and however strong the official powers." P. Hall, *The world cities*, 2nd edition (London: Weidenfeld and Nicolson, 1977), 13; 21; 24.

the London that came out the other end. Wartime migration and the efforts of the various local borough councils as well as Parliament itself would see a dramatic decline in London's population in the decades following the war. In this regard, the desires of London's political institutions such as the LCC to see a limit to London's seemingly endless growth saw a great (if temporary) victory.

Before the war, an attempt had been made to resolve London's overcrowded state with the Housing Act of 1935. This significant although complex Act enacted many new provisions for local authorities to clear up slums as well as more broadly purify unhealthy areas resulting from human habitation, infrastructural faults, and aging architecture.[81] Notably, however, the Act was not intended to be used as part of town planning: the Medical Officer of Health for the Metropolitan Borough of Paddington, Geoffrey E. Oates, explained that "one should resist any tendency to use the machinery of the Acts to clear up areas which are merely untidy or badly planned".[82] Though this Act was ineffective in providing the means to enact real change in the structure of the city, the slum clearances of the 1930s were a vital step towards the town planning that resulted from the Blitz, particularly due to the strong provisions against overcrowded accommodation.[83] The initial report into City of London working class houses that resulted from these provisions found that 65 were to be considered overcrowded, and a special sub-committee of the Public Health Committee resolved on 22nd September 1936 to ask the Bridge House Estates Committee if any accommodation was available in Southwark to move these individuals into more sufficient accommodation.[84] Efforts to resolve these issues of overcrowding and unsanitary conditions were effective though limited in their overall success due to the rapidly approaching war. However, bombs would soon provide the much-needed incentive to shift the focus from slum clearance to town planning.

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[81] The Act was complex enough that only the following year a Bill was presented before Parliament that became the Housing Act of 1936. This consolidated the Housing Acts that passed between 1925 and 1935, as well as introduced new measures to clarify some additional issues that had been raised since the previous year. Notably, this improved the efficiency of the bureaucratic process as the 1935 Act had presented so many interpretation difficulties, with "the latest and best treatise on the Act, that by Mr. H. A. Hill, run[ning] to 400 pages and yet leaves certain questions unanswered". G. E. Oates, 'The Housing Act, 1935', *The Journal of State Medicine*, 44, 7 (1936), 384-390:384; *Housing Act 1936*. 26 George V & 1 Edward VIII, Chapter 51 (London: HMSO).

[82] Oates, 'The Housing Act, 1935', 384.

[83] A house was to be defined as overcrowded when either two unmarried individuals of opposite sexes and over the age of ten must sleep in the same room, or when the number of individuals sleeping in the house was in excess of that allowed relative to the floor area and number of rooms in the property. LMA, Housing Act 1935: Joint Report, Mr. Comptroller & Mr. Surveyor to the City Lands. *Housing Act, 1935: prevention and abatement of overcrowding in the City*. COL/CC/PBC/03/027.

[84] LMA, Housing Act 1935: Joint Report, Mr. Comptroller & Mr. Surveyor to the City Lands. *Housing Act, 1935: prevention and abatement of overcrowding in the City*. COL/CC/PBC/03/027.

The Government Compensation Scheme to reimburse property damage inflicted by enemy action was created in 1939, having been announced to the House of Commons in January of that year in anticipation of the impending war. This scheme, and the subsequent Committee on the Principles of Assessment of Damage that was set up to decide the details of the compensation, specifically targeted the *physical* property damage. "Consequential losses" such as the loss of trade or the cost of alternative accommodation were excluded.[85] Additionally, the Committee decided that all housing compensation would be calculated at the prices of March 1939 in order to prevent wartime fluctuations from interfering and this was made official by the War Damage Act of 1941, though the cost of replacing or repairing certain 'movable' property such as food or motor cars would instead be calculated at the time of damage. This was due, presumably, to the much smaller cost and greater difficulty for unscrupulous individuals to commit fraud or otherwise take advantage of the situation.[86]

This awareness of the potential for dishonest behaviour also extended to the rebuilding work conducted by contractors following the war. On 9th May 1946 it was noted by the Ministry of Health that there was a "growing number of complaints from rate-payers … regarding the bad workmanship of contractors employed by Local Authorities on war damage repairs".[87] The specific reasons for this low quality were not provided, however it is likely that the difficulty in accessing adequate rebuilding materials due to ongoing shortages contributed in addition to the underlying presumption that some amount of incompetence was involved.[88] In this situation,

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[85] LMA, *War damage to property: government compensation scheme*. LCC/CE/WAR/03/079, 2. Notably, this Committee was chaired by Mr A. Andrewes Uthwatt who would later chair the Committee on Compensation and Betterment and produce the Uthwatt Report, as discussed above in this chapter, that was so pivotal in the formation of the Town and Country Planning Act of 1947.

[86] *War Damage Act 1941*. 4 & 5 George VI, Chapter 12 (London: HMSO), s3. Additionally, furniture received special attention by Parliament due to severe shortages leading to price inflation. Subsequent fears of profiteering and inferior substitute materials being used, as well as a growing black market and looting of bombed properties, resulted in the implementation of the Utility furniture scheme. This would provide furniture for those who were most in need, with this being defined as those who were to be married and set up a house, those with or soon to be expecting young children, and those whose previous furniture had been destroyed through enemy action. This would be extended later in the war to include all who had set up a house since September 1939 or were married and had been bombed out of their house. Strong government oversight through the Board of Trade ensured adequate manufacturing standards, and a points system similar to rationing coupons were used to prevent cost from being a restrictive factor. S. Reimer & P. Pinch, 'Refurnishing homes in a bombed city: moral geographies of the Utility furniture scheme in London'. *The London Journal*, 46, 1 (2021), 26-46:31-32.

[87] LMA, Letter from the Ministry of Health to all local authorities within the London Region, dated 9th May 1946. *Ministry of Health (London Region): special notes on war damage repairs*. LCC/CE/WAR/03/084.

[88] The letter specifies the procedure for if the contractor responsible for the bad workmanship "cannot be traced or cannot be induced to make good the defects". The wording evokes suspicion, creating an implied assumption of incompetence for at least some of the contractors involved. Additionally,

the Ministry of Health decided that if the local authority agreed with the complainant that the quality of work was not up to a reasonably good standard as well as that the contractor was either unwilling or unable to return to improve their previous efforts, then a separate contractor would be commissioned by the local authority to complete the work. This would then be reimbursed by the original contractor when possible. The responsibility for the quality of rebuilding therefore lay directly with the local authorities as defined by instructions provided by the national government. Individual property owners were only expected to make the relevant applications to ensure the process was adequately completed.

Through these efforts, the rebuilding of London's houses following the Blitz would be directly assisted by the Ministry of Health in the national government, working through local authorities to organise the payment and completion of each individual application. This financial assistance directly contrasts with the expectation following the Great Fire that landlords and their tenants would pay the entire cost for the rebuilding of their properties, owing largely to the increased involvement of both national as well as local governments in twentieth-century construction and town planning. The sewerage improvements of the nineteenth century demonstrate the gradual development of this institutional involvement due to the willingness of Parliament to fund vast infrastructural improvements. Whereas this was only done reluctantly due to the crisis conditions, the creation of the Government Compensation Scheme in 1939 shows the increased active role played by political institutions less than a century later. Moreover, quality could be ensured by the Scheme so long as a complaint was made if the rebuilding was not completed to a good enough standard, removing the possible issue of cost preventing an adequate final result. Through this process, Parliament was directly involved in the rebuilding effort, creating a national scheme that nonetheless provided a particular benefit to London as the most heavily bombed city in the Blitz.

The necessary close relationship between the building of new housing and the creation of new industry was expressed by the President of the Board of Trade, Mr Dalton, in a debate at the House of Commons on 7th June 1944. He specified that, nationally, where sufficient housing already existed, there should be a focus on building new factories to employ those local inhabitants; alternatively, where factories as well as other industrial employment opportunities already existed, the focus should instead be on supplying sufficient housing to "see that the

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however, the shortage of materials was a significant factor in all rebuilding projects: as late as 1954 prefabricated concrete structures still proved popular due to the limited supply and expense of other building materials. LMA, Letter by R. H. Jerman, dated 29th April 1954. *Temporary buildings – general papers*. LCC/CL/TP/01/096.

existing factories are kept working at full capacity".[89] When questioned specifically about if London contained enough factory space to employ its population, Dalton stated that "quite frankly, London is not one of the areas where there is urgent need for factory development. The most urgent need is elsewhere".[90] This mirrored the view specified in the Abercrombie Plans that decentralisation of the population (as well as of London's industries) was required. Additionally, providing new housing must be the highest priority for the post-war development of London, with "noxious industries" in particular "eliminated from the central area" and "industry not requiring water-front facilities … kept away from the river".[91] Despite the heavy bombing inflicted on both London's houses as well as its factories, the prioritisation of housing was necessary simply due to the sheer size of London's population. No matter the job opportunities, the returning population to London after the war would make housing the most urgent matter to contend with.

In the meantime, temporary housing was used to accommodate much of London's homeless population in the years following the war whilst the ambitious house rebuilding programmes ran into financial as well as material delays. Homelessness had been a consistent problem during the war years and the borough Rest Centre Scheme was set up early in the war by the LCC to provide accommodation for those who had been bombed out of their houses. Additionally, 'rest homes' were requested by the Regional Commissioners to house those who were considered "aged and infirm … who cannot reasonably be billeted or rehoused by the ordinary borough rehousing machinery … without continued help and supervision".[92] Successful applicants needed to have been made homeless as a result of enemy action and, perhaps most importantly of all for treating those who truly were the most in need, "it must also be clear that they have no relatives who may be expected to look after them".[93] This latter point in particular

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[89] House of Commons, 'Location of industry', *Hansard Parliamentary Debates*. 7 June 1944, col. 1383. Dalton clarified that new housing would indeed be required everywhere, but that where there was also a need for factories this should be viewed with equal importance. In other words, "it is no solution of our problem to provide good houses for unemployed men" (col. 1385).

[90] House of Commons, 'Location of industry', col. 1384.

[91] For the prioritisation of housing, see Forshaw & Abercrombie, *County of London Plan*, 145. For the relocation of industry, see page 98 of the *Plan*. It is important to note that the County of London region already had by-laws preventing noxious and offensive industries from being within the County boundaries. As such, West Ham became a prominent site for these industries due to its ideal location near the Thames whilst being just out of the County boundaries. Abercrombie's idea sought to further eliminate those industries which still persisted and create a more efficient use of land in terms of riverside industrial space. White, *London in the twentieth century*, 178.

[92] LMA, Letter from A. P. Hughes-Gibb titled 'Homeless Persons' dated 11th July 1941. *Rehousing of homeless people*. LCC/CE/WAR/02/066.

[93] LMA, Letter from A. P. Hughes-Gibb titled 'Homeless Persons' dated 11th July 1941. *Rehousing of homeless people*. LCC/CE/WAR/02/066.

would be crucial in helping the most people possible whilst not allocating valuable accommodation places to those who could make use of the ordinary Rest Centre Scheme or pursue alternative options.

These temporary provisions were aimed at getting the population through the war but the short-term plan for afterwards was also not intended as a permanent answer to this desperate need. Churchill had promised during the war that half a million prefabricated homes, or 'prefabs', would be built to provide a temporary solution. However, by 1949 only 157,623 had been built nationally, though the majority were indeed to be found in London.[94] Housing had been the most prominent factor in deciding Labour's victory in the 1945 general election and yet the immediate post-war period did not see much of a solution to London's housing crisis. The Rest Centre Scheme and the provision of prefabs demonstrates the actions made by local London authorities as well as the regional and national governments to support the city's population whilst the long-term plans for the overall redevelopment of London were underway. Although the urgent housing elements of the Abercrombie Plans were to be built much sooner than other aspects of the plans that were expected to take up to fifty years to complete, London as a living city required immediate support to overcome the destruction of the Blitz. The interests of the city's workers did not stop at simply finding them jobs and providing them with housing: their social reproduction needs had to also be addressed. The relevant local and regional political institutions were heavily relied upon, with the LCC using the borough councils to achieve its overall aims whilst allowing them to maintain their much-desired autonomy in deciding the exact provisions being made. Acts of Parliament were effective in providing both the legal backing for these actions and the general direction that wartime support and post-war redevelopment would take, but this only worked due to the efforts of the LCC and the borough councils in providing the focus and groundwork to achieve real change.

The post-war rebuilding process gradually yielded results across London, with new housing regions, blocks of flats, and a vast number of new offices being built across the late 1940s and 1950s. This provided the city with both business and accommodation opportunities to support its population even as the decentralisation efforts saw a significant proportion move further afield into the suburbs and even out of London altogether to the surrounding new towns. Greater safety procedures in the construction of buildings since the war also created a renewed protection against fire damage, so prominent during the Blitz, than that which had been

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[94] M. Clapson, *The Blitz companion: aerial warfare, civilians and the city since 1911* (London: University of Westminster Press, 2019), 126.

common before the war. The introduction of fire-grading, where the standard of fire-resistance was "varied according to use and size of building", had increased the complexity of building control in London but was effective in enforcing protection for vulnerable buildings that could otherwise be a prominent risk for the safety of surrounding buildings.[95] This was particularly necessary in densely built-up areas of London, where fire would be (and had proven so during the Blitz) particularly effective at causing mass destruction and collapsing buildings would be a severe safety risk. These measures were successful in protecting the post-war buildings, with the Chief Officer of the London Fire Brigade, F. W. Delve, reporting to the Advisory Committee on the Control of Construction of Buildings in London in 1958 that "there has been no fire of any magnitude in London to a post war building". He emphasised that in such a "closely built up area such as London prevention is better than cure" and commended the LCC's practice and procedure for effectively following this principle.[96]

As with so many responses to the Blitz, renewed protection against fire damage encourages another direct comparison with the Great Fire. Although the exact building procedure did not change in the 1940s and 1950s as prominently as it did in the 1660s and 1670s (the regulations emphasised in the London Building Act of 1930 and the London Building Acts (Amendment) Act of 1939 being deemed sufficient), the focus on a new standard of fire safety following the war demonstrates that the Blitz had acted as a prompt to re-evaluate the current measures and update them in accordance with new technologies and safety procedures.[97] An ever-growing complexity of bureaucracy followed the war to ensure an adequate safety standard, but nonetheless created a safer London. Following the Great Fire, this has similarly been achieved by new building regulations as well as the establishment of small fire brigades and the fire insurance industry. In both cases, the shocks were used as opportunities to improve crisis prevention measures.

Moreover, the long-term reception towards the post-Blitz buildings appears to have again mirrored that of the Great Fire. Although new housing estates had resolved a severe need for new accommodation options within the city, White notes that "revulsion against comprehensive housing redevelopment had begun to set in during the mid-1960s but it took ten

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[95] LMA, Report (7.3.58) by the Superintending Architect and the Chief Officer of the London Fire Brigade, Appendix B: letter of 7 February 1958 from Mr. R. H. Uren. *Advisory Committee on the Control of Construction of Buildings in London*. LCC/CL/TP/01/102.

[96] LMA, Report (7.3.58) by the Superintending Architect and the Chief Officer of the London Fire Brigade. *Advisory Committee on the Control of Construction of Buildings in London*. LCC/CL/TP/01/102, 2.

[97] *London Building Act 1930*. 20 & 21 George V, Chapter 158 (London: HMSO); *London Building Acts (Amendment) Act 1939*. 2 & 3 George VI, Chapter 97 (London: HMSO).

years for it to gain overwhelming force sufficient to check and change public policy". He explains that the "New Brutalist slab blocks" architecture and "system-built towers" of these estates did not endear the public, with the "abhorrence of the waste of Victorian houses which could be perfectly usable with money spent on them, and which would make infinitely more popular homes than anything likely to be put in their place".[98] Additionally, by 1968 Parliament-imposed restrictions on building offices in the City of London were being criticised, with "office slums" having arisen due to office development permits creating delays and interfering with the "natural process of reconstruction".[99] The early eighteenth-century dislike of the post-Fire buildings and perception of the wasted opportunity created by the shock had found a modern successor. Coupled with London's economic decline between the 1960s and 1980s due to a changing industrial landscape (both regional as well as international) and unstable political landscape with the abolition of first the LCC in 1965 and then its successor, the GLC, in 1986, post-war London was arguably in the worst shape it had been for centuries. With the rebounding of the 1990s and the twenty-first century still an uncertain future, the contemporaries referred to by White in the decades immediately following the war were perhaps justified in their revulsion towards the direction London was appearing to go in just like their eighteenth-century predecessors.[100]

5.6   Redrawing the Regional Boundaries of London: The Role of the Green Belt and New Towns

However, there were some developments to the external boundaries of London that are mostly still being viewed positively to this day. Greater national Government involvement and restrictions during the post-war rebuilding than that which followed the Great Fire allowed for a more structured and controlled reconstruction of London. This led to a renewed sense of urgency to ensure the placement and preservation of a Metropolitan Green Belt to protect the land surrounding the capital from falling victim to development opportunists, thereby determining *de facto* if not *de jure* the boundaries of a redeveloped Greater London.[101] Although the Green Belt (London and Home Counties) Act of 1938 first allowed local authorities to purchase land specifically to limit development and keep it open as part of the adolescent Green Belt, the definition of what the land could be used for was limited, and it soon became clear that

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[98] White, *London in the twentieth century*, 66.
[99] C. Meakin, 'Whitehall asked to ease curb on offices', *The Times*. 16 August 1968.
[100] Despite this, a new appreciation and calls for preservation of brutalist architecture have gradually increased in the twenty-first century. B. A. Campagna, 'Redefining Brutalism'. *APT Bulletin: The Journal of Preservation Technology*, 51, 1 (2020), 25-36; R. Banham, 'The new Brutalism'. *October*, 136 (2011), 19-28; A. Smithson et al., 'Conversation on Brutalism'. *October*, 136 (2011), 38-46.
[101] Hall, *The world cities*, 23.

the local borough councils did not have sufficient finance to purchase all of the land that would have been necessary.[102] It would take until 1955 for the overall functions of this land to be solidified with the publication of Circular 42/55. This encouraged the borough councils to set out the plots of land that would be added to the Green Belt in their local development plans until a formal survey could be conducted to "define precisely the inner and outer boundaries of the Green Belt, as well as the boundaries of towns and villages within it".[103] The aims of the Green Belt were given as being "to check the further growth of a large built-up area; to prevent neighbouring towns from merging into one another; or to preserve the special character of a town".[104] In other words, to prevent the endless expansion of London and to avoid the surrounding towns from being swallowed up into the resulting urban sprawl.[105] Whilst vast areas of inner London were being transformed into a landscape of offices and new housing estates began to spread across the suburbs, the Green Belt helped to maintain boundaries (especially those of a local jurisdictional character) and prevent the unrivalled expansion that had defined London's geographical history for much of the previous two centuries. The metropolis had finally been contained, just as it once had been by the London Wall before the pressures of population forced its expansion.[106]

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[102] *Green Belt (London and Home Counties) Act 1938*. 1 & 2 George VI, Chapter 93 (London: HMSO).
[103] Ministry of Housing and Local Government, *Circular 42/55* (3rd August 1955). Available online: https://londongreenbeltcouncil.org.uk/wp-content/uploads/2022/04/1955-Circular-2-1.pdf [Accessed 12/12/2022].
[104] Ministry of Housing and Local Government, *Circular 42/55*. This development can be traced back to the Town and Country Planning Act of 1947. Bishop explains that the requirement for local authorities to produce development plans led to the formal protection of land intended to become part of the Green Belt. However, he notes that the previous primary purpose of the Green Belt – being a place of recreational public access – had become secondary with this new Act. Instead, the Green Belt had primarily become a development restriction zone. This shift in connotation has had a long-term impact on how London's Green Belt is perceived, with the 'undeveloped' land being increasingly viewed in the twenty-first century as ripe for new housing estates as a potential solution for the housing crisis. P. Bishop, 'A lost Arcadia: the historical emergence of Green Belt thinking in the UK', in P. Bishop et al., *Repurposing the Green Belt in the 21st century* (London: UCL Press, 2020), 6-43:24; 39.
[105] This need for enhanced green, open space within and surrounding the metropolis was reflected in the *County of London Plan* by Forshaw and Abercrombie, though with a different focus. Instead, the benefit which this land use would have on the health of the urban population received the planners' attention. The *County of London Plan* states, "adequate open space for both recreation and rest is a vital factor in maintaining and improving the health of the people. It is considered a highly important aspect to be dealt with in the Plan". Forshaw & Abercrombie, *County of London Plan*, 36.
[106] Less successful, however, were Abercrombie's plans for green wedges to be incorporated into the built-up regions of London. These would expand on the existing green spaces, bringing open countryside directly into the inner-city and provide relief for those unable to travel out to the Green Belt. Legal constraints, economic crisis, and the desperate need for housing and reconstruction ultimately prevented this radical transformation of London. However, the survival and increase of green spaces within the inner-city region in the late twentieth and early twenty-first centuries can be seen as a modern version (though not necessarily directly related) of Abercrombie's green wedge vision. F. Lemes

Beyond the Green Belt, the 'new towns' of London were designed to house the overspill communities of the capital, but they soon gained a popularity of their own as people from elsewhere used these locations as a new form of access into London. Despite this consistent flow into both London and the broader south-east region, the population of London itself was declining throughout the 1950s and 1960s as part of the decentralisation policy. In the 1960s, Greater London's population declined by 7 per cent whilst the Outer Metropolitan Area increased by 19 per cent.[107] The improved transport links and increased use of car travel as well as the decentralisation of work opportunities allowed the imaginary boundaries of London as much as its material infrastructure to spread across the region even as the physical boundaries were restricted. Through this process, London's overcrowding issues were gradually alleviated though not entirely solved; the new housing estates allowed densely populated regions of London to grow even as much of the inner city's land use shifted from housing to office space.[108] The opportunities to live elsewhere in the region grew and the population of London declined in the post-war period, but the metropolis remained an attractive area for businesses with workers being drawn towards the opportunities. The Blitz had displaced London's population, but the destroyed state of the city and the enthusiasm to rebuild created a shift in how London's land was used, with the population increasingly pushed out (or pulled away) from the built-up inner-city areas of the emergent London 'region' and its real-and-imaginary limits.

The solution was found in moving large numbers of the resident population out of London altogether. The New Towns Act of 1946 provided measures to allow for the designation of sites as new towns, with the intended purpose of shifting populations from crowded urban regions.[109] London was the most prominent target of these reforms, but during the second half of the twentieth century this Act (as well as its successors) would be used in regard to other regions across the United Kingdom to help other cities cope with their own population density issues. During the 1940s, eight new towns were designated within the Metropolitan Area but

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de Oliveira, 'Abercrombie's green-wedge vision for London: the County of London Plan 1943 and the Greater London Plan 1944'. *Town Planning Review*, 86, 5 (2015), 495-518:512.

[107] White, *London in the twentieth century*, 59.

[108] The City of London was particularly affected by this shift: whereas before the war 45 per cent of the floorspace was devoted to offices, by 1962 this figure had increased to 60 per cent. This replacement was not solely at the expense of housing, but it demonstrates the repurposing of land within inner London and the prioritisation of office space to strengthen the commercial function of the City. White, *London in the twentieth century*, 48.

[109] *New Towns Act 1946*. 9 & 10 George VI, Chapter 68 (London: HMSO).

beyond the Green Belt in accordance with the proposals made in the Abercrombie Plans.[110] As stated above, these locations proved popular among individuals moving into the south-east region as well as those migrating out of inner London, causing these towns to suffer similar issues associated with population increase as those that had blighted the capital for much of the previous century (though, of course, on a much smaller scale). Alongside this population shift was the relocation of industry, with over 400 firms moving to the eight new towns between 1946 and 1966. The vast majority of these came from the Greater London region, initially being encouraged by legislative efforts from the Government and the LCC, but eventually being pulled more by the economic forces referred to above as the opportunities presented by the new towns became apparent.[111] This advancement of labour markets into these first post-war new towns have seen them become more self-contained, creating what Peter Hall has referred to as a "polycentric city region".[112] The urban conglomerate of London had been contained by the Green Belt and beset by a falling population, but found new ways to overcome the limitations and expand its influence into the outside regions, in the process becoming *de facto* if not *de jure* a politically functional 'city region' as a result of this geopolitical process.[113]

The implementation of the Green Belt, the development of the new towns, and the broader decentralisation of London were not direct responses to the Blitz, but this shock greatly

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[110] Hall, *The world cities*, 40. The eight new towns were Stevenage, Crawley, Hemel Hempstead, Harlow, Welwyn Garden City, Hatfield, Basildon, and Bracknell. These proposed new towns received heavy criticism from some during the war, particularly the suggestion that Londoners from the inner-city region should be encouraged to make this move. The amenities available within the capital simply could not be matched within the new towns; "it is one thing to encourage such small towns to grow up to cater for persons coming from less developed and smaller communities: it is quite another thing to force people backwards from developed highly nodalised London suburbs, into these sparsely developed semi-communities". This particular (anonymous) author rejected the plan based on the limitations it would impose on those Londoners who did move to the new towns as well as any industries who joined them, which would inevitably result in "the necessity of subsidisation and an inevitable ruination of much good market-garden land". Instead, it was proposed that taller buildings should be incorporated into the existing built-up areas of London to further increase the density, but with sufficient planning these could be placed carefully to reduce the overcrowded nature of the inner city. For this author, the expansion of the new towns would cause more negative changes than positive, and the reliance of the Abercrombie Plans on this shift sullies what is otherwise "the obvious constructive influence of the great town planner responsible for it". 'The Abercrombie Greater London Plan'. *Public Administration*, 23, 1 (1945), 38-41:38; 40.
[111] C. M. Brown, 'The industry of the new towns of the London region', in J. E. Martin, *Greater London: an industrial geography* (London: G. Bell and Sons, 1966), 238-252:238-240. Industrialisation had already been rapidly occurring in outer London throughout the interwar period, with the north-west being the most impacted. Martin notes the extent and speed of this points towards it being a "speculative boom", though as noted above the war would interrupt this progress and lead to more industries moving out of London altogether. J. E. Martin, *Greater London: an industrial geography* (London: G. Bell and Sons, 1966), 32.
[112] Hall, *The world cities*, 43.
[113] Jonas & Moisio, 'City regionalism', 350-351.

advanced a process that had otherwise made little progress in the previous decades. The desire for a less crowded city as well as for the implementation of firmer boundaries to prevent the endless expansion had been prominent during the interwar years. Similarly, the growth of the new towns as a potential solution to London's population issues had been voiced as early as the late nineteenth century with Ebenezer Howard's *To-Morrow: A Peaceful Path to Real Reform* (1898). Howard advocated for garden cities to alleviate the pressures of dense urban populations by creating attractive alternatives where people could live alongside nature.[114] This was a significant contrast to the heavily industrialised, cramped, and slum-ridden London of the late nineteenth century. Despite some success in building garden cities in the early twentieth century, this had been too limited in scope and lacked a sufficient supportive response from the London authorities to have the intended effect in drawing out the capital's population to greener pastures. However, the dramatic population migrations throughout the Second World War, the intentional (at least, at first) inability to restore the city to its pre-war population, and the greater governmental involvement in resolving this long-standing crisis, provided the ideal circumstances to finally put into place measures that would partially achieve Howard's recommendations from more than half a century prior. The Blitz was therefore directly involved in advancing the post-war developments in how London responded to its spatial challenges. The shock was a turning point for the mass change that had previously eluded the London authorities. The post-war developments ultimately achieved the creation of a more or less coherent city-regional 'spatial fix' to the various internal societal tensions and contradictions that had resulted from the destruction of London's built environment during the Blitz.

5.7   Wartime Healthcare and Post-War Social Reproduction: London's Medical Needs and the Creation of the Welfare State

Alongside the housing-related displacement of London's population, plans needed to be prepared for how the city would cope with the injured to prevent further disruption to the war effort. Healthcare had become a significant consideration in the late 1930s with the anticipation of air raids causing mass civilian casualties, and plans were put into place for first-aid posts to be provided across London to "deal with light, as distinct from serious, cases of injury or gas contamination".[115] These were to be the responsibility of the metropolitan borough councils and would serve to reduce the expected overload of patients in hospitals. This was particularly

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[114] E. Howard, *To-morrow: a peaceful path to real reform* (London: Swan Sonnenschein & Co., 1898), 142-144.
[115] LMA, Memo sent by R. R. Scott to all County Councils titled 'First Aid Posts', dated 10th December 1937. *First Aid Posts*. LCC/CE/WAR/01/024, 1.

important due to the great risk posed to these vulnerable institutions by bombs and incendiaries, and a new system was put into place to protect them.[116] The wartime Emergency Medical Services resulted in a sector system being introduced in London whereby staff, equipment, and services would be decentralised as a protective measure. This "pooling of hospital resources" increased communication between these previously isolated institutions and proved beneficial when St Giles' and St Francis' Hospitals suffered severe damage.[117] In addition, 'special centres' saw an increase in referrals as their specialist staff were too busy to make their intended visits to hospitals. Although "a most unsatisfactory and uneconomical procedure", it proved itself "of great benefit to patients [as] Physicians and Surgeons at General hospitals are now more willing than pre-war to transfer their cases to Neuro-Surgical, Orthopaedic and Chest Centres, etc., as many of these Centres have developed a high reputation in their speciality".[118] A quick resolution triggered by the Blitz, but one which proved beneficial in permanently shifting medical attitudes.

London's vast medical needs as a result of the Blitz would see further upheavals of the pre-war norm. The supply of medicine had become a major challenge during the war due to the previous reliance on foreign trade to stock up Britain's pharmacies, with German medical suppliers being particularly favoured. Their drug-producing companies had vastly outperformed their British counterparts during the interwar years, and fears of dangerous shortages compelled the country to find new ways to produce the German drugs.[119] The Patents, Designs, Copyright and Trade Marks (Emergency) Act was passed in September 1939 in a desperate move to overcome the patent-imposed restrictions on producing foreign goods in Britain, specifically those for which the patent was held by companies in enemy countries. British companies could apply to the Patent Office for a license to produce these goods and this eventually proved a huge success.[120] There were some initial difficulties in recreating the often confusing German patents

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[116] Due to the range of destruction inflicted by the Blitz, governmental resources were spread thin, and hospitals were expected to be largely self-sufficient if hit. A memo issued on 28th June 1940 by the Chief Engineer instructed hospital authorities that they "must so far as possible undertake the carrying out of immediately essential repairs themselves. … The repairs in question are those of a temporary nature intended to keep the hospitals in use, and to prevent further damage by rain, etc.". LMA, Memorandum from The Chief Engineer to The Area Officers, dated 28th June 1940. *Air raid damage at hospitals*. LCC/PH/WAR/01/007, 1.

[117] LMA, Document titled 'Information for Colonel C.L. Dunn of the Ministry of Health'. *Emergency Hospital Service – history of the Service during the war*. LCC/PH/WAR/01/001, 4.

[118] LMA, Document titled 'Information for Colonel C.L. Dunn of the Ministry of Health'. *Emergency Hospital Service – history of the Service during the war*. LCC/PH/WAR/01/001, 8.

[119] L. Dawes, *Fighting fit: the wartime battle for Britain's health* (London: Weidenfeld & Nicolson, 2017), 151.

[120] *Patents, Designs, Copyright and Trade Marks (Emergency) Act 1939*. 2 & 3 George VI, Chapter 107 (London: HMSO), s2.

as well as in the marketing of these products without invoking the patent-restricted but familiar names, but the British market was soon strong enough to prevent the full-blown shortage crisis that had been fearfully anticipated at the start of the war.[121] London's particular vulnerability to shortages due to the Blitz and the resulting needs of its immense population saw an increased reliance on both national government as well as the local borough authorities to provide necessary medical services. The creation of the NHS was a direct continuation of this governmental responsibility into the post-war period, though it was more a response to the depravities of war than the Blitz itself.

The White Paper that proposed the NHS, titled *A National Health Service*, had its origin in the Beveridge Report of 1942. Although this report focused on the issue of creating a sufficient social security policy that would see the state provide a minimum standard of living and eliminate poverty, Beveridge included as one of his core assumptions that there should be "a national health service for prevention and for cure of disease and disability by medical treatment" (but did not offer any concrete proposals concerning the substance of the service).[122] This would be vital to the reconstruction of post-war Britain and represented "the natural next stage in the steady historic progress of the health services of the country".[123] The Beveridge Report had proven extremely popular among the general public, symbolising the promise for a better Britain that made the horrors of war worth enduring.[124] The Blitz was central to this, creating civilian conditions that encouraged hope for the world that would emerge from the ashes and ruins as well as one that justified the suffering of the war years. London was not unique in enduring through these conditions, but its history of disease, poverty, and squalor made the promise expressed in Beveridge's Report particularly sweet. This development demonstrates how the social reproduction needs of the population were being taken up at the national level, with local and metropolitan political institutions being supported by the greater organisation and financial resources that national control provided. Just as Parliament's financial involvement allowed the sewerage works of the mid-nineteenth century to be built, nationalisation of the health services provided benefits for London that local government could not have achieved due to limited finances.

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[121] Dawes, *Fighting fit*, 156-158; 177-178.
[122] W. Beveridge, *Social insurance and allied services* (London: HMSO, 1942), 158.
[123] LMA, National health service – proposals of the Government. Extract from the minutes of the meeting of the LCC on 19th December, 1944. *National health service*. COL/CC/PBC/03/025, 1.
[124] J. Jacobs, 'An introduction to the Beveridge Report', in J. Jacobs (ed.), *Beveridge, 1942-1992: papers to mark the 50th anniversary of the Beveridge Report* (London: Whiting & Birch Ltd, 1992), 5-19:13.

5.8   Conclusion

The responses to the Blitz were implemented by national, regional, and local political institutions in order to create a long-term development plan for the reconstruction of London. As such, they realised a particular kind of 'spatial fix' to the shock, one which initially prioritised the immediate social needs (such as housing) of London residents displaced by the Blitz. The plans and reports that detailed this ideal post-war rebuilding process formed the primary guidance in how this would be achieved, and yet the end result often differed greatly from the initial plans. This was most notably the case for the Abercrombie Plans, which suffered from insufficient finances and changing circumstances that delayed their implementation, only to be outdated by the time the authorities finally had the ability to enact developments on a regional scale. Instead, market forces and the private sector increasingly came to define London's post-Blitz redevelopment, creating city architecture that did not put the social needs of the population first like the wartime plans had envisaged but rather facilitated a new regime of accumulation around finance. The *Final Report* by Holden and Holford for the City of London suffered from similar issues, but the clear governance by the City of London Corporation as well as the specific focus on improving the commercial function of the City responded well to this reliance on market forces, allowing vast amounts of office space to be built whilst respecting the history of the City. This was particularly the case for the skyline surrounding St Paul's Cathedral, the clear view of which having been one of the most celebrated outcomes of the Blitz.

As this shows, not all of the idealised measures were doomed to fail. Even the Abercrombie Plans saw some success and the social needs of ordinary Londoners were not completely side-lined by the post-war trajectory of urban development. Although London would not gain the desired vast green wedges connecting the inner city to the Green Belt, it did indeed see the protection of the Green Belt itself with Circular 42/55 defining the agricultural and recreational functions of the land so protected from development. Moreover, the creation of the new towns as suggested by the Abercrombie Plans did indeed contribute to resolving the density issues of the inner-city urban area, though at the cost of seeing London's influence spread beyond the Green Belt. Parliamentary measures such as the New Towns Act of 1946 and the Town and Country Planning Act of 1947 saw a new focus on controlling the developmental rights of agricultural and undeveloped land, restricting the expansion of London's built-up environment. The LCC and the metropolitan borough councils were given the authority to gain land as part of new public acquisition measures, strengthening their power to (theoretically) prevent the private sector from making developments against the public good. Although these political institutions were ultimately unable to complete the enormous redevelopment projects envisaged by the wartime planners, the suffering of the Blitz was not all in vain. These measures

as well as the creation of the welfare system and NHS demonstrate how public suffering reacted with the desire for the post-war period to be a fresh start to create real change for the benefit of London as well as the entire country. The social reproduction aspect of municipal authority was taken up at the national level to make use of greater financial resources than the local and metropolitan governments had available.

The comparisons between the Blitz and the Great Fire have been continuous throughout this chapter, just as they were during the Blitz itself. The destruction inflicted by both shocks led to a similar need to reconstruct the city with planners seeing a glimmer of hope for a more efficient, beautiful, and liveable city even while the Fire still raged and the bombs still fell. Market forces would be allowed to take over in the reconstruction process of both shocks but were enabled by very different levels of institutional and governmental response and, ultimately, control. London's authorities during the Great Fire did not have the ability or the desire to undertake the cost of reconstruction, instead being content to allow city-based landlords and their tenants to do so. In comparison, the various political institutions of twentieth-century London retained much more control over the redevelopment process. This was the case even as they allowed the private sector to take over when the available public finances ran short and alternative institutional arrangements were pursued. Acts of Parliament as well as the new powers of the LCC and metropolitan borough councils ensured that market forces could not simply recreate the vast, slum-ridden, uncontrolled (and uncontrollable) urban sprawl of pre-war London, and in this the wartime plans saw some success. The new policy for local development plans to be made and submitted to the Central Land Board as suggested by the Uthwatt Committee allowed London's authorities a level of control over the rebuilding process; this had been limited following the Great Fire to only allow the authorities to tear down buildings that did not follow the new rebuilding laws. The responses of London's political institutions to the Blitz had much greater control than those that had followed the Great Fire, but ultimately were similarly unsuccessful in enacting the most ambitious of redevelopment plans. For this, the Great Stink had more success due to the fewer restraints imposed by urgent, short-term financial and demographic needs.

The impact of the Blitz on London's twentieth-century development cannot be overstated. Beyond the obvious need for reconstruction to replace the vast number of buildings destroyed by bombs and fire, it provided the biggest opportunity in centuries to completely restructure the landscape of London. The subsequent developments shifted and separated communities from industrial zones and created green, open areas for recreational needs, thereby realising a 'spatial fix' at the regional scale. The themes of overcrowding and decentralisation that were prominent topics in pre-war development discussions were met with

zeal by planners eager to modernise and revolutionise life in the city, with London's authorities finally being pushed to commission these willing individuals in the face of potential disaster once the war ended if no progress had been made. Moreover, the fluidity and, indeed, regulatory uncertainty surrounding the endless expansion of London's boundaries was resolved – albeit temporarily – with a firm restriction in the form of the Green Belt. However, the creation of the new towns to solve the issue of decentralisation also saw the continued expansion of London's influence beyond this regulatory-determined territorial limit. Over the course of the twentieth century, London was transformed more than ever before, and yet new scars had been left in its extensive history. The Blitz was central to these developments, being the impetus that finally set into motion these much-needed modernising efforts and, ultimately, the emergence of "the Metropolis" of London as the material and symbolic gateway to the UK's post-war role in international finance.[125]

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[125] Sergeant Robert S. Arbib, quoted in White, *The battle of London*, 235.

Chapter 6 Conclusion

Athens was the glory of Greece, Rome the great capital of a great Empire, a magnet to all travellers. Paris holds the hearts of civilised people all over the world. Russia is passionately proud of Moscow and Leningrad; but the name we have for London is the Great Wen. It need not have been so. Had our seventeenth century forefathers had the faith to follow Wren, not just the history of London, but perhaps the history of the world might have been different. For the effect of their surroundings on a people is incalculable. It is a part of their education. – Lord Latham (1943)[1]

6.1 City of Shocks

Through fire, pollution, and war, London has demonstrated its resilience. The "work of an age" was rapidly completed following the Great Fire with the aid of the Fire Court, restoring the city's economic function and housing.[2] The "public eyesore" of the Thames during the Great Stink, the pollution of which being so detrimental to the health of London's inhabitants, led to the MBW completing the greatest infrastructural project in the city's history.[3] The "vast and strong" metropolis weathered the storm of the Blitz, with the LCC planning for a brighter future during London's darkest days.[4] London's shocks and subsequent political responses led to periods of immense infrastructural development, providing opportunities such as Wren's restructuring of London that, if taken, would transform life in the city for the benefit of all who lived there. And yet, these opportunities were only taken if they did not further disrupt the economy or displace the tax-paying population. As a result, these opportunities were often forsaken with only the urgent, short-term financial and demographic needs being met. The infrastructure was transformed out of necessity, but any extra improvements relied on financial viability, ad hoc investments by private interests, and the goodwill of London's political authorities.

The aim of this thesis has been to compare the responses of London's political institutions to each of the three shocks being examined. The physical infrastructural developments that resulted from these responses – as well as those that were planned for but ultimately failed – have been analysed to understand why certain developments succeeded, most notably including Bazalgette's sewerage works. A greater understanding of the urgent,

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[1] Forshaw & Abercrombie, *County of London Plan*, iii.
[2] Gale, *The Monument*.
[3] Walford, *Old and new London*, 326.
[4] Churchill, *Do your worst*.

short-term factors that limited the extent of what could be achieved has been the result of this research. The conclusions drawn from this will be discussed in the following section. This thesis expands on the global city understanding of London by focusing on a political rather than economic, and a regional rather than international, perspective on the infrastructural developments that created the modern metropolis. As discussed in the Literature Review, the selection of the shocks was critical for this due to the alterations in political authority that accompanied each of them. As a result, this thesis has provided a unique perspective on the history of London.

The analytical lens of London's political institutions has been used to explore how the responses of these institutions to the shocks instigated or advanced infrastructural developments. Additionally, this method has been used to understand the limiting factors that prevented beneficial long-term development plans from being put into place, most notably including those created by Wren following the Great Fire as lamented by Lord Latham in this chapter's epigraph.[5] The increasing role of political institutions in London's infrastructural development across the centuries made this an ideal analytical lens to use, particularly as the expectation that they would take responsibility during times of crisis similarly increased over the same period. This coincided with London's immense spatial growth, leading to a rescaling of the city's governance around newly created political institutions. This thesis opens up opportunities for future researchers to use other analytical lenses to explore the shocks from new perspectives, as will be discussed later in this chapter. But the lens of political institutions and their responses allowed this thesis to track and analyse how the chosen shocks impacted both the infrastructural development and the political development of London over four centuries.

6.2   City of Change

The main conclusion of this thesis – and, ultimately, its main argument – is that urgent, short-term financial and demographic needs prevented beneficial infrastructural developments from occurring following the Great Fire and the Blitz, with Wren's restructuring of London again being the most notable example as mentioned above. Both of these shocks saw an urgent need to rebuild housing and restore the economic function of London, with these factors taking precedence over the idealistic redevelopment plans. These practical necessities of shock recovery triumphed over the idealistic plans created by Wren and Abercrombie. This is in contrast to the Great Stink: an upheaval of London's population, industries, and land- and

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[5] Forshaw & Abercrombie, *County of London Plan*, iii.

property-based interests was not needed to recover from the shock because it did not result in widespread destruction, unlike the Great Fire and the Blitz. The nineteenth century shock provided the opportunity to make immense infrastructural improvements without the same level of disruption to life in the city as had occurred in the 1660s and 1940s. Financial resources could be directed towards making these improvements rather than simply rebuilding what had been lost. Concerns expressed in Parliament, most notably the sense that the nation would be funding the improvements if loans were made to the MBW, proved the most significant obstacle. These were eventually overcome, in contrast to the powerful land-based interests that made adoption of a redevelopment plan impossible following the Great Fire.

Alongside this scale of disruption to life in the city, time was another significant factor that differentiated what was possible following the Great Stink compared to the Great Fire and the Blitz. The sewerage and drainage developments in the second half of the nineteenth century were able to take as long as they needed without the urgency imposed by the need of the displaced population for their housing to be restored. Additionally, there were not the same constraints of funding amongst landlords, merchants, and sole traders that defined the responses to the Great Fire and the Blitz. During the Great Stink the funding was made available by Parliament and given to a single political institution – the MBW – to coordinate the entire sewerage project; this reduced its complexity compared to the other shocks by limiting the number of stakeholders involved. In contrast, the rebuilding following the Great Fire was largely left to private individuals and the scale of rebuilding following the Blitz required countless private and institutional efforts to complete. A single, overarching vision for a renewed London proved impossible to achieve with the responsibility to rebuild divided between so many stakeholders. As such, the layout of residential, institutional, and commercial London by the end of the 1670s looked much as it had before the Great Fire (with the architecture modified for improved fire resistance) and the wartime plans of the 1940s were ultimately abandoned. However, a greater degree of success in planned regional reconstruction was achieved in the twentieth century due to the desired implementation of the Green Belt in the 1950s as well as the creation of the new towns to help relieve future density issues. The developments made following the Great Stink proved the most effective in implementing beneficial long-term plans due to the lack of urgent, short-term factors that first needed to be resolved.

As such, following the Great Stink it was the non-disruptive nature of the shock itself (at least in comparison to the other shocks) that allowed the long-term developments of Bazalgette's sewerage and drainage system to be made. Building these, as well as the Embankments that held them, was able to be prioritised in a way that implementing the plans made following the Great Fire and the Blitz was not. In both cases, an uprooted population in

desperate need of new housing was one of the most urgent problems that needed to be resolved by London's political institutions. Following the Great Fire, restructuring the layout of London proved impossible when existing financial resources needed to go towards the urgent, short-term needs of the population. Restoring the city's housing and the ability to conduct business proved more important in the short-term. Similarly, during the rebuilding following the Blitz, prioritising the liveability and social reproduction factors (such as decongestion and improved access to green spaces) that had been recommended by the Abercrombie Plans were largely ignored whilst the need for housing was so urgent. The destructive natures of the Great Fire and the Blitz created challenges that were not present following the Great Stink, significantly influencing what infrastructural improvements could be achieved.

A second conclusion of the thesis is that London's political institutions gained greater powers and authority when previous powers were not sufficient to meet the challenges posed by the shocks. Part of this involved 'rescaling' London's governance; new political institutions were created at spatial scales (such as metropolitan or regional) that were broadly commensurable with the acquisition of necessary fiscal and infrastructural capacities.[6] For example, the MBW replaced the City of London Corporation as the primary political institution with authority over London's infrastructural development to meet the greater needs of the much-expanded city. Over the centuries Parliament itself benefited the most from this, with the capital being seen as too important to the national economy for developments to be left to the whims of the private market. By the mid-twentieth century, and with the notable absence of a political institution that encompassed the entirety of the built-up metropolitan region until the creation of the GLC in 1965, it was expected that Parliament would take on much of the responsibility of organising the rebuilding following the Blitz. Meanwhile, the City of London Corporation and the LCC would commission plans that followed national parliamentary guidance whilst maintaining responsibility over their own regions. The similar necessity created by the Great Fire had seen the expectation that private landlords and their tenants would have this responsibility, with the Fire Court serving as a neutral third party to encourage fair financial accountability. Additionally, this institution was only temporary, the result of extraordinary circumstances rather than the establishment of a new state of permanent political authority. Landed interests proved too powerful, and the perceived risk of increased monarchical prerogative too threatening with the Civil War in living memory, for the more central control that would later define the rebuilding following the Blitz. Parliament played a much greater role

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[6] Brenner, *New state spaces*, 5.

in the responses to the Great Stink and the Blitz due to this willingness for London's redevelopments to be controlled by this national institution, political authority having shifted away from the monarchy and towards Parliament. The capital was too important for the conflicting whims of private interests (whether monarchical or mercantile) to define its future.

This was gradual however, with the sewerage and drainage works that followed the Great Stink being built by the newly created MBW but requiring the authorisation of Parliament due to the immense financial costs. The MBW itself had been created to provide a central political body to meet the infrastructural development needs of the enlarged city. This built on the principle established with the creation of the Commission of Sewers that London needed a central institution to address infrastructural issues that rescaled the boundaries of governance beyond those controlled by the historic City of London Corporation. The Great Stink was the first significant test of the MBW, demonstrating the need for parliamentary loans when the existing local fiscal capabilities proved inadequate.

The Blitz saw a greater expectation for Parliament to define the rebuilding process through Acts. This was particularly the case due to the precedence of parliamentary responsibility that was established by the wartime emergency powers, centralising industry, agriculture, munitions, and food distribution. As part of the rebuilding process, Parliament had to prevent private interests from taking advantage of the devastation of London for their own financial gain. The Town and Country Planning Act of 1947 ensured that local governmental institutions such as the LCC and the borough councils had the ability to authorise or restrict all redevelopment projects, providing control against the possible malicious actions of private interests. Over the centuries, London's political authority was increasingly centralised in institutions that could effectively overcome the urgent, short-term financial and demographic needs created by the shocks. These institutions could similarly implement beneficial developments as demonstrated by the establishment of the Green Belt in the 1950s, but the immense cost of large-scale infrastructural redevelopments made liveability improvements difficult even with this expanded authority.

A third conclusion of the thesis is that vast infrastructural developments cannot be made from the piecemeal responses to those shocks defined by Omand as "slow-burn" crises – sudden shocks are instead needed to trigger the urgent necessity for changes to be made.[7] Each of the three shocks examined in this thesis were preceded by an awareness that London's

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[7] Omand, *How to survive a crisis*, 2-3.

infrastructure needed to be improved: James I's awareness that the cramped, wooden city would be much safer from fire if constructed with bricks and the subsequent building regulations set by Charles I; the severe pollution issues of the early nineteenth century and inadequate responses that worsened the condition of the Thames; and the slum clearances and desires to reduce the urban population in the 1930s that accompanied fears that renewed aerial warfare would result in drastically worsened death and injury rates than those from the First World War. Each shock triggered immense infrastructural developments that transformed the urban environment, but awareness of the growing issues was inadequate to achieve this prior to the shocks occurring. The Great Stink most clearly demonstrates this conclusion.

As London's pollution issues worsened during the first half of the nineteenth century, measures such as the Metropolitan Commission of Sewers Act contributed further towards the pollution of the Thames by enforcing the replacement of cesspools with water-closets, though this was a necessary step that would be built upon with Bazalgette's sewerage system. Similarly, the Commission of Sewers itself held inadequate political authority to enact developments that would clean the Thames. These early responses proved unable to resolve London's pollution issues, allowing the slow-burn crisis to fester. Initially, the MBW was also inadequately authorised to combat the extent of the problem, primarily due to financial restrictions, and the Great Stink was required for this impasse to be overcome.

This process of the growing problem being inadequately resolved until it erupted into an urgent shock fits Omand's definition of a modern slow-burn crisis, demonstrating that this is an issue that political institutions still struggle with in the twenty-first century (the modern relevance of this thesis will be explored further in the next section of this chapter).[8] The piecemeal responses that preceded the Great Stink directly contributed towards the pollution problem getting worse, and yet the growing awareness was insufficient to make the necessary infrastructural developments that the shock itself would finally achieve. Similarly, the awareness of London's fire risk is demonstrated by Charles I's building regulations, but large-scale enforcement of fire-resistant building practices would only be established once the Great Fire had razed a significant proportion of the city. The Blitz differs from the other shocks as it was directly caused by human action as a result of war, but it was seen by the LCC as an opportunity to create a more beautiful and liveable city. This urban replanning had been discussed since the First World War and yet little had been done to achieve it; the Blitz offered an opportunity for this limbo to finally be surmounted. However high the risk towards London's future prosperity,

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[8] Omand, *How to survive a crisis*, 2-3.

in each case the problem was ignored until a shock provided the urgent necessity for the respective political institutions to act.

6.3 City of Progress

The distinct significance of this thesis is its relevance to current and future issues. The chosen shocks represent substantial disruptions to the social and economic life of London, and the manner in which they were approached by their respective political institutions can be used to better understand how modern environmental crises could be overcome. This would have the effect of limiting the impact of these disruptions, or even entirely preventing them from occurring. This is distinct from the neoliberalist approach to crises as discussed in the Literature Review, with shocks instead being viewed as opportunities to learn how to prevent them from reoccurring rather than as a vehicle for economic growth at the expense of the common good. Each shock studied in this thesis was preceded by an awareness of an infrastructural problem, whether a lack of fire-resistance, a vulnerability to substantial water pollution, or issues of overcrowding resulting from high population density. By devoting sufficient political attention and financial resources to a single solution, London's political institutions could have limited or even entirely resolved these issues before their related shocks had occurred. By drawing on this idea, modern political institutions can sufficiently address issues that could lead to future crises to prevent a shock from occurring. As noted above, piecemeal responses do not necessarily prevent the problem from becoming a crisis and can even contribute towards worsening the issue. Decisive action towards a centralised and often long-term plan can address a problem prior to it becoming a sudden and highly disruptive crisis.

Action has recently been taken to address the modern environmental crisis of air pollution, in the form of London Mayor Sadiq Khan's expansion of the Ultra Low Emission Zone (ULEZ) to encompass all of the city's boroughs. This policy involves the enforcement of a daily charge for driving within the ULEZ if the vehicle does not meet specified emission standards.[9] Whilst very controversial due to the impact which the cost has had on low-income households, the intention of this response is to further reduce London's historic air quality issues as part of a broader plan to combat climate change.[10] Viewing the expansion of the ULEZ as a crisis

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[9] J. Fisher & K. Austin, 'Ulez: what is it and why is its expansion controversial?'. *BBC News*. 4 August 2023. Available online: https://www.bbc.co.uk/news/business-66268073 [Accessed 21/10/2023].
[10] Over 500,000 Londoners suffer from asthma and a reported 4,000 premature deaths occur each year in the city as a result of air pollution. London Assembly, *Ultra Low Emission Zone expands London-wide in a landmark moment for the capital* (29 August 2023). Available online: https://www.london.gov.uk/Ultra%20Low%20Emission%20Zone%20expands%20London-

response allows comparisons to be made with the shocks discussed in this thesis. The successful action taken to resolve the Great Stink demonstrates the effectiveness of government responsibility when tackling an immense environmental shock; whilst the cost was gradually placed on the tax paying population, an upfront loan from Parliament was necessary to alleviate the initial lack of funds. Although the ULEZ costs act as a deterrent, the conclusion of this thesis suggests that further action would be more effective at combatting air pollution if the cost is largely taken on by political institutions (such as the Greater London Authority or Parliament) as it was following the Great Stink. For example, subsidising the cost of electric vehicles for low-income households would directly address the main complaint lodged against the expansion of the ULEZ.

Further research can use the conclusions made in this thesis to better understand how modern environmental crises can be addressed effectively by political institutions, as demonstrated here with the discussion surrounding the ULEZ. By viewing modern shocks in the context of their historical predecessors, a greater understanding can be achieved of the challenges faced by a city when implementing long-term redevelopment plans. Most notably, this includes the impact that urgent, short-term financial and demographic factors can have on preventing these plans from achieving their primary goals. As such, the significance of this thesis is in its utility for further research on modern environmental crises, contributing to the literature to understand how a global, living city such as London can overcome significant social and economic disruption to flourish in the face of adversity.

Further research can additionally emphasise the utility of this thesis through the selection of alternative shocks or cities, or by using different analytical lenses from which to view them. This thesis has examined its chosen shocks through the lens of London's political authorities. However, there are opportunities for similar research to be conducted through the use of, for example, an economic perspective that examines the financial implications of London's political responses to shocks. This perspective would be particularly effective in a study of the city's broader national and international impact due to its crucial importance as a global trading centre. Further research such as this would have substantial interdisciplinary benefit and direct relevance to ongoing political debates, most notably including those concerning Brexit. By making use of these opportunities, future research could use this thesis to contribute towards

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wide%20in%20a%20landmark%20moment%20for%20the%20capital?fbclid=IwAR1p3rYGf4phDGHUJgw ui1td7njjyIXQPnQV_jzEK1iJTnhktVClFyQunqw [Accessed 21/10/2023].

urgent discussions concerning environmental crises and debates surrounding political responses, such as Khan's expansion of the ULEZ as discussed above.

6.4 City of the Future

Much as previous generations have dreamed about ideal futures and set into motion the developments that they believed would realise those desires, the future of modern London will be defined by how we respond to the issues, events, and crises of our time. James Howell's description of the capital in the 1650s as 'Londinopolis' may, rightfully, feel archaic to a modern surveyor of that great city, for it has grown exponentially in almost every decade since then and become so much more than Howell could have ever envisaged. London has gone from the metropolis of England to the Metropolis of the world and developed yet further into the modern global city it is today. London's shocks have defined its history and its growth into a vast forest of architecture; through fire, pollution, and war the city has gained a new appearance and meaning for each generation of Londoners.

There is perhaps a hint of irony that this thesis was written during a period of international shock, the research process being so heavily impacted by COVID-19. The pandemic uprooted all stabilities of life and proved to yet another generation the life-altering influence of vast shocks such as these. The disruption of what is considered 'normal' and the movement to create a new, idealised future are both reflected throughout this thesis at every turn; each shock was responded to with renewed vigour and optimism for what lay ahead – even if the eventual result rarely mirrored exactly the best-conceived plans of the original dreamers. The impact of COVID-19 on the long-term development of London is difficult to predict. A pessimist would be forgiven for believing our own shock will see another return to a previous norm just as the city's outline remained largely unchanged once rebuilt following the Great Fire, or how pollution remained a constant evil of the twentieth century city, albeit in a different form, even after the best efforts were put into place to tackle this crisis during the nineteenth century. The new 'decentralisation' of London – this time in the form of greater freedom for many to work from home due to the influence of the pandemic – builds on the historical expansion of the city when new towns drastically altered the greater metropolitan region during the second half of the twentieth century and created the "polycentric city region" as described by Peter Hall.[11] London has always been a living city, dynamically responding to current needs even at the expense of long-term goals. The post-Brexit, post-pandemic city is yet another iteration of global London,

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[11] Hall, *The world cities*, 43.

defined as decisively by these modern disruptions as the post-Fire city of the seventeenth century.

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