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LOYOLA UNIVERSITY CHICAGO

TRANSPORT FOR EARLY MODERN LONDON:
LONDON'S TRANSPORTATION ENVIRONMENT AND THE
EXPERIENCE OF MOVEMENT, 1500-1800

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN HISTORY

BY

NOAH P. PHELPS

CHICAGO, IL

DECEMBER 2017

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professor of history at Loyola University Chicago, whose passion for the early modern period and the history of one of the greatest cities on the planet, finally gave me the resolve to pursue the history of London as my primary research focus. A fellow “Bicentennial Boy,” (those who graduated high school during the two hundredth anniversary celebration of the founding of the United States in 1976), little did Dr. Bucholz know that when he took on the role as my dissertation supervision that it would be more than a decade, twelve years to be exact, until he would finally see me through. It is my fervent wish that these historical professionals will look upon my work and bestow upon me that most treasured of appellations: colleague.

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To the Historians of the city of London, Past, Present, and Future.

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ABSTRACT

This dissertation investigates two closely related topics regarding London's transportation environment. The first was to determine the shape of early modern London's transportation infrastructure and determine who was responsible for its design, construction and maintenance. The second goal was to investigate the experiences of those moving about the city. In some cases, it was possible to find substantive information on London's transport milieu; for example, the number of gates and the size of the wall surrounding the city from Stow's 1598 *Survey of London* or the rules regarding street cleaning in London's *Letter Books*. In most cases, however, it was necessary to tease bits of information from the comments left in many other sources. Thus, we "figuratively" listen to Samuel Pepys remark on walking in some of London's muddy streets; Donald Lupton on the experience of being splashed by a coach, or John Gay on the dangers of walking at night. This dissertation then combined these comments with the information in the city's official records to weave a narrative of using the transport assets of London in the seventeenth century. The result: this dissertation found that London's transportation environment was remarkably sophisticated with rules surrounding both the construction and the use of transportation assets, along with those regarding oversight. All of which had to continue to evolve to deal with London's phenomenal growth in population and wealth in the seventeenth through the eighteenth century.

CHAPTER ONE

LONDON'S TRANSPORTATION ENVIRONMENT, 1500-1666

Description and Significance

As London commuters in the year 2017 arrive at their destinations on a winter's morning they give little thought to their daily commute. Many fight London's notorious traffic—driving through the icy rain in comfortable vehicles on smooth roads lit with halogen street lamps. There are, of course, traffic delays, often bringing road travel to a standstill, breakdowns on the tube, and road construction, all of which hinder Londoners on their daily travels. When delays do occur, drivers use the Global Positioning System and other aids to find alternative routes, while Transport for London, the agency responsible for maintaining London's transportation environment, transfers passengers to other systems. Whether driving, using the underground or boarding a bus, London's transport system survives by utilizing methods and technologies developed over centuries of experience in moving people about the city. The result: on average, twenty-first century London commuters make their daily journeys in comparative comfort in just under an hour from anywhere in the greater London area.¹

If these twenty-first century travelers were to attempt their same daily commute four centuries earlier, they would marvel at the experience. Most commuters are unaware that

¹ ITV Report: Londoners Endure Longest Commuting Times in the UK. URL: <http://www.itv.com/news/london/2013-05-21/londoners-endure-longest-commuting-times-in-uk/>. [n.b. Londoners spend an average of 56 minutes commuting and travel an average of 15 miles each way. Breakdown of public versus private transport, among other statistics, are discussed in chapter six. While travelling, they engage in various activities unrelated to their travels.]

asphalt-paved roads, sidewalks, street lighting, even government agencies to oversee such things, are comparatively recent innovations. In 1617, there were, indeed, paved roads, but for the most part, the pavement was gravel, a material most people would not consider “paving” in the twenty-first century. Many familiar streets, such as Piccadilly until 1734, were simply mud.² In a few places, they might have found wood or even stone-paved walkways, but generally, pedestrians shared the streets with horses and carriages—the City’s first mandated sidewalks would not appear until after the Great Fire of 1666.³ Mass transit, even in its most nascent form, lay at least a century in the future.⁴ The best they could hope for were hackney (hired) coaches or sedan chairs, both of which appeared on London streets by the early seventeenth century. Along the way, they might have encountered all sorts of obstacles including street markets, political demonstrations, even new buildings that suddenly blocked the street where free egress existed before. When they encountered such difficulties, with few maps and guidebooks, they were on their own. The best aid to navigation in the early seventeenth century was a thorough knowledge of the city’s layout based on personal experience borne of trial and error.

In short, the experience of moving about London in the period before the Industrial Revolution bore little resemblance to its modern counterpart. Twenty-first century transportation infrastructure allows those who work in central London to live anywhere within the 607 square

² Mark Lemon. *Up and Down the London Streets*. Philadelphia: J.B. Lippincott & Co, 1867, 323.

³ Commissioners for Sewers and Pavements. *An Act of Common Council: Together with Certain Orders, Rules, and Directions Touching the Paving and Cleansing [of] the Streets, Lanes and Common Passages Within the City of London and Liberties Thereof*. London: Andrew Clark, 1671, 17-18.

⁴ London Transport Museum. “Public Transport in Victorian London, Part 1”. <http://www.ltmcollection.org/resources/index.html>. Accessed 5 December 2011. [n.b. the age of mass transit is generally considered to have arrived with the appearance of the first omnibus service in 1829—although omnibuses do not appear on London’s street until 1832].

miles of the modern city, along with the numerous bedroom communities that now surround the ancient capital. In the seventeenth and eighteenth centuries, however, most workers lived within a few blocks of their workplace. Indeed, they often lived and worked in the same building. For those who did travel the transport venues of the early modern city, like the diarists Samuel Pepys and John Evelyn, travel presented challenges. Those challenges could be simply inconvenient or downright dangerous. Getting about London in the early modern period required a different set of skills—one given to avoiding obstacles and finding alternatives, such as the use of the rivers as thoroughfares.

This dissertation, therefore, has two primary goals. The first is to gauge the general condition of early modern London's transportation infrastructure—streets, bridges, gates, and river navigation—with the goal of determining how the City maintained them and how they met the needs of its users. Was London's transportation infrastructure adequate for its needs? If not, what difficulties did the inadequacies present to users and planners? What infrastructural obstacles existed to impede movement? Did the city, or national government, attempt to pass and enforce legislation on such matters? Who was responsible for infrastructure creation and maintenance?

The second goal will be to provide insight into the experience of actually using the streets and waterways, i.e. the experience of getting from one place to another, at a time when daily transport was more of a challenge, and the standard mode of transportation was walking. The early modern period was a time when, according to Stephen Inwood, most Londoners saw the city as “untrodden” territory, “vast, mysterious, and unknowable.”⁵ How did they navigate

⁵ Stephen Inwood. *City of Cities: The Birth of Modern London*. London: Macmillan, 2005. Kindle Edition, chapter one, first paragraph.

outside their zone of comfort? What methods did they use to get from place to place? In short, this dissertation will examine the experience of movement in pre-mass transit London.

Discussing the ways early modern Londoners used the streets is a very broad goal and needs additional definition, so this dissertation will use several perspectives important to modern historical scholarship—those of space, class, and gender—to help provide focus. This dissertation falls primarily into a class of historiography described by Vanessa Harding as the study of “the importance of spaces and spatial practices in the experience of the city.”⁶ This dissertation, therefore, will ask: did the citizens accept that the streets existed only for transportation, or did they, mentally and emotionally, see them as the urban parallel of the village green, where the myriad activities of village life played out? Were London’s streets extensions of private property, government assets, or something else? In chapter three, there are examples of the government and its citizens contesting these questions. At the root of this dilemma is the question of who controlled the physical space occupied by London’s transportation assets and did early modern Londoners accept this definition of control. According to records held at the London Metropolitan Archives, in 1444, during the reign of Henry VI, a charter granted ownership of all common lands, including the streets, to the city.⁷ This grant implies that control of London’s transportation space lay with the city who asserted ultimate power. Still, whatever the city’s assertion, in reality the evidence shows that notions of control and ownership of the city transportation assets were fluid and that the citizens of the ancient city contested both.

A good example of contesting the use of transportation space was encroachment—

⁶ Vanessa Harding. "Recent Perspectives on Early Modern London." *The Historical Journal*, 47, no.2 (2004), 437.

⁷ London Metropolitan Archives. *City Lands Estates Collection*, Reference Code: CLA/008.

expropriation of public land for private use—by some property owners and leaseholders who extended their business, commercial, and manufacturing activities into the streets. We know, for example, that shopkeepers often extended their retail operations into the streets, and impromptu markets tended to spring up anywhere at the whim of a group of vendors. The assumption that the streets were extensions of private property may be due to the fact that the city held householders responsible for maintenance of the streets in front of their holdings. Perhaps they presumed that a “transfer of ownership” occurred with the acceptance of their maintenance obligation. Those who governed the city, however, saw it differently and the encroachment of private structures onto public land, along with the use of the streets to sell goods, was the target of legislation and legal action beginning in the middle ages. Reenacted many times throughout the medieval and early modern periods, it appears such legislation was less than effective. Every plan for the rebuilding effort after the Great Fire contained provisions to fight both encroachments and illegal markets, and an examination of late-seventeenth century legislation shows that city officials continued to fight both well into the post-fire period.

To complicate matters further, no single authority wielded power in such matters. In theory, the parish vestries handled day-to-day governmental operations in all areas. An elected body, generally consisting of all local ratepayers, their role was primarily administrative—they gained their mandate from higher powers. The parishes were responsive to a variety of official and traditional powers. In London, this included the Lord Mayor, the Aldermen, the Common Council, Ward Motes and others. The King and Parliament also intervened,⁸ issuing

⁸ Examples include: limits on street usage, *By the King A Proclamation to Restraine the Excessive Carriages in Wagons, and Foure Wheeled Carts, to the Destruction of High-Wayes*, 1618; behavioral restraint of drivers, *A Proclamation to Restrain the Abuses of Hackney Coaches in the Cities of London, and Westminster, and the Suburbs Thereof*, 1660; and street cleaning, *By the King. A Proclamation for Better Cleansing of the Streets in Westminster and Other Adjacent Places in the County of Middlesex*, 1672.

proclamations, passing laws, and creating special bodies that helped local authorities function. If this division of authority was not confusing enough, in the seventeenth and eighteenth centuries, the name “London” technically referred to a one-square-mile area enclosed by the city walls, along with a border perimeter, of approximately three-quarters of a mile, just outside the wall. Although it wielded immense influence, “the City” had no real authority outside its boundaries. Embedded in the physical space of the city were the liberties; areas that existed in symbiosis with the City, but not under its control—such as the Temple District situated west of the city walls between the River Thames and Fleet Street. The bulk of the remaining area that constitutes modern-day London was privately owned estate land, much of which was under commercial development during this period. There were also small settlements, run by their parishes, and a few larger urban areas such as the central government complex at Westminster. Westminster, the settlements, the liberties, and the estates, were all different administrative units with different rules and regulations. Chapter two’s section entitled “*A Divided Responsibility*” discusses these differences in detail. According to Stephen Inwood, the confusion of power and responsibility created a patchwork system of “bewildering complexity.”⁹ Although the issues discussed here affected these other communities as well, as a rule, this dissertation will focus primarily on the city of London and the areas under its authority.

In *The City in History*, Lewis Mumford wrote: “With the development of wide avenues the dissociation of the upper and the lower classes achieves form in the city itself. The rich drive; the poor walk. The rich roll along the axis of the grand avenue; the poor are off-centre, in

⁹ Stephen Inwood’s. *A History of the City of London*. New York: Carrill & Graff, 1998, 358-361.

the gutter; and eventually a special strip is provided for the ordinary pedestrian, the sidewalk.”¹⁰ Mumford was describing the development of elite identity, but implicit within his statement is the idea that there is a class dimension to issues of transportation. The quote is illustrative of what was happening on the streets of early modern London. Although rich and poor alike walked often, increasingly, the wealthy rode to their destinations, while riding tended to be out of reach of the poor. Even at an average of sixpence (6d) a ride, hiring a carriage or sculler remained the domain of the new middle class and the wealthy. Whether riding or walking, influential citizens expected those of lower station to give right-of-way in any encounter on the streets.

The idea that those of a lower social station owed deference to the higher orders was a basic tenet of the paternalistic construct of *The Great Chain of Being*. In return for fatherly care from those at the top of society, those beneath yielded to them in all other facets of life. By the early modern period, however, this began to change as the lowest in society began to reject paternalism and develop unique group identities.¹¹ This societal change often played out on London’s transport venues where both professional drivers, and the poor who walked the streets, often refused to comply with what Mark Jenner calls London’s “differential choreography.”¹²

The discussion of class covers the differences between rich and poor, and the ways those divisions affected movement in early modern London. Of equal importance is a discussion of

¹⁰ Lewis Mumford. *The City in History*. Harmondsworth, 1966, 424.

¹¹ Robert Bucholz and Joseph Ward. *London: A Social and Cultural History, 1550-1750*. New York: Cambridge University Press, 2012, 6-8.

¹² Mark S.R. Jenner. “Circulation and Disorder : London streets and Hackney coaches c.1640 - c.1740” in Tim Hitchcock and Heather Shore, eds. *The Streets of London: From the Great Fire to the Great Stink*. London: Rivers Oram Press, 2003, 43.

the different roles of men and women in transportation issues—is there a gender dimension to transportation issues? What restraints did women experience in moving about early modern London? According to Laura Gowing, there is a popular conception that the anonymity and fast-changing gender roles of the early modern city allowed London’s women to both work and wander the streets freely. She cautions, however, that evidence of this freedom is deceptive and “customary rules” governed the movement of women—rules more firmly entrenched than those produced by the city, or Westminster.¹³ These customary rules show that there are issues of gender related to even the most basic of transportation activities, such as the ability to walk about freely without abuse, so this topic is the starting point in a discussion of gender-specific aspects of transportation in early modern London in chapter four.

Having analyzed the condition of early modern London’s transportation assets and created a picture of how early modern Londoners used the streets and for what purpose, this dissertation will close by looking at the theme of change. Several factors helped define the terminal date of this work. Already the largest city in England at the start of the early modern period, by the close of the eighteenth century, the population of London swelled nearly six-fold from approximately 120,000 in 1550 to 675,000 in 1750.¹⁴ The ever-increasing number of people stressed all of London’s infrastructural resources, including transportation, at a time when London was still essentially a medieval city of narrow and congested streets, bordered by

¹³ Laura Gowing. “Freedom of the Streets: Women and Social Space, 1560-1640” in Griffiths, Paul, ed. *Londonopolis: Essays in the Cultural and Social History of Early Modern London*. Manchester: Manchester University Press, 2000, 139, 145.

¹⁴ Bucholz and Ward. *London*, 1; E. A. Wrigley. “A Simple Model of London’s Importance in Changing English Society and Economy, 1650-1750,” *Past and Present: A Journal of Historical Studies*, 37 (July 1967), 44.

buildings of doubtful design and construction.¹⁵ A burst of legislation from both the city of London, and Parliament began to appear beginning in the Tudor period.¹⁶ Possibly, in response to the growth of both overseas trade and internal consumer markets during the time now known as “The Commercial Revolution,” this new legislation demonstrated a new and growing concern in government about problems in infrastructure that continued throughout the early modern period.

As London struggled to address these issues, an event occurred that had the potential to resolve many of the problems. Over a few nights in the fall of 1666, the Great Fire reduced much of the city’s medieval architecture to rubble. The fire could have set the stage for a total redefinition of London along the Renaissance models of Rome and Paris, with vastly improved transportation assets. It did not happen that way. Although the post-fire city emerged with slightly wider streets and mandates for fire-resistant construction, political and financial considerations determined that the rebuilt London street system was, essentially, a mirror of the pre-fire city.¹⁷ The several decades of recovery following the Great Fire created a watershed midpoint for the study of infrastructures in early modern London. It is, therefore, logical to follow the story forward to compare and contrast the periods before and after the fire.

The year 1800, therefore, provides a good terminal point for this study. The nearly 134 years between the Great Fire and the end of the eighteenth century provides ample time to examine how the Fire affected London’s transportation environment. In addition, it is generally

¹⁵ Inwood. *A History of the City of London*. 242.

¹⁶ On transportation issues, a few examples can be found in the records of the city of London in 1631, 1646, 1654 and 1671, and an act of Parliament entitled *...Parliament, Taking Notice That the Streets and Lanes and Other Public Passages in London, the Liberties, and Westminster are Out of Repair*. London: John Bill, 1660.

¹⁷ For an in-depth discussion on this process, see Reddaway. *The Rebuilding of London After the Great Fire*.

accepted that the nineteenth century marked the genesis of a new age in transportation technology. In 1829, the age of mass transit arrived when the first omnibuses appeared on London Streets, and by mid-century plans were underway for the first links in the transport system that would become the London Underground. The trend toward centralization for transport matters, foreshadowed by the greater participation of the city and central government mentioned above, ultimately resulted in a countywide central body in the form of the Metropolitan Board of Works by the 1850s. By the end of the nineteenth century, a new transportation paradigm had emerged—a system focused on moving large numbers of people by the most efficient methods, guided by government. All of this evolved from City’s need, beginning well before the nineteenth century, to deal with London’s development as the commercial hub of Great Britain’s growing, worldwide, commercial interests.

Methodology and Sources

Stand at any transportation venue in twenty-first century London and before long comments about London’s transportation infrastructure will be heard. At a bus stop in the Farringdon Road, on the southbound platform at Tottenham Court Road Tube Station, or walking the streets, modern Londoners are quick to offer critiques on the efficiency, and the efficacy, of Transport for London, the agency responsible for building and maintaining the city’s transportation infrastructure. In this dissertation, we will figuratively “listen” to comments from early modern Londoners as gleaned from the extant literature of the period. To hear the words of the people walking the streets, crossing the Thames on London Bridge, or using any of London’s other transportation assets, however, it is necessary to collect passing comments contained in diaries, poems, newspapers, and reinterpret non-verbal sources such as maps and drawings. The purpose of this exercise is to use this eavesdropped commentary to allow early modern

Londoners to describe, in their own words, the shape of the transportation infrastructure and the “traveler”¹⁸ experience in the age of Pepys and Evelyn. These contemporaneous sources first provide a survey of London’s transportation assets, and identify limitations inherent in the construction methods or public policy of the era, to set the stage for this dissertation’s primary discussion of movement in the ancient city. Then our early modern witnesses describe what it was like to move on the streets or sail along the Thames. Finally, they will offer testimony on factors of human behavior that could potentially hinder movement. They will talk about the quality of the streets, the experience of walking, and the terror of “shooting” London Bridge during the early modern period.

As we listen to the comments of those who walked the streets and rode the waves, we will also inquire into the official record to determine the role of government in resolving the complaints of its citizens. Because the government’s role evolved slowly over several centuries beginning well before the early modern period, in a few cases our examination will delve deeper into the past to uncover the methods established by medieval administrators inherited by their early modern successors. The inquiry into the official record will examine the maintenance of the streets; London’s role in the conservancy of the Thames; efforts to keep the City’s transport venues free of obstruction; and how the city funded it all. The results of this study will then be woven into the fabric of the narrative generated by the comments of those outside government to provide the fullest description of London’s transportation space in the period between 1500 and 1800.

¹⁸ According to Oxford English Dictionary Online, the term “commuter” as a person who “travels daily or regularly to and from one’s place of work” originated in the United States in the late nineteenth century. Henceforth, this dissertation will use the term “traveler” or “passenger” when referring those who use the City’s transportation assets. <http://www.oed.com.flagship.luc.edu/view/Entry/37352#eid8782753>.

The research for this dissertation began by analyzing extant sixteenth and seventeenth century descriptions of travel in and around the city of London—both factual and fictional. This group of sources surveyed the opinions of those living, working, or visiting the early modern city. This genre includes personal writings like the diarists Samuel Pepys (1633-1703), who recorded his most intimate thoughts in an encrypted journal, and the Eastcheap woodworker, Nehemiah Wallington (1698-1658), who left over 50 volumes of journals commenting on events of the late Elizabethan and early Stuart eras. There are also those who sought to effect change through their commentary like the diarist and social commentator, John Evelyn (1620-1706), Evelyn's commentary, entitled *Fumifugium*, offers harsh, but constructive, comments on the quality of air in the ancient city, along with other issues he saw with the ancient city. Diaries offer insights, originally intended to be private, that can reveal the true feelings of Londoners, while the works of social commentators seek to identify contemporary problems and offer solutions. If one author saw a “hell upon Earth”¹⁹ on London's street, is there evidence for such an assertion among the diary entries of Pepys and Wallington? The comments of travelers to London—both English and foreign—are also included and often they draw comparisons to cities in their homelands. Examples of visitors to London include the Dutch landscape artist, William Schellinks (1627-1678), the Swiss traveler, César de Saussure (1705-1783), who spent nearly five years in London during the Hanoverian era, and the Frenchman, Pierre Grosley (1718-1785).

Of equal importance to the factual accounts were those writers who commented on life in early modern London through poetry and prose. As entertainment, often mixed with a heavy dose of disguised social critique that would have brought prosecution to others, these works

¹⁹ John Evelyn. *A Character of England*. London: Joseph Cooke, 1659, 26.

allowed Londoners a way to commiserate on the issues of the day. Such works as *Coach and Sedan Pleasantly Disputing*, a 1636 dialogue by Henry Peacham (1578-c.1644); the epic poem, *Trivia: The Art of Walking the Streets of London* (1716), by John Gay (1685-1732); and the anonymously written satire, *A Seasonable Alarm to the City of London on the Present Important Crisis* (1764), allow us to walk the streets of early modern London and learn about conditions there that may not otherwise be known.

Because such works can tend toward hyperbole²⁰, reacting rather passionately to issues of the day, or bland, such as the London chronicler, Henry Machyn, who reported every time the city laid a new layer of gravel on the streets,²¹ it is hard to determine if they reveal the whole story. Were the comments of the daily users of London's transportation assets in vain? Was there any response to their efforts to effect change? It is necessary, therefore, to inquire into the official record to glean the efforts of the city to address transportation issues. Legislation from bodies such as London's Court of Aldermen, Court of Common Council and, at the national level, Parliament help identify those issues seen as problematic enough to need government intervention. These records also document the methods used, as well as the difficulties of enforcing compliance or lack thereof. The official record helps answer questions like the following: did city leaders have a coherent policy to keep the city moving, or were they simply responding, "ad hoc," to problems as they arose? If a policy existed, what methods did they use to identify the transportation network's inefficiencies? Finally, the official record provides assistance in identifying who was responsible for enforcement and maintenance.

²⁰ Reference to the aforementioned "hell on earth" comment by John Evelyn, mentioned above.

²¹ J.G. Nichols, ed. *The Diary of Henry Machyn, Citizen and Merchant-Taylor of London, 1550-1563*. London: Camden Society 1848. *British History Online*, accessed October 22, 2016, <http://www.british-history.ac.uk/camden-record-soc/vol42>.

The sources used in this dissertation reveal three main subject areas, covered in detail in chapters two, three, and four, that provide the basis of the discussion throughout. Chapter two defines London's transportation environment; then discusses maintenance and who was responsible. In chapter three, we examine the experience of movement. What it was like to walk or ride in early modern London and how did the government attempt to keep the traffic flowing on the streets and waterways? Then in chapter four, we will look at how human interaction and the use of London's transport venues for non-transportation purposes affected movement.

The chapters above document transportation conditions in London up to the Great Fire of 1666. The fire destroyed much of the old walled city, so chapter five surveys the rebuilding efforts from a transport standpoint to see if the City attempted to address issues identified thus far. This chapter includes a survey of the surviving rebuilding proposals, the ultimate rebuilding acts, and the pace of rebuilding. Finally, chapter six returns to London's transportation space at the close of the seventeenth and into the eighteenth century and, using the three main subject areas mentioned above, examine the long-lasting effects of the rebuilding effort.

Literature Review

The current scholarship on London's transportation infrastructure in the early modern period is sparse. This factor means that this dissertation is primarily a work based in primary source literature. Several comprehensive histories of London: Stephen Inwood's *A History of the City of London*; Robert Bucholz and Joseph Ward's *London: A Social and Cultural History, 1550-1750*; and Peter Ackroyd's *London: The Biography*, primarily provided context and chronology, although they do include sections on transport that provided additional detail that enhanced the narrative of this dissertation.

This organization of this dissertation follows three overarching topics: the shape of

London's transport infrastructure; the uses of the infrastructure and the experience of movement in the early modern period; and non-transportation uses of the City's transport venues. The majority of the available literature on the shape of London's transportation infrastructure focuses on maintenance and repair. In this respect, medieval historians have done some of the best work. Ernest L Sabine's 1937 article, *City Cleaning in Mediaeval London*, and Goronwy Tidy Salusbury-Jones' 1948 book, *Street Life in Medieval England*, show that attempts by city leaders to establish oversight of infrastructure predate the early modern period. One of a series of three articles on sanitary conditions in the ancient city,²² Sabine's piece seeks to outline, and find the origins, of legislation regarding street cleaning. At what date did city authorities first recognize the need to clean the streets and act to resolve the problem? Sabine asserts that the system worked well: the streets were cleaner than traditionally asserted by other historians, and the city felt no need to codify rules and responsibilities until the seventeenth century when the first *Statute of Streets* appeared.²³ The historical record does not support this assertion, however, as rules for keeping the streets clean, and who was responsible, appeared as early as the 1270s²⁴ and were constantly refined throughout the medieval and early modern period. The seventeenth century acts containing provisions for street cleaning were simply restatements of long-existing rules.

Goronwy Tidy Salusbury-Jones' *Street Life in Medieval England* also examines transportation regulations before the early modern era. Although this book looks at England, and

²² The others are "Latrines and Cesspools of Mediaeval London". *Speculum*, 9,3 (1934), 303-321, and "Butchering in Mediaeval London:", *Speculum*, 8,3 (1933), 335-353.

²³ Ernest Sabine. "City Cleaning in Medieval London". *Speculum*, 12, (1937), 19.

²⁴ Sharpe, Reginald R. *Calendar of Letter-Books Preserved in the Archives of the Corporation of London at the Guildhall: Letter-Book A, circa A.D. 1275-1298*. London: John Edward Francis, 1899, folio 88b, 183.

examines other issues besides infrastructure, Salusbury-Jones gives us a good look at medieval road and street maintenance and tells us that concern over ways to protect the transportation infrastructure appeared early in the late-medieval period. By the end of the fourteenth century, many English cities had begun to apply to Parliament for permission to charge usage fees to pay for the wear and tear on transportation infrastructure. London was more proactive and implemented prohibitions on the transport of heavy goods and the use of metal shod wheels to prevent and limit damage.²⁵ The rules did not just cover street maintenance, but also street use. By the late middle ages, cities in England were targeting careless driving, banning the loitering of both livestock and people; designating special places for specific activities, such as markets; and specifying the hours for all uses.²⁶ The work of Sabine implies that an oral set of rules on transportation existed long before published rules, while the work of Salusbury-Jones helps illustrate that regulation concerning the maintenance of London's transport venues evolved over centuries. Both are certainly true: as this dissertation will show, well before the period under discussion, authorities in London, and elsewhere, were beginning to recognize that transportation infrastructure required careful oversight.

Studies of bridges comprise the bulk of scholarship in the area of early modern transport infrastructure. The majority of work on bridges in London focuses on one of them—London Bridge. According to a 1933 presentation by the vice-chairman of the Improvements Committee of the London County Council, J. Benskin, “The literature on London Bridge alone would fill a

²⁵ Goronwy Tidy Salusbury-Jones. *Street Life in Medieval England*. Oxford: Pen-in-Hand Publishing Co., 1948, 20.

²⁶ *Ibid.*, 55-65.

library.”²⁷ A search of the Amazon book catalog returns a list of hundreds of currently available books with the term “London Bridge” in the title. Of those, Amazon designates only about twenty percent as “non-fiction.” The remaining listings fall into every conceivable fictional genre from children’s books to science fiction. London Bridge has long held a place in popular literature and imagination, and it is a place rightfully held. A bridge has existed in about the same location since the Roman era, and it was the only bridge over the Thames until the eighteenth century—although there is evidence there were periods when it was out of commission due to fire or disaster. Over the centuries, thousands of people have lived and worked, on and around, the bridge. London Bridge is an anchor of the present to the distant past. In many cases, however, the works on London Bridge, such as Patricia Pierce’s *Old London Bridge: The Story of the Longest Inhabited Bridge in Europe* and Peter Jackson’s *London Bridge* are biographical. While they describe traffic, the narrowness of the Bridge, and details on its construction, their goal is to tell the story of London Bridge in its many incarnations across its long history and not interpret its role as a piece of transportation technology.

In addition to looking at the design and construction of London’s transportation infrastructure, this dissertation also examines who used it and for what purpose. Already mentioned above, on the gender aspects of transport, there is Laura Gowing’s “Freedom of the Streets: Women and Social Space, 1560-1640.” Focusing primarily on the mores of the era, and how these ideas affected a woman’s ability to travel freely, it demonstrates the possibilities for more work on the topic of gender and transportation in the early modern period.

Those who made their living as drivers—on the streets and waterways—are probably the

²⁷ J. Benskin. “The Bridges of London-Past, Present, and Future”. *Journal of the Royal Society of Arts*, 81 (1933), 280.

best example of the ultimate users of the transportation infrastructure. Mark Jenner's *Circulation and Disorder: London Streets and Hackney Coaches c.1640 – c.1740*, discusses how hackney coaches, introduced in the first decades of the seventeenth century, became an "important form of elite self-presentation and a central feature of polite sociability" by the middle of the 1700s.²⁸ The popularity of hackney coaches, however, brought its own set of problems. By 1750, the capital could boast thousands of coaches, both hired and private. Such large numbers meant traffic congestion, rude and aggressive drivers, and complaints of fare irregularities. Both the city and national governments began to see them as a nuisance and sought to regulate them by imposing official rates, licensing the drivers, and creating other legislation mandating deference to customers.

The idea of deference to customers, especially to "persons of quality and gentlemen," is a central feature of this article. Jenner tells us society considered coach drivers as servants, but the coach drivers disputed that designation and declared themselves as "businessmen" with marketable skills. Although hackney coach drivers often developed their skills in the homes of the gentry, they considered themselves of greater status than common servants.²⁹ This difference in interpretation of hackney coach drivers' social status often led to confrontations as they rarely yielded deference to their customers by arguing about fares, ignoring suggested routes, and refusing to enter parts of town they considered dangerous. The evidence presented on driver behavior and class in chapter four certainly supports Jenner's assertion. By their actions, hackney coach drivers contested the idea that class status in the early modern world was static

²⁸ Jenner, "Circulation and Disorder", 40.

²⁹ Ibid., 52.

and inflexible.

On the Thames, London's watermen functioned much the same as hackney coach drivers on land. Some of the work on both professions comes from "nostalgia" publications. Yvonne Tatnall's, *Watermen and Lightermen*, and Gordon Winter's, *The Lost World of London's Waterman*, are included here because such works often offer insights for further research. For example, Winter's article focuses solely on waterman—those who worked on vessels that carried passengers. In his heavily illustrated two-page article, Winter tells us that in 1514 Parliament regulated fares for water travel and later sought to impose standards on the profession in 1555 and 1603. He also asserts, "...crossing the Thames in the sixteenth century was just as dangerous [troublesome] as crossing the Strand in the twentieth" due to "rude, ignorant and unskilled watermen." Winters also gives hints to the social status of watermen when mentioning that the term "rude" denotes a class designation—not that they were prone to use foul language—although Tatnall assures us the watermen's "water language" was, indeed, quite colorful.³⁰ As mentioned above, the behavior of drivers was a concern to early modern Londoners. The presence of descriptions of the foibles of watermen appearing in literature written to celebrate them implies that their rude behavior was a major facet of their character. Tatnall's mention of the "liveried" crews on the barges reminds the reader of a hierarchy that always exists within various professions. In addition, Winter's assertion that water travel was as dangerous as crossing a twentieth century street implies that, despite Samuel Pepys' predilection for water travel,³¹ it was not necessarily a safer alternative.

³⁰ Gordon Winter. "The Lost World of London's Waterman". *Country Life*, 166 (November 1979), 1746; Yvonne Tatnall. "Watermen and Lightermen". *Cockney Ancestor*, 91 (Summer, 2001), 16.

³¹ Pepys' diary has many references to trips by water. In the first 50 pages of the edition used in this paper, covering the period between February and June 1663, Pepys reported travelling by boat at least 10 times, including

The last section, non-transport uses of London's transport venues, is probably the area most represented in the current scholarship. Most of the work in this area focuses on activities pursued on the streets that, in most cases, only marginally relate to the experience of movement. An example is the work of historians who use the streets as a setting on which to present the drama of human history. One reviewer describes this setting in this way:

The fabric of the metropolis was a stage on which aspirations and disappointments, arguments and agreements, and rituals and the realities were played out on a daily basis and where people tried *to break down and build up new communities glued together by both geography and mentalite*.³²

The purpose of this group of scholars is to tell the story of the streets as a social and cultural space. To walk the streets of London in such works as Tim Hitchcock's *The Streets of London: From the Great Fire to the Great Stink*; Paul Griffiths's *Londonopolis: c. 1500-c1750*; or Matthew Beaumont's *Nightwalking: A Nocturnal History of London, Chaucer to Dickens*, is an effort to navigate the ever-changing redefinitions of rich and poor, order and disorder, rural and city, and gender. These sources offer insight into the travel experience of the early modern Londoner due to their descriptions of activities that took place there. They also provide rich detail for this dissertation's discussion on human interaction on London's transport venues. A good example is Paul Griffith's study of the arrests of nightwalkers in *Lost London* that gives insight into the number of people using the streets after dark. In general, however, while these works acknowledge that London was a city "bursting with disorderly activity,"³³ when they

23 February 1663 (Latham and Matthews, *Diary of Samuel Pepys*, volume 4, 54) when he traveled to Whitehall by boat "not daring to go by land."

³² Bob Bushaway. "Review of Tim Hitchcock's *The Streets of London: From the Great Fire to the Great Stink*". *Albion*, 36, 4 (Winter 2004), 706. [n.b. The italicized part of this quote is used by the reviewer and comes from page 3 of the Hitchcock book.]

³³ Hitchcock and Shore, *Streets of London*, xvi.

mention barriers, such as a mob demonstration, their purpose is to examine the event, not the way it impeded movement or contested ownership of the streets. This dissertation does, indeed, focus on the streets as a setting, but only where events, or human interactions, play a role in transportation activities. It examines behavior, but only when it had the potential to affect movement and prevented Londoners from making full use of the City's transportation assets.

Place in Greater London Historiography

Although this dissertation's final chapter includes a look at London's transportation environment in late seventeenth and eighteenth centuries, and the earlier chapters include references to medieval precedent, the primary focus is London transportation in the sixteenth and seventeenth centuries. For the purpose of this work, the Great Fire of 1666 provides a handy dividing point that, roughly, mirrors a division in the existing secondary literature, which now tends to fall into two separate groups of investigation. The first draws a dividing point in the mid-1600s and focuses, primarily, on the first century of the early modern era. Vanessa Harding sets this period as the time from the Henrician and Edwardian reforms to the Restoration,³⁴ or approximately 1550-1660. The theme of much of this field of research centers on the idea of stability. Was London stable or was its phenomenal growth, both in population and wealth, about to overwhelm the existing power structure and cause its collapse?

The debate on stability grew out of a reaction to what Valerie Pearl called "the doom and gloom" scholarship of the 1960s and early 1970s, inspired by Oxford historian W.G. Hoskins, and set in motion by his students, Paul Clark and Paul Slack in their essays collections, *Crisis*

³⁴ Vanessa. Harding, 'Twenty Years of Writing on London History, 1975-1995: Early Modern London, 1550-1700', *London Journal*, 20, no. 2 (1995), 34.

and Disorder in English Towns 1500-1700 & English Towns in Transition, 1500-1700. Clark and Slack set the debate by asserting that the era 1500-1700 was a time when the urban scene in England perturbed between crisis and order.³⁵ In 1979, Pearl challenged this concept for London in her article, “Change and Stability in Seventeenth-Century London.” While Pearl acknowledged the excellent work of such historians, they focused on “crisis, conflict and social polarization”:³⁶

We are told that the rapid growth of the city in the early modern period, sustained by high immigration levels, created some of the problems of a modern shanty town. A large masterless population living on or below the poverty line and physically segregated into poor areas, is said to have erupted into food riots in the sixteenth century and political disorder in the seventeenth. The City, outnumbered by the suburbs, was unable to solve the problems of poverty or of order. The rulers, it is claimed, became more oligarchic and elitist, while medieval commensality, as expressed in craft and consumer control, was eroded and disappeared.³⁷

Given the instability inferred from such conditions, says Pearl, the more interesting question is: “why London proved stable?”³⁸ This question would become the foundation of a lively debate as subsequent scholars tried to find definitive answers.

Some of those seeking answers, such as M. J. Power in his ‘Crisis’ articles: “A ‘Crisis’ Reconsidered: Social and Economic Dislocation in London in the 1590s” and “London and the Control of the “Crisis” of the 1590s,” focused on the City’s response to the problems outlined by Pearl: hunger during crisis periods, the lack of opportunity, and the general problems associated with poverty. Power’s conclusion, that London’s wealth allowed its leaders to develop methods

³⁵ Robert Tittler. ‘Recent Writings on Early Modern Urban History,’ *History Compass*, 2 (2004), 1.

³⁶ Valerie Pearl. ‘Change and Stability in Seventeenth-Century London.’ *London Journal*, 5, no.1 (1979), 3.

³⁷ Pearl, ‘Change and Stability,’ 4.

³⁸ Pearl, ‘Change and Stability,’ 6.

to deal with the potential instability,³⁹ follows a thread that runs consistently through work on London in the pre-1660 historiography. That is the apparent willingness of the power elite to do what was necessary to head off collapse of the social order.

The willingness of those in leadership to appease those below them to stave off a decline of their own power drives the debate in Frank Foster's *The Politics of Stability, A Portrait of the Rulers in Elizabethan London* and Steven Rappaport's *Worlds Within Worlds: Structures of Life in Sixteenth-Century London*. In these works, Foster and Rappaport investigate the ways in which new freeman could access power and become members of the elite. According to Foster, the city's "rulers," consisted of 273 men including the Lord Mayor, the aldermen, and other prominent office holders. This group formed an almost monolithic power bloc that, despite differences in business practices and religious observance, worked to preserve the social order. The rulers' method focused on finding new members of the bloc among talented natives and immigrants, advancing them to the power, and indoctrinating them to the bloc's system of ethos. Rappaport takes this a bit further and finds that, provided a man could survive his seven-year apprenticeship, he has a seven-to-one chance of gaining the freedom of the city. Ultimately, the number of men that benefited from this system amounted to three-quarters of London's male residents.⁴⁰ This finding differs from an earlier finding by Foster that only forty percent enjoyed this privilege.⁴¹

Foster's and Rappaport's work focus on the governors. They contend that the rulers

³⁹ M.J. Power. "A 'Crisis' Reconsidered: Social and Economic Dislocations in London in the 1590s." *The London Journal*, 12 (1986), 143.

⁴⁰ Steven Rappaport. *Worlds Within Worlds: Structures of Life in Sixteenth-century London*. Cambridge (England): Cambridge University Press, 1989, 49.

⁴¹ *Ibid.*, 53.

staved off a societal collapse by presenting an example to those below them, while offering the enticement of a place within the power structure. It is a “top-down, lead-by-example, hard work is the key to success” concept. There were those, however, who would never enjoy the benefits of elite patronage, so the question arises: what forces held them in place? How did the governed participate in the effort to keep London stable? This forms the basis of Jeremy Boulton’s *Neighbourhood and Society, A London Suburb in the Seventeenth Century* and Ian Archer’s *The Pursuit of Stability: Social Relations in Elizabethan London*. Focusing on the parish of St. Saviour in Southwark, Boulton’s says that each of London’s parishes was a unique community where the rituals and traditions of rural life, brought to the city by immigrants, did not disappear into the anonymity of urban culture. Blending traditional ideas with city life enriched and enhanced life and created a group identity based on community where neighbors, including those who were part of the elite, supported each other. Boulton concedes that this is a limited study, but he believes his methodology is suitable for similar studies elsewhere in the city. Ultimately, he contends historians may find that such community-based group identities are prevalent and says ultimately, "London society may be conceived of more fruitfully as a mosaic of neighbourhoods rather than as one single amorphous community."⁴²

Thus far, this brief discussion of the stability debate has covered top-down and community-supposed based models. For Ian Archer, however, the key to stability lay in a negotiation of position between rulers and average citizens. Archers acknowledges Foster and

⁴² J. Boulton. *Neighbourhood and Society, A London Suburb in the Seventeenth Century*. Cambridge (England): Cambridge University Press, 1987, 293.

Rappaport's elite power bloc, calling it essential to maintain stability.⁴³ He also acknowledges the idea that the rulers feared social collapse, but contends their solutions to the problems did not appear out of thin air, but came from thoughtfully listening to the grievances of the governed, along with a real willingness to resolve them.⁴⁴ Archer contends that previous studies of harmony between the governors and the governed in maintaining stability were an attempt to understand how the values of a growing market-oriented society blended with the more traditional values of rural life.⁴⁵ London's stability may be understood only by acknowledging that the way to stave off societal collapse lay in a parley between all members of London society.

While the stability debate continues, historians contending that London was inherently unstable still work to make their case. Focusing on new immigrants, servants, and women, in his 2008 work, *Lost Londons: Change, Crime and Control in the Capital City 1550-1660*, Paul Griffiths declares unambiguously, "make no mistake, London cannot be called stable on any day covered in this book."⁴⁶ Using crime as his investigative model, Griffiths contends that instability and stability are equally competitive forces and often overlapped. London, therefore, was neither stable or unstable—both forces competed for balance. The debate, therefore, rages on and reminds the author of this dissertation of a similar contention from A.L. Beiers and Roger Findlay in the early days of the stability/instability debate:

⁴³ Ian Archer, *The Pursuit of Stability: Social Relations in Elizabethan London*. Cambridge (England): Cambridge University Press, 199, 258.

⁴⁴ *Ibid.*, 9.

⁴⁵ *Ibid.*, 101.

⁴⁶ Paul Griffiths. *Lost Londons: Change, Crime and Control in the Capital City 1550-1660*. Cambridge (England): Cambridge University Press, 2008, 433.

Unfortunately, we are unlikely ever to be able to generalize about whether London as a whole was stable or unstable, growing richer or poorer. The city encompassed too many disparate communities and suitable evidence is too scarce to support such broad conclusions.⁴⁷

While stability remains the domain of historiography focusing on the pre-1660 period, other historians have more or less lost interest in this debate.⁴⁸ Possibly, they have considered that after nearly twenty years of civil war and political unrest, followed almost immediately by a disastrous fire that destroyed eighty-percent of the city, London's social and political order endured in the post-1660 timeframe, even after emerging from one of the worst crisis periods in city's history. The ancient city felt the effects of extreme crisis, but those effects failed to destabilize. Despite the fact that London after 1660 exhibited real signs of instability, "more growth, greater economic and social polarization, and increase in political and social tensions, more fear of about crime, more riots, higher death rates,"⁴⁹ perhaps these historians switched their focus because the question of London's stability in the post-1660s period was somewhat moot and prefer to turn their attentions elsewhere. In this group of historiography, therefore, which focuses heavily, but not exclusively, on the period after the Restoration, researchers tend to investigate London's explosive growth in wealth and population, along with how it affected its institutions.⁵⁰ They still study the issues that formed the basis the stability debate, as well as

⁴⁷ A.L. Beier and Finlay Roger. 'The Making of the Metropolis' in A.L. Beier and Finlay Roger, eds. *London 1500–1700*. London and New York: Longman, 1986, 18.

⁴⁸ Bucholz and Ward. *London*, 29.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

other urban themes, but tend to focus on their impact on London's urban scene, rather than their potentially destabilizing influence.

An area of research that is prominent in this type of historiography is the question of how London gained its wealth and prominence, and how it wielded its newfound power, often in the face of fierce political and social unrest. That is the theme of Robert Brenner's *Merchants and Revolution: Commercial Political Conflict, and London's Overseas Traders, 1550-1653*, and Gary Stuart De Krey's companion works, *A Fractured Society: The Politics of London in the First Age of Party, 1688-1715* and *London and the Restoration, 1659-1683*. Brenner's work actually focuses on the pre-1660 period, but the question of whether London was stable is not his primary concern. First, Brenner studies the origin and source of wealth of London's merchant communities. He identifies "Old Merchants," defined mostly as Anglican Merchant Adventurers, and "New Merchants," who were mostly puritan and engaged in different types of overseas enterprises in the Americas and West Indies. Then, Brenner tracks how each wielded power in London's government and integrated themselves into national government by acquiring monopolies on imports and, in return, granting loans.⁵¹ By the 1640s, each group had aligned themselves nationally—*old* merchants aligned with the monarchy and the *new*, fiercely opposed to Charles I's expansion of customs duties, with Parliament.⁵² With Parliament's victory in the English Civil War, the New Merchants in control of London's government via the Court of Aldermen and Court of Common Council, co-opted parliamentary power to expand its base of power globally. Many of the policies developed to serve their needs during their hold on power

⁵¹ Robert Brenner. *Merchants and Revolution: Commercial Change, Political Conflict, and London's Overseas Traders, 1550-1653*. London ; Verso, 2003, 54. <http://hdl.handle.net/2027/heb.00355.0001.001>, accessed 10 February 2017.

⁵² *Ibid.*, 494.

survived the restoration of the monarchy in 1660.

In his two-volume study of London's political scene, De Krey also sees two national factions of power that had their origins in London's growing wealth and power in the seventeenth century. By the Restoration, London's money provided essential financial strength to the national government and a growing realization that London could "break" the crown at will.⁵³ This allowed London's faction to wield immense influence at the national level and eventually evolved into the first political parties—the Whigs and the Tories by the close of the Stuart era. In contrast to Brenner, however, De Krey does not find the origins of London's factions in the division of old and new *overseas merchant* communities. For De Krey, in *A Fractured Society*, all of the overseas merchants were members of the *new* class of entrepreneurs that became the Whigs, while the *old* class that became the Tories lay in London's traditional artisan communities, such as the goldsmiths and the scribes. In addition, Whigs tended to enjoy support from the wealthiest of London's society, while Tories depended on support from the poorer manufacturing sector. There were also religion divisions, as shown in De Krey's, *London and the Restoration, 1659-1683*, which had fostered the English Civil War and still influenced seventeenth century society. Together, this dynamic set the stage for a bitter competition that would influence British politics in the eighteenth-century and beyond.

In addition to studies on wealth, power, and government, historians of the period after 1660 also work on issues common to the urban experience, but aggravated, by London's phenomenal growth, along with issues unique to the City's experience. These studies generally fall into several large categories including crime and policing, class and gender, use of urban

⁵³ Gary Stuart De Krey. *A Fractured Society: The Politics of London in the First Age of Party, 1688-1715*. Oxford (England): Clarendon Press, 1985, 2.

space, and material consumption. It is possible to find a good survey of this type of research in three essay collections: Paul Griffiths and Mark Jenner's *Londonopolis: Essays in the Cultural and Social History of Early Modern London*, Tim Hitchcock's *The Streets of London: From the Great Fire to the Great Stink*; and Lena Cowen Orlin's *Material London*. In the same vein as Brenner and De Krey, in "London's Dominion: The Metropolis, the Market Economy, and the State" (*Material London*), David Harris Sacks studies London's role as one of the most foremost players in early modern England and beyond. Representing the crime and policing genre, in "Thief-Takers and Their Clients in Later Stuart London" (*Londonopolis*), Tim Wales looks at a group of individuals that acted as an informal police force. They investigated and helped resolved crimes, but they were also well known for their own criminal activities. Mark Jenner's work, "Circulation and Disorder: London Streets and Hackney Coaches, 1640-1740" (*Great Fire to the Great Stink*), mentioned in the Literature Survey above and discussed in greater detail in chapter four, represents class and studies the behavior of drivers as they interacted with their social superiors. Finally, for material consumption there is an article by Sara Pennell, "Great Quantities of Gooseberry Pye and Baked Clods of Beef: Victualling and Eating Out in Early Modern London," that describes the abundance of foodstuffs available to consumers of the era.

At this point, it makes sense to ask, "How does this dissertation fit into current historiography?" It cannot exist in isolation—it is part of a greater whole: the study of the urban history of the city of London. While specific historiography on transportation in the city is sparse, in the pages that follows, this dissertation discusses the ways that many of these issues affected the use of the City's transportation infrastructure and the experience of movement in London of the early modern period. Responding to issues of London's growth in population and wealth, which created the potential for instability, there was the likely prospect that the number

of those using the City's transport venues would overwhelm the ability of the City's ancient infrastructure to handle them. Along these same lines, there was the question of how the city would control so many users. There was the similar potential for instability in the ongoing "negotiation" between citizen and government over the former's tendency to co-opt the City's transportation venues for other uses. Finally, uncertain governance could have proved fatal in maintaining existing infrastructure, developing new infrastructure, and finding ways to fund both. None of this happened, however, and throughout the entire early modern period, both the City and the central government at Westminster fiercely fought to maintain and control the physical space occupied by London's streets. The evidence revealed in the following pages, therefore, shows that the need for effective transport assets is one of the true constants in the urban environment. To allow the deterioration of those assets simply did not fit the needs of the City—for either the governors or the governed—and the forces of stability stayed in constant balance to those of instability.

Earlier, this dissertation mentioned how class, space and gender affected both the use of transport venues and the experience of movement in early modern London. Both crime and material consumption, however, also had the potential to have an effect. It was dangerous to walk the streets after dark in the poorly lit streets of seventeenth-century London. Not only was it a possible to trip over some obstacle, but there was also the potential to fall victim to a variety of human predators waiting in the dark. Finally, a connection to material consumption in the growth of London's nightlife with the growth of coffee houses, clubs, theatre and places to eat that could not have grown without efficient transport to supply them. Although, on the surface, a work on transport and the experience of movement seems to have little to contribute to the body of current historiography, that is simply not the case. Would London's growth in wealth and

prominence have been possible without an efficient transport system? It is possible to assert that the ability to move efficiently and freely has a bearing, whether positive or negative, on all of the issues discussed in the work of London's historians today.

CHAPTER TWO

DEFINING LONDON'S TRANSPORTATION SPACE

In 1662, Charles II appointed a board of commissioners “for reforming the buildings, ways, streets, and incumbrances [sic] in the city of London.”¹ Among these newly appointed commissioners was the diarist, John Evelyn, who along with serving on the aforementioned committee also served on a committee to refurbish old St. Paul’s Cathedral. On 27 August 1666, the committee inspected the cathedral and discussed the renovations.² Since he served on both committees, it would not be difficult to imagine Evelyn, and possibly a few of his fellow commissioners, taking the opportunity to climb to the top of old St. Paul’s. From that lofty vantage point, their goal would have been to get a “bird’s eye” view of London’s³ transportation infrastructure and gain an understanding of the task at hand. There is no record the commission ever did this, but if they had done so early on that pleasant August morning,⁴ they would have looked down on the last days of medieval London. They could not know that much of what they saw below them would disappear within two weeks in the worst conflagration in London’s history. On this midsummer’s day, however, Londoners move about on the streets below

¹ E. S de Beer, ed. *The Diary of John Evelyn, Volume III*. Oxford: Carendon Press, 1955, 318-319.

² *Ibid.*, Volume 2, 19.

³ For the purposes of this paper, the City of London refers to the area encompassed by the city walls and the surrounding liberties. Henceforth, all references to “the City” can be assumed to be defined this way. References to surrounding cities, towns, etc., will refer to them by name.

⁴ Robert Latham and William Matthews. *The Diary of Samuel Pepys*, volume 7. Harper Collins Publishers, 2000, 261. [n.b. Pepys tells us that the day was pleasant enough to throw open the windows and air out his study.]

oblivious of the coming disaster. Looking south, our viewers atop St. Paul's would see the Thames where, even at this early hour, the river is alive with activity as the city's watermen ply their trade in the daily traffic from Gravesend to Richmond, ferries move back and forth across the river between the City and Southwark, and the shipping activity at the docks start the day.

Looking to the east, they would see the buildings on London Bridge protruding above the shoreline houses. In their role as commissioners, they note "The Bridge" is the only entrance to the city from the south across the Thames. To the west, it would have been possible to see the street leading to Ludgate as it exits through London Wall, then crosses the stone bridge over the Fleet River into the street of the same name, and possibly the whole of Fleet Street and the full extent of the city's jurisdiction at Temple bar. On the other side of the cathedral grounds early modern London's widest thoroughfare, Cheapside, sweeps eastward across much of the city before merging with Cornhill, then Leadenhall and thence out of the city at Aldgate. The commissioners would also note that although they can see the streets in their immediate vicinity, within a short distance the streetscape disappears into a tapestry of buildings of every shape and size, punctuated here and there by the spires of churches, public buildings, or possibly the distinctive shapes of the city's gates. While the gates may be visible, the fabric of the wall through which they exit remains hidden among the weave of the tapestry itself.⁵

The invisibility of the streets and the wall is well-illustrated in Claes Visscher's 1616

⁵ This view of the city inspired by the 2013 Gigapixel Panorama from Spherical Images at <http://www.sphericalimages.com/st-pauls-cathedral-golden-gallery/gigapixel-panorama.html>. Whereas, modern St. Paul's is 365 feet (111 meters), the view in the discussion above would have been from the roof of the nave—a height of 285 feet (87 meters) according to William Sparrow Simpsons. *Chapters in the History of Old St. Paul's*. London: Elliot Stock, 1881, 64. The description of the city from St. Paul's in 1666 visually interpreted from the 1633 edition of Ralph Agas' *Map of London*; Anton van den Wyngaerde's *Panorama of London*, 1543; Claes Visscher's *Panorama of London*, 1616; Wenceslas Hollar's *View of London*, 1646; and descriptions of Cheapside in extant literature.

Panorama of London and Wenceslas Hollar's 1646 *View of London* from Southwark Cathedral (then St. Savior's Church). In both representations, it is just possible to see hints of a road leading across London Bridge before it disappears from view and seems to drive right through the heart of Magnus the Martyr church. Scanning the Hollar image, from the Tower of London to Temple bar, it is possible to discern the paths of a few streets by the rows of building facades that point in our direction. The only street wholly visible, however, is St. Katheryn's Way extending east from the Tower along the banks of the Thames. Otherwise, the buildings totally hide the streets from view. Against the skyline, we can see shapes that suggest surviving images of the city gates that mark the entry points into the city. The boundary marked by those gates, and the city's largest man-made structure, however, is nowhere in sight. Although nearly 2 miles (3.2 kilometers) in length and approximately 18 feet (5.5 meters) in height, in both the Hollar and Vissher images, London Wall is easily lost in a sea of buildings and very narrow streets.

Street Construction

If city fathers had taken the time to ask their fellow Londoners, they would have found that the streets were a concern to many of the time. In *Fumifugiam*, John Evelyn summed up his opinion of navigating the city thusly:

That the streets should be so narrow and incommodious in the very center and busiest places of intercourse. That there should be so ill and uncassie a form of paving under foot, so troublesome and malicious a disposure of the spouts and gutters overhead, are particulars worthy of reproof and reformation; because it is hereby rendered a labyrinth in its principle passages, and a continual wet day after the storm is over.⁶

⁶ John Evelyn. *Fumifugium or The Inconvenience of the Aer and Smoake of London Dissipated*. London: W. Godrid, 1661, 8-9. [n.b. "...because it is hereby rendered a labyrinth in its principle passages" is interpreted to mean the streets were a confusion, even to those who knew them well.]

Others commented on the shape of London's street as well. In Evelyn's 1659 translation of a work entitled *A Character of England*, the anonymous author says of London's irregular street pattern that "there is nothing more deformed, and unlike, than...its asymmetry within the walls."⁷ The author prefaces that comment with the observation that the street pattern in 1659 London is the way it is because it evolved naturally—without plan or direction.⁸

It does not seem, however, that this was always the case. In *A History of London*, Stephen Inwood says that the Romans imposed a regular street grid on the city in the first century C.E. A grid was also the street pattern selected by Alfred the Great when the Saxons reoccupied the city sometime in the ninth century. Some of the streets designed by Alfred—those predetermined by geography and the location of the gates—survived the intervening centuries. The Saxon map (Figure 1) shows roads entering at Bishopsgate, crossing the city on roughly the route of Cheapside, then exiting the western gates. A similar north-south route enters at Moorgate and exits the city by crossing the Thames at London Bridge. Throughout the medieval era "planning was rare, however, and spontaneous growth, molded by geography, landownership, and transport lines, determined the shape of the city."⁹

In addition to irregular street patterns, the width of the streets was also a concern. As mentioned in the examination of Hollar's *View of London* above, the streets, even to the casual observer, were very narrow. A notable variance would have been Cheapside which Vanessa

⁷ John Evelyn, *A Character of England*, 63. [n.b. Evelyn does not say he translated the work, but it is implicit in the comments that he "read it in the language it was sent me," and "I have been tempted to make it speak English, and give it liberty, not to reproach, but to instruct our nation."]

⁸ The author used the term "inartificial."

⁹ Inwood. *A History of the City of London*. 5.

Harding estimates was fifty to sixty feet wide and “almost certainly the largest public space inside the walls before the Great Fire of 1666.”¹⁰ While Cheapside and, possibly, one or two others, were the exceptions, the rest of London’s streets were defined as inadequate. Pepys described an incident in which the edge of his coach brushed one of the vendor’s booths in the narrow streets around Newgate Market and pulled two pieces of beef into the street.¹¹ In *A Survey of London*, John Stow notes in his examination of London’s Vintrie ward, a street called Brode (Broad) Lane, so-called because it was wide enough for two carriages to pass.¹²

With the growth of both private and hired coaches during the seventeenth century, a topic to be discussed in chapter two, the narrow streets and irregular street pattern were beginning to draw comment from those concerned about the future of the city. As early as 1603, Stow predicted that the City must eventually widen and straighten the streets because the number of coaches made travel increasingly dangerous.¹³ In 1662, John Graunt cautioned that the “square mile” was losing business and the opportunity to host governmental functions because the narrow streets were unfit for the coaches of London’s business community. Graunt worried that the expansion of London to the west, with its wider streets and bright plazas, was more

¹⁰ Vanessa Harding. “Cheapside: Commerce and Commemoration” in *Huntington Library Quarterly*, 71, no.1 (2008), 78.

¹¹ Latham and Matthews. *Diary of Samuel Pepys*, volume 3, 283.

¹² C. L. Kingsford (editor), “Vintrie Warde,” *A Survey of London by John Stow*: Reprinted from the text of 1603, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=60042>. Accessed: 15 August 2016.

¹³ Kingsford, “Of Orders and Customes of the Citizens,” *Stow's Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60024>.

attractive to business than the claustrophobic streets within the walls.¹⁴ William Petty confirms this concern in that same year by saying the city is in an ideal location, “but the streets of the city need to be improved to facilitate the growth of carriages.”¹⁵ Despite these observations from our early modern witnesses, there is no mention of any effort to widen or straighten London’s streets in the city’s official records until after the Great Fire of 1666.

How narrow were the streets? In the surveys of Ralph Treswell, drawn to scale, Friday Street was approximately twelve feet in width and All Hallows Lane about ten feet wide.¹⁶ There is no way to know if ten to twelve feet was the average width of streets in early modern London, but to get an idea of what this size meant, it is possible to visit an area today where much of the street pattern from before the great fire survives. According to London’s Department of Built Environment, “the layout of the conservation area west of St Paul’s Cathedral is a good representation of the spatial character of the City prior to the nineteenth century, with buildings densely arranged on narrow streets, with frontages directly onto the pavement.”¹⁷ Carter Lane, which Ralph Agas drew as one of the wider streets on his 1633 *Map of London*, is one such street in the *St. Paul’s Cathedral Conservation Area*—an area of the city that survived efforts to modernize it in the intervening centuries. Standing for a few minutes at

¹⁴ Graunt, John. *Natural and Political Observations Mentioned in a Following Index, and Made Upon the Bills of Mortality*. London: Thomas Roycroft, 1662.

¹⁵ William Petty. *A Treatise of Taxes and Contributions*. London: N.Brooks, 1662, 24.

¹⁶ John Schofield. *The London Surveys of Ralph Treswell*. London: London Topographical Society, Publication No. 135, 1987, Figure 1, 83 & 117. [n.b. The surveys show many streets in London. On average, they appear to the view to be the same size as All Hallows Lane and Friday Street, but only the latter show delineating edges to the streets, providing a definite edge-to-edge measurement.]

¹⁷ Corporation of London. *St. Paul’s Cathedral Conservation Area: Character Summary & Management Strategy*. London: Department of Built Environment, 2013, 18.

the entrance to the street (Figure 2), it is immediately apparent that it is no longer a major thoroughfare and the majority of the traffic today is pedestrian. From door-to-door across its width, it is roughly 16-18 feet (approximately 5.5 meters). This measurement would have placed Carter Lane at the low end of the range of minimum widths mandated in post-fire legislation—that range was 14-45 feet (5.5 to 13.5 meters) depending on use.¹⁸ To put this into perspective, the average width of a single lane on U.S. and U.K. highways is 9 to 12 feet (2.75 to 3.66 meters).¹⁹ At this size, it would have been difficult for two carriages of the early modern era to pass one another and still provide adequate space for safe pedestrian traffic.

If Agas' illustration of street sizes was accurate, Carter Lane was an example of one of the wider standard streets. At the other end of the spectrum, Lovat Lane may be an example of the narrowest variety. Escaping the minimum width restrictions set after the Great Fire, Lovat Lane, located a few city blocks from modern day London Bridge, survives intact from as early as the thirteenth century.²⁰ In figure 3, a man of average build walks along the west edge of the street. The median width of a man's shoulder ranges between eighteen to twenty inches. Based on the image, approximately 4 to 5 men could comfortably walk abreast along the lane making it about 2 to 2.5 meters (7 to 9 feet) wide at its narrowest spot in front of the building with the

¹⁸ City of London (England). *An Act Declaring What Streets and Straight and Narrow Passages Within the City of London and Liberties Thereof...Should be Widened*. Published late seventeenth century.

¹⁹ U.S. Department of Transportation, Federal Highway Administration. *Mitigation Strategies for Design Exceptions*. http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_lanewidth.htm; U.K. Department of Transport. *Design Manual for Roads and Bridges, Volume 6: Road Geometry*. February 2005, page 4/12. <http://www.dft.gov.uk/ha/standards/dmr/vol6/section1/td2705.pdf>.

²⁰ Corporation of London. *Lovat Lane Conservation Area Character Summary*. London: Urban Design and Conservation Section of the Department of Planning, 2007, 4. [n.b. According to Stephen Inwood, although some of the major streets were widened after the Great Fire, many escaped. See Inwood., *History of the City of London*, 250.]

yellow façade.²¹ This measurement makes the width of the street approximately one-half to two-thirds that of Carter Lane.

Two other factors further aggravated the narrowness of the London's thoroughfares: the gutters and the irregular fabric of the streets themselves. The granite "sett" squares, such as those shown in the image of present-day Carter Lane, were mandated as part of the paving act of 1761, and formally adopted by the city of London in 1766.²² Before the Great Fire, however, the streets of London were paved in gravel—usually rammed into place, but in some places cobbled.²³ In *Medieval Streets in London*, Jeremy Haslam uses archeological evidence to describe typical street paving before the Great Fire. The average medieval streets in London consisted of numerous layers of compacted gravel with a deep pit or gully down the center of the streets "that must have presented considerable hazards to the users of the streets on a dark evening."²⁴ Over time, a layer of gravel was compacted by usage and supplemented by a slurry of dirt, excrement, and other waste that ground into the fabric of pavement. When the pavement became too irregular, another layer of gravel was laid down. Haslam contends that the number of layers could be used to indicate the amount of traffic and the street's importance in the life of the town.

The testimony of some of our early modern witnesses supports the accuracy of Haslam's

²¹ The average width of an adult male's shoulders is 18 to 20 inches.

²² George William Tillson. *Street Pavements and Paving Materials: A Manual of City Pavements*. New York: John Wiley & Sons, 1900, 5.

²³ Martin Millett. "A Trench Across Upper Thames Street" in , "The *London Archaeologist*, 2, no.9 (1974), 232. [n.b. The term "cobbled" in this period refers to layers of rounded stones and sand. It does not refer to the squares or rectangular bricks used today and often called cobblestones.]

²⁴ Jeremy Haslam. "Medieval streets in London," *The London Archaeologist*, 2, no.1 (1972), 6.

interpretation of the archeological evidence. Williams Schellinks, a Dutch painter, visiting England in the early 1660s, describes Haslam's gullies in the streets of Salisbury as "a channel of running water. In these channels stones or wooden blocks are set to cross the water: the horses go through the middle and the wheels at the side of these stones."²⁵ When it rained these channels ran with water and, ideally, washed away the accumulated dirt in the streets—the slope of the city streets in London toward the Thames aided in this cleansing. This arrangement was certainly a benefit to cleanliness, but in some cases, such as during a heavy downpour, the torrent was so strong that it presented a danger to those walking the streets. Stow describes an incident in Dowgate (Downgate) Street on 4 September 1574 when a heavy downpour caused the channels to overflow and rush through the streets. The course of the street ran downhill to the water-gate of the same name. According to the story, an eighteen-year-old man tried to leap over the gushing water and "was taken with the stream, and carried thence towards the Thames with such a violence, that no man with staves or other could stay him." When the man reached Dowgate, he was tossed against a cart and drowned in the rushing waters.²⁶

Our witnesses also testify to the application of multiple layers of gravel and seem to support the idea that the more layers denote of the importance of the street. The 1550s diary of the Eastcheape merchant, Henry Machyn (c.1498-1563), is filled with numerous references to the City laying fresh gravel. The chronicler, Raphael Holinshed (1529–1580), the barber and diarist, Thomas Rugg (?-1670), as well as Pepys and Evelyn all reported times when the City laid fresh layers of gravel. In most cases, however, these reports coincided with major events: the

²⁵ William Schellinks *The Journal of William Schellinks' Travels in England, 1661-1663*. Marice Exwood and H. L. Lehmann, ed. and trans. London: Royal Historical Society, 1993.

²⁶ Kingsford, "Downgate Ward," Stow's *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60041>.

arrival of Anne Boleyn in 1533 (Holinshed); the coronation of Queen Elizabeth in January of 1659 (Machyn); and the coronation of Charles II in April of 1661 (Pepys and Rugg). These reports also trace the newly graveled routes: from the Tower to Temple Bar; from the Tower to Leadenhall; from the Tower to Charter House; and from Temple Bar to Whitehall.²⁷ All of these routes were main thoroughfares through the city. There was never any mention of new gravel for minor streets, implying that certain routes through the city received more attention than others and, therefore, attest to their importance in the life of the city.

While freshly graveled streets restored the road surface, the City also acted to preempt such damage. For both medieval and early modern administrators, the major issues with maintaining paved streets were iron-shod and heavily-laden vehicles. Such vehicles with protruding iron studs for traction and overloaded with goods could do significant damage to gravel roadbeds and historian Goronwy Tidy Salusbury-Jones comments that such carts were probably capable of destroying a day's work of the city's pavements.²⁸ Because of the potential for damage, and the accompanying obstacles to traffic such damage could create, rules first appeared in the *Letter Books* in the thirteenth century with a blanket prohibition on both: "no cart serving the City by bringing water, wood, stones [*very heavy items*], be shod with iron."²⁹ The city fine-tuned the regulations: designating entrances and places on the outskirts of the city for

²⁷ Latham and Matthews. *Diary of Samuel Pepys*, volume 1, 82; William L. Sachse, ed. *The Diurnal of Thomas Rugg 1659-1661*. London: Royal Historical Society, 1961, 174; "Diary: 1559 (Jan - Jun)," Nichols, *Diary of Henry Machyn*, pp. 184-201. URL: <http://www.british-history.ac.uk/report.aspx?compid=45523>; Raphael Holinshed. *Chronicles of England, Scotland, and Ireland*, Volume 3. London: Johnson, et. al., 1808, 781.

²⁸ Salusbury-Jones. *Street Life in Medieval England*, 40.

²⁹ Reginal R. Sharpe. *Calendar of Letter-Books Preserved Among the Archives of the Corporation of the City of London at the GuildHall, 1275-1497*. London: John Edward Francis, 1899-1912, *Letter Book A*, Folio 129b, 217.

iron-shod carts to stand; a 1/2d-2d toll, depending on the type of heavy cargo; and a prohibition against any cart shod with iron crossing London Bridge.³⁰ Rules concerning this practice remained part of the ordinances regarding street usage as late as 1745 when Parliamentary legislation (18 George II, c.34) restated the former injunctions limiting their use.³¹

Whether unpaved, or paved with gravel, a material most people would not consider “paving” in the twenty-first century, the shape of the streets did not mean speedy travel was impossible. Bulstrode Whitelock (1605-1675), Pepys, and Edward Cook (1552-1634) make mention of riders on horseback galloping through the streets.³² Pepys describes several incidents in which he moved quickly through the streets in carriages. In one story, he tells how he “drove hard” to catch up with his wife and in another he relates the story of a race between the carriages of Sir. William Batten (c. 1610-1667) and Sir William Penn (1621-1670).³³

The implication of the examples above was that, while there were issues, the streets were in good enough shape to allow speedy travel. The ability to move quickly from one place to another, however, was not the main concern of city administrators—their thoughts centered mainly on efficient movement. As the city’s population began to increase, the narrow streets of the ancient city became problematic, and the core of street usage regulations began to center on keeping the avenues free of congestion—in other words, traffic. Factors that contributed to

³⁰ Carpenter, John and Richard Whittington. *Liber Albus: The White Book of the City of London*. Trans. Thomas Riley. London: R. Griffin, 1861, 272; Sharpe, *Letter Book H*, Folio 54, 54; *Letter Book K* Folio 28b, 38.

³¹ “18 George II, cap.34,” in Danby Pickering. *The Statutes at Large, volume 18, from the Fifteenth to the Twentieth Year of King George II*. London: Charles Bathurst, 1765, 383.

³² R. H. Whitelocke. *Memoirs, Biographical and Historical, of Bulstrode Whitelocke*. London: Routledge, Warne, and Routledge, 1860, 24; Cuthbert William Johnson. *The Life of Sir Edward Coke, Lord Chief Justice of England in the Reign of James I, volume 1*. London: Henry Colburn, 1845, 200.

³³ Latham and Matthews. *Diary of Samuel Pepys*, volume 2, 110 & Volume 4, 429.

traffic and created potential obstacles to free movement are covered in greater detail in chapters two and three.

A Divided Responsibility: Maintaining the City's Transportation Infrastructure

Who was responsible for the construction, repair, and maintenance of the streets? Essentially, it was a shared responsibility: the city maintained public areas, but the bulk of responsibility fell on individual property owners who maintained the streets and walkways in front of their properties. The city also expected property owners to clean the streets as well—a subject discussed in greater detail in chapter two—but the provisions for paving and street repair were somewhat laissez-faire until the beginning of the early modern period. In most cases, when the records mentioned paving at all, it was usually included, almost as an afterthought, in other acts. The *Liber Albus* contains an example where it cites an act, circa 1330, that had provisions for the weaving and dying of cloth, placement of markets, street cleaning, approved methods for fishmongers to dispose of their waste and “making the pavements and repairing same.”³⁴ The lack of specific acts on paving means researchers must seek evidence of the City's paving and street maintenance policies in numerous places, including the plentiful mentions of individual tasks ordered by the city throughout the period.

To repeat: many streets were still simply dirt roads. Where pavements existed, this usually meant layers of gravel pounded into the earth. When the roadbed deteriorated, the city laid fresh gravel. Research for this dissertation did not find documentation of the number of streets paved on the eve of the Great Fire, or when the earliest paving occurred. Stephen Inwood

³⁴ Carpenter, *Liber Albus*, 251.

reports that there was a “network of small graveled streets, especially near the Thames and in the western half of the city” already in place sometime between the reign of Alfred the Great and the Norman Conquest.³⁵ The paving of London’s streets, therefore, pre-dates 1066, but according to the author of the *History of the Worshipful Company of Paviours of the City of London*, the earliest known paving order came from the King in 1417. In that year, Henry V ordered the paving and repair of Holborn, saying the highway there were “so muddy and deep that many and diverse dangers have happened in the past to the King’s carriages, and to others of his subjects.”³⁶

In city records, we can find mentions that reveal when the paving of certain roads occurred. Cheapside was paved by 1299 when the Letter Books first records the laying of its pavements.³⁷ Other examples of paving orders include: the road through Bishopsgate in 1304; the road leading to Fleet Bridge before 1307, when the City ordered repairs to its existing pavements; and Leadenhall by 1320 when the city approved payment for completing the paving there.³⁸ A system of street repair regulations must have been in place, along with a significant number of paved roads by 1302. In that year, the city’s paviours swore to “make the pavements throughout the streets and places of the city only in a manner most commodious for the public, and according to the ordinance of old approved.”³⁹

³⁵ Inwood, *History of the City of London*. 41.

³⁶ Charles Welch. *History of the Worshipful Company of Paviours of the City of London*. London: Worshipful Company of Paviours of the City of London, 1903, 78. [n.b. Welch uses Rymer’s *Foedera* as his source for this quote.]

³⁷ Sharpe, *Letter Book C Folio* 40, 58.

³⁸ Sharpe, *Letter Book C Folio* 80, 130; *Letter Book C Folio* 147, 240; Memorials: 1320. <http://www.british-history.ac.uk/no-series/memorials-london-life/pp133-142>.

³⁹ Sharpe, *Letter Book C Folio* 70, 114.

In the opening years of the early modern period, this slow but steady paving of London's streets was probably still underway—although there is little mention of it. In 1533, mirroring an extension of the central government's role in many areas under Henry VIII (reigned 1509-1547), Westminster began to take a more active role in the paving of London's streets. In that year an order came from parliament to pave the Strand, one of the roads on the route from Westminster to London's southwestern boundary at Temple Bar. A year later, the King ordered the repaving of Holborn along with the streets of Southwark.⁴⁰ In the next decade, Henry's government ordered additional paving in all around London.⁴¹ Henry's successors would continue to encourage the systematic paving of London throughout the Tudor-Stuart period, culminating in the 1661-1662 (henceforth 1662) act that ordered the paving of all remaining streets in both London and Westminster.⁴²

It appears, therefore, that the impetus for *citywide* paving came from central government. Accordingly, it seems logical to stop and examine the structure of government, and who held the ultimate authority for maintaining the streets. The following, therefore, is a brief, and somewhat simplified, discussion on the flow of power in early modern London. At every level, the city's governance was subject to exceptions, possible vetoes, and a host of outside influences. First,

⁴⁰ “24 Henry VIII, Cap. 11,” in Danby Pickering. *The Statutes at Large, volume 4, from the First Year of King Richard III to the Thirty-First Year of King Henry VIII Inclusive*. London: Charles Bathurst, 1763, 257; “25 Henry VIII, Cap. 8,” *Ibid.*, 268.

⁴¹ “32 Henry VIII, Cap. 17,” in Danby Pickering. *The Statutes at Large, volume 5, from the Thirty-Second Year of King Henry VIII to the Seventh Year of King Edward VI Inclusive*. London: Charles Bathurst, 1763, 28; “34 & 35 Henry VIII, Cap. 11,” *Ibid.*, 150.

⁴² “13-14 Charles II, c.2 “ in Anonymous. *A Collection of the Statutes at Large, Now in Force Beginning in the Sixteenth Year of the Reign of Our Late Sovereign Lord, King Charles I, Anno 1640 and ending in the Nineteen Year of the Reign of our now Sovereign Lord, King Charles II, Anno 1667, with the Titles of Such as are Expired and Repealed*. London: Jon Bill and Christopher Barker, 1667, 151-160. [n.b. This act was passed in February 1661-1662, which according to modern calendars makes it 1662, and will henceforth be referred to as 1662.]

the corporation of London existed due to a charter from the King, originally granted, according to London folklore, by Henry I sometime in the early 1130s.⁴³ The charter reserved ultimate decision making unto the monarchs and their heirs. Over time, however, especially in the early modern period, Parliament grew in power and influence. A separation of administrative activities mirrored this change and a growing number of official departments assumed responsibility for governmental operations, becoming independent from the monarch. By the middle of the eighteenth century, this new paradigm was still evolving,⁴⁴ but the combined staff of both the royal household and the central government at the end of the reign of Queen Anne in 1714 numbered 14,000 to 18,000 individuals.⁴⁵ Outside of Westminster, the distinction of power was often lost and the public referred to the central government as “the Court”—a nod to the time when sole power resided in the monarch. Hereafter, this dissertation refers to this symbiosis of monarch, Parliament, and their support staff, as “the Central Government” or “Westminster,” and refers to the civic entity of the same name as “the city of Westminster.”

From Westminster to the city of London, power flowed in both directions—according to Gary De Krey, they “operated as paired forces for order in the heavily intertwined microcosm and macrocosm they governed.”⁴⁶ Daniel Defoe declared, “Between the Court and the City, there is a constant communication of business.”⁴⁷ There were reasons for this reciprocity. Many

⁴³ Inwood, *History of City of London*, 57.

⁴⁴ Bucholz and Ward. *London*, 119.

⁴⁵ *Ibid.*, 102. [n.b. Bucholz and Ward estimates this number to include 12,000 to 16,000 for governmental offices and 2,000 for the Royal Household.]

⁴⁶ Gary Stuart De Krey. *London and the Restoration, 1659-1683*. Cambridge (England): Cambridge University Press, 2005, 6.

⁴⁷ *Ibid.*, 101.

of those in power in the City sought positions or contracts in central government. By the early modern period, thousands of individuals benefited from day-to-day contact with decision makers.⁴⁸ The general feeling was that this gave them immense influence on central government regulations.⁴⁹ Additionally, the City was one of Westminster's greatest sources of revenue. The City granted loans to the central government to pursue its policies and amounted to 1/14th of the central government's tax income by the mid-seventeenth century.⁵⁰

Official policy from Westminster came by act of Parliament, although the monarchs could express their will by royal decree. The latter were, essentially, executive orders that could guide, or even enact, a process, but carried less weight than an act of Parliament. Both the crown and Parliament could and, periodically, did intervene in the operations of the city, but generally had generally left the City to its own devices in matters of infrastructure—more on that topic later in this chapter. The conduit of authority from Westminster to the city of London was the Lord Mayor⁵¹ who acted as the city's chief executive, but was in reality a “first-among-equals.” The Lord Mayor was one of twenty-six elected leaders who formed the Court of Aldermen and held the highest level of power in early modern London. Elected from among the most influential and wealthiest individuals in the City, Aldermen held their positions for life, but the Lord Mayors served only for a year at a time.⁵² They could serve more than once, however, Sir

⁴⁸ Ibid., 120.

⁴⁹ Bucholz and Ward. *London*, 117.

⁵⁰ T.F. Reddaway. *The Rebuilding of London After the Great Fire*. London: Arnold, 1951, 41.

⁵¹ De Krey. *London and the Restoration*, 8.

⁵² Bucholz and Ward. *London*, 123.

Nicholas Brembre (died 1388) served five times between 1376 and 1386, and the legendary, Richard “Dick” Whittington (1354-1423) served three terms as Lord Mayor.⁵³

The Court of Alderman worked with another body known as the Court of Common Council.⁵⁴ The Common Council included the mayor and aldermen, along with about 210 councilors—also elected from among the most prosperous freemen of the city. The Court of Aldermen originally conceived the Common Council as an advisory body, and the Aldermen could overrule their decisions, but over the course of the early modern period, the Common Council evolved into an administrative body that oversaw the regulation of markets, street lighting, and infrastructure repair.⁵⁵ Ideally, policy would flow from the Aldermen to the Common Council, but the freemen of the Common Council could be very factious and independent of their aldermen, so the Court of Common Council was not simply a “rubber-stamp” of aldermanic policy.⁵⁶ The City eventually eliminated the aldermanic veto in 1746.⁵⁷

As may be demonstrated by the foregoing paragraphs, by the time any royal decree, parliamentary legislation, or aldermanic action reached the streets, it had already been subject to a multitude of overlapping courts and jurisdictions. To this point in the early modern London power paradigm, however, not a single street had been paved, bridge repaired, or street light installed. The City divided its twenty-six wards into 111 parishes that employed a legion of others that saw to the needs of the parish. The responsibility for day-to-day maintenance

⁵³ Inwood, *History of the City of London*, 59.

⁵⁴ Bucholz and Ward. *London*, 124.

⁵⁵ *Ibid.*, 125.

⁵⁶ De Krey. *London and the Restoration*, 7-8.

⁵⁷ Inwood, *History of the City of London*, 392.

operations lays in the hands of the parish vestries elected, at least on paper, by the parish's ratepayers. Neither the parish vestries or the aldermen, however, selected those who actually did the work. That fell to a body of nearly 20,000 freemen of the city called the Wardmote who filled the thousands of positions that handled the many different activities, including those of transportation such as street cleaners, pavers, and gate keepers. As noted earlier, others higher in the power paradigm could influence, veto or simply replace all nominees for these appointments.

The structure of power in early modern London created a system ripe for potential conflict as each of the groups mentioned above had their own agendas and their interests often clashed.⁵⁸ It may be one of the factors, among many, behind the lack of a consistent and comprehensive transportation infrastructure policy before the early modern period. Before Henry VIII, even the central government appeared to have little interest in London street maintenance. A perusal of medieval state records, including *Close Rolls*, *Parliamentary Rolls*, and *Statutes-at-Large*, finds few mentions of London in matters of infrastructure maintenance, indicating that Westminster essentially left the city to maintain the streets with little oversight. The central government seemed to interfere only when the streets became impassable for some reason, such as Henry V's problems navigating Holborn mentioned earlier. Westminster seemed more interested in road maintenance outside of London, probably to foster intercity trade, and frequently considered legislation for road and bridge repair throughout the realm.⁵⁹

⁵⁸ Bucholz and Ward. *London*, 127.

⁵⁹ A few examples include: 'Edward II: January 1316, SC 9/19,' in *Parliament Rolls of Medieval England*, ed. Chris Given-Wilson, Paul Brand, Seymour Phillips, Mark Ormrod, Geoffrey Martin, Anne Curry and Rosemary Horrox (Woodbridge: Boydell, 2005), accessed January 14, 2015, <http://www.british-history.ac.uk/no-series/parliament-rolls-medieval/january-1316-sc-9-19>; 'Edward II: January 1315,' in *Parliament Rolls of Medieval England*, ed. Chris Given-Wilson, Paul Brand, Seymour Phillips, Mark Ormrod, Geoffrey Martin, Anne Curry and Rosemary Horrox (Woodbridge: Boydell, 2005), accessed May 11, 2015, <http://www.british-history.ac.uk/no-series/parliament-rolls-medieval/january-1315>; 'Henry IV: March 1406, Part 1,' in *Parliament Rolls of Medieval*

Westminster's lack of attention to street repair within the city of London during the the Medieval period may have been due to a view that London should handle such things on its own. In the centuries preceding the early modern period, London had progressively become a self-governing entity gaining new rights with each generation.⁶⁰ In terms of infrastructure, it was a view codified in the policy of "common soil" as outlined in a charter from Henry VI in 1444. The charter confirmed other rights, but for the purpose of this dissertation, the pertinent passage is as follows:

And also that the same citizens and their successors shall have all common soils purprestures and approvements in all wastes, common streets, ways and other places in the City and suburbs aforesaid and in the water of Thames within the liberty of the same City for ever, together with the profits of the same purprestures and approvements and that they may possess themselves thereof and rent the same and the same rents may enjoy to them and to their successors forever.⁶¹

The terms *purprestures and approvements* granted London oversight of all common land, including the streets and bridges, and control of their use. The "*profits of the same*" included the right to collect fees, tolls and taxes for the maintenance of common soil assets. The concept of common soil, however, and its attendant responsibilities, certainly predates the 1444 charter. The author of the pamphlet, *Common Soil and the Agreed Translation of the Charter of 23 Henry VI (1444)*, comments that the city's assertion of this right of ownership appeared in the records as early as 1306.⁶² It is possible to interpret a 1285 passage reprinted in the *Liber Albus*

England, ed. Chris Given-Wilson, Paul Brand, Seymour Phillips, Mark Ormrod, Geoffrey Martin, Anne Curry and Rosemary Horrox (Woodbridge: Boydell, 2005), accessed January 14, 2015, <http://www.british-history.ac.uk/no-series/parliament-rolls-medieval/march-1406-pt-1>;

⁶⁰ Bucholz and Ward. *London*, 18.

⁶¹ The City Solicitor. *Common Soil and the Agreed Translation of the Charter of 23 Henry VI (1444)*. London: Corporation of London Records Office, n.d., 1.

⁶² *Ibid.*, 1.

as supporting “common soil.” It declares, “The king doth will, that all usages heretofore in the City established for the amendment and profit of the city, as to the streets.”⁶³ This passage goes on to list some of the street maintenance duties expected of the city in return for this consideration, and it supports the idea that the concept of Common Soil was a policy of long standing.

Henry VIII’s 1533 order to pave the Strand demonstrates the assumption of a greater role in local transports issues on the part of the central government during the Tudor period. In 1530, citing “all manner of annoyances” to the King’s subjects regarding the sorry state of the kingdom’s roads and bridges, Henry VIII’s government issued a comprehensive bill for road and bridge maintenance throughout the realm. The act established a structure of enforcement; placed that power firmly in the hands of civic governments; granted them the power to levy taxes to fund the provisions of the act; and specifically included bridges in the definition of road repair.⁶⁴ An act by Mary I mandated that land-owners must contribute to the efforts by supplying both equipment and labor.⁶⁵ From this beginning, the input of the central government expanded throughout the period and eventually encompassed both road maintenance and rules on street use—the latter will be a subject of discussion in later chapters.

The greater attention from Westminster to such matters paralleled the onset of the first expansion of overseas trade in textiles that began in the late fourteenth century and had reached

⁶³ Carpenter, *Liber Albus*, 250.

⁶⁴ “22 Henry VIII, Cap. 5,” in Danby Pickering. *The Statutes at Large, volume 4, from the First Year of King Richard III to the Thirty-First Year of King Henry VIII Inclusive*. London: Charles Bathurst, 1763, 199-203.

⁶⁵ “2/3 Mary I, Cap.8,” in Danby Pickering. *The Statutes at Large, volume 6, from the First Year of Queen Mary to the Thirty-Fifth Year of Queen Elizabeth Inclusive*. London: Charles Bathurst, 1763, 71-73.

its peak by the 1540s.⁶⁶ Although trade in cloth stagnated in the late sixteenth century, the wealth created during this period contributed to the rise of a middling consumer class that had the disposable income to indulge in luxury goods. To service this growing desire a secondary import market developed that imported finished goods as well as raw goods for manufacture that city merchants subsequently exported again.⁶⁷ Against this backdrop were the city of London's role as the source of investment capital and its location as one of the greatest entrepôts for import and export trade in England. The wealth flowing into London also found its way to Westminster in the form of license fees for charters granted by the King for overseas trade. On the eve of the Great Fire of 1666, income from London accounted for nearly eight percent of the Central Government's revenue stream.⁶⁸ The desire to assure the transport needs of the city that was a significant source of its income could have provided the impetus behind Westminster's greater interest in maintaining London's streets.

Whatever the level of Westminster's involvement, whether "hands-off" as in the early Middle Ages or more active involvement under the Tudors and Stuarts, the central government acted, essentially, as London's board of directors. When they became involved, Westminster issued policy, passed it to the mayor and aldermen, the CEO and department heads in this analogy, who in turn, passed it to the middle managers. In the medieval/early modern world of street maintenance, this level of management appeared to involve three subordinate positions. Scavengers and the Justices of the Peace (JP's) patrolled the streets and assured they were

⁶⁶ Brenner, *Merchants and Revolution*, 4.

⁶⁷ *Ibid.*, 25-28.

⁶⁸ Reddaway, *Rebuilding of London After the Great Fire*, 41.

always in good repair.⁶⁹ They shared that duty with an oddly-named official called the “Sergeant of the Channel” who was responsible for keeping the sewers in the middle of the streets clean in good repair. The reports of these officers went to the Court of Aldermen, who ordered the repairs.

The system described above survived well into the early modern period and was still in place on the eve of the Great Fire. The most apparent change, however, was in the aforementioned expansion of the role of the central government. In 1606, Parliament put oversight of bridges and street channels under a commissioner of sewers.⁷⁰ Then, in 1662, Parliament further expanded their oversight by creating a new Royal Commission of Works for the city of London and Westminster, that oversaw both sewers and street maintenance.⁷¹ It was this Commission, mentioned earlier, on which John Evelyn served as a commissioner in 1662. Under this system, actual street repair *in London*, as opposed to the reporting functions of the scavengers and Justices of the Peace, can be documented as the responsibility of the “Surveyor of Pavements.”⁷² The Surveyors first appeared in the records in 1311,⁷³ but their role is vague until a specific charge for overseeing repairs appears in the general act for amending the

⁶⁹ Sharpe, *Letter Book G*, Folio 165, 209.

⁷⁰ “3 James I, cap. 14” in Anonymous, *The Statutes at Large Containing All Such Acts [from Magna Carta to James I]*, volume 2. London: Bonham Norton and John Bill, 1618, 607.

⁷¹ England and Wales. *By the Commissioners Appointed by his Majesty for the Repairing of the High-Ways and Sewers, and for Keeping Clean the Streets, in and about the City of London and Westminster*. London: F.G., Printer to Said Commissioners, 1662.

⁷² “3 James I, cap. 14” in Anonymous, *Statutes at Large*, 607.

⁷³ Sharpe, *Letter Book D* Folio 192, 312.

highways throughout the kingdom, issued by Mary I, mentioned above.⁷⁴

Keeping track of the roles of city officers, e.g. scavengers, JPs, etc., is confusing, but this discussion of responsibility lacks one final facet that makes it more so: the role of property owners in the street maintenance paradigm. The city took responsibility for general oversight of street conditions everywhere, and maintained common areas, but the responsibility of repairing, cleaning and, when ordered, paving, fell to the owners of property adjacent to the streets. The City first outlined the scope of owner responsibility in 1297 with the command to “clean the front of his tenement, that so the streets be delivered from all incumbrances.”⁷⁵ Apparently, by the 1660s, the City felt a need to be more specific, and the 1662 Highways and Sewers Act defines owner responsibility as “the total width of his property directly in front [of their property] to the middle of the highway.”⁷⁶ In the City’s enforcement of the act, the mayor of London clarified this further by adding “to the channel in the street.”⁷⁷ The 1662 declaration, therefore, codified a long-standing expectation of responsibility within the City.

Consider for a moment the implications of such a system. Without very tight instructions on proper methods, the quality of the street maintenance varied from property to property. Paving legislation provides a fascinating example of this problem. It was, perhaps, inevitable that, without specific instruction on paving, the quality of the streets would vary from property-

⁷⁴ “2/3 Mary I, Cap.8,” in Pickering’s *Statutes at Large*, volume 6, 71-73.

⁷⁵ 'Memorials: 1297,' in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 33-36, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp33-36>.

⁷⁶ “13-14 Charles II, c.2 “ in Anonymous. *Statutes at Large, 1640-1667*, 151-160.

⁷⁷ Corporation of London (England). Lord Mayor. *By the Mayor to the Aldermen [regarding an act of Parliament] for Repairing the High-Ways and Sewers*. 1662.

to-property. A dedicated, diligent, or possibly overzealous, owner might like thick layers of gravel to provide a smooth surface in front of his property. His neighbors, either next door or across the street, however, might not have the resources to match; or they might resent being required to pave the road in front of his property, and do as little as possible. Added to this was the city's habit of frequent re-graveling of important streets with the result that the height of pavement was much higher in some places than others. John Stow attests to this when he describes the area around St. Katherine Christchurch (also known as St. Katherine Cree), in Aldgate Ward, where "the high street hath been so often raised by pavements that now men are faine to descend into the said church."⁷⁸

Whether this was overzealousness on the part of the sexton of St. Katherine's, simple buildup of decades of fresh layers of gravel, or due to another cause is unknown, but the official records show inconsistent pavement height was an early problem. Around 1372, the city began to issue rules against irregular street pavements when they ordered that "no one shall raise his pavement higher than his neighbor without consent of the Mayor or Aldermen."⁷⁹ Salusbury-Jones reports that the City included this order in the instructions to the city's paviours.⁸⁰ It also found in the oath of the scavengers, where the following clause appears: "you shall swear that you shall diligently oversee that the pavements within your ward are well and rightly repaired, *and not too high in nuisance of the neighbors....*"⁸¹

⁷⁸ Kingsford, "Ealdgate warde," Stow's *Survey of London*, <http://www.british-history.ac.uk/no-series/survey-of-london-stow/1603/pp138-150>.

⁷⁹ Sharpe, *Letter Book A*, Folio 130, 219.

⁸⁰ Salusbury-Jones. *Street Life in Medieval England*, 36.

⁸¹ Carpenter, *Liber Albus*, 272.

Stow's mention of the height of the pavements around St. Katherine's shows this continued to be a problem into the seventeenth century. In August 1601, a letter among the Cecil Papers reports that the pavements along Charing Cross (outside of the city), near the Earl of Bedford's house, was "so high and sloping that heretofore divers horses, coaches and carts have slipped and overturned."⁸² In 1634, the City considered a recommendation from the crown on a plan by one Daniel Nys (Nis), "a gentleman of good understanding and experience," to raise the streets to "a convenient height, evenness, and decency,"⁸³ throughout the city. According to Paul Griffiths, Nys met with the city, but his plan was never adopted.⁸⁴

Immovable Obstacles: The City Wall and Gates

Whether speeding through the streets on horseback or carriage, or leisurely walking from place to place, early modern Londoners would have encountered many obstacles. Holes and pits in the gravel roads, ruts in unpaved roads after rain, and chains across the roads all served to delay travelers as they moved from place to place. These obstacles were intrinsic to the transportation technology of the times, and for the most part these obstacles could be ameliorated with a change in the weather, intervention by city maintenance workers, or a change in city policy. For the purpose of defining the transportation landscape, however, it is important to make note of the greatest obstacles to travel in early

⁸² 'Cecil Papers: August 1601,' in *Calendar of the Cecil Papers in Hatfield House, Volume 14*, Addenda, ed. E Salisbury (London: His Majesty's Stationery Office, 1923), 183-185, accessed May 18, 2015, <http://www.british-history.ac.uk/cal-cecil-papers/vol14/pp183-185>.

⁸³ 'Charles I - volume 272: July 17-31, 1634,' in *Calendar of State Papers Domestic: Charles I, 1634-5*, ed. John Bruce (London: Her Majesty's Stationery Office, 1864), 153-175, <http://www.british-history.ac.uk/cal-state-papers/domestic/chas1/1634-5/pp153-175>; 'Streets, walls and ditches,' in *Analytical Index To the Series of Records Known As the Remembrancia 1579-1664*, ed. W H Overall and H C Overall (London: EJ Francis, 1878), 480-483, <http://www.british-history.ac.uk/no-series/index-remembrancia/1579-1664/pp480-483>. [n.b. No additional information could be found on Nys or his plan.]

⁸⁴ Griffiths. *Lost London*, 101.

modern London—obstacles that were immovable and not so easily resolved—the gates and walls.

Originally constructed by the Romans, the wall in 1666 was approximately 18 feet high and ran nearly two miles. It circled the city on three sides and enclosed an area of approximately 330 acres. According to *The London Encyclopedia*, there was also a riverside portion as well, but that was gone by the middle of the thirteenth century. Richard Burton, writing near the end of the seventeenth century, attributes the demise of the southern portion of the wall to the tidal effects of the Thames.⁸⁵ The construction of the Tower of London in the late eleventh century and the enlargement of Blackfriars church in 1282 further diminished the wall when portions were demolished for their construction.⁸⁶

London Wall was seen as an effective defensive measure. According to Stephen Inwood, the city walls may have been the impetus to reoccupy the walled enclosure in the 840s in the wake of Danish raids in the area.⁸⁷ Although London was occupied by the Danes in the winter of 871-872, the city effectively resisted Norse attacks in the tenth and eleventh centuries,⁸⁸ and other incursions throughout the Middle Ages and into the early modern period. The wall, therefore, could act as a deterrent and prevent *easy* access to the city by attackers, but it was also an equally effectual obstacle to free movement due to limited access points. Officially, a set of

⁸⁵ Richard Burton. *Historical Remarques and Observations of the Ancient and Present State of London and Westminster*. London: Nathan Crouch, 1681, 10.

⁸⁶ “The wall about the Citie of London”, Stow’s *Survey*. URL: <http://www.british-history.ac.uk/report.aspx?compid=60016>; Hibbert, Christopher; Keay, John; Weinreb, Ben; Keay, Julia. *The London Encyclopaedia* (3rd Edition). Macmillan Publishers UK. Kindle Edition, Location 9439.

⁸⁷ Inwood, *History of the City of London*, 38.

⁸⁸ *Ibid.*, 45.

seven gates provided entry through the wall. From east to west they were: Aldgate, Bishopsgate, Moorgate, Cripplegate, Aldersgate, Newgate, and Ludgate. Stow described Moorgate and Cripplegate as *posterns*—any gate other than the main gates—often much smaller and usually designed for single horsemen or pedestrian traffic. Additionally, Stow also lists postern gates just outside the walls of the Tower of London and as an entrance to Christ’s Hospital at Smithfield.⁸⁹

The official gates, however, were certainly not the only openings through the wall. In Stow’s list of gates, he also notes a “simple breach” through the west side of the wall between Ludgate and Blackfriars leading to “a bridge of timber over the Fleet” that he calls “Bridewell Gate.” Bridewell Gate appears on the Agas map and is mentioned in a few other sources examined for this dissertation. It was probably a purpose-built gate that provided limited access to the grounds of Bridewell prison, or its earlier incarnation, Bridewell Palace, which was situated just across the Fleet River. In *Londonopolis*, James Howell lists the seven main gates, but in the next breath he says, “for I willingly omit the smaller.”⁹⁰ The breach at Bridewell and the comment by Howell tell us that, by the seventeenth century, the wall had been breached in a number of other places in addition to the main gates. In a study of the Tower postern gate, the Museum of London Archaeology Service (MLAS) reports that they have found evidence of such breaches in many places, such as a small doorway from the dormitory of Holy Trinity Priory near Aldgate. The MLAS asserts there were almost certainly a number of these private gates, but it is difficult to know the actual number as those who constructed them rarely provided

⁸⁹ Kingsford, “Gates in the wall of this Citie,” Stow’s *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60020>.

⁹⁰ Howell. *Londonopolis*, 4.

documentation.⁹¹

Private and purpose-built gates serviced a small number of users, but the seven main gates were the primary means of gaining access to the walled city. Travelers exiting the city would slow at the gates due to traffic. Once outside the gates, travelers would pass out of the city proper into a narrow perimeter around the walls where, except for a few areas called “liberties,” the city still held jurisdiction. A good example would have been the space between Ludgate and Temple Bar—roughly four-tenths of a mile. Within this area was the Temple liberty—an area that acted as its own local authority. Then, as now, it was the heart of London’s legal district and is still outside of the city’s jurisdiction—although the relationship in many matters is closely intertwined.⁹²

Upon reaching the limits of this perimeter, the traveler would again slow down upon approaching the bars, such as Temple Bar mentioned in the example above. At the bars, the city collected tolls from incoming merchants and, according to *The London Encyclopedia*, attempted to stem the tide of “rogues, vagabonds, and lepers.”⁹³ In most cases, the bars took the form of posts driven into the ground like at Aldgate, or guard houses in the middle of the road like those without Bishopsgate, Aldersgate, and Holborn. Temple Bar, however, was a formal gate of the same stature as the seven main city gates.⁹⁴ Additionally, there was a bar at the Smithfield

⁹¹ David Whipp. *The Medieval Postern Gate by the Tower of London*. London: Museum of London Archaeology Service, 2006, 2.

⁹² “The Inn as a Local Authority,” at The Honorable Society of the Middle Temple, <http://www.middletemple.org.uk/about-us/the-inn-as-a-local-authority>.

⁹³ Hibbert, et.al., *The London Encyclopaedia*, Locations 21601-21606.

⁹⁴ Forms of the bars at Aldgate, Bishopsgate, Aldergates, and Holborn as shown on the Agas map.

Market that sat at the intersection of several roads leading into the city from the north.⁹⁵ After passing the bars, travelers would move into the intercity space beyond.

The gates were no wider than the narrow streets, and the fabric of their structure narrowed the passageway even further. Pre-fire images of the primary gates, such as Bishopsgate and Moorgate (figure 4), show that these gates had a wide archway for cart and horse traffic, and some had side walkways for pedestrians. The Great Fire damaged both Bishopsgate and Moorgate, but a 1720 image (figure 5) by Sutton Nicholls shows that Bishopsgate was repaired, and Moorgate was replaced but rebuilt to the same style as the pre-fire gate—although the central arch appears to be wider. It is hard to determine the actual width of the central archway, or whether they could easily handle two-way traffic, but a comparison of images showing Temple Bar from different periods may help. An image of Temple Bar from 1667 (figure 6) shows that the old wooden gate had the same design as Bishopsgate and Moorgate. The image of Wren’s 1672 gate (figure 7), however, shows a slightly different design, where the central arch was wider and the walkways narrower. This comparison also appears to show that the central archways on the pre-fires gates were forty to fifty percent narrower than the Wren gate. Finally, an 1877 image of a very busy Temple Bar (figure 8) shows the central arch easily handling two-way carriage traffic, even with the later additional of a support column in the central arch. Nevertheless, if the pre-fire gates were, indeed, as narrow as the images suggest, it implies that multi-directional traffic may have been problematic and the city gates were a significant traffic bottleneck—especially at busy times. In 1662, John Graunt complained of “intolerable stops, and embarrasses of coach—Ludgate being the worst

⁹⁵ These roads shown on the 1572 edition of the Braun and Hogenberg map.

offender.”⁹⁶ Traffic at the city gates was especially a problem in times of emergency, such as on 3 September 1666 when people were fleeing the city in the wake of the Great Fire and Pepys discovered that “there was no passing with anything through the postern, the crowd was so great.”⁹⁷

While the gates were, indeed, somewhat narrow, traffic through them was further complicated by the fact that they were closed overnight. In the early modern period, the gates were generally closed between 10pm in the evening and 4am in the morning.⁹⁸ Pepys, who often rose early and came home late, frequently found it necessary to plan his nighttime activities around the nightly closures. These times were not set in stone, however, and knowing this, Pepys hired watchers on a few occasions when he was out late to let him know when the gates were about to close, so he would not get stuck outside.⁹⁹ Although the times could vary, gate closures throughout the medieval and early modern periods occurred a few hours, seasonally adjusted, after sunset. The closures could be affected by unforeseen events, however, and the gates could close much earlier—the earliest found during the research for this dissertation was during the Peasant’s Revolt in the fall of 1381, when the gates were ordered closed at 6pm, and to stay closed for a full twelve hours until 6am.¹⁰⁰

⁹⁶ Graunt, *Natural and Political Observations*, 53. [n.b. “Embarasses” is defined here as anything that hinders or impedes progress.]

⁹⁷ Latham and Matthews. *Diary of Samuel Pepys*, volume 7, 273.

⁹⁸ Bucholz and Ward. *London*, 43.

⁹⁹ Latham and Matthews. *Diary of Samuel Pepys*, volume 3, 73 & 111.

¹⁰⁰ Sharpe, *Letter Book H*, Folios 137b, 173. [n.b. To track the seasonal closures of the gates during the medieval period see London’s *Letter Books, C thru H* which shows times as early as 6pm and as late as 9pm. Comparing the stated times to seasonal sunset and sunrise shows the gates closed, on average, about 2.5 hours after sunset in the middle ages.]

The Thames “Superhighway” and Other Waterways

So far, this chapter has discussed only land-based infrastructure, but the City also maintained infrastructure on the waterways, including some maintenance of the fabric of the river itself. By royal decree by Richard I in 1197 and a series of subsequent acts, the city of London had responsibility for maintaining a fifty mile (eighty-one kilometer) stretch of the Thames as a navigable waterway.¹⁰¹ That responsibility mandated that the City keep the river free of obstructions—both manmade and natural. The natural flow of the river and its tributary waterways required the City to periodically dredge the shoreline to maintain a navigable depth and keep it a serviceable waterway. London’s efforts to keep the Thames free of manmade obstructions will be discussed in chapter three, but in terms of riparian infrastructure, however, the south side of the city facing the Thames was defended by “gates” as well. Crossing London Bridge, a traveler would encounter physical gates at both ends. True, there was no wall along the riverside, but in order to travel to the shore it was necessary to negotiate a steep drop from the city streets. Access to the shore was achieved by a series of “water-gates”, that took the form of stairs and ramps that led to public landing places. Along the north bank of the Thames, Stow lists fourteen water-gates within the city and the liberties, but the Agas map identifies nineteen and shows an additional nine or ten that are unidentified between the Tower and Temple Bar. Stow tells us that there were many “put to private use” and many which “the olde names of them [are] forgotten.”¹⁰²

Reaching the shoreline, the traveler came upon, arguably, the most significant

¹⁰¹ Sharpe, *Letter Book I*; Peter Ackroyd. *Thames, The Biography*. New York: Nan Talese/Doubleday, 2007. Kindle Edition: Location 2432.

¹⁰² Kingsford, “Gates in the wall of this Citie,” Stow’s *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60019>.

thoroughfare in early modern London: The Thames. Frustrated with the narrow streets or the traffic, it was possible for early modern travelers to bypass them by riding on the river. They did this in great numbers and the river was always alive with activity. London clergyman, Donald Lupton (*d.* 1676), wrote that the Thames is “seldom without company—only at night and in rough weather.”¹⁰³ The diary of Sam Pepys is filled with descriptions of travel up and down the Thames as he traveled between his office near the Tower of London to Westminster, to Greenwich, and to Gravesend. He also used it to travel shorter distances within the city, such as from the Tower to Whitefriars, about 1.5 miles. Raphael Holinshed compared the activity on the river to an infinite flock of swans and counted the numbers as “two thousand wherries and small boats, whereby three thousand poore watermen are maintained, through the carriage and recarriage of such persons a passé or repasse, from time to time upon the same.”¹⁰⁴ Far surpassing the capacity of the City’s streets, the Thames was the superhighway of the age.

To cross the Thames, and London’s interior waterways, the city maintained a series of wood and stone bridges. In ancient and medieval eras, the city had dug a defensive ditch around the city, but by the seventeenth century, in many places, it had long ago filled with silt and debris. In places where the defensive ditch still existed, a series of stone-paved, street level, causeways crossed over it. In the west, over the City’s other semi-navigable waterway, two great stone bridges arched over the Fleet River without Newgate and Ludgate, along with several timber bridges, such as the aforementioned bridge at Bridewell gate. Between the fifteenth and sixteenth centuries, the city began vaulting over a third river that ran through central London

¹⁰³ Donald Lupton. *London the Country Carbonadoed & Quartered into Several Characters*. 1632, 21.

¹⁰⁴ Holinshed, *Chronicles of England, Scotland, and Ireland*, volume 3, 82.

near the east end of Cheapside called the Walbrook.¹⁰⁵ It was completely covered by 1598 when Stow compiled his first edition of the *Survey*¹⁰⁶ and there is no trace of it on the 1633 Agas map. Although it can be seen outside the city wall, inside the city it is totally covered by Walbrook and Dowgate Streets. The Walbrook suffered this fate because it had become an open sewer and was “stopped up by divers filth and dung thrown therein by persons who have houses along the said course.”¹⁰⁷ The Fleet River would suffer the same fate, for the same reasons, beginning in the 1730s and would be completely covered over by the 1870s.

The bridge that has long held a place in popular imagination, however, and struck awe into all who saw it in the early modern period, was London Bridge. It was the only bridge across the Thames, inside the city of London, until the construction of Blackfriars in 1769. According to all sources, there has been a London Bridge in some form since the Roman era. The earlier incarnations of the Bridge were wooden structures and fire and flood periodically destroyed them. There is no record of a bridge between the seventh and ninth centuries so it would appear there were times when it was destroyed and not rebuilt for long periods.¹⁰⁸ Since the tenth century A.D., however, a bridge has existed continuously at about the same site as the current bridge.

¹⁰⁵ Kingsford, “Bridges of this Citie,” Stow's *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60019>.

¹⁰⁶ Kingsford, “Of the Ancient and Present Rivers,” Stow's *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60017>.

¹⁰⁷ Hibbert, et al., *London Encyclopedia*, location: 50795-50805.

¹⁰⁸ Patricia Pierce. *Old London Bridge: The Story of the Longest Inhabited Bridge in Europe*. London: Headline Book Publishing, 2001, 34.

The great stone bridge that seventeenth century Londoners used on a daily basis had its origins in the late twelfth century, when Peter, Chaplain of St. Mary's Colechurch, a master bridge builder, commenced its construction in 1176.¹⁰⁹ Simply known as "The Bridge," due to its impressive size and its singularity until the construction of Fulham/Putney Bridge, several miles upriver, in 1729, London Bridge was a stone structure approximately nine hundred feet in length,¹¹⁰ sixty feet high, and thirty feet wide. Houses and businesses covered the Bridge, and the roadway cut a path through them, so to observers, London Bridge appeared to be a city street suspended in mid-air. A thirty-foot wide drawbridge intersected the roadway at the gate on the Southwark end, allowing tall-masted ships to pass. The bridge sat on twenty huge starlings of stone, dirt, and gravel on a foundation of thousands of wood pilings driven deep into the riverbed. Because of the number of starlings, which blocked more than half of the width of the river,¹¹¹ the bridge had a damming effect on the Thames and according to witnesses, the pressure of the tide forced the water through the openings "with a great roar."¹¹² We will discuss the experience of navigating the Thames and passing under the bridge in chapter three, but old London Bridge must have been an awesome sight. Judging by surviving images, the Bridge was, indeed, an impressive piece of medieval transportation technology. In 1641, James Wadsworth declared "London Bridge is not to be forgotten," and James Howell, risking the wrath of the gods, declared that even Poseidon observed the bridge in awe.¹¹³

¹⁰⁹ Ibid., 34. [n.b. Peter of Colechurch also designed and built the last wood London Bridge in 1163.]

¹¹⁰ Kingsford, "Of the Ancient and Present Rivers," Stow's *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60017>; Peter Jackson. *London Bridge*. Lake Havasu City (Arizona): McCulloch Properties, Inc., 1971, 10. [n.b. Actual length of London Bridge in this period is debatable. Stowe places it at eight hundred feet, while Peter Jackson says nine hundred.]

¹¹¹ Pierce, *Old London Bridge*, 45.

For all of the poetry it inspired, however, the bridge was full of inefficiencies. First, it was enormously expensive to maintain. Second, the damming of the river created by its construction caused the water to pile up on the western side of the bridge creating a substantial navigation hazard for those who passed under it. Finally, the width of London Bridge was thirty feet—approximately twice the average width of London streets—but the buildings on the bridge reduced the roadbed to a bit more than twenty feet, just two feet more than the width of Carter Lane mentioned earlier in this chapter. That number, however, is disputed, and estimates in the secondary literature, report the width of the Bridge’s roadway as small as twelve feet.¹¹⁴ Since London Bridge was the only access point to the city from the south bank, the Bridge was very busy, and traffic was a constant problem.

Paying the Bills: Funding the City’s Transportation Infrastructure

As may be expected, even with the burden of street maintenance shared with property owners, the cost of maintaining London’s transportation infrastructure was very expensive. How did the city generate the capital needed to maintain the streets, bridges, and other transportation infrastructure? Such expenditures for a major city, even in the early modern period, would have been significant, and during the medieval and early modern periods various methods were used to fund infrastructure maintenance.

Peter Colechurch’s London Bridge was enormously expensive to maintain—mostly due to the fact that its construction pushed the envelope of twelfth century construction technology

¹¹² Schellinks, *Journal*, 56.

¹¹³ James Wadsworth. *The European Mercury Describing the Highways and Stages from Place to Place Through the Most Remarkable Parts of Christendom*. London: H.Twyford, 1641, 121; Howell, *Londonopolis*, A1.

¹¹⁴ Walter Besant. *The Thames*. London, Adam and Charles Black, 1903, 4.

and it was easily damaged; both fire and storm periodically destroyed portions of it. By the early modern period, funding came from tolls on vehicles passing over it and ships passing under it; rent from leases on land throughout the realm; and gifts and bequests.¹¹⁵ The latter two go hand-in-hand: although the earliest leases were for buildings on the bridge itself,¹¹⁶ gifts and bequests often came in the form of property. The earliest such gift came from Henry Fitz-Ailwyn (c.1135-1212), lord mayor of London from 1189-1212, who gifted property in St. Swithin's parish—on the east bank of the Walbrook in 1189.¹¹⁷ This portfolio of properties would continue to grow and endowed the bridge's repair throughout the early modern period and well beyond.

In the beginning maintenance of the bridge was assigned to leaseholders. Possibly as early as 1275, the exact date is uncertain, and probably due to ill-management on the part of one such leaseholder, the Queen Consort, Eleanor of Provence (1223-1291), the city assumed control of the Bridge's maintenance and formed Bridge House Estates to provide oversight.¹¹⁸ Bridge House continued oversight throughout the remainder of the medieval era and into the early modern period. The other bridges in London, Fleet Bridge, Holborn Bridge, etc., appear to have been part of street maintenance and not under the purview of Bridge House Estates, although the Estates were a primary player in the creation of additional bridges across the Thames when they

¹¹⁵ Harben. "London Bridge Waterworks" in *A Dictionary of London*, <http://www.british-history.ac.uk/report.aspx?compid=63209>.

¹¹⁶ Tony Sharp. *The Origins of the Bridge House-Yard and Bridge House Estates*. London: Southwark Council, 2010, 9 & 15. https://www.academia.edu/3177222/The_Origins_of_the_Bridge_House_-_Yard_and_Bridge_House_Estates_a_review_of_their_early_history_as_civic_and_religious_institutions. URL verified: 25 August 2016.

¹¹⁷ *Ibid.*, 9.

¹¹⁸ *Ibid.*, 20.

first appear in the eighteenth century.

On the streets, as noted above, the cost of the bulk of street maintenance was the responsibility of individual property owners. To make sure the owners did their duty, fines for non-compliance were a part of the system since the earliest days. In addition, there were fines levied against those who refused to serve as officers (scavengers, etc.), and against wards and parishes that failed to appoint such officers. The Lord Protector's 1654 ordinance for street and road repair levied a fine of £20 against parishes that refused to appoint the requisite number of officers, and if a citizen refused to serve, the fine was £10.¹¹⁹ After the Restoration, the 1662 act increased the non-compliance penalty for failing to serve to £20.¹²⁰ Both acts also carried fines for property owners who failed to pave, sweep, and maintain the streets. In many cases, the legislation allocated these fines for street maintenance.¹²¹

Fines would have been an unreliable source of funding—the city couldn't count on the level of non-compliance to be consistent from year to year, and the whole point of fines was to discourage the offending activity. One answer could have been tax assessments, and there were a few assessments for transportation maintenance—mostly for repair of the city gates and enacted as needed. There was a tax called "quarterage" imposed on members of the companies that London earmarked some of which for street cleaning from time-to-time.¹²² Cromwell

¹¹⁹ "March 1654: An Ordinance for the Better Amending and Keeping in Repair the Common High-ways Within the Nation," in *Acts and Ordinances of the Interregnum, 1642-1660* (1911). <http://www.british-history.ac.uk/no-series/acts-ordinances-interregnum/pp861-869>. URL verified: 24 August 2016.

¹²⁰ "13-14 Charles II, c.2" in Anonymous. *Statutes at Large, 1640-1667*, 158.

¹²¹ Examples: See URL of 1654 in note 93 above & "13-14 Charles II, c.2" in Anonymous, *Statutes at Large*, 155-158.

¹²² Sharpe, *Letter Book H Folio 256, 360*. [n.b. Pay for Raykers in 1390.]

imposed a tax assessment in the 1654 highway act,¹²³ and assessments would continue to be part of infrastructure legislation from that point on. It could also be argued that the responsibility to bear the cost to clean and repair the streets in front of an individual's property was, technically, a tax for maintenance of the common soil. A better method, however, would have been one that shifted the cost away from the city and its citizens, had the potential to grow with each passing year, and relied on dividend income from the city's existing assets. London found this source of funding in the assessment of tolls.

The reasons given for the first transportation-related tax assessment in 1337 illustrates the importance of tolls. The assessment—for repair of the city's gates—occurred because the city was experiencing a financial shortage in the wake of supporting the King's campaign in Gascony and, at the same time, expending a lot of money to combat a Parliamentary ruling providing free access to markets throughout the realm. The 1335 free trade agreement granted a license from the crown to foreign traders, called “merchant strangers,” to trade anywhere in England, contravening rights granted to cities by charter. Interestingly, the law specifically exempted the city of London, but the city opposed the agreement because they believed it to be “opposed to the liberties of the city” [London] and set a dangerous precedent which could be used to nullify portions of their own charter at some point in the future.¹²⁴

Why was free trade an issue in medieval London? The ability to charge fees to visiting merchants, including merchants from other cities and towns in England, for access to the city's

¹²³ 'March 1654: An Ordinance for the better amending and keeping in repair the Common High-ways within the Nation', *Acts and Ordinances of the Interregnum, 1642-1660* (1911), pp. 861-869. URL: <http://www.british-history.ac.uk/report.aspx?compid=56535>.

¹²⁴ Sharpe, *Letter Book F*, Folio 5b, III & 8. [n.b. In this period “foreign traders” referred to anyone from outside the city, including other parts of England, and not limited to traders from other countries.]

markets was a lucrative source of capital for public expenses. It was, indeed, the primary source of transportation maintenance funding throughout the middle ages and remained even after-tax assessments became standard in the late early modern period. Even in the twenty-first century, governments still charge for access to internal markets in the modern version of tolls—import duties. Imposing fees on foreign merchants was probably more politically-sensitive than assessments for medieval and early modern Londoners—they were, after all, imposed on outsiders.

For transport maintenance funding, there were three main tolls: pavage for the paving and repair of the roads; pontage for bridges, and murage for repair of the city's walls, including the gates. These tolls appeared early in the Letter Books—the first mention of murage occurred in 1278.¹²⁵ Examples of the murage tolls included 1/2d per measure of cumin, 6d per cask of honey, and 12d per measure of greywork (furs), and 18d per measure of wood. In 1308, murage alone yielded the city at least £94/9/6 in tolls.¹²⁶ Extrapolating from this amount, based on a median value of a 3.7d toll per measure of merchandise, this represents an average of 6128 individual toll transactions (i.e. number of measures of merchandise brought into the city) in 1308.¹²⁷ In addition, this total, compiled from a list of toll collection leases, reflects only the amount promised to the city in return for the lease in 1308. In reality, the number of tolls was much higher. Add in pontage, and pavage—all of which went to transport/infrastructure repair—and transport maintenance was able to tap into a very substantial source of funding.

¹²⁵ Sharpe, *Letter Book A*, Folio 132, 223.

¹²⁶ Sharpe, *Letter Book C*, Folio 94b, 161-163.

¹²⁷ For the basis of this calculation, see appendix B.

Tolls were a great benefit for other city expenditures as well. Visiting merchants also paid tolls to enter the city with their goods (passage or kayage¹²⁸), set up stalls (stallage), plus a toll on each product sold (scavage) and a fee to the city's liveries for permission to trade (gilda mercalorum).¹²⁹ Tolls continued to be a source of income for the city well into the early modern period and expanded to other goods, such as one imposed on animal brought into the city. A surviving log shows the tolls from a single month, September 1727, collected at Holborn, Temple, Smithfield and Aldersgate bars for animal imports alone, totaled £115/0/5, more than the total collected from murage in the entire year of 1308 mentioned above.¹³⁰ In addition, the 1662 highway act mentioned a new, or increased, toll on hay and straw.¹³¹ If the economy was good, or even stable, this was, indeed, a fairly reliable and significant source of income for the city.

There was one more source of funding for transport-related maintenance: bequests of money or incomes. Bequests were never a significant source of income, but there were enough of them to warrant mention here. Between 1307 and 1485, the *Calendar of Wills Proved and Enrolled in the Court of Husting* and the *Letter Books* lists 146 separate bequests for repair of streets and bridges, over 100 of them for London Bridge alone, and nearly thirty for repair of the streets. The bequests took the form of outright gifts of money or income from rents—although

¹²⁸ Kayage was a toll for unloading goods from ships.

¹²⁹ Sharpe, *Letter Book E*, Folio 98, 140 footnotes.

¹³⁰ London Metropolitan Archives. *Rough weekly account: tolls collected at Smithfield Market and the City Gates*, 1603, 1727-1727CLA/016/FN/01/007.

¹³¹ "13-14 Charles II, c.2" in Anonymous. *Statutes at Large, 1640-1667*, 154.

in some cases, it appears the property stayed with other beneficiaries.¹³²

Salisbury-Jones links the early bequests to the deplorable conditions of the roads early modern Londoners traveled daily in the medieval period—testators felt a need to have their will make a positive impact by providing for the improvement of the roads they frequently traveled in life.¹³³ William Jackman makes the same type of argument: he links the generosity of early testators to the idea that keeping the roads in good repair was a “pious and meritorious work before God, of the same sort as visiting the sick or caring for the poor.”¹³⁴ Whatever the motivations, this does seem to have been a medieval practice; nearly seventy of the bequests appear in the period before 1360. From 1360, the bequests change from gifts of specific amounts to small percentages of the estate, then the residual of the estate, if any. The bequests dwindled to practically nothing at about the accession of Henry VII in 1485—although, Henry, himself, left £2000 for the repair of highways and bridges in and around London.¹³⁵ There is little to indicate why this decline occurred. It may indicate a pre-Reformation decline in the belief, as defined by Jackman above, in the efficacy of pious acts as a path to salvation—at least for street maintenance and repair. Another possibility is that the decline might simply reflect a change in reporting practices. The gifts to the city for repair of the roads and bridges may have continued unabated and reported elsewhere. A perusal of the post-1485 indexes to the *Repertories of the*

¹³² These statistics compiled from *Calendar of Wills Proved and Enrolled in the Court of Husting, London, 1258-1666, volumes 1 & 2*, ed. R R Sharpe. London: Her Majesty's Stationery Office, 1889.

¹³³ Salisbury-Jones. *Street Life*, 24.

¹³⁴ William T. Jackman. *The Development of Transportation in Modern England, Volume 1*. Cambridge (England): University Press, 1916, 5.

¹³⁵ 'Henry VIII: April 1509,' in *Letters and Papers, Foreign and Domestic, Henry VIII, Volume 1, 1509-1514*, ed. J S Brewer (London: His Majesty's Stationery Office, 1920), 1-8, <http://www.british-history.ac.uk/letters-papers-hen8/voll/pp1-8>.

Court of Aldermen and Journals of the Court of Common Council, however, the official organs of the city where the City recorded wills, also shows a similar decline in the number of wills that designated the city as a beneficiary.¹³⁶ There were still bequests for maintenance in the early modern period. In 1508, John Nichols (1484-1530), the son-in-law of Stephan Jenyns (1450–1523), a former mayor of London, left lands to generate income to repair London’s pavements.¹³⁷ Seven decades later, the 1654 highways act still had provisions for “charitable gifts for amending roads and highways,”¹³⁸ but it appears that it had ceased to be a significant source of funding by that time.

¹³⁶ London Metropolitan Archives, COL/CA/01/02, *Indexes for the Repertories of the Court of Aldermen*, 1495-1857.

¹³⁷ Holinshed, *Chronicles of England, Scotland, and Ireland*, volume 3, 539. [Holinshed spelt the mayor’s last name as “Genings.” Nothing is known of the son-in-law, except that Holinshed refers to him as “Maister Nichols.”]

¹³⁸ 'March 1654: An Ordinance for the better amending and keeping in repair the Common High-ways within the Nation', in *Acts and Ordinances of the Interregnum, 1642-1660* (1911), pp. 861-869. URL: <http://www.british-history.ac.uk/report.aspx?compid=56535>; Anonymous. *Statutes at Large, 1640-1667*, 151-160.

CHAPTER THREE

THE EXPERIENCE OF MOVEMENT IN LONDON'S TRANSPORTATION SPACE

In chapter one, we indulged in a bit of imagining to define London's transportation environment as seen from atop St Paul's. Leaving our imaginary vantage point, we descend to the streets below where Londoners go about their daily lives. As they navigated the streets, they encountered both paved and unpaved streets. If the weather was good and it had not rained for a few days, the unpaved, dirt roads would be firm. Paved streets were passable after a good rain, but pits and sloughs (holes and ruts) gouged by galloping horses or iron-shod carts filled with a foul, murky liquid—a mixture of overnight rains and the daily accumulation of street waste. A common obstacle, most Londoners would probably navigate around such holes with barely a thought. While walking the streets, however, pedestrians would instinctively stop and get out of the way to avoid being splashed by the muck as a cart or carriage rolled past, kicking bits of wet gravel and dust into the air, on its way to business in the city.

This short paragraph is descriptive of the daily transportation experience of many early modern Londoners, most of whom worked within a few blocks of home. According to Stephen Inwood, there was a common feeling among many Londoners that the area outside of those few blocks was “untrodden” territory, “vast, mysterious, and unknowable,”¹ but this does not mean that Londoners were oblivious to the geography of Greater London. The surviving literature of

¹ Inwood. *City of Cities: The Birth of Modern London*, location 245. [n.b. Inwood was referring to the late nineteenth century, but this quote communicates the idea that most Londoners kept close to home in the age before mass transit.]

the period frequently mentions city dwellers traveling far and wide, both within the city and liberties, as well as to nearby communities.

Walking

Mass transit, even in its most nascent form, lay more than 150 years in the future.² The reality meant, for most citizens of seventeenth century London, that walking was still the primary mode of movement. While walking about, travelers would have encountered muddy unpaved streets along with paved streets rutted and gouged by traffic and littered with trash, along with both animal and human waste. Pedestrians may have found wooden walkways in a few places, even a few paved footpaths, but generally, pedestrians shared the streets with horses, carts, and carriages. The City's first mandated sidewalks would not appear until after the Great Fire as part of the rebuilding effort.³ In the late summer of 1666, avoiding wheeled vehicles of all sorts while walking the streets was a fact-of-life.

In *Trivia*, John Gay reported that he preferred walking to carriage or chair travel—explaining the dangers of riding thus:

The drunken chairman in the kennel spurns,
the glasses shatter and his charge overturns.
Who can recount the coach's various harms,
the legs disjointed, and the broken arms?⁴

Even among those who were willing to dare the challenges described by Gay, and those who

² London Transport Museum. "Public Transport in Victorian London, Part 1". <http://www.ltmcollection.org/resources/index.html>. [n.b. the age of mass transit is generally considered to have arrived with the appearance of the first omnibus service in 1829.]

³ Commissioners for Sewers and Pavements. Act-Common Council, Paving and Cleansing, 1671, 17-18.

⁴ John Gay. *Trivia or the Art of Walking the Streets of London*. London: Bernard Lintot, 1730, 43.

could afford to hire carriages, like Samuel Pepys, walking was an acceptable alternative. A cursory count of the number of times Pepys mentions trips made by walking shows he took 332 trips described as “on foot, by foot, or walked to.”⁵ These were not only short trips around his home but much further afield. Pepys describes walking home from Whitehall—more than 3 miles along Fleet Street and the Strand—and a walk from Whitehall to Marylebone and back again—which according to the maps of the era was a five-mile trip, much of it through open country. Pepys seemed to enjoy walking and found it relaxing. Several times he mentions that he enjoyed walking on cool, brisk mornings, and on 10 July 1665, he talks about walking about Richmond “talking and sporting with Nan the servant,” a walk he describes as “a very pretty walk.”⁶

Walking also seems to have been the frequent mode of travel for one visitor to London; the Dutchman, William Schellinks. The first thing Schellinks did upon his arrival in London on 15 August 1661, was to go for a walk from his lodging near the Tower to London Bridge to see “all the heads on steaks,” and then St. Katherines Church, where he would attend services. Over the next few weeks he walked everywhere: from Stepney to Islington on 21 August; to shops around town on the 27th; from Hyde Park to Marylebone on the 30th; and like Pepys, he just went out “walking with friends.”⁷

Walking could be risky. As mentioned above, pedestrians had to compete for space in

⁵ Latham and Matthews. *Diary of Samuel Pepys*, Volumes 1-7.

⁶ *Ibid.*, volume 1, 210 & 300, volume 6, 154.

⁷ Schellinks, *Journal*, 48-61.

the roadways with vehicles and horses—a competition they sometimes lost. Elias Asmole (1617-1692), English politician and royalist supporter in the English Civil War, reported that he was nearly killed by a cart in 1658.⁸ Nehemiah Wallington, the woodworker who had his shop in Eastcheape, one of London’s busiest areas, tells of his near-trampling by a horse in 1626 and his near-miss with a cart in 1643.⁹ These were all near misses, but deaths from run-ins with carts and horses did occur. In John Graunt’s observations on the Bills of Mortality for the plague year of 1665, he reports thirteen transportation-related deaths. The cause of nearly half those deaths was “killed by cart.” Of the remainder, two died after being trampled by a horse, and one was found already dead in the street with no cause listed, so it is possible that person may have died from being trampled or run over as well. Altogether, sixty to seventy percent of the transportation-related deaths in 1665 resulted when pedestrians lost the competition for street space.¹⁰

Thirteen is not a great number in a city of approximately 400,000 inhabitants on the eve of the Great Fire.¹¹ The idea of death by trampling, however, was definitely on the minds of our early modern commentators. In Henry Peacham’s dialogue, *Coach and Sedan Pleasantly Disputing for Place and Precedence. The Brewers-Cart Being the Moderator*, the character of

⁸ Elias Ashmole. *Memoirs of the Life of that Learned Antiquary, Elias Ashmole, Esq.* London: Charles Burman, Esq., 1717, 35.

⁹ Nehemiah Wallington. *The Notebooks of Nehemiah Wallington*. David Booy, ed. Hampshire (England): Ashgate, 2007, 62.

¹⁰ Compiled from John Graunt. *London’s Dreadful Visitation*. London: J. Cotes, 1665. [n.b. The remaining deaths were: falling from a horse-2, falling from a ship-1, and slipping in the street-1. The percentage of deaths calculated by a count of total traffic-related deaths versus those where a pedestrian was killed in the street.]

¹¹ E. A Wrigley, "Simple Model", 44.

Carr declares that the streets are so dangerous that “children that go in a morning to school, or of errands in the streets, go in danger of their lives.”¹² Nehemiah Wallington, whose twin confrontations with horse and cart appears to have affected him deeply, frequently turned his thoughts to the manner of his own death and often imagined it taking place in the streets.

Oh how often as I walk along the streets do I think of death and say to myself, what if a tile should fall off a house or some other heavy or sad accident should befall me, what are my thoughts: or what is it that I am a going about if sudden death should befall me or some other sad thing.¹³

While death by cart’s wheel or horse’s hoof was a possibility, implicit in these reports of near misses is the fact that most Londoners survived daily confrontations with horse and cart. They lived to commiserate with their brethren about the many annoyances of walking the streets of London in the seventeenth century. For many Londoners, the other frustrations were just as annoying. One such nuisance was the detritus of trash and waste in the roadway that made the streets difficult to navigate even in the best weather. Before the Black Death (1348-1351), Londoners dealt with an ankle-deep soup of dung (both human and animal), rotting animal remains from food preparation, and other waste littering the streets. The experience of walking in the muck was traumatic enough to spawn the creation, sometime in the early years of the High Middle Ages (1000-1300), of special overshoes, called “pattens,” that lifted the walker above it all.¹⁴ As London recovered from the plague, in connection with a belief that some animals and

¹² Henry Peacham. *Coach and Sedan Pleasantly Disputing for Place and Precedence. The Brewers-Cart Being the Moderator*. London: Robert Raworth, 1636, 17.

¹³ Wallington, *Notebooks*, 163.

¹⁴ BBC Two. *Filthy Cities: Medieval London*. Television Documentary. Performed by Dan Snow. Original Release 2012, timestamp 5:45 to 7:45. [n.b. Patten overshoes continued in use during the seventeenth century.]

smells (miasmas) were responsible for the spread of the plague, the City enacted new street cleaning rules that prohibited the dumping of waste and animal entrails.¹⁵ Additionally, both Stow and Holinshed report that in the 1570s and 1580s, the city co-opted the water supply to cleanse the streets by placing cisterns at high points in the city, which sluiced away dirt and debris.¹⁶ The experience of walking in the early modern period, therefore, was not nearly as bad as in the middle ages, but the streets of London still served as a dumping ground in 1666.¹⁷ J.S. Brewer, the historian of the reign of Henry VIII, reported that in the Tudor period: “None but the hardiest tradesmen and apprentices bearing their clogs [patten shoes?] and lanterns, dreamed of treading the fetid mud and mantling ditches of London.”¹⁸ Evelyn comments on it by saying that the dust, ordure cast into the street by people, and the filth tracked in on the feet of animal and humans “renders the streets of London dirty even to a proverb.”¹⁹ Pepys also complained about the dirt in April 1661. On 20 April, he remarks that “the ways being now so dirty...I would not go home.” Then on 23 April, he says “I could not go home tonight, because of the dirt and a coach could not be had.”²⁰

Add rain or melting snow to this mixture and it made for tricky navigation for the average

¹⁵ “Memorials: 1357,” in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 295-300, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp295-300>.

¹⁶ Holinshed, *Chronicles of England, Scotland, and Ireland*, Volume 3, 125; Kingsford, “Cornehill warde” Stow's *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60035>.

¹⁷ Bucholz and Ward, *London*, 40.

¹⁸ J.S. Brewer, quoted in Welch. *History of the Worshipful Company of Paviers*, 78.

¹⁹ Evelyn, *Fumifugium*, 32.

²⁰ Latham and Matthews, *Diary of Samuel Pepys, volume 2*, 81 & 87.

pedestrian. On both the paved and unpaved streets the “pits and sloughs”²¹ filled with a noxious mixture of water and street filth, and everyone had the experience of being doused by it when horses and vehicles rushed through the streets. It was so prevalent that Henry Peacham declares that “rushing coaches splash muck on everything including pedestrians.”²² In 1655, Burton’s Almanack shows that London experienced 151 days of rainy or snowy weather—more than one-third of the year. The period April through September shows 47 days of “light rain and troubled air,” while January to March and October to December show nearly constant rain or snow.²³ The near-constant rains of late fall and winter turned unpaved streets into muddy quagmires. Pepys describes a humorous incident concerning Elizabeth, Lady Batten.²⁴ Feeling snubbed by slow service at a restaurant, she stormed out into the muddy streets with her entourage, where she promptly sunk into the heavy mud and got stuck. Although initially enraged by the incident, Lady Batten later enjoyed reminiscing about it with Pepys,²⁵ but the mud could cause serious injuries and delay travel. Pepys documents a broken thigh for one woman,²⁶ falls for others; and frequently comments on his inability to walk about due to muddy streets.²⁷

In fair weather, earthen and gravel construction provided traction to walkers. Earthen

²¹ Bucholz and Ward, *London*, 55.

²² Peacham, *Coach and Sedan*, 17.

²³ W. Burton. *An Almanac for the Yeare 1655*. London: Henry Hall, 1655, 5-16.

²⁴ Latham and Matthews. *Diary of Samuel Pepys*, volume 11, 11. [n.b. Elizabeth Woodcock, second wife of William, Lord Batten.]

²⁵ *Ibid*, volume 6, 299.

²⁶ *Ibid*, volume 6, 6.

²⁷ *Ibid*, volume 3, 279; volume 4, 41.

streets gave slightly underfoot, and the rough edges of graveled streets grabbed the soles of shoes allowing travelers to come to a quick stop, avoid pitfalls and stay on their feet. Rain turned the earth to mud diminishing this benefit, but with the arrival of icy weather, it disappeared entirely as the muddy streets froze in place. In *Trivia*, John Gay relates that the cold froze both the muck and sewers in the middle of the streets: “Winter my theme confines; whose nitry wind shall crust the flabby mire, and the Kennels bind.”²⁸ Frozen ruts and holes in the streets meant travelers had to be cautious of tripping, slipping, or twisting an ankle. The soft earth that gave beneath the feet of passing walkers became hard and slippery with the cold weather. When the ice thawed, it made these conditions worse, and travelers suffered from both icy and muddy streets and “there is no passing but by coach in the streets, and hardly that.”²⁹

From the descriptions of our early modern witnesses, it would appear that city administrators cared little for keeping the streets clean, but is that an accurate assumption? City officials could not do anything about the weather, although the scavengers had some responsibility for snow and ice removal,³⁰ and city paviours eventually filled the pits and sloughs, but it is also true that street cleaning occupied quite a bit of the city’s attention. In contrast to the infrequent legislation on street paving mentioned in chapter one, rules on street cleaning appeared very early, and often, in city records. The cleansing of the streets is the first

²⁸ Gay, *Trivia*, 34.

²⁹ Latham and Matthews. *Diary of Samuel Pepys*, volume 6, 3 & 309; volume 4, 38 & 41.

³⁰ 'Streets, Walls and Ditches,' in *Analytical Index To the Series of Records Known As the Remembrancia 1579-1664*, ed. W H Overall and H C Overall (London: EJ Francis, 1878), 480-483, <http://www.british-history.ac.uk/no-series/index-remembrancia/1579-1664/pp480-483>; 'James 1 - volume 119: February 1621,' in *Calendar of State Papers Domestic: James I, 1619-23*, ed. Mary Anne Everett Green (London: Her Majesty's Stationery Office, 1858), 218-230, <http://www.british-history.ac.uk/cal-state-papers/domestic/jas1/1619-23/pp218-230>.

street maintenance task mentioned in *Letter Book A*,³¹ and it is mentioned more than fifty times in the 200-year period covered by *Letter Books A through L* (1275-1495). This number suggests that the city felt it necessary to remind citizens to keep the streets clean approximately every few years. A closer examination shows only ten of these instances occurred in the seventy-five years before the Black Death (1348-1351), once every 7.5 years. The pattern changes in the fifteen years (1352-1374) following the plague, when the city produced eight. According to Ernest Sabine, this indicated the city's effort to return to normalcy after street conditions had badly deteriorated during the plague period.³² Still, after 1374, the number of entries remained high, and the 120-year period from 1374-1495 generated an additional thirty-six additional orders to keep the streets clean—approximately, one order every 3.3 years. After 1495, the number of orders declined significantly, but entries concerning street cleaning never stopped entirely and were part of all city legislation on street maintenance right up to the Great Fire.³³

The number of orders to cleanse the streets prompts a question: what motivated the city fathers to make such an issue of keeping the streets clean after the recovery from the plague? There was certainly a heightened sense of the connection between conditions in the environment, e.g. animals and filth, but also recognition of the speed at which the environment could deteriorate without proper maintenance. Unfortunately, the compilers of the *Letter Books* rarely explain the motivations behind keeping the streets clean. In a few cases, however, they allude to

³¹ Sharpe, *Letter Book A*, Folio 88b, 219.

³² Sabine. "City Cleaning in Mediaeval Europe," 28.

³³ These numbers compiled from the *Calendar of Letter Books* through 1495 and the *Indexes of the Court of Common Council and Court of Alderman, 1495-1666*.

London's reputation, such as in the text of the oath of Scavengers where they pledge to keep the streets clean "for the honor of the city."³⁴ We also find this link between street cleaning and the honor of the city recorded in Edward III's Close Rolls. In an entry from 30 September 1357, the author of the close rolls wrote: "as in the time of the king's progenitors the streets, lanes and other places in that city and its suburbs used to be cleansed of refuse and filth, and to be kept from corruption thence arising, whereby no small honour accrued to the city and those dwelling therein."³⁵ That same document identified a link between the smells from the dirty streets and disease when it says "noisome smells arise therefrom, whereby great danger may arise to men dwelling in the city."³⁶

The reputation of the city was certainly important to a growing economy as it developed in the centuries after the Black Death, but in terms of transportation, however, entries in the *Letter Books* also imply *free movement* as a motivation for cleaning the streets. The very first entry in *Letter Book A* concerning street cleaning from the Mayoralty of Gregory de Rokeslee (1274-1280) required that the street be kept *free of obstructions*, "such as dung in the streets."³⁷ During the same period, it noted that "all lanes leading to the Thames...be forthwith cleaned, so that horses and footmen may approach the Thames freely and without hindrance."³⁸ The 1297

³⁴ Sharpe, *Letter Book D*, Folio 85, 192. [n.b. the text of the oath states "for the honeste of the city."]

³⁵ "Close Rolls, Edward III: October 1357," in *Calendar of Close Rolls, Edward III: Volume 10, 1354-1360*, ed. H C Maxwell Lyte (London: His Majesty's Stationery Office, 1908), 420-425, <http://www.british-history.ac.uk/cal-close-rolls/edw3/vol10/pp420-425>.

³⁶ Ibid.

³⁷ Sharpe, *Letter Book A*, Folio 88b, 183. [Emphasis added.]

³⁸ Sharpe, *Letter Book A*, Folio 130, 218.

Regulations for the Safe-Keeping of the Streets contained the following order: “that everyone shall keep clean the front of his tenement, that so the streets be delivered from all encumbrances.”³⁹ In the aftermath of the Black Death, the 1357 *Proclamation for the Preservation of Order and Cleanliness in the City*, demands that the streets be cleaned and repaired “for the decency of the city and all who pass therein.”⁴⁰ If we allow that the streets were designed for movement of people and vehicles, we must define terms such as “encumbrances,” “hindrances” and “obstacles” as anything that hinders movement. As if in confirmation of this assertion, a phrase in a 1646 act of the Common Council declares, succinctly, filthy streets “hinder passengers on their way.”⁴¹

According to Goronwy Tidy Salusbury-Jones, one of the earliest methods used to clean the streets was to release herds of pigs to forage.⁴² The Letter Book gave no reason, but the City forbade this practice in 1281,⁴³ but a few years later, in 1297, the City began to demand that property owners periodically sweep the streets bordering their properties.⁴⁴ This responsibility

³⁹ 'Memorials: 1297,' in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 33-36, accessed January 16, 2015, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp33-36>.

⁴⁰ 'Memorials: 1357,' *Memorials*, 295-300, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp295-300>.

⁴¹ City of London. *An Act of Common Council Made the Sixth of October 1646 for the Reformation of Sundry Abuses Practiced by Divers Persons in the Common Markets and Streets of the City of London*. London: James Flesher, 1656, 7.

⁴² Salusbury-Jones. *Street Life in Medieval England*, 66.

⁴³ “Memorials: 1281,” in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 20, accessed January 16, 2015, <http://www.british-history.ac.uk/no-series/memorials-london-life/p20>.

⁴⁴ Memorials: 1297. <http://www.british-history.ac.uk/no-series/memorials-london-life/pp33-36>. [n.b. Vespers were evening prayers.]

mirrored that of street paving, to the channel in the middle of the streets, and property owners still had this responsibility in the 1660s. By that time, however, property owners were expected to sweep the streets twice a week.⁴⁵ During the plague of 1665, this mandate expanded to every day.⁴⁶ The refuse collected by property owners was stored somewhere on their property, off the streets, out of sight, for collection by the scavengers and their subordinates, the rakers (raykers).

From the simple command to remove “obstructions, such as dung in the streets” in the late thirteenth century,⁴⁷ legislation on street cleaning evolved to a very exact system of instructions for the disposal of refuse in 1662. The *Highways and Sewers Act* (13 Charles II, Cap. 2), passed by Parliament in that same year, contained instructions on when owners were to clean the streets, where and how they would store the refuse for collection, and who would take care of collecting it, i.e. the scavengers and rakers, along with additional rules prohibiting potentially polluting activities.⁴⁸

Riding on Land

For those with the ability to pay there were alternatives to walking. Travelers could

⁴⁵ “13-14 Charles II, c.2 “ in Anonymous. *A Collection of the Statutes at Large, Now in Force Beginning in the Sixteenth Year of the Reign of Our Late Sovereign Lord, King Charles I, Anno 1640 and ending in the Nineteen Year of the Reign of our now Sovereign Lord, King Charles II, Anno 1667, with the Titles of Such as are Expired and Repealed.* London: Jon Bill and Christopher Barker, 1667, 155.

⁴⁶ City of London (England). *By the Mayor, to the Alderman of the Ward of [blank] : whereas by a late Act of Parliament, for repairing the high-waies and sewers and for paving and keeping clean of the streets in and about the Cities of London and Westminster, &c. (amongst other things) enacted and commanded.* London: James Flesher, 1662; City of London. *The Orders and Directions of the Right Honourable Lord Mayor and Court of Aldermen to be Diligently Observed and Kept by the Citizens of London During the Time of the Present Visitation of the Plague.* London: George Horton, 1665, 3.

⁴⁷ Sharpe, *Letter Book A*, Folio 88b, 183; Anonymous. *Statutes at Large, 1640-1667*, 151-160.

⁴⁸ “13-14 Charles II, c.2 “ in Anonymous, *Statutes at Large*, 155-156.

purchase personal transport or hire a horse, hackney coach, or sedan chair. Carriages, introduced from the continent in the mid-sixteenth century, were drafted for hired coach service very early in the next century and crowded London's streets by the eve of the Great Fire. There were so many, in fact, that the city was forced to limit their numbers to three hundred in 1654, then to four hundred in 1662.⁴⁹

A personal carriage was well out of the means of any but the wealthy. Most mentions of personal carriages by our witnesses connect them primarily to the aristocracy, although "plain and modest" coaches were also popular among the City merchants.⁵⁰ For others, however, it was possible to hire a ride in a hackney coach. Hiring a coach could be pre-arranged or it was possible to find a ride standing in many streets. There were non-standing zones where the city reserved space for "gentlemen's coaches"⁵¹ only, or places where the streets were very narrow. If going outside the city, interurban coaches had boarding points at inns and other venues, mostly outside the gates, but otherwise, coaches could wait for fares anywhere. For example: there were non-standing zones outside the Royal Exchange and the New Exchange, as well as the gates of the Inns of Court. The City also had a blanket provision that prohibited coaches from standing outside the main entrances of private homes or businesses. Although it was not possible to find

⁴⁹ Jenner, "Circulation and Disorder", 43; Anonymous. *A List of the 400 Hackney Coaches Licensed by the Commissioners Appointed by the King's Majesties Commission under the Great Seal of England*. London: The Leach, 1662, 1.

⁵⁰ Hibbert, et.al., *The London Encyclopaedia*, location: 49041-49067.

⁵¹ Commissioners for Sewers and Streets. *Orders, by-laws, and ordinances, for the good government and regulating of the persons licensed to keep and drive hackney-coaches within the cities of London and Westminster, and the suburbs thereof* Standing zones were part of legislation on carts and predated the introduction of hackney coaches. Provision III & IV. http://gateway.proquest.com.flagship.luc.edu/openurl?ctx_ver=Z39.88-2003&res_id=xri:eebo&rft_id=xri:eebo:image:173145. Accessed 12 January 2017.

explicit permission to “hail a coach,” the ability to do so is implicit in the language of the rules regarding hackney coaches that allowed them to ply their trade, except in prohibited areas.⁵²

Riding in a hackney coach in 1662 meant travelers could ride from the Inns of Court, at the western-most edge of the city, roughly half-way across town to the Royal Exchange for 12d. The same trip to the eastern wall, e.g. Bishopsgate or the Tower, would cost 18d (1s 6d). It was also possible to hire by the hour at 18d for the first hour and 12d for each hour after that.⁵³ Legally standardized rates imply a broad base of available customers, but an average of 12p per ride was quite expensive in this era. Pepys, who specifically mentions travel by coach 862 times⁵⁴ between January 1660 and the end of 1666, had a salary of £350 a year in 1660.⁵⁵ If we calculate the number of rides times an average of 12p per ride, it means Pepys spent about £12 a year, three percent of his annual income, so frequent carriage rides were well within his means. Pepys eventually purchased a coach in 1668,⁵⁶ but for those working for wages, and whose average salary ranged from 16d to 26d a day in the 1660s,⁵⁷ carriage rides were an extravagance they simply couldn’t afford.

⁵² Ibid. [n.b. “Ply” is distinguished from “standing” and “waiting” and implies the coachmen could solicit fares by moving about the streets.]

⁵³ Anonymous. *A List of the 400 Hackney Coaches*, 12.

⁵⁴ Latham and Matthews. *Diary of Samuel Pepys*, volumes 1-7. [n.b. Count includes all mentions of “by coach,” “by hackney,” and “took coach.” Calculation: (862 rides*an average of 12p per ride=£72 4s 8d)/6 years.]

⁵⁵ Ibid., volume 1, 202.

⁵⁶ Ibid., volume 9, 377. [n.b. Pepys took delivery of his coach on 28 November 1668, but mentions various details on its selection in the weeks before.]

⁵⁷ Jeremy Boulton. “Wage Labour in Seventeenth-Century London.” *The Economic History Review*, 49, 2 (May 1996), 276.

Although carriages offered speedier and somewhat comfortable travel, they were not without problems. Carriages broke down and horses tired, both of which often delayed passengers.⁵⁸ In addition, the constant splashing of everything, mentioned in the section on walking above, included other coaches. In chapter one, this dissertation told the tale of a race between two carriages mentioned by Pepys in 1661. Pepys relates the fact that his carriage won, but the victory “cost me the spoiling of my clothes and velvet coat,”⁵⁹ so the occupants of carriages were not immune to “Peacham’s dousing.”

Coaches also had problems with the pits and sloughs that hindered the walking traveler. At best, irregularities in the roadbed could make coach travelers uncomfortable, and in some cases presented formidable impediments to efficient coach travel. Peacham’s character “sedan chair,” offered himself as an alternative to carriage travel and asserts that there were many, such as pregnant women, who were not able to endure the jostling of a coach and many who found coach travel extremely uncomfortable.⁶⁰ Carriages could sink and get stuck in the mud, overturn when hitting a deep pit in the streets, and break a wheel when hitting a frozen rut.

Riding the Waves

If a trip called for travel between two points accessible from the Thames or, in some cases, one of the access points along the troubled Fleet River, early modern travelers could bypass the inconveniences of dirt and gravel by descending to the river Thames and hiring the

⁵⁸ Latham and Matthews. *Diary of Samuel Pepys*, volume 6, 400 (“our coach broke a wheel on Ludgate Hill”); volume 1, 209 (“but the horses were tired and would not carry us further then St. Dunstons,”).

⁵⁹ *Ibid.*, volume 2, 110.

⁶⁰ Peacham, *Coach and Sedan*, 19 & 32.

services of the watermen. Henry Machyn never mentions travel by water for himself, but his journal often records others traveling that way. Pepys, whose diary shows that he was an equal-opportunity traveler, reports that he traveled by water nearly as often as he traveled by coach—786 times by water versus 862 by coach from 1660 to 1666.⁶¹

Early modern travelers accessed the river via stairs at many of the water gates. After descending the stairs, watermen greeted passengers and solicited their patronage by calling “Oars! Oars!”⁶² or “Sculler!, Sculler!”⁶³ In the seventeenth century, thousands of watermen plied the waters between Gravesend and Windsor and a good portion of them specialized in the short stretch of that route between London and Westminster.⁶⁴ Stow puts the number working the stretch at 3000 in 1603.⁶⁵ By the eighteenth century, the Swiss visitor to London, César De Saussure (c.1705-1783), would claim that 15,000 plied the stretch between London Bridge and Westminster alone.⁶⁶ Rides with the watermen were very competitive with travel by coach. Pepys reported a range of 3d to 6d for rides on the Thames between London and Whitehall during the early 1660s, and the fares for both watermen and coach travel increased slowly. In the late 1680s, more than two decades later, John Playford was still reporting the fare between

⁶¹ Latham and Matthews. *Diary of Samuel Pepys*, volumes 1-7. [n.b. Count of travel by water, boat, barge, sculler, or galley.]

⁶² Bucholz and Ward, *London*, 40.

⁶³ Madam Van Myden, trans. *A Foreign View of England in the Reigns of George I & George II: The Letters of Monsieur Cesar De Saussure to His Family*. New York: E.P. Dutton and Company, 1902, 170.

⁶⁴ Hibbert, et al., *London Encyclopedia*, location: 51650-51700.

⁶⁵ “Of the Ancient and Present River,” Stow’s *Survey*. URL: <http://www.british-history.ac.uk/report.aspx?compid=60017>.

⁶⁶ De Saussure, *A Foreign View of England*, 94.

two points anywhere between London Bridge and Westminster as 6d—a much better bargain than the 18d charged for the coach fare from the Temple to the Tower in both 1662 and 1687.⁶⁷

Like carriages, there was also a hierarchy among watercraft as well. The monarch, members of Parliament, the Lord Mayor, and many of the livery companies, all owned watercraft. The aristocracy and wealthy merchants could afford to own personal barges to carry their sizable entourages or entertain. The royal and aristocratic barges of beautifully decorated with elaborate carvings and gold leaf to testify to their stations in life. Then there was the craft for hire, which came in all shapes and sizes. There were barge-like ferries that could carry passengers, carts, carriages, and horses; long rowboats called “wherries” or “paravoors” that carried five-to-six passengers and usually rowed by a crew of two men; and smaller craft to carry one-to-two passengers called “scullers,” usually rowed by one man.⁶⁸ Once a passenger chose the craft and paid the fare, the trip passed out of the control of the early modern traveler. The speed at which they would arrive at their destination was subject to several factors—mainly the speed and roughness of the current, and the problems with low tide.

On the twenty-first century Thames, the problems of low tides (ebb-tide) have been ameliorated by such innovations as the Thames Embankment. Constructed at the low-water mark, the Embankment pushed boarding points on the north side of the Thames into deeper water. Deepwater boarding, in general, eliminates issues with low tides, such as not being able to approach the shore for fear of running aground or having to cross a stretch of muddy shoreline to disembark. It also reduced the times when ships could be left high and dry by the low tide.

⁶⁷ John Playford. *Vade Mecum or the Necessary Companion*. London: Thomas Sawbridge, 1687, 208.

⁶⁸ Schellinks, *Journal*, 55.

Before this nineteenth century innovation, however, all of these situations were quite common at ebb-tide, and many of our early modern witnesses experienced them. On 20 February 1662-1663, Pepys reports that a boat he was riding ran aground, and on 31 July 1665, he tells of his inability to get his coach across the Thames because “the tide of ebb so far spent as the horse-boat could not get off the other side.”⁶⁹ The old saying that “time and tide wait for no one” is true here as well—the tide was no respecter of rank. Holinshed reports that in 1558 the Lady Elizabeth (the future Elizabeth I) got stuck on the Thames on her way to imprisonment in the Tower because the water east of the Bridge was too shallow to allow her to disembark.⁷⁰

Another factor exacerbated the problem of low tide: the flow of the river and its tributaries made the shallow waters along the shoreline even shallower due to silt buildup. Silting is the natural process where sand, soil, mud, etc., is carried by the current and sinks to the bottom. Dumping of refuse by citizens of the city and ballast by ships arriving to take on cargo further aggravated this natural process. The city periodically dredged the river, but this was prohibitively expensive to do very often and created the problem of what to do with the dredged materials. In 1412, the city enacted one of its more creative solutions to this problem—they encouraged ships that needed ballast to get it from the river bed.⁷¹ Approximately a century later, in 1535, Henry VIII’s government promoted this solution by prohibiting the use of land ballast.⁷²

⁶⁹ Latham and Matthews. *Diary of Samuel Pepys*, volume 4, 50 & Volume 6, 175.

⁷⁰ Holinshed, *Chronicles of England, Scotland, and Ireland*, Volume 3, 125.

⁷¹ Sharpe, *Letter Book I*, Folios 118b, 108.

⁷² 'Thames,' *Remembrancia*, 499-517. [n.b. The actual statute as mentioned in this source could not be found.]

This practice had a somewhat unexpected side-effect—it made dredging the river to acquire ballast for ships more cost-effective and an attractive business venture. During the late sixteenth and seventeenth centuries, entrepreneurs from all over England began to seek the exclusive rights to dredge the river and supply the ballast. Despite the city's right to conservancy of the Thames, and seeing a potentially lucrative source of income, Westminster began issuing leases for dredging as early as 1636. In that year, Thomas Smith, Esquire, was granted monopoly rights to dredge the Thames and provide ballast to ships at “modest rates” in return for a yearly rent.⁷³ How lucrative was this practice? A 1635 entry in the *Remembrancia* shows a charge of 2d per ton of ballast to the ship owners.⁷⁴ A 1661 lease to John Chapman shows an annual rent of £466/13s/6d for the first five years, and 1000 marks (approximately £667) yearly afterward.⁷⁵ If a *very* liberal increase is allowed of four times the 1635 charge, or 8d per ton, for 1661, the lease rent represented a break-even point of 20,000 tons. This number does not include Chapman's cost for actually doing the dredging or his expectation of profit. Even if it was a simple doubling of his investment (rent + cost-of-labor * 2), or he expected to generate a yearly income comparable to an early modern gentleman, such as Samuel Pepys' documented salary of £350 a year in 1660,⁷⁶ the lease amount implies a very optimistic outlook for future income.

⁷³ England and Wales. *By the King: A Proclamation for Cleansing the Thames and for Ballasting Ships with the Sand and Gravell*, Thereof. London: Robert Barker, 1636.

⁷⁴ 'Thames,' *Remembrancia*, 499-517. [n.b. in 1635, the expected charge per ton was 2d per ton, see provision VIII. 172.]

⁷⁵ *Ibid.*, [n.b. A mark was valued at 160d.]

⁷⁶ Latham and Matthews. *Diary of Samuel Pepys*, volume 1, 202.

Except for times of very low tide when watermen had to be wary of the depth of the water, the river provided quick transit up and down its length—although there were places where the current was too strong even for the hardest watermen. This was especially true at London Bridge. The construction of the Bridge essentially created a partial dam across the river, effectively creating two zones on either side of the bridge: the upper (west) and lower (east) pools. The heart of London’s commercial trade was the lower pool, and shipping vessels docked at places like Billingsgate and St. Katherine’s quay. It was possible for some vessels to continue into the upper pool via the drawbridge located at the south end of the bridge, but poor maintenance of the drawbridge and the width of the available openings between the piers limited such access.⁷⁷ The upper pool, therefore, remained the domain of smaller vessels transporting goods and passengers between London, Westminster, and beyond.

The bridge was, essentially, a dam. The number and size of the piers reduced the width of the river from about 750 feet to an estimated 245-300 feet of navigable space under the bridge, significantly less than one-half of its standard width.⁷⁸ At high tide, water totally covered the piers and passage through was reasonably easy—although the current was still quite strong. Many travelers opted to put ashore and walk around or, in some cases, were asked to “walk over the piles [starlings] through the bridge”⁷⁹ and re-board on the other side. Pepys described an incident when he planned to return to Whitehall “through the bridge” but the tide was against

⁷⁷ Bucholz and Ward, *London*, 39.

⁷⁸ Peter Mathews. *London’s Bridges*. Oxford (England): Shire Publications Ltd., 2008, 149.

⁷⁹ Latham and Matthews. *Diary of Samuel Pepys*, volume 3, 198.

him, and the strong current pushed his boat back, putting him and his companions in danger. It was necessary to put ashore and go around.⁸⁰

The greatest danger was when the tide was below the piers during periods of very strong current. When this occurred, the water piled up on the west side of the Bridge and forced itself through the nineteen small openings, creating a water-chute effect that was, at best, inconvenient and, at worse, very dangerous.⁸¹ The force of the water crashing against the bridge moorings and forcing its way through could be a terrifying spectacle. According to Donald Lupton, “the river complains at the bridge because it hath extended into his bowels and that makes him roar at that place.”⁸² The total experience: as passengers approached the bridge, their craft picked up momentum as the roaring water surrounded them and rushed through the nineteen piers. Upon reaching the bridge, the rushing tide propelled them under the structure at great speed. Just as they thought they were safe; they fell an additional two to three meters (4.5 to approximately 7 feet)⁸³ due to the difference in water levels caused by the damming effect of the bridge.

This experience had a contemporary moniker: “shooting the bridge.” It was an encounter that discouraged everyone except the strong-hearted. A popular proverb of the era said: “London Bridge was made for wise men to go over and fools to go under.”⁸⁴ Of course, the terror factor

⁸⁰ Ibid., volume 3, 51.

⁸¹ Jackson. *London Bridge*, 71.

⁸² Lupton. *London the Country Carbonadoeds*, 21-22.

⁸³ Mathews, *London's Bridges*, 149 (2 Meters); Gavin Weightman. *London's Thames*. New York: St. Martin's Press, 2004, Kindle Edition, Location 257 (several feet); Jackson. *London Bridge*, 71 (six feet).

⁸⁴ Latham and Matthews. *Diary of Samuel Pepys*, volume 10; Companion, 235.

varied with the height of the drop, which changed with the depth and strength of the tide. The lowest documented drop was less than one meter (about 2 feet).⁸⁵ It was always there, but it was, generally, navigable at high tide, when the starlings were under water, and at very low tide.⁸⁶ In between high and ebb tide, however, it was difficult to determine the safest times to travel. Janet Pierce writes that watermen knew when was best from “years of experience,”⁸⁷ but the average passenger always approached the bridge warily and Evelyn considered shooting the bridge dangerous, even at “three-quarters ebb-tide.”⁸⁸ Pepys mentions several times when he was forced to put ashore and go around the bridge because his travelling-partners feared shooting the bridge. In March of 1660-1661, when on the way to Whitehall, his companion, Mr. Salisbury declares he “would not by any means go through the bridge.”⁸⁹ A similar incident occurred in November of 1662 when Mrs. Gosnell refused the experience.⁹⁰ There were a few adventurous types, however, and Pepys tells a story he heard second-hand of a Frenchman who shot the bridge:

When he saw the great fall, he begun to cross himself and say his prayers in the greatest fear in the world, and soon as he was over, he swore ‘Zounds! This is the greatest pleasure in the world,’ being the most like a French humor in the world.⁹¹

⁸⁵ Pierce, *Old London Bridge*, 176.

⁸⁶ *Ibid.*, 180.

⁸⁷ *Ibid.*, 195.

⁸⁸ De Beer, *Diary of John Evelyn, Volume II*, 347.

⁸⁹ Latham and Matthews. *Diary of Samuel Pepys*, volume 2, 59.

⁹⁰ *Ibid.*, volume 3, 260.

⁹¹ *Ibid.*, volume 3, 160. [n.b. original text: “Morbleu ! c’est le plus grand plaisir du monde.”]

But those who found it a thrill, like the Frenchman, were the exception, and Pepys, himself, mentions that shooting the bridge troubled him as well.⁹²

Pepys may have been troubled because he feared dying while traveling on the river. Indeed, we know that some early modern Londoners lost their lives while shooting the bridge. Anne Kirke, a member of Queen Henrietta Maria's household, drowned when the Queen's barge overturn while transiting the bridge. Nicholas Lutrell records that fifteen people drowned in the rapids approaching the bridge in 1693. There were also those who committed suicide by shooting the bridge. In 1689, the son of Sir William Temple lost his life when he leaped from his boat as it shot under the bridge. He left a suicide note in his boat and when his body was recovered it was found that he had filled his pocket with stones.⁹³

Shooting the bridge was not the only cause of drownings in the Thames. In his diary, Pepys reports drownings on several occasions, such as the death of an associate on 1 February 1663/1664, or on 18 December 1666, when he reported the drowning of Captain Christopher Batters. In the latter entry, Pepys admits that hearing of Batters's drowning, a "born and bred seaman" made him afraid "more than ever."⁹⁴ Pepys does not specifically say that he feared death on the water, but it is a logical inference based on the context of the comment. Reports of drownings in the Bills of Mortality show an average of sixty drownings per annum in the twelve-

⁹² Ibid., volume 3, 68.

⁹³ Fran C. Chalfant. *Ben Johnson's London: A Jacobean Placename Dictionary*. Athen (Georgia): The University of Georgia Press, 1978, 119. [n.b. The source of these deaths was William Kent's *Encyclopedia of London*, 1970.]

⁹⁴ Latham and Matthews. *Diary of Samuel Pepys*, Volume 5, 34; Volume 7, 413.

year period from 1659-1670.⁹⁵ The Bills of Mortality only occasionally mention the cause of drownings, so the number of those drowned due to accidents while traveling on the Thames is hard to estimate. Given that the amount of traffic on the river was substantial, however, a conservative estimate would be that at least two or three people a month drowned in transportation-related accidents on the Thames. It is difficult to draw a comparison as detailed sources for traffic deaths on the streets are rare. If John Graunt's list for 1665, mentioned above, is any indicator, and if the per annum estimate for drowning holds true, it would mean there was a two or three-fold greater chance of drowning than being trampled by a cart.⁹⁶ A revealing fact, however, is a report in the *Repertories of the Court of Alderman* in 1693-1694 where the City discussed whose responsibility it was to bury those drowned in the Thames. If drownings were infrequent, it is difficult to understand why this would have been an issue.⁹⁷

A significant contributor to death on the river was the weather. There were major weather-related events such as the two walls of water that roared down the Thames on 4 February 1641, sweeping away everything in front of them.⁹⁸ There is no record that this event caused any loss of life, but reports from our witnesses show that inclement weather caused many accidents. John Dee reported six people drowned in an overturned ferry on 13 October 1579,

⁹⁵ Anonymous. *A Collection of the Yearly Bills of Mortality from 1657 to 1758 Inclusive*. London: A. Millar, 1759. [n.b. Pages in this volume are not numbered, but are labeled with the year.]

⁹⁶ Graunt listed thirteen traffic-related deaths in 1665. The other listings on the Bills of Mortality examined for this dissertation, grouped all accidents together, and were not as detailed as Graunt's.

⁹⁷ London Metropolitan Archives, COL/CA/01/01/103, *Repertories of the Court of Aldermen*, Repertory 98, Folio 400.

⁹⁸ Anonymous. *A Strange Wonder or The Cities Amazement Being a Relation Occasioned by a Wonderful and Unusual Accident That Happened in the River of Thames, Friday, Feb. 4, 1641*. London: John Thomas, 1641, 3-7.

due to “high and rough waters” on the Thames.⁹⁹ Thomas Rugg reported the death of a Westminster official during “tempestuous” weather that overturned their boat on 14 April 1660.¹⁰⁰

Despite the prospect of death, weather’s main annoyance was as an obstacle to travel. With careful planning, travelers could avoid “shooting the bridge” and, due to its predictability, problems with the tides. There were no reliable methods of predicting inclement weather, so it was difficult to avoid, and could frustrate the most careful planning. Bad weather could result in personal misery such as Pepys’ description of riding home in an open boat during a bad storm—arriving home “wet and dirty,” or seasickness, such as that experienced by the Duchess of Buckingham (possibly Mary Fairfax Villiers, d. 1705) on 26 October 1664.¹⁰¹ Stormy weather could also deter travel entirely for some like the Lady Margaret Hoby (1571-1633), who declared on 23 November 1600 that a storm made the waters so rough that it prevented traveling by water to Blackfriars.¹⁰² Even if the traveler could stomach the rough waters during a storm, it might have been impossible to find a waterman to make the transit. Pepys experienced this on 24 January 1665-1666: “By agreement my Lord Bruncker called me up, and though it was a very foul, windy, and rainy morning, yet down to the waterside we went, but no boat could go, the

⁹⁹ The Camden Society. *The Private Diary of Dr. John Dee and the Catalogue of His Library of Manuscript*, James Halliwell, ed. London: Camden Society, 1842, 6.

¹⁰⁰ William L. Sachse, ed. *The Diurnal of Thomas Rugg 1659-1661*. London: Royal Historical Society, 1961, 7.

¹⁰¹ Latham and Matthews. *Diary of Samuel Pepys*, volume 1, 266 & volume 5, 306.

¹⁰² Joanna Moody, ed. *The Private Life of an Elizabethan Lady: The Diary of Lady Margaret Hoby 1599-1605*. Phoenix Mill: Sutton Publishing Company, 1998, 125.

storm continued so.”¹⁰³

As was mentioned in the section on the streets above, cold weather made transportation conditions worse; this was also true on the Thames. The period from, roughly, the fourteenth to the nineteenth centuries was among the coldest in recorded history. Historians refer to this period as “the little Ice Age.” There is record of the Thames freezing solid as early as 1092-1093.¹⁰⁴ In the early modern period, however, the cold weather, aided by the damming effect of London Bridge, meant that it was not unusual for the upper pool of the Thames to freeze over, bringing river traffic to an effective halt. The freezing could last a few days, but sometimes much longer.¹⁰⁵ Writing in the early eighteenth century, John Gay asserts that the Thames once froze for three months. The poem does not include the year, but this may have been the winter of 1407-1408 when the Grey Friars of London reported the Thames froze for “fourteen wekes, so that men might in dyvers places both goo and ryde over the Temse.”¹⁰⁶

It would be easy to surmise that a solidly frozen Thames meant all activity on the river ceased. That would be a false assumption, however, and once the citizens of early modern London found that the ice held firm, the Thames came alive despite the cold temperatures. Between the fifteenth and the nineteenth centuries, whenever the river froze solid, people played

¹⁰³ Latham and Matthews. *Diary of Samuel Pepys*, volume 1, 266 & Volume 7, 22.

¹⁰⁴ “A Chronology of Famous Freezes” in Ian Currie. *Frosts, Freezes, and Fairs: Chronicles of the Frozen Thames and Harsh Winters in Britain Since 1000 AD*. Great Britain: Frosted Earth Publications, 1996, 1-48.

¹⁰⁵ Weightman. *London's Thames*, Location 289.

¹⁰⁶ Gay, *Trivia*, 35-36. [n.b. original verse: “When hoary Thames, with frosted oziers crown'd, was three long moons in icy fetters bound.”]; ‘The Chronicle of the Grey Friars: Henry IV,’ in *Chronicle of the Grey Friars of London Camden Society Old Series*, Volume 53, ed. J G Nichols (London: Camden Society, 1852), 9-12, URL: <http://www.british-history.ac.uk/camden-record-soc/vol53/pp9-12>.

on the river, theater groups performed for the amusement of the attendees, and merchants created a market from which to sell their wares. In a few years, the ice was thick enough for this activity to focus in large groups and when this occurred, the contemporary name for it was a “Frost Fair.” According to a BBC report “between 1309 and 1814, the Thames froze at least twenty-three times and on five of these occasions, 1683-1684, 1716, 1739-40, 1789 and 1814, the ice was thick enough to hold a fair.”¹⁰⁷

The frozen river also had an alternative transportation function as well. The Thames became an ice-paved highway, and there is a record of horses and carriages using the ice in lieu of the ferries. According to Ian Currie, the hard freeze of 1092-1093 created ice so thick that it was possible to “draw two hundred horsemen and carriages* over them [the frozen rivers].”¹⁰⁸ Currie goes on to record several times when land-based traffic used the frozen Thames as a thoroughfare, such as in 1536-1537 when he reports that “the king drove on the ice from London and Greenwich.”¹⁰⁹ The traffic between the City and Westminster continued as well. In the very harsh winter of 1683-1684, John Evelyn recorded that the ice was so thick that coaches, carts, and horses “plied [the Thames] from Westminster to Temple, and from several other stairs to and fro.”¹¹⁰

¹⁰⁷ Tom de Castella. “Frost fair: When an elephant walked on the frozen River Thames” in *BBC News Magazine*. Accessed 28 January 2014. <http://www.bbc.com/news/magazine-25862141>.

¹⁰⁸ Currie, *Frosts, Freezes, and Fairs*, 1. [*Currie is quoting another source that used the term carriages, which is inaccurate as carriages did not exist in the eleventh century. Although Currie lists his sources, he did not cite individual references.]

¹⁰⁹ *Ibid.*, 4.

¹¹⁰ De Beer, *Diary of John Evelyn*, Volume IV, 362.

Of course, relying on an unevenly frozen sheet of ice was precarious and occasionally there were problems. In January of 1715-1716, the tide below the ice rose and lifted the entire ice sheet fourteen feet. There was a potential of a catastrophic breakup of the ice, but it held fast and the festivities continued, “without interrupting the people from their pursuits.”¹¹¹ In 1739, a whole swathe of ice gave away and swallowed up tents and businesses as well as people—the source does not record whether there were any survivors.¹¹² At the last Frost Fair in February 1814, it was reported that “three persons, an old man and two lads, having ventured on the piece of ice above London Bridge, it suddenly detached itself from the main body and was carried by the tide through one of the arches.” Fortunately, they survived “shooting the bridge” and a couple of vigilant watermen rescued them.¹¹³

While the frozen Thames brought water-borne traffic to a standstill, the real traffic hazard came in the period when the ice began to form in the fall or breakup at spring thaw. As the ice solidified, traffic on the river became increasingly difficult. First, ice islands formed requiring the watermen to pick their way through, carefully.¹¹⁴ Schellinks reports that the river was so full of ice in December of 1662 that he and his company were forced to forego river travel and walk

¹¹¹ George Davis. *Frostiana ; or, A History of the River Thames, in a Frozen State; with an Account of the Late Severe Frost ; and the Wonderful Effects of Frost, Snow, Ice, and Cold, in England, and in Different Parts of the World; Interspersed with Various Amusing Anecdotes. To Which is Added, the Art of Skating.* London [England]: G. Davis, 1814, 8.

¹¹² Historic UK. *The Thames Frost Fairs*. <http://www.historic-uk.com/HistoryUK/HistoryofEngland/The-Thames-Frost-Fairs/>. Accessed 7 June 2017.

¹¹³ Davis. *Frostiana*, 21.

¹¹⁴ De Beer, *Diary of John Evelyn*, Volume III, 347.

to Greenwich on foot.¹¹⁵ Pepys feared for his life in December of 1665 as his boat continuously crashed into the ice and he forced the waterman to land his party.¹¹⁶ In December of 1658, Evelyn reports so much ice in the river that “islands of ice enclosed both fish and fowl, and some persons in their boat.”¹¹⁷ The ice was equally treacherous when it broke up. In 1565, Holinshed reported the Thames thawed quickly over a two-day period, sending great chunks of ice cascading down the river creating severe navigation hazards.¹¹⁸

Traversing the City at Night

Let constant vigilance thy footsteps guide,
And wary circumspection guard thy side;
Then shalt thou walk unharm'd the dang'rous night,
Nor need th' officious link-boy's smoaky light.¹¹⁹

Navigating seventeenth century London's transportation venues in the light of day could be quite an experience, but traveling at night could be especially challenging. With little street lighting and its narrow streets, London had a reputation as “one of the darkest capitals in Europe.”¹²⁰ The glittering city familiar to twenty-first-century visitors lay far in the future, awaiting the arrival of the gas and electric lights of the nineteenth and twentieth centuries. Although legislation to provide some lighting on London streets appeared as early as the

¹¹⁵ Schellinks, *Journal*, 174.

¹¹⁶ Latham and Matthews. *Diary of Samuel Pepys*, volume 6, 340.

¹¹⁷ De Beer, *Diary of John Evelyn*, Volume III, 211.

¹¹⁸ Holinshed, *Chronicles of England, Scotland, and Ireland*, Volume 3, 223.

¹¹⁹ Gay, *Trivia*, 52.

¹²⁰ Inwood, *History of the City of London*, 365.

fifteenth century, implementation fell to the individual property owners. Early efforts called for property owners to install a single lamp in front of their building, to burn until it was exhausted.¹²¹ Such legislation often encountered fierce resistance, and the results were inconsistent, varying significantly from street to street.¹²² In some cases, bequests funded street lighting, such as that reported by Raphael Holinshed who described an endowment for a widow's home. The home's benefactors stipulated that all windows by the street should have a lantern in them with one full candle a night.¹²³ Such bequests were few and did little to light the streets of London effectively. Street lighting, therefore, was hit-or-miss as the success and failure of such efforts, depended wholly on the willingness of the property owners to obey the letter of the law. According to Malcolm Falkus, widespread street lighting would not arrive until the introduction of oil-burning lights in the 1680s and 1690s that permitted a significant rise in the standards of street lighting—although it would still be limited to a small number of streets.¹²⁴ At about the same time, in 1694, the City acted to remove the responsibility of street lighting from property owners altogether, and placed it in the hands of city-contracted vendors who would construct and

¹²¹ The first lighting rule appeared in 1404—see Reginald R. Sharpe. *Calendar of Letter-Books Preserved in the Archives of the Corporation of London at the Guildhall: Letter-Book I*. London: John Edward Francis, 1899, Folio 48b Parliament, 45.; 'Memorials: 1418,' in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 660-669, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp660-669>.

¹²² Malcolm Falkus. "Lighting in the Dark Ages of English Economic History: Town Streets Before the Industrial Revolution" in D.C. Coleman. *Trade, Government and Economy in pre-Industrial England*. London: Weidenfeld, 1976, 251-52.

¹²³ Holinshed, *Chronicles of England, Scotland, and Ireland*, Volume 3, 550.

¹²⁴ Falkus. "Lighting in the Dark Ages of English Economic History," 251-52.

maintain the city's lighting infrastructure.¹²⁵ Together, these two events marked the beginning of effective, ubiquitous street lighting that would take London from one of Europe's darkest capitals to one of its most well-lit.¹²⁶

What was it like to walk the streets of the city of London after dark in the time before effective street lighting? Until well into the early modern period, London officially closed down at curfew. Based on an entry in the *Memorials*, there was a curfew in effect as early as 1282. In that year, the city mandated that “no one is to cross the Thames at night” and watermen were ordered to row their craft to the city side and moor them until morning.¹²⁷ By 1333, however, when it was first mentioned in the City's *Letter Books*, curfew is documented as lasting from 9 p.m. in the evening until 5 a.m. or 6 a.m. in the morning. This varied on some holidays and could start as late as 10 p.m. Everyone was expected to be off the streets by curfew, while visitors to London were expected to be off the streets by 8 p.m.¹²⁸ At curfew, the river cleared of all traffic, the city gates closed, and the portcullises dropped into place, creating a sealed environment inside the walls vigilantly patrolled by the night watch.¹²⁹

For those who walked the streets *after* curfew, there was a pejorative term: “nightwalkers.” For early modern Londoners and the members of the night watch, the

¹²⁵ Inwood, *History of the City of London*, 365.

¹²⁶ Ibid.

¹²⁷ 'Memorials: 1282,' in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 21-22, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp21-22>.

¹²⁸ Sharpe, *Letter Book H*, Folio 77b, 81.

¹²⁹ Sharpe, *Letter Book C*, Folios 52b, 85.

term was used to describe human predators, waiting under cover of darkness to take advantage of “respectable citizens.” Indeed, the term “night-walker” first appeared in the *Letter Books* in 1281, when the city responded to a writ from the king (13 Edward I, Stat. 5) to crack down on criminal activity at night.¹³⁰ All *good* citizens were expected to be off the streets, and even “taverners and hostelers” were ordered to close up shop at curfew.¹³¹ The night watch immediately suspected anyone out after curfew of criminal or deviant behavior and, therefore, liable to arrest.

The Stygian nighttime and the laws against movement in the streets after dark could imply that all activity in the City ceased at dark. If this was true, however, how can the nighttime activities of Pepys, and his contemporaries, be explained? Many of our witnesses described very active night lives—often walking the streets, and sailing the Thames after dark. One of the primary factors in this change was that the ancient proscription of anyone walking the streets at night had softened by the end of the fourteenth century. Nightwalkers were still generally prohibited¹³² “unless he be a lawful man, and of good repute, or the servant of such, for some real cause, and that, with a light.”¹³³

The Night Watch, however, was still expected to stop anyone that passed them in

¹³⁰ Sharpe, *Letter Book B*, Folio 1, 2.

¹³¹ Examples of business closure orders include Sharpe, *Letter Book G*, Folios 259b (1370) and *Letter Book I*, Folios 166 (1416).

¹³² Sharpe, *Letter Book K*, Folios 188, 240.

¹³³ 'Memorials: 1393,' in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 531-535, accessed January 16, 2015, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp531-535>.

the night to assure that they met the above standard. How many did the night watch arrest for night walking? In his study of arrest records from Bridewell Prison, Paul Griffiths touches on this softening of attitudes in the 100-year period between 1559 and 1658, during which the watch arrested only 2,288 nightwalkers. That is a raw average of twenty-three a year, or about two a month. The numbers are a bit skewed, however, and a simple average would be deceptive. Approximately a third of the records of the period from 1559 to 1610 are missing and the total number of arrests for that period is only about twenty-percent (402) of that total. The numbers jumped significantly after 1610 with the highest number of arrests occurring during the Civil War and Protectorate periods.¹³⁴ If we accept that the higher numbers of the 1640s and 1650s reflect the social unrest of the time, and we allow for a doubling of the numbers from before 1610, the total still indicates a very low number of nightwalker arrests. The result is an average of fifteen a year from 1559-1610 and 38 a year from 1611-1658 or 1.25 to 3 arrests per month. Griffiths' study also reveals an interesting gender dimension to nightwalker arrests that this dissertation will discuss in greater detail in chapter three.

This softening of attitudes against nightwalkers was one factor that explains why Sam Pepys and his entourage were able to walk the streets without automatically suffering arrest. Another factor was what Matthew Beaumont calls “colonization of the night.”¹³⁵ In the middle of the seventeenth century, especially after the restoration of

¹³⁴ Griffiths. *Lost London*, 462. [n.b. It must be mentioned here that the records of Bridewell Prison are incomplete for the period of the study with over three decades missing—see Griffiths notes on records on page 19.]

¹³⁵ Matthew Beaumont. *Nightwalking: A Nocturnal History of London, Chaucer to Dickens*. London: Verso, 2015, Kindle Edition, location 2507.

Charles II, London nights were alive with activity. Theaters, limited to daytime performances before the Civil War and Interregnum (1642-1660), now offered performances at night. In addition, coffee-houses, social and professional clubs, as well as other entertainments were open far into the night. Beaumont contends that this was a time when London's growth brought new people to London, along with a growing middle class, all of which added to the increasing attractiveness of London as a tourist destination. These new nightwalkers roamed the streets at night because they chose to so. They intentionally socialized at nights—reclaiming the nocturnal streets and displacing the criminal elements.¹³⁶

Still, moving from place to place in Europe's darkest capital was problematic. All of the obstacles of the daytime—low-hanging signs, open cellar doors, and, yes, the pits and sloughs—were particularly dangerous when encountered in utter darkness. For riders in carriages or on horses, there was the danger of collision—both with other riders and the upper stories of buildings that encroached into the highway. According to Malcolm Falkus, the perils of navigating dark streets were enough to limit night-time travel, even without the legal restrictions, down to, approximately, the seventeenth century.¹³⁷ After 1660, it was possible to hire a link man (boy) to carry a flambeaux torch to light the way home and avoid dangers lurking in the shadows.¹³⁸ Pepys often used link carriers, but

¹³⁶ Ibid.

¹³⁷ Falkus. "Lighting in the Dark Ages of English Economic History," 248.

¹³⁸ Bucholz and Ward, *London*, 130.

mentions that he still nearly broke his leg by falling into a hole in the pavement on London Bridge one night, and he once fell into a ditch in Whitehall, “it being very dark.”¹³⁹ Even the sewer channels in the streets could be dangerous, and Pepys reported that a gentleman had tripped over a pipe draining into them because of the darkness.¹⁴⁰

Although nightlife in the city was alive and well in the 1660s, London after dark was, indeed, still a dangerous place. If the roll of those who walked the streets at night now included reputable names like Samuel Pepys, John Evelyn, the Lady Paulina Mountagu, and Sir William Penn, the disreputable names on that list were legion and many still waited in the shadows to do harm. In his poem, *London*, Samuel Johnson (1709-1784) wrote: “Prepare for death, if here at night you roam, and sign your will before you sup from home.”¹⁴¹ The poem goes on to warn of a variety of human predators waiting to take advantage of good Englishmen and the shadows of London’s streets at night hid all sorts of criminal activity from vice crimes to robbery to murder. Fortunately, it appears that none of our early modern witnesses ever experienced an attack on the streets at night—although Pepys was the victim of a robbery on the highway between Chelsea and London in 1693.¹⁴² Pepys did observe what could have been a sexual assault on the night of 3 February 1663/1664 when he saw two men forcing themselves on a young girl.¹⁴³ Pepys alludes to the dangers of traveling at night several times, such as on 15 June 1664, when he

¹³⁹ Latham and Matthews. *Diary of Samuel Pepys*, Volume 5, 307; Volume 1, 26.

¹⁴⁰ *Ibid.*, Volume 1, 246.

¹⁴¹ Jeremy Blackwell, ed. *Samuel Johnson: Collection of Works with Analysis and Historical Background*. Annotated Classics, 2013, Kindle Edition, Location: 62890.

¹⁴² Latham and Matthews. *Diary of Samuel Pepys*, Volume 10, 451.

¹⁴³ *Ibid.*, Volume 5, 37

traveled with a group going home from Somerset House at 10 o'clock at night. With only one coach among them that couldn't carry everyone, Pepys sent his wife ahead then set out toward home on foot with the rest of his party. Although in the company of several companions and walking a distance of about a mile, Pepys tells us that one of them, the Lady Paulina Mountagu, was in fear "every step of the way." Pepys admits that he was also fearful, but put on a brave face for appearances.¹⁴⁴

Crime also occurred on the Thames. According to *The London Encyclopedia*, river piracy came in all forms from single operators to organized bands—the latter plundered West Indian Company merchants of £250, 000 annually in the eighteenth century. William Schellinks mentions pirates in his first entry after arriving in London: "It was very unsafe to travel by night on the river because of the river pirates, who attack boats going up and down the river and beat up the passengers, demanding their money." He closed by charging that some of London's watermen acted in concert with the pirates—a charge confirmed by *The London Encyclopedia* as well.¹⁴⁵

Like city dwellers of any century, however, Pepys appears to have accepted the inevitability of crime. He was aware of the dangers, and sometimes fretted about it, but it did not keep him off the streets after dark. He was often out late on business or enjoying some entertainment and frequently reports that he walked home by the light of the links. It also appears that he was not intimidated by walking great distances at night. Pepys lived around the corner from St. Olave's church—a short distance from the Tower of London—but his nightly

¹⁴⁴ Ibid., Volume 5, 180.

¹⁴⁵ Schellinks, *Journal*, 69; Hibbert, et al., *London Encyclopedia*, location: 12089-12094.

walks were not limited to the few blocks around his home. He reported walking home as late as midnight from St. Paul's and Ludgate, roughly three-quarters of a mile; from the Bull's Head Tavern, one of his favorite pubs, located at Charing Cross, nearly two and a half miles; and from Redriffe (Rotherhithe), nearly three miles, to his home.¹⁴⁶ The walk from Redriffe would have required Pepys to walk along the south bank of the Thames and cross London Bridge before arriving home. Indeed, Pepys seems to have enjoyed a long nighttime stroll. He walked home from Deptford on 1 March 1663/1664:

I took Mr. Creed and my wife down to Deptford, it being most pleasant weather, and there till night discoursing with the officers there about several things, and so walked home by moonshine, it being mighty pleasant, and so home, and I to my office...¹⁴⁷

And on the aforementioned walk home from Redriffe, he told the waterman to set them down on the south bank so that they could walk:

So I forced the watermen to land us on Redriffe side, and so walked together till Sir W. Warren and I parted near his house and thence I walked quite over the fields home by light of link, one of my waterman carrying it, and I reading by the light of it, it being a very fine, clear, dry night.¹⁴⁸

¹⁴⁶ Latham and Matthews. *Diary of Samuel Pepys*, Volume 7, 100; Volume 1, 216; Volume 6, 340. [n.b. Calculated with Google maps using modern roads—actual distance in seventeenth century London may have varied.]

¹⁴⁷ *Ibid.*, Volume 5, 72.

¹⁴⁸ *Ibid.*, Volume 6, 340.

CHAPTER FOUR

CONTESTING LONDON'S TRANSPORTATION SPACE—THE HUMAN FACTOR(S)

So far in this dissertation the problems discussed—pits and ruts in the gravel streets, problems with navigating the icy Thames, and the effects of London Bridge on river tides—were limitations imposed by early modern building standards, inherent in the state of infrastructure technology of the era, or a by-product of natural forces. The bridge was state-of-the-art thirteenth century technology that had not yet outlived its usefulness. Narrow lanes were the standard for street construction in early modern London and, with the noted exception of London Bridge, large-scale human alteration of the natural environment lay well into the future. While the limitations inherent in early modern transportation infrastructure could create effective barriers to movement, there were other obstacles that could prove equally obstructive. All travel, on foot, by carriage, by horse, or by other means, could come to a complete standstill when confronted with another type of obstacle—those created by the users of London's transportation assets. Human person-to-person interactions, their abuse of the transportation infrastructure, and their tendency to acquire any open space, including the streets, for their own purposes could, at best, delay the early modern traveler and, at worst, stall movement altogether.

Human Interaction on London's Transport Venues

Walking

An area that often-caused bitter conflict was that of right-of-way. Customarily, vehicles yielded right-of-way by passing each other on the left. The decision to pass on the right or the left was rarely an issue for vehicles, but it may be surprising to some that it was an issue for

pedestrians. There was, however, a customary code of polite behavior for those engaged in walking the streets. Although pedestrians shared the streets with vehicles, and there were few sidewalks until after the Great Fire, the rules of etiquette provided some guidance on how to get around. First, smart walkers stayed out of the center of the streets and tended to travel on the sides of the streets giving vehicular traffic as wide a berth as possible. According to Stephen Inwood, this carried its own set of problems as travelers needed to be wary of low-hanging signs, open cellar doors, and especial care was needed when navigating around the pits and sloughs.¹

Essentially, walkers “squeezed by” the traffic on any available space at the outside edge of the road, so the amount of space at any given time available to them varied. It was customary, when two walkers met going in opposite directions, to pass each other by going to the right. When observed, this rule put one of the walkers on the outer edge of the street where, in many cases, the road abutted the wall of a building or courtyard. The other walker, therefore, walked close to traffic where there was greater danger of being doused or hit by a passing vehicle. Proper manners dictated that those walking close to traffic went to the right and “yielded the right to the wall” away from the traffic² It was good etiquette, but in practice, there were those who refused to expose themselves to the possibility of being drenched in muck and, breaking custom, “asserted the wall” by clinging to it. Pepys noted this practice in one of his earliest diary entries where he reported that he “received a great jostle from a man that had a mind to take the wall.”³ Pepys let the rude behavior pass, but this was not always the case. On 1 February 1663-

¹ Inwood, *History of the City of London*, 362.

² J.C.F. 'The Rules of the Footpath.' in *London Society*, Vol. 63, no. 1, 1893, page 245.

³ Latham and Matthews. *Diary of Samuel Pepys*, Volume 1, 46.

1664, he reported that two men “justing (jousting?) for the wall about the New Exchange did kill one another.”⁴ In this case, one of them was a member of the King’s chapel and the other an employee of Lord General Middleton, which raises the issue of exceptions to the rule.

According to John Gay, it was customary to yield the wall to the elderly or to a person using a cane: “If the strong cane support thy walking hand, Chairmen no long shall the wall command.”⁵ Other sources say it was also customary to yield the best position, whether it was left or right, to one’s social superiors. A 1685 tract on *The Rules of Civility*, says “If occasion offers to walk with a nobleman, we must give him the wall and remember to walk a little behind, unless he speaks to us. Then we must doft our hats.”⁶ A few pages later: “If you meet a person of quality, you must “run presently by the channel.” The same rule applied to coaches.⁷ A century later, the Prussian author and visitor to London, Karl Moritz (1756-1793), confirmed this custom was still in place when he observed that politeness required yielding the wall to ladies and to those who deserved respect “whether that happens to be on the right or on the left.”⁸ It was an issue that would not be resolved in the early modern period and the author of the 1893 article, “*The Rule of the Footpath*,” declared that “it is strange that at the present day there should remain a doubt that the rule to be observed by foot passengers is to “keep to the right.”⁹

⁴ Ibid, Volume 5, 32.

⁵ Gay, *Trivia*, 8& 21.

⁶ Anonymous. *The Rules of Civility or Certain Ways of Deportment Observed Amongst all Persons of Quality Upon Several Occasions*. London: R. Chiswell, T. Sawbridge, G. Wells, R. Bentley, 1685, 114.

⁷ Ibid., 120.

⁸ Charles.P Moritz, ed. *Travels in England in 1782*. London: Cassell & Company, LTD, 1886, 23.

⁹ J.C.F., “Rules of the Footpath,” 245.

It was an important enough issue to inspire poetry. The eighteenth century poet, John Gay (1685-1732), summed up the quandary of when to yield the wall in his work, “*Trivia, or the Art of Walking the Streets of London:*”

Through winter streets to steer your course aright,
How to walk clean by day and safe by night,
How jostling crowds with prudence to decline,
When to assert the wall and when to resign.¹⁰

More blunt and to the point was the observation of Scottish Whig politician and lawyer, Henry Erskine (1746–1817):

The rule of the road is paradox quite
In riding or driving along;
If you keep to your left you are sure to be right,
If you keep to your right, you’ll be wrong.

But in walking a different custom applies
And just the reverse is the rule;
If you keep to the right, you’ll be right, safe, and wise,
If you keep to the left, you’re a fool.”¹¹

Vehicle Traffic

By the time of the Great Fire, London had entered a period of phenomenal growth. Between 1600 and 1666 London’s population doubled in size and by the end of the seventeenth century, it would nearly triple.¹² The city teemed with people of all “ages, natures, sexes, and callings” leading Donald Lupton to describe the city as “the Beehive of Christendom.”¹³ Nowhere was this more apparent than on the streets where the mass of people, aided by the

¹⁰ Gay, *Trivia*, 5.

¹¹ Henry Erskine, quoted in J.C.F., “Rules of the Footpath,” 249.

¹² Wrigley, “Simple Model,” 43.

¹³ Lupton. *London the Country Carbonadoeds*, 1.

clatter of wheels, the trampling of horses, and periodic percussions from local workshops, created a din that plagued the city from morning-to-night.¹⁴

One of our witnesses, Henry Peacham, attributed a goodly portion of the noise to the growth of coaches, and declared that a friend found it difficult to “find anywhere in his home where he could find refuge from the clattering of the coaches in the street.”¹⁵ Although Peacham’s comment is about the noise, there is the implication that he was also concerned with the growing number of coaches and how they affected movement in the city. As early as 1632, Donald Lupton was already concerned about coach traffic and humorously observed that around the Royal Exchange “there are more coaches than at church doors.”¹⁶

According to a note in Stow’s *Survey of London*, carriages (coaches) arrived in England in 1564, introduced by Guiliam Boonen, a Dutchman and one of Elizabeth I’s coachmen.¹⁷ By the time Stow completed his survey in 1598, he declared that coaches were “made so common, as there is neither distinction of time, nor difference of persons observed: for the world runs on wheels with many, whose parents were glad to go on foot.”¹⁸ The phenomenal increase in the use of passenger coaches—both personal and for hire—seemed to come as a surprise to the leaders of early modern London and they scrambled to control their growth. In 1601, the Lord Mayor of London, John Gerrard (1546-1645), expressed growing concern over the great increase

¹⁴ Inwood, *History of the City of London*, 202.

¹⁵ Peacham, *Coach and Sedan*, “To the Reader Section”.

¹⁶ Lupton. *London the Country Carbonadoeds*, 25.

¹⁷ Kingsford, "Notes: Volume 1, pp.1-100," Stow's *Survey of London*, <http://www.british-history.ac.uk/no-series/survey-of-london-stow/1603/pp269-283>.

¹⁸ Kingsford, "Of Orders and Customes of the Citizens," Stow's *Survey of London*, <http://www.british-history.ac.uk/no-series/survey-of-london-stow/1603/pp79-91>.

in numbers of carriages. That same year, no less an august body as the House of Lords was considering a bill for “the restraint of the excessive and superfluous use of coaches.”¹⁹ There is also a letter from 1634, attributed to Under Treasurer of the Exchequer, Francis Cottington (1579-1652), which suggested hired coaches should be limited to trips of more than three miles and completely eliminated from the streets of London.²⁰ Presumably, this would have meant traveling to points outside the city to find a coach.

There is also evidence that shows a desire on the part of some legislators to impose official limitations on who could own or use carriages. In 1619, an entry in the *Calendar of State Papers* shows that Westminster was considering a £40 annual fee, but only on those below a certain degree.²¹ Such a limitation would allow ownership of carriages only to those who could afford the fee. It would also mean that ownership of hired coaches would be limited to the wealthy. If we consider that paid wages averaged between 20d and 30d a day, and much of the work was at will and seasonal, in most cases, £40 would have exceeded their annual salaries. Even for those who worked every day but Sunday and holidays, at the above pay rates wage workers made £38 to £60 annually. The fee would have been ruinous for most, leaving little for

¹⁹ 'Carts and Carmen', *Remembrancia*, Item II.216; Heywood Townshend, 'Proceedings in the Lords, 1601: October 27th - December 19th,' in *Historical Collections: Or, An Exact Account of the Proceedings of the Four Last Parliaments of Q. Elizabeth* (London: T. Basset, W. Croke, and W. Cademan, 1680), 129-151, accessed December 20, 2014, <http://www.british-history.ac.uk/no-series/parliament-proceedings-eliz1/pp129-151>.

²⁰ 'Charles I - volume 267: May 1-15, 1634,' in *Calendar of State Papers Domestic: Charles I, 1634-5*, ed. John Bruce (London: Her Majesty's Stationery Office, 1864), 1-23, accessed January 23, 2015, <http://www.british-history.ac.uk/cal-state-papers/domestic/chas1/1634-5/pp1-23>.

²¹ 'James I - volume 109: June 1619,' in *Calendar of State Papers Domestic: James I, 1619-23*, ed. Mary Anne Everett Green (London: Her Majesty's Stationery Office, 1858), 50-57, accessed January 22, 2015, <http://www.british-history.ac.uk/cal-state-papers/domestic/jas1/1619-23/pp50-57>.

day-to-day subsistence.²² Even if they could somehow save or borrow the fee for the first year to start their coach service, they still needed to pay it yearly, and at an average of 12d a fare as discussed in chapter three, it would have been impossible to make a living. The final result: the fee would have forced the vast number of individually-owned hired coaches out of business and limited coach travel to all but those who could afford to own coaches.

Before the arrival of carriages, however, the city dealt with the same concerns over the growth of carts for moving goods. To resolve the problems, in the early sixteenth century, they began instituting limits on the number of carts, rules on where they could stand, and licensing.²³ Enforcement for non-compliance could mean fines, seizure of cart and goods and, in some cases, imprisonment. It seems like the City considered these rules effective because they used the same methods to try to control the number of carriages. In 1654, the city limited the number of carriages to 300.²⁴ That number is only part of the story as license holders could allow others to drive under their permits. There is a hint of this in an additional provision of the 1654 Act which specifically set the number of coaches to 300, but the number of licensed drivers to 200—who drove the additional 100 carriages? After the Restoration, the number was set at 400,²⁵ matching

²² Boulton, “Wage Labour in Seventeenth-Century London”, 273, 276. [n.b. Calculation is based on an average of wages as reported by Boulton, multiplied by the number of working days in a year, i.e. 365 days minus 52 Sundays and the 34 holidays noted by Boulton in 1669, and restated as pounds sterling.]

²³ Examples of this legislation can be found in Carpenter, *Liber Albus*, 238 (standing carts); Sharpe, *Letter Book H*, Folio 73b, 74 (limit of numbers); City of London. *The Abridgement of an Act of Common Council Passed at the Guildhall in London the Second Day of July 1586...for the Better Government of Carts, Carters, Carres, and Carre Men*. London: 1586 (Combined legislation limiting numbers, where carts could stand, and licensing.)

²⁴ 'June 1654: An Ordinance for the Regulation of Hackney-Coachmen in London and the places adjacent.', *Acts and Ordinances of the Interregnum, 1642-1660* (1911), pp. 922-924. URL: <http://www.british-history.ac.uk/report.aspx?compid=56562> Date accessed: 01 October 2014.

²⁵13-14 Charles II, c.2“ in Anonymous, *Statutes at Large*, 152.

that of licensed carts, but the specific language of license holders versus the number of carriages did not appear in the 1662 Act regulating hackney coaches. Since coachman could have apprentices, it is assumed that they drove under their masters' permits. Additionally, there were special exceptions for those in need of assistance such as Edward Bates, permit holder no. 2, who was infirm because of his service to the crown, and allowed to employ Thomas Veale to drive for him. There was also William Hutchyns, permit holder no. 323, who was quite old and allowed to employ John Thurston.²⁶ It is unclear from the testimony of our witnesses if the assistants drove in place of the permit holder or simply assisted him in his duties. It is also uncertain if the permit system allowed wage-earning employees. It is, therefore, difficult to know the total number of coaches plying the streets of London, but if half the coachmen had apprentices, another ten percent had special needs assistants, and a significant number had employees, then the actual number of licensed coaches on the street may have reached at least double the number of permits.

Of course, the number of licensed coaches is not truly indicative of the actual numbers of professional vehicles on the streets. Licensed coaches were created to carry “for-hire” passengers, but according to the anonymous author of *A List of the 400 Hackney-Coaches Licensed in July and August 1662*, the city’s interdiction against unlicensed coaches appeared to have had little effect, and they thrived alongside the “authorized” coaches:

... there are divers others, who having no license, *do constantly drive coaches without contradiction*, to the great impoverishment of the licensed coachmen.²⁷

²⁶ Anonymous. *A List of the 400 Hackney Coaches Licensed by the Commissioners Appointed by the King's Majesties Commission under the Great Seal of England*. London, 1664, 12.

²⁷ *Ibid.*, 13.

An idea of the possible number of hired coaches comes from the *Mercurius Fumigosus* newspaper of 5 June 1654—the year the city first imposed a limit of 300 on the number of coaches. If this report is accurate and not the fantasy of the author, who was commenting on the use of coaches by prostitutes, the “full number” of hired coaches on London streets in that year was 1500.²⁸ That means it is possible that 1100-1200 coachmen were meant to suddenly lose their livelihood when the new rules went into effect, and many of them may have continued to operate illegally. Finally, coaches, licensed and unlicensed, shared the streets with private and inter-city coaches, horses and sedans, pedestrians, and the 400 carts mentioned earlier, driven by the car-men, along with their apprentices and employees.²⁹

Both the 1654 and 1662 acts covered the cities of London and Westminster, along with the communities in between, but all of these vehicles also had the potential of operating within the limited confines of the 330 square acres that was the ancient city of London, adding to the congestion of London’s network of narrow streets. If everyone played by the rules and treated fellow travelers with courtesy, then movement within the city could have gone smoothly, but that was rarely the case, and a traveler’s progress through the city could be affected by a variety of flaws in human behavior.

Driver Behavior

One of those foibles was the behavior of professional drivers. Hackney coach drivers and

²⁸ *Mercurius Fumigosus or The Smoking Nocturnall* (1654) (London, England), June 5, 1654-July 12, 1654, issue 6, from the Burney Collection of Newspaper at <http://www.galegroup.com>.

²⁹ Stephen Spratt. *The Carmens Remonstrance or a Reply to the False and Scurrious Papers of the Woodmongers*. London: G. Dawson, 1649, 11. [n.b. The number of 400 was set by the 1586 act mentioned above *Abridgement of an Act of Common Council Passed at the Guildhall in London the Second Day of July 1586...for the Better Government of Carts, Carters, Carres, and Carre Men.*]

watermen, as well as their freight-carrying counterparts, the carmen and the lightermen, were often the target of charges of drunkenness, reckless operation, and customer abuse. Pepys describes one coachman that “drove like mad, and down byeways [sic], through Bucklersbury home, everybody through the street cursing him, being ready to run them over.”³⁰ Antiquarian historian, Gordon Winter asserts that “crossing the Thames in the sixteenth century was just as dangerous as crossing the Strand in the twentieth century” due to “rude, ignorant and unskilled watermen.”³¹ Coachmen frequently blocked the streets and reacted negatively when ordered to move by officials. Carriage drivers competed for the streets and would not give way to any to one-another or any other vehicle.³² It was not uncommon for battles to erupt when two drivers vied for right-of-way, and they often responded with verbal abuse and threats of violence to passengers who bargained for fares or gave negative comments on their driving.³³ In 1586, whenever there was an issue of right-of-way, drivers were admonished to not “quarrel and work together to clear the passage.” Any driver who willfully refused to cooperate was liable for prosecution.³⁴

No one was safe, and the official record offers numerous examples of rude and abusive behavior from professional drivers. The 1621 Parliament, finding the city at fault with “supine and unexcusable [sic] negligence,” ordered the Mayor and Aldermen to develop ways to assure

³⁰ Latham and Matthews. *Diary of Samuel Pepys*, Volume 4, 182.

³¹ Winter, “Lost World of London’s Waterman,” 1746.

³² Peacham, *Coach and Sedan*, 39.

³³ Jenner, “Circulation and Disorder”, 45-46.

³⁴ City of London. *Abridgement of an Act of 1586*, section 42.

the drivers “behave themselves toward them [persons of quality] with all respect and courtesy when meeting them in the streets, or elsewhere, forever.”³⁵ The element that was absent from this mandate from Parliament was real suggestions for achieving the desired result. Indeed, it was not as if the city was doing nothing in this regard. In 1617 the preamble to an act passed by the city to control traffic shows the city was very aware of the problem:

Whereas the disorder and rude behaviour of Carmen, Draymen, and others using carts [carriages?] is of late grown to that excess in this city, that many men, women, and children have bee indangered [sic] and some have lost their lives by the unorderly stopping up the streets and passages of this city, and by the occasion of careless leading and guiding of carts, cars, and drays, the nobles and great personages of the realm and others occasioned to pass through the streets of the city, either to attend the King, or other urgent occasions, are ordinarily hindered of their passage in the streets of the city by the multitude of Carts and carts, and the inhabitants of sundry streets, especially of Thames Street, London Bridge and other places are so pestered with the stopping of cars against their shops, as it is both a great hinderance to their trade and dangerous to them and their households. The principle cause whereof is known to be carremen [sic] meeting one another in the narrow streets and will not make way for one another.³⁶

Such rules appeared to be futile: a second-hand, account in the state papers from the reign

³⁵ England and Wales. *Broadside: A Proclamation for Suppressing Insolent Abuses Committed by Base People Against Persons of Quality, as Well Strangers as Others, in the Streets of the City and Suburbs of London, with Parts Adjacent*. London: Bonham Norton and John Bill, 1621.

³⁶ Eric Bennett. *The Worshipful Company of Carmen of London; a Short History*. London: Court of the Worshipful Company of Carmen Publications Committee, 1961,37.

of Charles I, reported an incident in which a coachman struck a gentleman with his whip. The gentleman returned the abuse and struck the coachman with his sword, leading to his prosecution. When called to witness, he asserted that the coachmen's abuse was so severe that "if the king had done as much to him [the gentleman] as the coachmen...he would have struck the king as well."³⁷ The text of the report is a little vague—it is not certain if the gentleman went to trial for the fight or his treasonous remarks.

Even the peerage could not escape the wrath of an offended driver. In 1637, there was the case of John Mohun, son of Lord Mohun,³⁸ who struck a coach horse with his cane. In response, the coachman struck him with his whip and in the ensuing melee between the coachman and Mohun's entourage, Lord Lumley, a passenger in Mohun's coach, was injured.³⁹ Finally, in what was possibly the most extreme example of rude and insolence behavior, there is the 1637 case of William Willis and John Collins, draymen, who refused to yield the right-of-way to Lord Burghley, the Earl of Exeter. When the coach's footmen called out to the draymen that Lord Burghley willed them to stand still till his coach passed, they merely replied, "hold your prating," and then proceeded to sideswipe and overturn the noblemen's coach. For their insolence and actions, the draymen were whipped and committed to Bridewell prison for an undetermined period.⁴⁰

³⁷ 'Charles I - volume 272: July 17-31, 1634,' in *Calendar of State Papers Domestic: Charles I, 1634-5*, ed. John Bruce (London: Her Majesty's Stationery Office, 1864), 153-175, <http://www.british-history.ac.uk/cal-state-papers/domestic/chas1/1634-5/pp153-175>.

³⁸ Possibly John Mohun, 1st Baron Mohun (1595-1641).

³⁹ 'Charles I - volume 363: July 1-15, 1637,' in *Calendar of State Papers Domestic: Charles I, 1637*, ed. John Bruce (London: Her Majesty's Stationery Office, 1868), 276-313, <http://www.british-history.ac.uk/cal-state-papers/domestic/chas1/1637/pp276-313>.

⁴⁰ *Ibid.*

Class and Gender

For historian Mark Jenner, the lack of respect for those above them in the *Great Chain of Being* was evidence that drivers were unable to recognize what Jenner calls early modern London's "differential choreography,"⁴¹ the time-honored mode of behavior that gave deference to those considered social superiors. Gary Stuart De Krey attributes this decay to the growth of a capitalistic society brought on by the commercial revolution which challenged the idea of a traditional paternalistic society embodied in the Great Chain.⁴² In the early modern period there was a growing attitude that class was no longer set in stone and that London was a place where hard work and persistence could allow for social mobility, no matter what the class at birth.⁴³ There is certainly evidence of such a decline in paternal respect. Evelyn mentions it frequently referring to "insolences in the street,"⁴⁴ and the anonymous author of *A Character of England*, refers to carriages as "hell carts" that carry a "legion of devils...cursing and reviling" at their betters.⁴⁵ The law required that drivers on the street give way to "persons of quality and gentlemen,"⁴⁶ but this was not always the case. On 27 November 1660, Samuel Pepys writes of a confrontation that ended very badly: "To Westminster and in King Street there being a great stop of coaches. There was a falling out between a drayman and my Lord Chesterfield's coachmen

⁴¹ Jenner, "Circulation and Disorder", 44.

⁴² De Krey, *A Fractured Society*, 4.

⁴³ Bucholz and Ward, *London*, 9.

⁴⁴ De Beer, *Diary of John Evelyn*, Volume III, 77.

⁴⁵ Evelyn, *A Character of England*, 8.

⁴⁶ Jenner, "Circulation and Disorder", 45.

and one of the footman [sic] killed.”⁴⁷

The idea of deference to customers, especially to “persons of quality and gentlemen,” is a central feature of Jenner’s article, “Circulation and Disorder: London Streets and Hackney Coaches c.1640 – c.1740.” Jenner contends that one explanation of drivers’ bad behavior is that early modern society considered coach drivers as servants, but the coach drivers disputed that designation and declared themselves as “businessmen” with marketable skills. Although hackney coach drivers often developed their skills in the homes of the gentry, they considered themselves of greater status than common servants.⁴⁸ This difference in interpretation of hackney coach drivers’ social status often led to confrontations as they rarely yielded deference to their customers by arguing about fares, ignoring suggested routes, and refusing to enter parts of town they considered dangerous. By these actions, hackney coach drivers contested the idea that class in the early modern world was static and inflexible and, therefore, their behavior was an assertion of their self-declared free status.

It is fairly certain that Pepys did not consider coach drivers, or watermen, as simply servants. One of the most interesting features of Samuel Pepys’ personality was his apparent ability to mix across social classes. This does not mean the Pepys was not proud of his status—there is no doubt about that from his writings, but he often reports on his close associations with coachmen and watermen. He knew many watermen and coach drivers by name—he was even aware of their other activities and concerns himself with their well-being. For example, Pepys

⁴⁷ Latham and Matthews. *Diary of Samuel Pepys*, Volume 1, 303.

⁴⁸ Jenner, “Circulation and Disorder”, 40.

was aware that one of the coach drivers, Carlton, was also a wine merchant.⁴⁹ When a former waterman known to Pepys needed employment, Pepys intervened and referred him for a position as waterman to the Lord Chamberlain. A few days later, he followed up to see if he had got the position.⁵⁰ As the “middling sort’s” version of “noblesse oblige,” Pepys would certainly have written a letter of reference for a loyal or longtime servant vying for a new position, but to appear at the Lord Chamberlain’s office, personally speak on his behalf, and then follow-up a few days later shows a higher level of affection than simple obligation. Pepys also spent some of his free time associating with drivers. His diary of 15 January 1659-1660 mentions that he took his morning draft with Matthews Andrews and three of his friends—all coachmen. On 4 August 1662, he met with Doncaster, “an old waterman of mine,” for dinner. They also invited the coachman to join them, and they ate a “very merry” supper together.⁵¹ Pepys may not have viewed coachmen and watermen as equals, but these are not the actions of a gentleman who viewed them as common servants.

While on the subject of human behavior, of equal importance, is the question: was there a gender dimension to transportation issues? What restraints did women experience in moving about early modern London? According to Laura Gowing, there is a popular conception that the anonymity and fast-changing gender roles of the early modern city allowed London’s women the freedom to work and to wander the streets freely. She cautions, however, that evidence of this freedom is deceptive. The mores of the Elizabethan and early Stuart periods considered the

⁴⁹ Latham and Matthews. *Diary of Samuel Pepys*, Volume 4, 155.

⁵⁰ *Ibid.*, Volume 2, 96.

⁵¹ *Ibid.*, Volume 3, 156; Volume 1, 18.

practice of unescorted women wandering the streets as licentious behavior, and women in the streets alone frequently experienced verbal and physical abuse. “The rhetoric of enclosure [within separate spheres] and the identification of female mobility with sexual and economic disorder shaped female identities and *women’s use of space*. [emphasis added]”⁵²

What do our early modern witnesses say on this topic? First, there do not appear to have been many formal (official) rules concerning the movement of women. Indeed, the 1632 legal commentary, *The Lawes Resolution of Womens Rights or The Lawes Provision for Women*, shows no specific rules thereof. There was a single rule touching the movement of women in a 1606 act from King James I that specified women could not travel outside the kingdom with permission.⁵³ John Trusler (1735-1820), author of *The London Advisor*, mentions a provision of 1331 law concerning the movement of women after dark.⁵⁴ Generally, however, the law books at both the local and national level are silent on this issue.

There may have been no formal rules, but it appears that women suffered from a very loose interpretation of other rules concerning their behavior on the streets. In chapter three, the general rules on night walking, along with Paul Griffiths’ study of nightwalker arrests in the period between 1559 and 1658, was discussed. An interesting gender dimension to Griffiths’ study was a breakdown of those arrests by sex. In every decade covered by the study, the number of women arrested at night vastly outnumbered the number of men. In the six years

⁵² Laura Gowing, “Freedom of the Streets”, 139, 145.

⁵³ England and Wales. Sovereign (1603-1625: James I). *By the King: A Proclamation Touching Passengers*. London: Robert Barker, 1606.

⁵⁴ John Trusler. *The London Advisor and Guide*. London: Literary Press, 1790, 141. [n.b. Trusler cites a provision of 5 Edward III, c. 14 as his source.]

period between 1604 and 1610, two men were imprisoned at Bridewell for night walking, while 195 women suffered the same fate. Between 1642 and 1658—the period covering the English Civil War and the Protectorate, the authorities detained 577 women, but no men at Bridewell. This pattern is consistent throughout the whole period covered in this study.⁵⁵

If the legislation of the period contained no laws on the movement of women, what is the explanation for the vastly unequal treatment of female nightwalkers? Possibly, the text of the 1331 act mentioned above entitled “*Night-Walkers and Suspected Person Shall Be Safely Kept*,” can provide the answer. Interestingly, the provision cited here appears designed to protect women against unreasonable assumptions of their guilt. The act says women are not to be arrested “upon bare suspicion of being ill fame, unless she must actually be guilty of a breach of peace, or some unlawful act.”⁵⁶ The implication of the number of arrests of women, therefore, was that the night watch ignored this admonishment, or was simply ignorant of it, and made a moral assumption that women out at night were automatically vagrants, beggars, or prostitutes, based solely on the fact that they were women.

The idea that the night watch made such extralegal arrests supports Gowing’s assertion that morality governed the movement of women, not law. In *The English Gentlewoman*, the poet, Richard Braithwaite (1588-1673), wrote: “during her abode in the city, she neither wears the street nor wearies herself in her coach; her chamber is her Tying-Room where she bethinks her how she may play her part in the world.”⁵⁷ This passage carries the implication that, even when simply visiting the city, women were expected to pursue their daily activities in the

⁵⁵ Griffiths, *Lost London*, 462.

⁵⁶ “5 Edward II, c.14” cited in Trusler, *London Advisor*, 141.

⁵⁷ Richard Braithwaite. *The English Gentlewoman*. London: Michael Sparke, 1631, 223.

home—not walking (wearing) the streets or exhausting herself riding around on errands or entertainment.

A 1647 petition from “the maid servants in general of the city of London and on behalf of the universal sisterhood of the same servitudinous [sic] rank and quality” provides further evidence of traditions against women alone on the streets. The petitioners demanded that they “have their leave, at our discretion, to take up our coats and steer our course as we please.” In return for this freedom they promise to “abandon all uncivil meetings, to speak and to do all things modestly, not to commit any unnatural acts, engage in riots, and avoid drunkenness.”⁵⁸ The 1640 political satire, “*The Parliament of Women*,” echoed this demand when the authors demanded that women chose if they need an escort or not:

If she have a mind to take the ayre, or walke to Green-Goose Faire, or to any merry meeting or market, if she desires his company, that he new blacke [shines?] his shoes, and put on his best hat and cloak to waite on her, either ushering her before, or take her gently by the arm, and lovingly lead her; of if, for some reason best known to herself, she would have his absence, that he patiently put money in her purse, and stay home without grumbling.⁵⁹

New editions of satire often incorporate changing public attitudes, but new editions of the satire were published in 1646, then again in 1656. In each new edition, the above passage remains, unaltered.⁶⁰

There is evidence, however, that women were often on the streets alone doing

⁵⁸ Anonymous. *The Maids Petition to the Honourable Members of Both Houses*. London: AL, 1647, 1-2. [n.b. The petition goes on to explain that their petition also covered “virgins, maids, and other young women not married.”]

⁵⁹ Anonymous. *The Parlement of Women with the Merrie Lawes by Them Newly Enacted*. London: J. Wright, 1640, no page numbers, but citation appears on the twenty-first page of text.

⁶⁰ Anonymous. *The Parliament of Women with the Merrie Lawes by Them Newly Enacted*. London: W. Wilson, 1646/1656, no page numbers, but citation appears on the seventeenth page of both text.

errands without escort in tow. A 1681 document admonishes women out alone to be aware of a “bum-pinching” perpetrator named, Whipping Tom, and describes several incidents when this occurred.⁶¹ Women also went out alone on business. The Grecian traveler, Nucius Nicander, visiting London in the middle of the sixteenth century observed: “one may see in the markets and streets of the city married women and damsels employed in arts, and barterings [sic] and affairs of trade, undisguisedly.”⁶² A study of London livery records by Peter Earle revealed that widows headed about ten to twenty percent of London households and company rules allowed them to pursue their deceased husbands’ business.⁶³ The widows of cartmen⁶⁴ and coachmen also had this right. It seems logical to assume that female cart drivers wouldn’t operate their vehicles with an extra male driver. We know from the lists of licensed coachmen from the 1660s that some widows hired men to drive for them—the 1664 list contains two licensed “supernumeraries” hired to drive for the widows Walters and Lewen. Those are the only two verified male employees, however, and of the 400 licenses noted on the list, five percent (20) of the licenses were held in the names of women.⁶⁵

⁶¹ Anonymous. *Whipping Tom Brought to Light and Exposed to View*. London: Edward Brooks, 1681, 1-2.

⁶² J.A. Cramer, ed. *The Second Book of the Travels of Nicander Nucius of Corcyra*. London: John Bowyer Nichols and Son, 1841, 10.

⁶³ Peter Earle. *The Making of the English Middle Class: Business, Society, and Family Life, 1660-1730*. Berkeley, California: University of California Press, 1989, <http://ark.cdlib.org/ark:/13030/ft8489p27k/>.

⁶⁴ John Osmond. *A Petition of a Humble Car Man*. London: 1647.

⁶⁵ Anonymous, *List of the 400 Hackney Coaches Licensed*, 1-13.

Alternate Uses of London's Transportation Venues

According to the latest theories on evolution, *Niche Construction* is the process whereby organisms, through their activities or choices, modify their environment to suit their needs.⁶⁶ Niche Construction is a perfect description of the modification of London's transportation assets for uses other than movement. With nearly 400,000 people living in the tight confines of London's square mile, and little or no public space available, it was, perhaps, inevitable that restricting the use of the streets only to transportation would be contested. The people of early modern London filled the space occupied by the streets by engaging in non-transportation activities, and in some cases, they changed the structure of the streets and the surrounding buildings to suit their own needs. At best, these activities hindered movement, but they could bring movement to a complete standstill.

There were many activities going on in the streets, but groups of children playing, herds of animals heading to market, and small groups of people stopping to talk were not significant obstacles to travel. There were also official or religious occasions, such as coronations, funerals, and royal processions, which rerouted traffic but could be avoided with good planning. It was the unexpected, unplanned or spontaneous activities that were the most disruptive to daily movement. Examples of such activities included unofficial markets, unplanned gatherings of all types, punishments, and an odd practice whereby property owners obstructed the streets with new construction.

Market Obstacles

Pepys frequently comments on visits to his favorite vendors, but neither he nor

⁶⁶ Richard Lewontin. *Niche Construction and Evolution*. <http://lalandlab.st-andrews.ac.uk/niche/Evolution.html>.

our other early modern witnesses comment much on the effect of market activity on movement. We know from surviving legislation restricting selling locations, however, that unofficial markets and private stalls often appeared at the whim of the seller, and contributed to congestion in the streets. It was a long-standing issue that appeared in the official record as early as the twelfth century.⁶⁷ Indeed, there were few issues that occupied more of the city's time than recording data concerning its markets.

Acknowledgments of debts and sales transactions appeared in the first folio of *Letter Book A* and comprised the bulk of entries until 1289 when the city began to record punishments for breaking the rules of the market—the first case concerning the prosecution of over 20 bakers for unspecified violations.⁶⁸ From the date of the beginning of *Letter Book A* to the Great Fire, there were thousands of entries on various issues concerning selling goods in the city of London. There were rules on prices, hours of operation, and the amount and type of goods imported into the city. For the goals of this dissertation, however, the focus is on location and the potential for obstruction.

Around 1276, during the second and third years of the Mayoralty of Gregory de Rokesle (1274-1280), the *Letter Books* list a series of rules on markets. These first rules set the size of stalls and specified locations. Vendors could not set up stalls in front of their personal residence; no market stalls on London Bridge; and commanded all market

⁶⁷ Examples of legislation: Sharpe, *Letter Book F*, Folios 102, 123; 'Memorials: 1393,' in *Memorials of London and London Life in the 13th, 14th and 15th Centuries*, ed. H T Riley (London: Longmans, Green, 1868), 531-535, <http://www.british-history.ac.uk/no-series/memorials-london-life/pp531-535>. City of London. *An Act of Common Council for the Reformation of Sundry Abuses by Diverse Persons Upon the Common Markets, and Streets of the City of London*. London: Robert Young, 1631.

⁶⁸ Sharpe, *Letter Book A*, Folio 52b, 120.

activity keep the streets clear for passengers.⁶⁹ A later entry in the *Liber Albus* said stalls must keep to one side of the street and stand “midway between kennels (sewers in the middle of the street), so as to be a nuisance to no one.”⁷⁰ Other acts would follow, but the clearest statement on their potential to be obstructive came in a 1631 act for the reform of markets. In that act, the city found that “the streets are so pestered [by sellers] that passengers are greatly troubled and disturbed.” The city also decisively declared that “the streets and lanes of this city are the King’s high wayes and for the use of passengers.”⁷¹ A 1646 act reiterated that unregulated vendors “hindered passengers on their ways” and put in place additional rules to prohibit wandering sellers (hawkers) and mandated specific days of the week for sales of certain goods.⁷² By the 1650s, market congestion of the streets had become such a problem that it even affected London’s widest street, Cheapside. According to Betty Rowena Masters, in 1657, with the removal of herb traders to St. Paul’s courtyard, the city began moving street vendors off Cheapside altogether.⁷³

⁶⁹ Sharpe, *Letter Book A*, Folios 129b-130, 217-218.

⁷⁰ Carpenter, *Liber Albus*, 228. [n.b. This rule is interpreted as staying to one side of the street because the channel usually ran down the middle of the street.]

⁷¹ City of London. *An Act of Common Council for the Reformation of Sundry Abuses by Diverse Persons Upon the Common Markets, and Streets of the City of London*. London: Robert Young, 1631.

⁷² City of London. *An Act of Common Council Made the Sixth of October 1646 for the Reformation of Sundry Abuses Practiced by Divers Persons in the Common Markets and Streets of the City of London*. London: James Flesher, 1646, 9.

⁷³ Betty Rowena Masters, *The Public Markets of the City of London Surveyed by William Leybourn in 1677*. London: London Topographical Society, 1974, 15.

Gathering Places

One source of possible obstruction came from places where people gathered for everyday activities. At Paul's Cross, a place at the northeast end of St. Paul's churchyard, Street Preachers read sermons and people could hear the latest news—all of which could draw very large crowds.⁷⁴ A similar location would have been any of the conduit heads, sometimes called 'cisterns' or 'standards,' where the citizens of London drew water and scattered throughout the city. Stow lists eighteen of these within the square mile and the liberties.⁷⁵ Some of the conduits, themselves, were significant obstacles to traffic. They were large structures built of stone and ornamented, usually situated in the middle of the streets. The 1638 Herbert and Wilkinson illustration (figure 9) of the procession of Marie d' Medici shows one of the Cheapside standards. It is not an imposing structure, and somewhat demure in a street the size of Cheapside, but large enough to cause significant traffic issues in a street the size of Carter Lane. Some conduits were in substantial buildings, such as two others located in Cheapside. The Little Conduit (figure 10), situated at the east end of the street, next to St. Michael le Querne church and, roughly, at the site of the current St. Paul's tube station entrance, was approximately thirty-two feet wide by sixteen feet long.⁷⁶ The Great Conduit, located at the east end of Cheapside near the intersection with Old Jewry, and barely visible on the Agas map (figure 11), was a long building twenty feet from side-to-side and extended forty-five feet down the middle of the

⁷⁴ Bucholz and Ward, *London*, 49.

⁷⁵ Kingsford, "Of the Ancient and Present Rivers," Stow's *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60017>.

⁷⁶ Measurement from the scale used by Ralph Treswell in Schofield, *London Surveys of Ralph Treswell*, figure 1, following page 22.

street.⁷⁷ *The London Dictionary* confirms that the conduits were traffic hazards—this was one of the reasons the Great Conduit was not rebuilt after the Great Fire and why many of the conduits were removed entirely early in the eighteenth century.⁷⁸

In general, the conduits themselves were traffic obstacles, but they were also well-known congregating places and the crowds drawn to them often stopped traffic altogether. In addition to people, carts and carriages also congregated at the conduits. Since people congregated there, drivers probably saw the conduits as a place to wait for fares or simply as a pleasant place to wait during breaks. This appears to have become a nuisance, however, and in 1586, the City acted to limit the number of vehicles that could stand at conduits.⁷⁹ Such limits were later extended to carriages as well with an additional rule that required drivers to stay on their vehicles and not engage in conversation with those gathered there.⁸⁰ Demonstrations often started, stopped, or finished there. In 1658, a march through the city to proclaim Richard Cromwell as Lord Protector stopped at the Great Conduit.⁸¹ In 1654, The *Mercurius Fumigosus* described a contest (probably satirical) between two old women over who could crack the most walnuts with their

⁷⁷ Keene, D.J.; Harding, Vanessa., "St. Mary Colechurch 105/36: St. Mary Colechurch: the great conduit," *Historical gazetteer of London before the Great Fire: Cheapside; parishes of All Hallows Honey Lane, St Martin Pomary, St Mary le Bow, St Mary Colechurch and St Pancras Soper Lane*, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=2536>.

⁷⁸ Harben. "Great Cock Alley-Great Fryers Gate" and "Conduits" in *A Dictionary of London*, <http://www.british-history.ac.uk/report.aspx?compid=63149> & 63087.

⁷⁹ City of London. *The Abridgement of an Act of Common Council Passed at the Guildhall in London the Second Day of July 1586...for the Better Government of Carts, Carters, Carres, and Carre Men*. London: 1586.

⁸⁰ City of London. *Rules, Directions and By-Laws, Devised, and Made by the Court of Alderman of the City of London, by Vertue of the Late Ordinance of His Highness the Lord Protector, with Consent of His Councill, for the Regulation of Hackney Coachmen within the Said City and Places Adjacent*. London: James Flesher, 1655, 6.

⁸¹ *Mercurius Politicus Comprising the Summ of All Intelligence* (London, England), September 9, 1658 - September 16, 1658; Issue 433.

teeth. They congregated at the conduit in Cheapside, then walked to each of the conduits in the city. As they went, they gathered additional spectators before ending at Bridewell to perform the terms of the wager.⁸²

The conduits were a landmark that drew people to them for various reasons. It seems logical to assume that people would gather there to gossip. They were also places of celebration and decorated for special occasions and the *London Dictionary* and the newspapers of the era mention that the conduits were converted to run with wine during special events.⁸³ Henry Machyn says that the standards could also be a stop on the “carting” routes. Carting was a shaming ritual where the offenders, mostly charged with morality offenses, were carted through the city an attendant announced their crimes to the people. A harsher form of this was the cart ride to a place of execution. There were other methods of public shaming in the form of the stocks, or pillory, and cages setup as temporary/impromptu prisons in very public places. They did this without Cripplegate and in Newgate market in February 1596, as well as several other places around the city, after a series of street riots threatened the city’s stability the previous year.⁸⁴ The stocks were a form of minor imprisonment where offenders were locked into a set of interlocking boards with arms and head thrust through holes (figure 12), then suffered public derision as punishment for their crimes. The City setup stocks ad hoc at various locations throughout the city wherever the stocks would have greatest visibility. Whether carted, caged,

⁸² *Mercurius Fumigosus or The Smoking Nortunall*. (1654) (London, England), December 6, 1654-December 13, 1654: Issue 28 from The Burney Collection of Newspapers.

⁸³ Henry A Harben, 'Great Cock Alley - Great Fryers Gate,' in *A Dictionary of London* (London: H Jenkins LTD, 1918), <http://www.british-history.ac.uk/no-series/dictionary-of-london/great-cock-alley-great-fryers-gate>; *Mercurius Democritus or A True and Perfect Nocturnall* (London, England), October 12, 1653 - October 19, 1653; Issue 78 in the Burney Collection.

⁸⁴ M.J. Power. "London and the Control of the 'Crisis' of the 1590s." *History*, 70, 230 (October 1985), 380.

imprisoned in the stocks, or hung, public punishments drew crowds (figures 12 & 22) and many punishments took place in the streets and, hence, could result in traffic congestion. There were, of course, official places of execution, such as the Tower of London, and the hanging tree at Tyburn, roughly three miles west of the center of the city. Announced executions drew significant numbers of people and it is not difficult to imagine crowds following the cart as it made its way toward present-day Marble Arch.

The officials of the city of London, however, could carry out executions anywhere, and our early modern witnesses record the installation of many ad hoc gallows all over London throughout the Tudor-Stuart period. One reason for temporary gallows was intimidation, such as the time in 1661 when a gallows was set up outside the door of an Alderman who supported of the Scotch Covenanters.⁸⁵ For the execution of Lady Jane Gray and her supporters in February of 1554, Henry Machyn records temporary gallows at every gate in London, two pairs of gallows in Cheapside and Fleet Street, and one pair each in Holborn, Leadenhall, and on Tower Hill.⁸⁶ The *Kingdome's Intelligencer* reported in January of 1661 that an execution of Fifth Monarchists conspirators, Thomas Venner and Roger Hodgkins by quartering was carried out in Colman Street. At the same time, their co-conspirators were hanged or beheaded in Wood Street, in the street before the old Exchange, and in both Whitecross and Redcross Streets, along with other unnamed places. Pepys mentions meeting Venner and Prichard on their cart in his diary entry for 19 January 1660/1661.⁸⁷ To illustrate the possible repercussions for traffic in the narrow

⁸⁵ *Kingdome's Intelligencer* (1661) (London, England), June 3, 1661 - June 10, 1661; Issue 23.

⁸⁶ Nichols, *Diary of Henry Machyn*, 55.

⁸⁷ *Kingdome's Intelligencer* (1661) (London, England), January 14, 1661 - January 21, 1661; Issue 3; Latham and Matthews. *Diary of Samuel Pepys*, Volume 2, 18.

streets of seventeenth century London whenever one of these executions occurred, Pepys reported that at the January 1663/1664 execution of an armed robber, Colonel Turner, 12,000 to 14,000 people filled the street in St. Mary's Axe, near the intersection of Leadenhall and Lyme Streets.⁸⁸ With that number of spectators, it is possible to speculate that St. Mary's Axe were impassable and probably obstructed the streets for several blocks along Leadenhall, Cornhill, Lyme, and Bishopsgate Streets.

Encroachments

At first glance, it seems like encroachments would have been a wholly a land-based infrastructure problem, but while encroachments could severely affect travel on the streets of early modern London, this issue was apropos to navigation on the Thames, as well. In this case, however, the issue was a type of encroachment in the form of fishing dams. Keeping the river clear of man-made blockages was of paramount importance to river's role as a transport venue. The city combated private dams and mills that extended too far out into the Thames, but most of the obstructions came from the fishing industry. It was the nature of ancient fishing practices to use some form of trap—fishing nets are the modern equivalent. Nets were also used in this instance but were drawn across the whole breadth of the river and staked in place. This method was known as a “kidel” or sometimes a “trink” after trinkermen, a term used to identify fishermen who used nets. A similar method was the use of “weirs” (wears)—a wooden dam set across the river that forced the fish through netted openings. At best, these methods were inconvenient to free movement on the Thames and, at worst, a hazard that claimed lives.⁸⁹ Ships

⁸⁸ Latham and Matthews. *Diary of Samuel Pepys*, Volume 5, 23.

⁸⁹ 'Henry V: May 1421', in *Parliament Rolls of Medieval England*, ed. Chris Given-Wilson, Paul Brand, Seymour Phillips, Mark Ormrod, Geoffrey Martin, Anne Curry and Rosemary Horrox (Woodbridge, 2005), <http://www.british-history.ac.uk/no-series/parliament-rolls-medieval/may-1421>.

were forced to navigate around them, and when the tide was high, these obstructions were invisible to those using the river. Running into kidel stakes could cause damage or injury, and possibly overturn small craft. Ramming full-sail, however, into a submerged wooden weir could sink even larger vessels.

The use of kidels and weirs was such a problem that the *Letter Books*, the *Statutes-at-large*, the *Liber Albus*, and the aldermanic repertories mentioned them frequently, and they even merited a provision in the Magna Carta in 1215.⁹⁰ A sampling of early modern legislation finds that in the period between 1495 and 1515, the Court of Aldermen found it necessary to order the removal of kidels and weirs eighteen times—almost once a year.⁹¹ Although the numbers decreased significantly, there were still orders to remove dams, nets, and “general nuisances” from the Thames on the eve of the Great Fire in 1666.⁹² At the same time, reports of encroachments on the Thames increased, so the reduction in reports of dams, etc., may indicate that the City had begun to identify such things as encroachments.

Returning to land-based infrastructure, in the twenty-first century most major cities have rigid rules limiting encroachments on public land. Such rules also existed in early modern London, but encroachment on the streets by adding to their homes or buildings was a frequent

⁹⁰ “Clause 33” in The British Library’s English Translation of the Magna Carta. <http://www.bl.uk/magna-carta/articles/magna-carta-english-translation>. Accessed 9 August 2015.

⁹¹ London Metropolitan Archives, COL/CA/01/02, *Indexes for the Repertories of the Court of Aldermen*, 1495-1857.

⁹² London Metropolitan Archives, COL/CA/01/02, *Indexes for the Repertories of the Court of Aldermen*, 1495-1857, Folios 61-74. Dams: Repertory 65, Folio 146; Nets: Repertory 63, Folio 434b; and Nuisances: Repertory 66, Folios 148 and 193.

problem. Stephen Inwood informs us that this was a serious problem and could take the form of whole structures, or simply upper stories protruding out over the streets. In medieval London, these issues were a civil problem and dealt with through the courts,⁹³ but a review of extant legislation shows that the city began enacting legislation to fight the practice as early as the reign of Richard I (1189-1199) with passages in the Assize of Buildings.⁹⁴ It appears to have had little effect as the legislation was reenacted many times in the intervening years and was still part of John Evelyn's mandate as "commissioner of ways" on the eve of the Great Fire.⁹⁵ Stow mentions that the city had a serious problem with encroachment and bemoaned the fact that the city fathers appeared oblivious to it:

But now in our time, instead of these enormities, others are come in place no less meet to be reformed: namely, purprestures, or encroachments on the Highways, lanes, and common grounds, in and about this city, whereof a learned Gentleman, and grave citizen hath not many years since written and exhibited a Book to the Mayor and community, which Book whether the same have been by them read, and diligently considered upon I know not, but sure I am nothing is reformed since concerning this matter.⁹⁶

Stow's main concern in this passage was the fire hazards of street blockages, but any street "growing very narrow by means of late encroachments"⁹⁷ could affect the flow of traffic as well.

⁹³ Inwood, *History of the City of London*, 123.

⁹⁴ "Additions to the Chronicles: Assize of buildings (Richard I)," in *Chronicles of the Mayors and Sheriffs of London 1188-1274*, ed. H T Riley (London: Trübner, 1863), 179-187, <http://www.british-history.ac.uk/no-series/london-mayors-sheriffs/1188-1274/pp179-187>.

⁹⁵ Reddaway, *Rebuilding of London After the Great Fire*, 37.

⁹⁶ Kingsford, "Of Orders and Customes of the Citizens," Stow's *Survey of London*, <http://www.british-history.ac.uk/no-series/survey-of-london-stow/1603/pp79-91>.

⁹⁷ Kingsford, "Cripplegate Ward," Stow's *Survey of London*, <http://www.british-history.ac.uk/report.aspx?compid=60047>.

In discussing the subject of encroachments, it is necessary to revisit the concept of common soil and delve deep into the medieval period for precedent. Briefly, the term “common soil” meant the city held in common any land used by the citizenry-at-large, and not privately owned, and it was up to the city to maintain and defend it. According to the author of the *Common Soil and the Agreed Translation of the Charter of 23 Henry VI (1444)*, determining which streets formed part of the common soil was difficult and open to interpretation. There was no specific street plan or document that showed the city’s ownership of streets in general.⁹⁸ Earlier we found that owners were held responsible for the cleaning and maintenance of the streets bordering their property. Because of this responsibility, and the vagueness of the extent of the common soil, it is not difficult to see why some acted as if they owned the streets in front of their property as well. The official record contains ample evidence of the city’s efforts to disabuse property owners of the notion that they could make use of the common soil at will.

There was, of course, legislation prohibiting certain practices. During the reign of Richard I (1189-1199), the Assize of Building contained a clause that stipulated a general rule against “making pavements” into the King’s highway “to the nuisance of the City and of his neighbor.”⁹⁹ The text of this rule is somewhat vague; therefore, it is open to interpretation. It could apply to the “height of pavements” issue mentioned above, but could be interpreted to mean laying foundations, i.e. building into the streets. There were

⁹⁸ City Solicitor. *Common Soil and the Agreed Translation of the Charter of 23 Henry VI (1444)*. 1.

⁹⁹ “Additions to the Chronicles: Assize of buildings (Richard I),” in *Chronicles of the Mayors and Sheriffs of London 1188-1274*, ed. H T Riley (London: Trübner, 1863), 179-187, <http://www.british-history.ac.uk/no-series/london-mayors-sheriffs/1188-1274/pp179-187>.

also a few rules published in the *Letter Books*, such as the 1375 stipulation that tavern signs could not project out over the highway more than seven feet.¹⁰⁰ The best source of information concerning medieval rules against building into the streets, however, can be found in the *Liber Albus*. In this document, published in 1419 as a compilation of civic rules then in effect, we find prohibitions against building in the street in front of the property, including free-standing structures and stairs to the basement. In reference to extending upper floors, a practice referred to as “jetties” or “jutties,” there is a rule that stipulates that they cannot project more than two and a half feet and not lower than nine feet from the ground so that “persons may easily go and ride beneath the same.” Finally, the city required masons and carpenters to swear they “will make not purprestures upon the streets or lanes within the city, or the suburbs...contrary to the statutes of the city from ancient times ordained.”¹⁰¹

Despite the laws, and the prospect of hefty fines with a possible order to demolish offending structures, the primary tool used by the city to enforce the sanctity of the common soil was legal action. Throughout the medieval and early modern periods, the city played a game of “cat and mouse” with property owners where the latter asserted common property, and the city responded to protect its prerogative. In the London Eyre for January 1246, the city considered actions against two walls, three forges, and five

¹⁰⁰ Sharpe, *Letter Book H*, Folio 22, 74.

¹⁰¹ Carpenter, *Liber Albus*, Front of property, 410; Jetties, 237 & 290; Masons and Carpenters, 410.

stables—all built in the roadway.¹⁰² In the early modern period, the stable and forges were gone but replaced by more mundane items such as sheds and benches.¹⁰³ In 1618, Christopher Allanson expanded a building on his property over twelve feet into Blackhorse Alley. The city responded with an order of demolition.¹⁰⁴ Then, there was the early sixteenth century claim by the Dyers Company in which they claimed ownership of the entirety of Bretastle Lane in Newgate Ward. The City, unsure of their jurisdiction, began an investigation that ultimately found Bretastle Lane was, indeed, common soil.¹⁰⁵ Such cases established the city's jurisdiction in keeping the streets clear of obstruction and preventing hostile takeovers of the common soil by private interest.

Around 1500, the records of the Court of Alderman reported that encroachments had become so prevalent that the city was forced to appoint a board of viewers to combat the problem.¹⁰⁶ A century later, in the period 1599-1626, the issue of encroachment came up nearly 60 times in the *Index of the Repertories of the Court of Aldermen*.¹⁰⁷ It is,

¹⁰² 'Special Inquest into Purprestures: January 1246 (nos 348-486),' in *The London Eyre of 1244*, ed. Helena M Chew and Martin Weinbaum (London: London Record Society, 1970), 136-153, <http://www.british-history.ac.uk/london-record-soc/vol6/pp136-153>.

¹⁰³ London Metropolitan Archives, COL/CA/01/01/003 & 10, *Repertories of the Court of Aldermen*, Repertory 3, Folio 13 & Repertory 10, Folio 342b.

¹⁰⁴ 'James 1 - volume 98: July 1618,' in *Calendar of State Papers Domestic: James I, 1611-18*, ed. Mary Anne Everett Green (London: Her Majesty's Stationery Office, 1858), 550-563, <http://www.british-history.ac.uk/cal-state-papers/domestic/jas1/1611-18/pp550-563>.

¹⁰⁵ London Metropolitan Archives, COL/CA/01/01/002, *Repertories of the Court of Aldermen*, Repertory 2, Folio 125.

¹⁰⁶ London Metropolitan Archives, COL/CA/01/01/01, *Repertories of the Court of Aldermen*, Repertory 1, Folio 162.

¹⁰⁷ London Metropolitan Archives, COL/CA/01/02, *Indexes for the Repertories of the Court of Aldermen, 1495-1857*, Folios 25-40.

therefore, not difficult to understand the reason the city so zealously guarded against encroachments on the streets. For perspective, it is only necessary to remember the images of the city, as portrayed in Claes Visscher's 1616 *Panorama of London* and Wenceslas Hollar's 1646 *View of London*, examined in chapter one.¹⁰⁸ In both representations, it appears that the streets of London were all but invisible to the artist. The streets of the ancient city were very narrow—only about the width of a single lane of a twenty-first century highway. It is, therefore, easy to imagine a city, with encroachment gone mad, where the upper stories all but touch one another across the roadway, creating a cityscape of continuous rooftops punctuated with an occasional church spire. Below the carpet of rooftops, on a roadway reminiscent of that on London Bridge, and blocked by numerous obstructions the City failed to eliminate, movement would be at a standstill. It would be hard to envisage London's growth and rise to prominence during the late medieval and early modern period in a city so constructed.

Medieval London in Ruin

In the early morning hours of 2 September 1666, a blaze erupted from the bakery of Thomas Farriner in Pudding Lane. The fire burned for four days and left all but a narrow margin of the medieval city along the eastern wall in ruin. In the west, it burned within a few hundred yards of westernmost border of the city at Temple Bar. The fire presented the city with an opportunity to redraw the transport map of early modern London. Such men as John Evelyn and Christopher Wren offered insightful plans for London's rebuilding, yet except for a few new roads and the addition of modern

¹⁰⁸ See Chapter two for the discussion on Visscher and Hollar's depictions of the city.

architecture, the city's twenty-first century street layout would be instantly recognizable to any resident of London before the Great Fire. What happened? In chapter five, we will examine the plans for rebuilding the city in the aftermath of the Great Fire—focusing on how the fire affected London's transportation environment.

CHAPTER FIVE

THE GREAT FIRE AND LONDON'S TRANSPORTATION SPACE, 1666-1675

The story of the Great Fire began on 2 September 1666 in a baker's shop within the walled city of London. Nothing special, fires in the ancient city were somewhat frequent occurrences, and the diarist, Samuel Pepys, seeing the blaze from his window, went back to bed confident in the fact that the fire was far enough from his home to not be a threat.¹ According to popular legend, the Lord Mayor of London responded in similar fashion—deriding the fire as insignificant.² Whether the Mayor's derisive response is truth or apocryphal, he hesitated, and the hesitation was costly. Stoked by an easterly wind, the Great Fire burned for four days, defying the combined resources of the city of London and the central government at Westminster to suppress it, finally succumbing to a change in the winds. At the fire's conclusion, the old city lay in ruins: 13,200 houses, the Royal Exchange, forty-four of the city's company halls, venerable old St. Paul's, and eighty-seven other parish churches were gone. All told, contemporary estimates placed the cost of the fire at ten million pounds sterling.³ The devastating news spread quickly, even outside of London. Writing from his remote Welsh parish of Bangor-is-y-Coed, the non-conformist minister, Philip Henry (1631-1696), reported:

A lamentable fire began in London, in a Baker's house in Pudding Lane behind

¹ Latham and Matthews. *Diary of Samuel Pepys*, volume 7, 268.

² Reddaway, *Rebuilding of London After the Great Fire*, 22.

³ *Ibid.*, 26.

the King's Head Tavern in new Fish-Street, which continu'd burning till Thursday following, laying wast [sic] that famous and beautiful City, except a very small remnant of it, [leaving it] in its own rubbish.⁴

As traumatic as the fire was to the citizens of the ancient city, within days plans for its resurrection began to flood into the temporary office established by the city's aldermen—the body that made the ultimate decision on rebuilding. Many of the plans, drawing on the example of other Renaissance redevelopments in Europe, called for a total redefinition of central London. If adopted, London would have closed the seventeenth century as a new city rivaling Sixtus V's redefinition of Rome in the late sixteenth century.

Ultimately, however, the city aldermen rejected all of the plans for a “new” London and opted for a more modest effort. London would, in the words of T. F. Reddaway, author of the seminal work on the rebuilding effort, be “reconditioned”⁵—renovated, albeit with some improvements—not remodeled. Reddaway does an excellent job discussing the political reasons behind that decision and asserts that the designers' plans simply did not fit the needs of the city as perceived by the decision-makers. So, the rebuilding followed a political, rather than utilitarian, plan and the straight, broad, boulevards of a Renaissance metropolis would not be a part of the new London transportation paradigm. For this dissertation, however, it is a useful exercise to review the designers' plans to see how they would have addressed London's transportation problems. What transportation issues, if any, did the designers seek to address? In order to answer this, it is necessary to review the extant plans. In addition, this chapter will

⁴ Matthew Henry Lee, ed. *Diaries and Letters of Philip Henry, M.A. of Broad Oak, Flintshire, A.D. 1631-1696*. London: Kegan Paul, Trench & Co., 1882, 192.

⁵ Reddaway, *Rebuilding of London After the Great Fire*, 2.

examine the final rebuilding plan, the pace of rebuilding, and the ultimate form of London's restored transportation venues.

A Renaissance Metropolis Thoughtfully Considered

Of the seven known plans submitted to for rebuilding London after the Great Fire, details of only six survive. The seventh, submitted by surveyor Peter Mills, the only designer to have any experience in the building trades, is known only because contemporary sources mention it, but no details survive. Also, according to Adrian Tinniswood, a plan by William Petty (1623-1687) was not finished and officially presented,⁶ so it is known only by a few surviving notes. Based on references in the diaries of Pepys, Evelyn, and Oldenburg, Reddaway conjectures that there was probably a multitude of others now lost to time.⁷ The five extant plans are those by the diarist, John Evelyn (1620-1706); the architect, Christopher Wren (1632-1723); cartographer, Richard Newcourt (1610-1679); London's city surveyor, Robert Hooke (1605-1703); and naval officer, Captain Valentine Knight (dates unknown). The following is a review of the transport provisions of the individual plans—to help the reader follow the discussion, appendix C contains a comparative summary of the provisions of each plan.

All of the plans called for a total redefinition of the layout of the old city of London—the difference was in scope. Both Wren and Evelyn's plans imposed a complicated grid, but rearranged the entire city, moving districts, markets, industries, etc. The plans of Newcourt, Knight, and Hooke also imposed a grid,⁸ but the arrangement was much simpler and the only

⁶ Adrian Tinniswood. *By Permission of Heaven: The True Story of the Great Fire of London*. New York: Riverhead Books, 2004, 200.

⁷ *Ibid.*, 199-200.

⁸ *Ibid.*, 201.

relocation is implied in the new arrangement of the streets. A new street layout, however, would have meant a redistribution of property, the problems of which are discussed in greater detail later in this chapter. Although London's urban mythology says that Wren and Evelyn's plans were a missed opportunity to create a London reborn in the spirit of the Renaissance, it appears that such plans were simply impractical. In the words of one commentator, the plans were "generally held to be a product of an architect's imagination,"⁹ while another says, "both cities [London as shown in the Evelyn and Wren plans] would seem designed for giants and nothing as insignificant as ordinary humans."¹⁰

An inspection of Wren's and Evelyn's plans (figures. 13 & 14) shows that the plans were very similar. We now know that Wren and Evelyn shared their plans before presenting them to the King on 13 & 11 September respectively, so the similarities are not as surprising as they seem.¹¹ On both plans, the area affected by the great fire is shown in gray, and the Royal Exchange (middle right) and St. Paul's (middle left) remain as anchors. Roads converge at London Bridge and St. Paul's, and a series of five great roads run east-west, while a similar series of roads run north-south. The Great Roads, in each case, would be very wide: ninety feet for Wren,¹² one hundred for Evelyn.¹³ The smaller north-south roads and secondary east-west

⁹ J. Hanson. "Order and Structure in Urban Design: the Plans for Rebuilding London After the Great Fire of 1666," in *Ekistics: The Problems and Science of Human Settlements* 334 (1989): 25.

¹⁰ John Hearsey. *London and the Great Fire*. Philadelphia: Dufour, 1966, 179.

¹¹ Evelyn, John, and Esmond Samuel De Beer. *London Revived: Consideration for Its Rebuilding in 1666*. Oxford: Clarendon Press, 1938, 2. [n.b. Quoted from a letter from Evelyn to Henry Oldenburg, 22 December 1666.]

¹² Hearsey, *London and the Great Fire*, 180.

¹³ Evelyn and De Beer, *London Revived*, 37. [n.b. To put this in perspective, according to the U.S. Department of Transportation, the average width of an interstate highway lane in both the United States and Canada is 10-12 feet

roads would be 35-45 feet. Both Evelyn and Wren called for grading out the steepest rises in the city to allow for easier road traffic; rigidly defined market areas; and legislation prohibiting any obstructions in the streets. The octagonal design of the Fleet district is almost identical in both plans except for the bypass roads along the northern edge and each corner of the Wren plan. Evelyn also advocated relocating sewers (kennels) and pipes to get them out of the roads, and paved, segregated, walkways, i.e. sidewalks.¹⁴

Wren's bypass roads were probably designed to accommodate the redevelopment of the Fleet as a business district as called for both plans. Evelyn also wanted to redevelop the Fleet Ditch (River) to allow ships to sail up the river all the way to Holborn Bridge that crossed the river without Newgate, as they had during the medieval period.¹⁵ He also called for improved bridges over the Fleet and deep-water docks and quays for flood control along the Thames—Wren concurred on bridges, quays, and docks.¹⁶ Some of these elements, including the redevelopment of the Fleet survived the vetting process and became part of the rebuilding plan—although the inclusion of the Fleet project did not appear until the Second Rebuilding Act of 1671.

depending on location and use—making Evelyn's streets the equivalent of a nine to ten lane interstate highway. Evelyn produced two later variations of his plan that differed only in minor details—in subsequent plans, the roads were more consistent in size—60 feet for the primary east-west roads and 45-50 for all other roads.]

¹⁴ Ibid., 52-53.

¹⁵ See discussion on Fleet Ditch in chapter two.

¹⁶ Details on the Evelyn and Wren plans see Evelyn, *London Revived*; Hearsey, *London and the Great Fire*; Tinniswood, *By Permission of Heaven*; and Hansen, *Urban Designs* as well as reference to the map diagrams provided by the London Metropolitan Archives, Collage Collection. [n.b. all graphics of the rebuilding plans from the Museum of London's site—except the Newcourt Plan, figure 4, which was drawn by the author.]

The plans of Evelyn and Wren were quite detailed and included many different facets that appear to address problems in the pre-fire city. The other plans by Newcourt, Hooke, and Knight relied almost solely on a redefinition of the street system. The Hooke plan (figure 15) called for a grid of blocks similar to modern cities described as “exact straight lines with cross streets at right angles;” a broad quay along the entire length of the city on the Thames; and four large markets areas. The Newcourt plan¹⁷ was a variation of Hooke’s squares, but two additional roads—one running north-south, the other east-west—divided each square of the grid into four smaller units. At the intersection of these roads was a plaza, each of these would have contained a church. Newcourt’s intent was that each set of four 570’ x 855’ squares would provide a self-contained neighborhood that would accommodate the total population of a single pre-fire parish. A unique aspect of Newcourt’s plan was the addition of three new gates in the London wall bringing the total to nine.¹⁸

Finally, the Knight plan (figure 16) was also a variation of the right-angle grid but arranged in oddly elongated rectangles instead of squares. The plan also provided width information for each of his streets, which ranged from 20 to 60 feet wide.¹⁹ There is little else in the plan except one very interesting facet that had the potential to help resolve some of the traffic problems. One of the most congested areas of the city was the streets around the Thames-side docks. Knight’s plan included a “Thames-Bypass,” although he does not refer to it as such. It

¹⁷ A good quality image of the Newcourt plan could not be found.

¹⁸ Hansen, *Urban Designs*, 28.

¹⁹ Valentine Knight. *Proposals of a New Model for Rebuilding the City of London With Houses, Streets, and Wharfs to Be Forthwith Set Out by His Majesty's and the City Surveyors : with the Advantages That Will Accrue by the Building the Same Accordingly*. London: 1666. Broadside.

was a thirty foot wide canal, from Billingsgate below London Bridge, that cut a swath north toward Bishopsgate, then west, crossing close to Moorgate and Cripplesgate, then passing through the wall to connect with the Fleet at Holborn Bridge. The plan called for wharves, eighty feet wide, on both sides of the canal. Knight does not give a reason for this suggestion, at least the reasoning is not extant, but consider the possibilities this offered. Instead of offloading to carts at the Thames-side docks below London Bridge, freight could off-load to barges that would sail up the canal and then offloaded to carts on the northern and western perimeters of the City. Carts transporting goods into the city could take advantage of numerous unloading points, rather than contributing to the congestion around the docks. Similarly, carts transporting goods to points north and west of the city could wait close to the northern gates and immediately be on their way without navigating the city streets from the docks. The canal also bypassed London Bridge which, due to its construction, limited freight transport to the lower pool.²⁰

Unfortunately, Knight does not specify a depth, but such a bypass could be cut deep enough for smaller freight vessels, such as cogs or caravels,²¹ to avoid the bridge and continue up the Thames to points west. Finally, it could also mean that terrified passengers would no longer have to “shoot the bridge.” Of course, the obvious question arises: would the city be able to maintain such a canal, or would it suffer the fate of the Fleet and the Walbrook, eventually falling into disrepair and disappearing beneath the pavements of London?

Collectively, the similarities of the individual plans imply that the designers were

²⁰ The lower pool is the part of the Thames east of London Bridge.

²¹ Cog (ship) at [https://en.wikipedia.org/wiki/Cog_\(ship\)](https://en.wikipedia.org/wiki/Cog_(ship)), Caravel at <https://en.wikipedia.org/wiki/Caravel>. URLs verified: 10 August 2016. [n.b. Cogs and Caravels were both small freight vessels with an average beam (width) of 6 meters or 18 feet.]

responding to some need instantly recognizable to early modern Londoners. Wider streets would certainly make it more difficult for fire to spread so rapidly as had happened in the Great Fire. It is also possible that the designers simply saw wider streets or a geometric grid as the epitome of Renaissance efficiency and aesthetics. It seems logical, however, that they would tailor their designs to address long-standing problems in Early Modern London. With that in mind, what problems do those aspects of the design that take a central role in the plans address? What does a redefined street grid, improvements to docks and quays, gently sloping streets, pedestrian thoroughfares, and legislation to clear obstructions from the streets accomplish?

One possibility is that the designers were responding to the idea that the streets of Early Modern London were impossibly congested—that is, London’s legendary traffic. Wider streets, more streets, or a tightly-defined street grid all point to an attempt to create more space on the streets or make maximum use of the space already available. Deep-water docks and quays along the river are significant improvements in the infrastructure of one of the most important thoroughfares in the Early Modern period—the Thames. Re-grading the city landscape to allow for gently sloping streets, would have maximized transport efficiency in a society where human and horsepower were the motive force for transportation—both prone to exhaustion. Finally, calling for legislation restricting markets to certain zones, or that streets remained unobstructed, recalls the discussion in previous chapters on street cleaning, clearing obstacles, and market activity.²² Implicit in all of the above is the idea that the designers were actively seeking to address long-standing problems and called for a significant upgrade of the transportation infrastructure of early modern London to resolve them.

²² See chapters 2 & 3 for this discussion.

Nor can we assume that the designers were fanciful idealists who crafted their designs simply to create a city of envy on the Renaissance model. All of those whose plans survive were certainly qualified to create a new city design. Wren was an architect, among other things; Hooke was London's city surveyor and subsequently appointed to restore the street layout, and Richard Newcourt was a draftsman and cartographer. All of these men were experienced in building and urban design, but the other two, Knight and Evelyn, found their credentials in their work outside those professions.

Until recently the credentials of Valentine Knight were unknown, but thanks to the works of Mark Jenner, Knight can take his place properly among the designers. A loyal member of Charles I's Royalist army and of his Majesty's (Charles II) forces in exile, Knight's background was primarily military. When the Privy Council considered his plan, he was acknowledged as Captain Valentine Knight, but by that time, he had become a property developer,²³ although his success in this area was questionable. Knight would go on to be appointed overseer of the hackney coachmen by Charles II in 1662 and worked closely with the newly formed commissioners for highways and sewers, the body on which both Evelyn and Wren would serve.²⁴ It appears, therefore, that Knight's proposal was not the imaginings of an unqualified amateur, but a proposal from someone active in both property development and transportation professions of the time.

It may have been his loyalty to Charles II, and his probable support of the King's military

²³ Mark Jenner. 'Print Culture and the Rebuilding of London after the Fire: The Presumptuous Proposals of Valentine Knight', *Journal of British Studies*, 56(1), 10.

²⁴ *Ibid.*, 11-12.

actions, that prompted Knight to include a provision in his rebuilding plan to fund the King's defense of the realm and campaigns overseas. In his plan, Knight suggested that the king take a levy against Ground Rents for rebuilt properties that would have amounted to between £29 10s to £45 10s per house that he estimated would yield £223,517—an amount that far exceeded the total hearth tax revenue.²⁵

Unfortunately, this provision backfired. Charles II, incensed by the suggestion that he should benefit from the catastrophe, imprisoned Knight for his audacity. At least, that is the assertion that comes down to us, based on an entry in the *London Gazette* of 1 October 1666, and repeated by subsequent researchers on the rebuilding effort, such as the journalist, Walter G. Bell and town planner, Elbert Peets.²⁶ According to Mark Jenner, however, the reasons behind Knight's prison sentence were not as simple as stated in contemporaneous reports. In an article published in the winter of 2017 entitled, *Print Culture and the Rebuilding of London after the Fire: The Presumptuous Proposals of Valentine Knight*, Jenner contends that because Knight was known to be close to the King, his work was assumed to be approved by the King. Knight's crime, therefore, was not his suggestion that the King profit from the fire, but the presumption of publishing his work without the King's approval—an action that the King saw as issuing policy which was the King's sole prerogative.²⁷ Ultimately, Knight petitioned the king for pardon claiming it was not his intent to take such a liberty and he was released after serving only a

²⁵ Knight. *Proposals of a New Model for Rebuilding the City of London*, Broadside; Jenner. 'Print Culture', 8.

²⁶ Jenner, 'Print Culture', 1.

²⁷ *Ibid.*, 14.

fortnight.²⁸

Then, there was John Evelyn. Though a gentlemen of many talents, Evelyn wrote extensively about conditions in the city well before the Great Fire. Based on his writings, it would be safe to assume that, when the king summoned him to discuss the rebuilding effort on 13 September 1666,²⁹ Evelyn saw it as an opportunity to try to resolve the problems he perceived in pre-fire London. The fact that he appeared at Whitehall Palace, just ten days after the end of the fire, with a rebuilding plan in hand containing elements that addressed many of the issues discussed in the first part of this dissertation, supports this assumption.

Evelyn had long been a proponent of redefining the city and was very vocal about it. To address the pollution in the air caused by the burning of sea-coal, which heated London homes and powered the industries of the nascent Industrial Revolution, in 1661 Evelyn wrote a book called *Fumifugium*. The book is primarily an attack on the notorious (even in this era) London smog and the effects it had on everything from architecture to people. In it he blasted the city for the pollution: “That this glorious ancient city should wrap her stately head in clouds of smoke and sulphur [sic], so full of stink and darkness, I deplore with just indignation.”³⁰ He also took the opportunity to vent his anger on London’s transportation infrastructure. Like the words from his diary quoted in previous chapters, in *Fumifugium* he tells us that the streets were very narrow and congested; that the paving was very poor; and that buildings protruded into the streets. His

²⁸ Ibid.

²⁹ De Beer, *Diary of John Evelyn*, Volume III, 463.

³⁰ Evelyn. *Fumifugium*, 7.

verdict: “I have been frequently displeased at the small advance and improvement of public works in this city.”³¹

John Evelyn was not simply a concerned citizen. A founding member of the Royal Society, Evelyn was already well-known in scientific circles and served the city in a variety of functions. He served, with Wren, on a committee appointed by Charles II to survey old St. Paul’s. The King frequently called upon Evelyn to give advice on matters pertaining to the city. *Fumifugium* was one of his responses to such a request. In matters of transportation infrastructure, on 14 May 1662, the King appointed Evelyn as a Commissioner on the Committee for Reforming the Buildings, Ways, and Streets.³² According to Evelyn, the Commission saw to “the repairing of the high-ways [sic] and sewers and keeping the streets clean and free of obstruction in and about the City [of London] and Westminster.”³³ As a commissioner, he worked to improve the paving of the streets, sought legislation to prohibit “jutties”³⁴ and keep the streets clean and free of obstructions. Since these things were central to his plan for rebuilding London, it does not appear that the Commission was particularly successful in their endeavors, or they simply did not have the time to accomplish their goals before the Great Fire, but Evelyn’s work made him well qualified to comment on such matters. Wren, Evelyn, and Hooke were all members of the Royal Society. Newcourt was a mapmaker who, along with engraver, William

³¹ *Ibid.*, 8.

³² De Beer, *Diary of John Evelyn*, Volume III, 318-319.

³³ Evelyn, *London Revived*, 11.

³⁴ *Jutties* was a contemporary term used for a building with upper floors that projected out over the streets.

Faithorne (1616-1691), had produced a street map of London in 1658.³⁵ Knight may have worked closely with Wren and Evelyn. It is, therefore, not difficult to hypothesize that these five men shared an acquaintance and an underlying motivation to resolve many of London's transportation problems in their designs.

The findings earlier in this dissertation demonstrate that transportation issues were on the minds of both the average citizen and city legislators. The latter attempted to control the transportation environment through legislation. Much of this legislation had its origins deep in the medieval period, but efforts to control dumping, encroachments, and other potential hindrances to free movement about the city were ongoing problems. Some issues, such as selling in the streets and traffic, significantly contributed to city congestion and were specifically targeted in the rebuilding plans. It appears, therefore, that an overhaul of the city transportation venues was both desired and needed.

If that was the case, then what happened to the buildings plans—why did London at the close of the seventeenth century look nothing like Wren and Evelyn's Renaissance metropolis? According to J. Hansen, despite Evelyn's credentials, his plan, along with Wren's, was generally held to be a product of an architectural imagination—more a dream than a real possibility—and the others were considered idealized town planning.³⁶ T.F. Reddaway appears to agree and contends that the rebuilding plans were in trouble almost from the start. To implement any of the plans as originally proposed would have meant seizing a significant amount of property from the current owners to realign them with the new grids. This may not have been a problem in Paris or

³⁵ Reddaway, *Rebuilding of London*, 82.

³⁶ Hansen, *Urban Designs*, 25.

Rome where central power was absolute, but the rights of Englishmen were more formidable. Negotiating the sale of property, legal proceedings to seize property where negotiation failed, and the inevitable legal challenges to such seizures would have delayed the rebuilding effort by months or years. Landowners, businessmen, and London alderman, simply would not tolerate a reallocation of property or the delay necessary to create a Renaissance metropolis: it spelt a death knell for the designers' rebuilding plans. Property owners feared losing property; business owners feared losing business if the rebuilding took too long; and London's alderman feared that businesses and residents would not return, thereby threatening the loss of their tax base. Finally, a total redesign of central London would be incredibly expensive, and neither the City nor the national government could provide funding for such a venture. So, as a starting point, it was determined to adopt a plan that would rebuild the city as quickly as possible.³⁷ John Milward (1599–1670), Member of Parliament (M.P.) for Derbyshire from 1665 to 1670, summarized the issues confronting those crafting the rebuilding acts:

September 27, 1666: Thirdly it was moved that two large streets, the one from Temple Bar to Leaden Hall, the other from the Bishop's Gate to the Thames, should be first built and then all other streets should be orderly fallen upon and where of necessity they must be enlarged, *every man's propriety should be considered: and the right owners should build upon his own ground.*

Though this was something controverted and *[not] fully satisfactory in all particulars* yet it was much assented to and with my consent.

This bill was formerly referred to a committee, but upon the debate the committee desired the House to resume it, whereupon it was moved in the House to present the whole business of the City to the King and to refer it to him to determine it, but upon a full debate it was judged improper to trouble the King with it unless the House also could send some proposals to His Majesty that might tend to the

³⁷ Reddaway, *Rebuilding of London After the Great Fire*, 40-67. [n.b. This paragraph is a brief summary of the reasoning behind the way the rebuilding plan ultimately moved forward as outlined in the book's chapter —*Plans for a New London.*]

convenience of the speedy rebuilding of it.

It was the general opinion of the whole House that if some speedy way of rebuilding the City was not agreed upon that the City would be in danger never to be built, for if the citizens found a difficulty in it, and that things were not speedily provided for, the merchants and wealthiest of the citizens would alter their course of their life and trade and remove themselves and estates into other countries and so the City would remain miserable for ever.³⁸

Ultimately, the City would rebuild following the old street plan. According to Reddaway, this factor, the city's decision that *every man's propriety should be considered*, and to compensate owners for their losses, determined the end of the debate on an Evelyn/Wren style redefinition of London. Settling on the old street pattern was a sign that the rebuilding effort was moving forward and the decision to purchase property, rather than redistribute land, meant that the little money was available to fund a redesign of the city.³⁹ Therefore, a renovated city on the old street plan it would be. Everyone recognized the need, however, to address some of the problems that affected the city before the fire, so some aspects of the rebuilding plans would survive and be incorporated into the two Rebuilding Acts.

London Renovated: Rebuilding the City's Transportation Infrastructure, 1666-1675

Navigating the Ruins

As mentioned above, for both the crown and the city authorities, a speedy rebuild was the goal. According to Reddaway, for the city:

The whole machinery of life was dislocated. The wharves were piled high with rubbish, and the streets were blocked with it. The landing stages were destroyed,

³⁸ Caroline Robbins, ed. *The Diary of John Milward, Esq., Member of Parliament for Derbyshire, September 1666 to May 1668*. Cambridge (England): Cambridge University Press, 1938, 8.

³⁹ Reddaway, *Rebuilding of London After the Great Fire*, 66-67. [n.b. Redistribution of land was considered, e.g. seizing land, but compensating the owners by giving them land elsewhere, but also rejected due to the possibility of legal challenges and delays in rebuilding.]

the markets burnt, and the water pipes cut. The City's own property was mostly in ruins and its rents hard to collect. But, far worse than the dislocation, was the fear that, if rebuilding was long delayed, the citizens might not return.⁴⁰

For the crown: London constituted 1/14th of its entire tax base⁴¹ leading one contemporary to state “London, the great conduit of all revenues, was stopped and dried up.”⁴² Despite the need for a quick restoration, it would take the city of London, with all of its competing interests, nearly seven months to settle on a plan for rebuilding the city—even then, actual rebuilding did not begin immediately.

In the meantime, those living in and around the city were left to navigate the ruins amid efforts to clear the streets. Except for a sliver of buildings bordering the inside of the eastern wall, London was a smoking ruin—the devastated landscape interrupted, here and there, by heaps of rubble and the skeletal remains of buildings. Pepys was still reporting smoke rising from the devastation for months afterward. John Evelyn visited the city just four days after the fire had run its course. On 7 September 1666, he reported traveling among the ruins from “Fleet Street, Ludgate Hill by St. Paul's, Cheapside, [the] Exchange, Bishopsgate, Aldersgate, and out to Moorfield, and thence through Cornhill, etc., with extraordinary difficulty, clambering over heaps of yet smoking rubbish...the ground under my feet so hot, that it even burnt the soles of my shoes.”⁴³

⁴⁰ Ibid., 41-42.

⁴¹ Ibid., 41.

⁴² Edward, Earl of Clarendon, quote from *The Life of Edward Earl of Clarendon*, Oxford: Octavo 1759, in Reddaway, *Rebuilding London*, 42.

⁴³ De Beer, *Diary of John Evelyn*, Volume III, 458.

London, however, was not abandoned and unnavigable during the planning period. By 10 September, Sam Pepys reports that hackney coach service was restored—operating from a station at Aldgate. Within a week, Pepys began to mention travel by coach over the ruins. On 17 September, he reports taking a coach “down Fleet Street and Cheapside to Broad Street,” essentially along the same route that Evelyn traveled with such difficulty on foot a few days after the fire ended.⁴⁴ Official efforts to clear the streets began immediately after the fire ended. Ordered by the Privy Council to restore land access to the Surrey Bank and Southwark, on 8 September 1666, the city hired workers to clear London Bridge and its approaching avenues. The laborers worked around the clock and achieved the task within a week.⁴⁵ Concurrently, the city ordered owners to clear the streets in front of their properties.⁴⁶ Unfortunately, the efficacy of the latter order was hit-or-miss and by November the lack of compliance forced the city to hire workers to clear the remaining streets and stake them according to the old street plan. By Christmas of 1666, Pepys was again walking on the streets of the city⁴⁷—although he would complain that the streets were periodically unnavigable due to the debris blowing from the ruins for months thereafter.

Even after the streets were cleared and staked, traveling the wrecked city presented other problems. The quality of the roads was not great. There would be no systematic repaving until the official rebuilding effort began, so it was up to coach drivers to learn the best routes. Pepys

⁴⁴ Latham and Matthews. *Diary of Samuel Pepys*, volume 6, 283, 288.

⁴⁵ Reddaway, *Rebuilding of London After the Great Fire*, 30, 66-67.

⁴⁶ Reddaway, *Rebuilding London*, 30.

⁴⁷ Latham and Matthews. *Diary of Samuel Pepys*, volume 7, 419.

mentioned this on a couple of occasions, such as when he observes that Sir William Batten's driver always went to Whitehall via Tower Street, "it being the best way."⁴⁸ Drivers also had to be wary of obstacles made worse by the fire. In the pre-fire city, drivers could keep to the middle of the street and, in general, avoid open cellars. In the post-fire period falling into an open cellar was a real danger. On 23 August 1667, Pepys relates an incident where his coach nearly overturned when his driver entered a street near St. Paul's, found it blocked, then backed into an open cellar. Pepys and his companion, Sir William Penn (1621-1670), escaped by jumping from the coach—fortunately, neither were injured.⁴⁹ At night, in the unforgiving darkness of the post-fire period, with no fixed landmarks to guide them, the danger of falling into open cellars, or any other pit in the pavement, made some streets unnavigable.⁵⁰

Travelers at night also had to deal with more crime. According to Reddaway, the city was a ghost town and "shunned at night by all but thieves and beggars."⁵¹ While this assertion may be true, Pepys reports traveling through the ruins at night both on foot with a link, and by coach. He does not report being the victim of crime on these sojourns but is certainly aware of the dangers. A year after the fire, Pepys reports that he was finding it difficult to get a coach as the drivers were wary of picking up passengers in the stygian darkness of the ruined city. In February of 1667, he began to report taking his sword with him on his trips through the city, and by late summer, he declared he would not travel across the ruins at night again. Instead, Pepys

⁴⁸ Ibid., volume 8, 130.

⁴⁹ Ibid., volume 8, 396.

⁵⁰ Ibid., volume 8, 448.

⁵¹ Reddaway, *Rebuilding of London After the Great Fire*, 41-42.

traveled a route along the wall, avoiding the devastated parts of the city altogether.⁵²

The Transportation Provisions of the Rebuilding Acts

While the city worked to formulate a rebuilding plan that satisfied all parties, by the beginning of 1667 some citizens of London were beginning to doubt whether the city would ever rise again from the ashes. Although some were optimistic, on 11 March, Pepys reports that Sir Richard Ford (1613-1678), M.P. for Southampton, declared that he “doth verily believe that the city will in a few years be built again in all the greatest streets, and answered the objections I did give to it.”⁵³ As hinted by this quote Pepys was, apparently, not totally convinced. On 19 February, Pepys reported that he took a moment to review the first of the rebuilding acts that the city passed the previous week. He was guardedly optimistic and wrote, “the laws seem to be very good, and I pray God that I may live to see it built in that manner.”⁵⁴ Once the staking began for the new layout of the city,⁵⁵ Pepys again reserved his wholehearted praise of the plan when he wrote “...if [*emphasis added*] ever it be built in that form, with so fair streets, it will be a noble sight.”⁵⁶ Although Pepys seemed willing to give the benefit of doubt, he wrote in his diary that others were not so giving, such as when his doctor, Thomas Hollier (1609-1690), declared, in his opinion: “the city will never be built again as is expected.” Pepys went on to

⁵² Latham and Matthews. *Diary of Samuel Pepys*, volume 8, finding a coach: 423; walking at night: 3, 46; traveling with sword drawn: 60, 62; pledge to avoid the ruins at night, 379 .

⁵³ *Ibid.*, volume 8, 108.

⁵⁴ Latham and Matthews. *Diary of Samuel Pepys*, volume 8, 72. [n.b. The act referred to here was 19 Charles II, c. 3, passed on 8 February 1667.]

⁵⁵ The streets were re-staked after the adoption of the first Rebuilding Act to reflect the enlargements specified.

⁵⁶ Latham and Matthews. *Diary of Samuel Pepys*, volume 8, 136.

attribute Hollier's doubts to the political and legal challenges to the new building restrictions that were preventing the start of the rebuilding effort.⁵⁷

Despite the qualms of Pepys and some of his contemporaries, all of the competing interests eventually agreed on provisions for a rebuilding act. The act, 19 Charles II, c. 3, (hereafter RB1) passed on 8 February 1667, perused by Pepys in the paragraph above, was followed by additional legislation that modified and extended it, and a second Rebuilding Act (22 Charles II, c.11, hereafter RB2) in 1670. The rebuilding acts relocated markets and instituted changes in the building codes that had the potential to affect the experience of using the streets. These included a prohibition of jutting upper stories; size and height of balconies; cellar entrances fronting the street; signs that projected into the streets (all in RB1-articles 13-14); and removal of conduits in the high streets (RB1-article 22). All of the above had been a hindrance to movement on the streets before the Great Fire, and the long-term effect of these changes provide the basis for discussion in the final chapter of this dissertation. The primary provisions of the acts for London's transportation infrastructure, however, were to be wider, more uniform streets with gentler grades; a redefined Fleet canal corridor and enhanced Thames-side docks, wharves, and quays.⁵⁸

The ultimate width of the streets was a subject of long debate. On 11 October 1666, the committee overseeing the rebuilding suggested seventy feet for high streets; forty-two to fifty

⁵⁷ Ibid., volume 8, 87.

⁵⁸ "19 Charles II, c. 3," in Danby Pickering. *The Statues at Large, from the Twelfth Year of King Charles II to the Last Year of King James II Inclusive*. Cambridge: University of Cambridge, 1763, 233-251. [n.b. The Thames Quay and Fleet Corridor projects were detailed in the second Rebuilding Act.]

feet for secondary streets with high traffic rates; and twenty-five to thirty feet for all other streets. Alleys, if any, were to be a minimum of six feet. These numbers were consistent with an itemized list of streets issued a fortnight later, on 22 October.⁵⁹ When the first Rebuilding Act (19 Charles II, c.3) appeared, however, it did not list widths, it simply gave a list of streets that should be enlarged and included a minimum width of fourteen feet, but left the ultimate decision on individual streets, along with responsibility for implementation of the rest of the act, to the “mayor, aldermen, and common council (RB1-articles 6, 23 & 24).”⁶⁰ When the city passed its first street enlarging act on 29 April 1667, all of the specified widths fell within the range originally suggested by the committee in early October—the smallest being Ave Marie Lane at eighteen feet.⁶¹ The second Rebuilding Act of 1670 confirmed the city’s decision on street width (RB2-article 2), but ordered a few others to be wider still (RB2-article 1).⁶²

In addition to widening the streets, the city also sought to pitch and level the streets for “easiness of ascent from the river bank (RB1-article 34),”⁶³ and more efficient run-off of rain waters and the periodic street cleansing done by the surviving conduits. Earlier, this dissertation discussed the problems with inconsistent pavement heights throughout the city. The provisions

⁵⁹ Reddaway, *Rebuilding of London After the Great Fire*, 60-62.

⁶⁰ “19 Charles II, c. 3,” Pickering, *Statues-CII to III*, 235, 243.

⁶¹ Court of Common Council. *An Act Declaring What Streets and Straight and Narrow Passages Within the City of London and Liberties Thereof, Burnt Down in the Late Dismal Fire, Shall be Enlarged and Made Wide*, 29 April, 1667. London: James Flesher, 1667; London Metropolitan Archives. Col/CA/01/01/076, *Repertories of the Court of Aldermen*, Rep.72, Folio 118b.

⁶² “22 Charles II, c. 11,” Pickering, *Statues-CII to III*, 290.

⁶³ “19 Charles II, c. 3,” Pickering, *Statues-CII to III*, 246.

of the rules issued by the Commissioners of Sewers and city surveyors entitled *Rules and Directions Prescribed and Made for Pitching and Levelling the Streets and Lanes of the City of London and Liberties* of July 1667⁶⁴ illustrate the irregularity of the pavements. Cheapside appears to have been fairly level—the act calls a two-foot rise midway at Wood Street, generally tapering to existing street levels in the west at Old Change, and in the east at Soper Lane, near the site of the old Great Conduit (article 39). Other streets, however, were ordered raised and abated several times along their lengths. Water Lane and Harpe Lane, two north-south streets that ran parallel to the other, provide good examples. The act called for a rise of six and seven feet on both streets starting at Thames Street. After the initial rise, Water Lane was to be abated (lowered) a total of seven feet (article 3) along its whole length to Tower Street. In the same stretch in Harpe Lane, however, just a block to the west, the street was to be raised an additional fifty inches, then abated twenty-three inches, and finally, on the approach to Tower Street, another abatement of seventy-eight inches (article 4). The act contains over forty articles showing similar inconsistencies in pavement height all over the city.⁶⁵

Sadly, Valentine Knight's Thames Bypass canal was not included in the rebuilding effort, but Wren and Evelyn's call for a redevelopment of the Fleet and new Thames-sides quays did survive. The Fleet Corridor project called for Fleet Ditch to be dredged and widened to forty feet wide and deep enough to make the channel navigable from the Thames north to Holborn Bridge.

⁶⁴ City of London. *Rules and Directions Prescribed and Made for Pitching and Levelling the Streets and Lanes of the City of London and Liberties, for the More Easie and Convenient Current and Conveyance away of the Waters Thereof*. London: N. Brooke, 1667.

⁶⁵ City of London. *Rules and Directions Prescribed and Made for Pitching and Levelling the Streets and Lanes of the City of London and Liberties, for the More Easie and Convenient Current and Conveyance away of the Waters Thereof*. London: N. Brooke, 1667.

Both Holborn and Fleet Bridges were rebuilt and widened.⁶⁶ The new ditch was to be flanked by thirty-foot open space, or Quay, with wharves on each side—one side with storehouses beneath. Fronting this area was to be a uniform line of buildings of the second sort.⁶⁷ The city began land purchases in May 1671⁶⁸ and the project was completed under the direction of Christopher Wren in November 1674. Stephen Inwood asserts that few boats ever used the river—although De Saussure observes barges operating there in the 1720s—and the wharves were used more as a roadway, work areas, and a dump, than unloading cargo.⁶⁹ Overall, Inwood’s assertion was correct. The Fleet quay and docks quickly fell into disrepair and within a few decades of completion, Edward Ward (1667–1731), author of *The London Spy*, asks “what great advantages this costly brook contributed to the town to countervail the expense of seventy-four thousand pounds?” Ward goes on to assert that even the warehouses were unfit for use: “they are rendered by their dampness so unfit for that purpose that they are wholly useless, except for lightermen to lay their tails in, or to “harbour frogs, toad, and other vermin.”⁷⁰ According to Reddaway the design of the new Fleet corridor did serve one purpose: it doomed the Fleet Ditch to its ultimate fate. The neglect, its continued use for waste disposal and legendary stench immortalized in

⁶⁶ “Confirmation of the Order of the Common Council for the Laying New Foundations, and for Widening the Streets of London, After the Great Fire, May 1667” in *The Historical Charters and Constitutional Documents of the City of London*. London: Whiting and Co., 1884, 231 (Holborn Bridge); London Metropolitan Archives. Col/CA/01/01/076, *Repertories of the Court of Aldermen*, Rep.94, Folio 175b (Fleet Bridge).

⁶⁷ Reddaway, *Rebuilding of London After the Great Fire*, 202; “22 Charles II, c. 11,” Pickering, *Statues-CII to JII*, 308-309. [n.b. See article 10 of the first Rebuilding Act (19 Charles II, c. 3) for specifications on this type of building.]

⁶⁸ Reddaway, *Rebuilding of London After the Great Fire*, 205.

⁶⁹ Inwood, *History of the City of London*. 250; De Saussure, *A Foreign View of England*, 73.

⁷⁰ Edward Ward. *The London-Spy Compleat in Eighteen Parts*. London: J. How, 1703, 131.

such poems as Arthur Murphy's 1761, *An Ode to the Naiads of Fleet Ditch*, and the Fleet's new depth meant it was perfectly suited to become a culverted sewer beneath London's streets.⁷¹

Perhaps the most ambitious of the provisions of the Rebuilding Acts was the Thames Quay project which called for a total redevelopment of the shoreline along the north side of the Thames. The first Rebuilding Act called for a raised forty foot wide quay along the entire length of the river from Temple Bar to the Tower—with a break at London Bridge (RB1-article 35).⁷² The scope of the quay was scaled back in the second Rebuilding Act and the section below London Bridge was eliminated (RB2-articles 44 & 45).⁷³ The quay was to be paved and fringed with dignified houses. Such a quay could have resolved many of the problems with low tides by providing deep water boarding for shipping and passenger travel.

The plan was almost universally supported—the only exceptions were those who felt it might delay restoration of shipping.⁷⁴ According to T.F. Reddaway, however, despite such support the project never really got off the ground.⁷⁵ Some improvements were made: the mouth of the Fleet River was modified; the city acquired a section of the riverfront at Blackfriars for the project; and wharves were improved at Puddle Dock and Dowgate. A partial ban on waterfront buildings was put in place and enforced—although the width of the open space between shore

⁷¹ Reddaway, *Rebuilding of London After the Great Fire*, 202, 207-208.

⁷² "19 Charles II, c. 3," Pickering, *Statutes-CII to III*, 246.

⁷³ "22 Charles II, c. 11," Pickering, *Statutes-CII to III*, 307-308.

⁷⁴ Reddaway, *Rebuilding of London After the Great Fire*, 222.

⁷⁵ *Ibid.*, 222.

and building shrank over time.⁷⁶ Unfortunately, Reddaway contends, the scale of the project proved too ambitious and large-scale implementation of the project never got beyond the planning/permit stage.⁷⁷ Ultimately, he says the “project failed so completely that to-day no trace of it remains, and even its history is confused.”⁷⁸

Rebuilding London’s Transportation Venues

By the time of the second Rebuilding Act in 1670, the city was in full restoration mode. New construction had started, and it would continue into the opening years of the eighteenth century, but by 1670-1671 life in London was beginning to return to normal.⁷⁹ On the streets, the enlarged road plan had been staked out during a nine-week period in the spring of 1667 under the direction of city surveyor and rebuilding plan author, Robert Hooke. Between 1667 and the second Rebuilding Act in 1670, Hooke would re-stake the streets several times in response to requests from the Court of Aldermen, as well as others.⁸⁰ The new street plan reclaimed previously encroached land and, according to Reddaway, it was “possible for the first time since the Romans to walk along a street without being forced out to avoid a pillar, a buttress, or a whole house [upper floors] projecting beyond the general level.”⁸¹

⁷⁶ Ibid., 238-239, 243.

⁷⁷ Ibid., 234.

⁷⁸ Ibid., 222.

⁷⁹ Ibid, 282.

⁸⁰ M.A.R Cooper. “Robert Hooke’s Work as Surveyor for the City of London in the Aftermath of the Great Fire. Part One: Robert Hooke’s First Surveys for the City of London,” in *Notes and Records of the Royal Society of London* 51, No.2 (1997): 166.

⁸¹ Reddaway, *Rebuilding of London After the Great Fire*, 289.

The regrading of the streets as specified in the Pitching and Leveling Act of 1667 was also underway. Pepys reports on 22 August 1668 that he walked “down Fish Street and Gracious Street to see how very fine a descent they have now made down the hill, that it is become very easy and pleasant.”⁸² Unfortunately, the fabric of the streets was still in poor shape at the time of the second Rebuilding Act. Samuel Rolle (1646-unknown), non-conformist minister and fellow of Trinity College, Cambridge, writes in his 1668 report on the rebuilding effort, *London’s Resurrection*, that the streets are not yet paved, “the wayes cannot be made good, filth and rubbish cannot be all removed, because the streets are yet unfinished.”⁸³ Since the streets were cleared of fire debris shortly after the end of the fire, it may be surmised that the filth and rubbish Rolle describes was created by the rebuilding itself. A year later, conditions had not improved. Pepys noted an 8 March 1669 incident where the King’s coach overturned in Holborn—the King and his companions were not hurt, but Pepys says the overturn was likely due to an inability to see the *poor condition of the road* in the dark.⁸⁴ Reddaway comments that in August of 1669, the condition of the streets was still very poor. He confirms that few of the streets had been properly repaved and that the carts used to transport heavy building materials often damaged the streets that had been paved and needed to be redone.⁸⁵ The *Repertories of the Court of Aldermen*

⁸² Latham and Matthews. *Diary of Samuel Pepys*, volume 9, 285.

⁸³ Samuel Rolle. *London's Resurrection or the Rebuilding of London Encouraged, Directed, and Improved, in Fifty Discourses*. London: Thomas Parkhurst, 1668, 251-252.

⁸⁴ Latham and Matthews. *Diary of Samuel Pepys*, volume 9, 474.

⁸⁵ Reddaway, *Rebuilding of London After the Great Fire*, 244.

for the period testifies to the paviers efforts by the frequent orders to pay for their services.⁸⁶ Given the criticisms leveled above, this appears to confirm that although the paviers were very busy, they were simply unable to make significant headway. Things could have continued at this pace, but according to Reddaway, the event that prompted the city into action was the 1670 reopening of the markets at the Stocks, Newgate, Honey Lane, and Billingsgate.⁸⁷ At this point, the condition of the streets was seen as a hindrance to effective trade. The resumption of markets, the rubbish and damage to the streets produced by construction, and the slow pace of repaving, led to the second Rebuilding Act in 1670.

Under the provisions of Second Rebuilding Act, the supreme responsibility for all things related to transportation passed, by Parliamentary mandate, into the hands of a single body appointed by the mayor, aldermen, and council—the Commissioners for Sewers and Pavements (articles 4 & 5).⁸⁸ As mentioned in chapter one above, there was already a move toward this in the decades before the Great Fire with the creation of the Commissioners of Sewers in 1602.⁸⁹ Subsequently, Charles II established the board of commissioners for *reforming the buildings, ways, streets, and incumbrances [sic] in the city of London*—the body on which John Evelyn

⁸⁶ London Metropolitan Archives. Col/CA/01/01/076-081, *Repertories of the Court of Aldermen*, 6 November 1666 through 31 October 1671.

⁸⁷ Reddaway, *Rebuilding of London After the Great Fire*, 282.

⁸⁸ “Act for the Better Paving and Cleansing of the Streets and Sewers in and About the City of London” in Danby Pickering. *The Statues at Large, from the Twelfth Year of King Charles II to the Last Year of King James II Inclusive*. Cambridge: University of Cambridge, 1763, 363. (22-23 Charles II, c.1) [n.b. The name of the commission is not stated in the legislation, but comes from various documents issued in their name.]

⁸⁹ “3 James I, cap. 14” in Anonymous, *The Statutes at Large Containing All Such Acts [from Magna Carta to James I]*, volume 2. London: Bonham Norton and John Bill, 1618, 607.

served in 1662.⁹⁰ This new version of the commission had the power to impose taxes (article 6) and to punish violators (articles 6 & 7). Further provisions of the act authorized the assessment of a coal tax to defray the cost of enforcement and to purchase laystalls as storage for city supplies, such as paving materials, and areas to store refuse collections against future disposal (articles 11 & 12).⁹¹

In October 1671, the city acted to appoint the commissioners, give them the powers mandated by Parliament, and issued a set of statutes to keep the streets well-maintained and free of obstruction in *An Act of Common Council: Together with Certain Orders, Rules, and Directions Touching the Paving and Cleansing [of] the Streets, Lanes and Common Passages Within the City of London and Liberties Thereof*. The act ordered the immediate paving of all streets “called, known, or set down to be High Streets;”⁹² designated laystalls on existing city property, and authorized the acquisition of other plots as designated by the appointed commissioners. Storage of materials anywhere else was strictly prohibited under penalty of fines (20-30 shillings, depending on the number of offenses), and seizure of personal assets for unrepentant offenders.⁹³

In addition to the above, the act reinstated former rules that had fallen into disuse during the reconstruction. Listed here are the pre-fire provisions against iron-shod wheels; when and

⁹⁰ De Beer, *Diary of John Evelyn*, Volume III, 318-319; see also the section entitled *Defining London’s Transportation Space*, in chapter two of this dissertation.

⁹¹ “22-23 Charles II, c.17,” Pickering, *Statutes-CII to III*, 363, 365.

⁹² Commissioners for Sewers and Pavements. *Act-Common Council, Paving and Cleansing*, 1671, 16.

⁹³ *Sewers & Pavements, 1671 Act for Paving and Cleansing*, 3-6.

for how long a merchant could load or unload; prohibition of casting any rubbish into the streets; who may sweep the streets and collect said rubbish; the location and size of market stalls; and the number of licensed carts.⁹⁴ Although the act included these familiar provisions, there were also some new developments. The act prohibited carrying goods through the streets—whether on the back of horses, oxen, or their own—from 6am to 9pm.⁹⁵ Presumably, this was meant to limit street hawkers, who were known to obstruct traffic. To further enforce the authority of the new central body, anyone who dug into the streets, for any reason, needed a license from the commissioners.⁹⁶ There were new rules that limited the number of horses for a cart to one. The only exception was for the streets that climbed the hills from Thames Street, along with Holborn Hill; the act does not make a provision for Ludgate Hill.⁹⁷ Finally, it is here that we see the first provisions stipulating the form of sidewalks in the city of London with the order that all property owners on high streets must post and pave a six-foot path in front of their property with purbeck stone.⁹⁸

As the first decade after the fire drew to a close, the form of London's reconstructed transport venues was in place. Every effort had been made to get London back to business as quickly as possible, so they restored the old street pattern and dusted off the pre-fire rule book, then simply resumed operations. There were, indeed, important changes, such as a central body

⁹⁴ Ibid., 6-33.

⁹⁵ Ibid., 7-8.

⁹⁶ Ibid., 18.

⁹⁷ Ibid., 9-10.

⁹⁸ Ibid., 17-18.

to oversee maintenance, wider streets, segregated walkways for pedestrians, and mandates to keep the streets free of obstruction, all of which had the potential to foster significant improvements, but London's transportation environment was, essentially, the same as before the fire. Would the changes instituted in the wake of the Great Fire affect the experience of movement within the city in its aftermath? To answer that question, the final chapter of this dissertation will return to London at the close of the seventeenth century to review transport conditions after the fire, and again listen to the comments of those using the transport venues of the ancient capital from 1675 through the eighteenth century.

CHAPTER SIX

LONDON'S TRANSPORTATION ENVIRONMENT, 1675-1800

On June 21, 1675, construction began on the new St. Paul's Cathedral. For early modern Londoners, the restoration of the ancient cathedral may have marked, spiritually and emotionally, the start of the final chapter of the story of the Great Fire of 1666. Less than a decade after the fire, the city around the ancient cathedral had long since moved on. According to Reddaway, by 1675, the secular work had been completed, and the BBC reports the complete restoration of all the areas destroyed by the Fire, with the exception of some of the sites of parish churches.¹ For Londoners who resided in the capital in the fall of 1666, then returned in 1675, navigating the city would have presented no significant new challenges. The pre-fire street pattern was still in place, although widened, and the rules for using the transport system were, essentially, the same that existed in the fall of 1666.

What was it like, therefore, to travel London's transport venues in the wake of the Great Fire through the end of the eighteenth century? Sadly, for this discussion, Samuel Pepys is no longer available as a witness; fearing the loss of his eyesight he stopped keeping his diary in 1669. It is a great loss to researchers of early modern London as Pepys' comments were extremely frank and full of great details about the city in the 1660s. There were, however, others to take Pepys' place and testify to transport conditions in the post-fire period. Among them are

¹ Reddaway, *Rebuilding London*, 284; British Broadcasting Corporation (BBC). "London After the Great Fire." http://www.bbc.co.uk/history/british/civil_war_revolution/after_fire_01.shtml.

the poet, John Gay (1685-1732), writer and diarist, Samuel Johnson (1709-1784), and those who wrote in the spirit of John Stow, such as surveyor Edward Hatton (c.1644-1733) and topographer William Maitland (c.1693-1757). Along with the Londoners, the eighteenth century brought several foreign observers to the city such as Switzerland's César De Saussure (c.1705-1783) in the 1720s and Germany's Karl Moritz (1756-1793) in the 1780s. The comments of visitors are often illustrative of the idea that "all things are relative" as some saw London in a positive light, while others were critical.

Defining London's Post-Fire Transportation Space

As mentioned above, when London resumed business-as-usual, Londoners of the period returned to a familiar street pattern with wider streets. The result of the rebuilding effort produced two new streets, King Street and Queen Street (figure 17), constructed as a direct route from the riverfront at Thames Street to the Guildhall, but the widening of the streets did not go exactly according to plan. The Rebuilding Acts mandated widening of major thoroughfares and a minimum width of fourteen feet for all other streets. Quite a few major streets were, indeed, widened, but in many cases not to the widths specified in the Rebuilding Acts, and many of the smaller streets and alleys remained at their pre-fire sizes, no where near the minimum requirement.² As a testament to this, in 1708, Edward Hatton, notes that Broad Street is still a "spacious street," indicating that, over a century after John Stow drew attention to the unusual width of the street, it is still wider by comparison to others.³

There were some changes in the fabric of the roadbed itself. The 1671 Paving Act

² Inwood, *History of the City of London*, 250.

³ Edward Hatton. *A New View of London*. London: John Nicholson & Robert Knaplock, 1708, 12.

mandated paving main streets with rounded cobbles rammed into place with sand spread to fill the gaps—a modern example can be seen in figure 18. This change in paving materials was a change from the pre-fire standard of gravel and sand as described in chapter two. The surface created by this method was less than ideal. It made the streets notoriously difficult to keep in good repair and keeping them clean was equally challenging. The unsuitability of rounded pebble paving was the topic of many comments on the streets in the eighteenth century and the challenges of navigating London’s cobbled streets in the decades after the fire will be discussed later in this chapter. Over the next century, however, the city experimented with different types of rounded stone until they began paving with square granite setts in 1765.⁴ The road paving system seemed headed in the right direction, and as early as 1774 the author of the *Ambulator Guide to London* was reporting that the streets of London were “generally level...and extremely well-built,”⁵ and Pierre Grosley claimed that the new paving would make London “the best paved city in Europe.”⁶

For pedestrians, the most significant infrastructural improvement to come out of the rebuilding period was the 1671 creation of segregated sections of the roadbed for pedestrian traffic, i.e. sidewalks. Initially, this took the form of street-level paths, paved with flat slabs of Purbeck stone, and divided from the street with timber posts or bollards (figure 19).⁷ By 1725,

⁴ L.W.G. Malcom. “Early History of the Streets and Paving of London” in *Transactions- Newcomen Society for the Study of the History of Engineering and Technology*, 14, 1934, 90. [n.b. Granite sett stones can be seen in the images of Lovat Lane in chapter one—see image 3.]

⁵ Anonymous. *Ambulator: A Pocket Companion in a Tour Round London*. London: John Bew, 1794, vi.

⁶ M. Grosley. *A Tour to London or New Observations on England and its Inhabitants*. London: J. Exshaw, 1772, 36.

⁷ City of London. *City Street Scene Manual, Volume 2*. London: Department of Planning and Transportation, 2005, 7.

César De Saussure reported the raising of some of the sidewalks above street-level⁸ and the 1765 Paving Act completed the evolution of the modern form by mandating that all sidewalks be raised and separated by “kerbs.”⁹ It is possible to see the new sidewalks in George Cruikshank’s illustrations depicting passages from John Gay’s *The Art of Walking the Streets of London*. In the illustration, *How to Turn a Corner* (figure 20), it shows the side pavements only slightly raised above the roadbed. This configuration stills exists in many places in London today as shown in the image of Carter Lane (figure 2), although the average curb height is now much taller. Bollards are still in use as well. Wherever the city judges that the street is too narrow to protect pedestrians from traffic, bollards are used—although they are now made of metal and concrete and painted with the city’s colors (figure 21) “which provide a degree of contrast for drivers and the visually impaired.”¹⁰ Although generally, the paving of London’s streets long ago gave way to modern asphalt, flat slabs of stone still pave London’s sidewalks in most places.

In the immediate decades following the Great Fire the two largest obstacles to efficient travel within the city, the city wall and the gates, remained. The city wall emerged from the Great Fire with little damage, but by the middle of the eighteenth century, our early modern witnesses began reporting its slow demolition. William Maitland asserts that this process began as early as 1707 when a stretch of the wall from “Bishopsgate onward Southeast” was

⁸ De Saussure, *A Foreign View of England*, 36.

⁹ *London City Street Scene Manual, Volume 2*, 7.

¹⁰ City of London. *Street Furniture*. <http://www.cityoflondon.gov.uk/services/transport-and-streets/roads-highways-and-pavements/Pages/Street-Furniture.aspx>.

demolished and the pieces used in the construction of new houses.¹¹ The editor of the 1741 edition of John Chamberlayne's (1666-1723) *Magnaë Britanniae Notitia*, reported that the wall was "for the most part decayed, dwelling houses being now built upon the foundations."¹² According to Robert Bucholz and Joseph Ward, by the 1760s, sections of the wall also began to be demolished for commercial development prompting an interesting observation: "Thus London's wall finally fell, not at the hands of a foreign conqueror but before the commercial needs of the city that it had once defended."¹³

The wall was systematically dismantled over the ensuing decades and by 1792, the *Ambulator Guide to London* reported that a length of the wall near Moorfields was the most complete section still extant.¹⁴ The wall never completely disappeared, however, and some pieces survived. A few have stood undisturbed since the Great Fire—resolute against invaders that no longer challenge its power. Others were buried and since recovered, especially during the post-World War II rebuilding effort and the commercial redevelopment of central London during the late twentieth and twenty-first centuries. As of the writing of this dissertation in the summer of 2016, sections of the wall are preserved in such diverse places as next to the entrance to Tower Hill tube station [just north of the Tower of London]; in a garden on the former site of St. Alphage-on-the-Wall Church [near the Museum of London]; and incorporated into the

¹¹ William Maitland. *The History and Survey of London from its Foundation to the Present Time*, 3rd Ed. London: T. Osborne, 1760, 30.

¹² John Chamberlayne. *Magnaë Britanniae Notitia: Or, the Present State of Great Britain*. London: D. Midwinter, et.al., 1741, 248.

¹³ Bucholz and Ward, *London*, 337..

¹⁴ Anonymous. *Ambulator*, 3.

basement structure of a modern office building at One American Square in EC3.¹⁵

While the wall suffered a slow decay, the city gates continued in use for another century after the fire and, comparatively, disappeared quickly. The Great Fire destroyed Newgate and heavily damaged Ludgate, but the city rebuilt both of them in its aftermath. Over the remainder of the seventeenth and into the eighteenth centuries, many of the gates underwent renovation. Ludgate was “repaired and beautified” in 1695,¹⁶ Bishopsgate was completely demolished and rebuilt between 1731 and 1735,¹⁷ and, while not one of the gates through the city wall, the City completely replaced Temple Bar in 1672.¹⁸ The rebuilding of Bishopsgate in the 1730s, however, was the last time the gates underwent any significant renovation and over the next 30 years, the city began to demolish the city gates. William Maitland reported that all of the smaller postern gates were demolished in the 1750s because they were “too narrow and inconvenient.”¹⁹ The other gates, except Newgate and Temple Bar, were gone by 1760. According to Henry David, both were still in place in 1765, but he wondered “how much longer it will continue standing, I cannot inform my readers.”²⁰ His doubt of the gate’s future was prescient—Newgate was demolished just two years later in 1767. Temple Bar, however, would survive in situ until the 1870s when it too was removed. Today it is the sole remaining city gate, now marking the

¹⁵ The author of this dissertation visited these sites during a walking tour in 2012.

¹⁶ Hatton, *New View of London*, VI-IX.

¹⁷ Maitland. *History and Survey of London*, 30; Hatton. *A New View of London*, VI-IX.

¹⁸ City of London. *Temple Bar*. <https://www.cityoflondon.gov.uk/about-the-city/about-us/buildings-we-manage/Pages/temple-bar.aspx>.

¹⁹ Maitland. *History and Survey of London*, 24.

²⁰ Henry David. *An Historical Description of St. Paul's Cathedral*. London: J. Newbery, 1765, 5-52.

entrance to Paternoster Square in the courtyard of St. Paul's Cathedral.²¹

Turning now to the city's waterways, in the period 1675-1800 the river Thames was still alive with activity. In 1687, Burton restated Stow's estimate of 3000 watermen operating on the Thames,²² but by the 1720s De Saussure claimed that the number had increased significantly and "15,000 boats for public conveyance"²³ then operated on the Thames. At the end of the eighteenth century, in 1782, German visitor, Karl Moritz, reported on the great activity on the river:

On the Thames itself are countless swarms of little boats passing and repassing, many with one mast and one sail, and many with none, in which persons of all ranks are carried over. Thus there is hardly less stir and bustle on this river than there is in some of its own London's crowded streets.²⁴

During the period under discussion, the city of London retained conservancy of the Thames, but a dispute with the Crown over its intention to embank the Thames in the 1840s resulted in responsibility for the majority of the Thames passing to the then newly formed Thames Conservancy between 1857 and 1866. The Thames Embankment project proceeded, and the first section (Victoria) completed in 1870.²⁵

On the river bank, the city restored the river's transport infrastructure destroyed by the fire; although as mentioned in the chapter on the rebuilding process, the provisions of the

²¹ City of London. *Temple Bar*. <https://www.cityoflondon.gov.uk/about-the-city/about-us/buildings-we-manage/Pages/temple-bar.aspx>.

²² Burton, *Historical Remarques*, 74.

²³ De Saussure, *Foreign View of London*, 169.

²⁴ Moritz, *Travels in England*, 16.

²⁵ British History Online. "The Victorian Embankment," in *Old and New London, volume 3*. <http://www.british-history.ac.uk/old-new-london/vol3/pp322-329>; Wikipedia. Thames Conservancy. https://en.wikipedia.org/wiki/Thames_Conservancy.

Rebuilding Act for new quays and wharves along the river never really got off the ground. In 1708, Edward Hatton noted that there were twenty new quays east of London Bridge.²⁶ Commenting on the beauty of the new wharves and quays in the stretch below the bridge, in 1725-1726, Daniel Defoe testified to the successful return of shipping to London and commented on the amount of activity there.²⁷ According to some sources, at that time, there were twenty to thirty places where oars and scullers still plied their trade.²⁸

The Thames would continue to serve as London's busiest thoroughfare in the post-fire period and for centuries thereafter. For London Bridge, however, that awe-inspiring piece of medieval transportation technology that had served London for over five centuries, change was afoot. For all of its existence, and in all of its incarnations, London Bridge had carried the distinction of being the only bridge on the Thames from Greenwich to Westminster, but its singularity was about to be challenged. Despite fierce opposition, in the century following the Great Fire, three new bridges would open—first, Putney Bridge in 1729, then Westminster Bridge in 1750 and Blackfriars, only the second within the city of London itself, at the mouth of the Fleet corridor, in 1769. Fifty years later, three additional bridges—Waterloo, Vauxhall, and Southwark—had opened. Today, thirteen bridges, including two rail and one foot bridges, span the Thames between the City and Westminster, along with several tunnels that serve both road

²⁶ Hatton, *New View of London*, 788-789.

²⁷ Daniel Defoe. *A Tour Through the Whole Island of Great Britain, Volume 1*. London: J.M. Dent & Sons LTD, 1962, 342.

²⁸ Hatton, *New View of London*, 794; De Saussure, *Foreign View of London*, 169. [Hatton reported twenty stairs east of the Bridge alone.]

and Tube²⁹ traffic. Provided funding is secured, a fourteenth bridge, called the Garden Bridge, will join the others in 2018 and span the river from the Temple to the South Bank between Blackfriars and Waterloo bridges.³⁰

During the remainder of the early modern period, Bridge House Estates still provided maintenance for London Bridge, but also provided funding for other bridges in subsequent centuries including Blackfriars, Southwark, Tower, and Millennium Bridges. In the twenty-first century, the income from the Estates' centuries-old portfolio of lands still funds the maintenance of those bridges and oversees an endowment for their eventual replacement. In addition, Bridge House Estates is a philanthropic organization and grants approximately £15 million pounds a year to charitable causes around the city of London.³¹

After the Great Fire, the city around it lay in ruins, but the Bridge endured. The fire destroyed approximately a third of the buildings on the north end of the bridge, the waterwheel that supplied some of the city's water, and resulted in £1500 in structural damages, but the Bridge endured. New bridges would challenge its supremacy, but the Bridge endured. By the close of the seventeenth century, Peter Colechurch's bridge had stood for nearly five centuries and according to Patricia Pierce, despite its problems, the venerable structure offered Londoners, a certainty that life would go on,³² but time and progress meant that the days of the ancient

²⁹ Sobriquet for the *London Underground*, the city's subterranean train [subway] system.

³⁰ The Garden Bridge Trust. *Questions and Answers About the Garden Bridge*, <https://www.gardenbridge.london/questions-answers/general>.

³¹ City of London. *Bridge House Estates Overview: Summary of Performance, 2013-2014*. London: Public Relations Office, 2. <https://www.cityoflondon.gov.uk/about-the-city/how-we-make-decisions/budgets-and-spending/Documents/bridge-house-estates-overview-2013-14.pdf>.

³² Pierce, *Old London Bridge*, 212.

bridge were numbered.

Despite its place in the hearts of early modern Londoners, due to the narrow passages, the growing amount of traffic using it, and the crumbling fabric of both the houses and the bridge itself, dissatisfaction with the bridge began to develop early in the eighteenth century. In the 1740s, city surveyor, George Dance the Elder (1700-1768) produced a plan to replace the bridge. The price tag of £185,950, however, convinced Bridge House to seek other options.³³ They decided, instead, at a more attractive cost of £30,000, to demolish the buildings, repair the foundations, widen the roadbed, and combine some of the bridges' nineteen starlings to open up the flow of the river.³⁴ Viewing the new bridge a few years after the renovations were complete in 1762, one of the old Bridge's critics, the London Magistrate and co-founder of the *Bow Street Runners*, John Fielding (1721-1780), offered this description:

London Bridge, which is now rescued from the pendulous deformity of old ruinous houses, that rendered it so long a disgrace to the city, and a horror to the eye of all curious spectators, hath by the late repairs and alternations become a not unpleasant object to behold...Instead of a narrow passage [of the old bridge], not exceeding twenty feet in width, which clogged, cramped, and frequently obstructed all thoroughfare, and often at the immediate perils of the lives of foot-passengers, there is now a broad way made for carriages of thirty-one feet wide: For the conveniency [sic], preservation, and dispatch of foot-passengers, there is upon each side of the bridge a handsome raised pavement seven feet broad, and in the borders of each where old ruins formerly projected over the river, now runs an elegant balustrade, which give a complexion of stability, as well as of beauty, to the bridge.³⁵

Although the French visitor, Pierre Grosley (1718-1785), reported that the remodeled bridge still

³³ *Ibid.*, 251.

³⁴ *Ibid.*, 252.

³⁵ John Fielding. *A Brief Description of the Cities of London and Westminster*. London: J. Wilkie, 1776, 152.

formed a barrier to navigation on the Thames,³⁶ Fielding claimed that removing some of the starlings made it safer to navigate through the bridge.³⁷ Alternately described as a thrilling or terrifying experience, it gives pause to wonder: did this mean the days of “shooting the bridge” were gone? Unfortunately, descriptions of this experience from 1762-1831 could not be found for this dissertation, so the answer remains uncertain. The refurbished bridge endured for another seven decades before it was finally demolished and replaced in 1831. The nineteenth century structure was then replaced in the 1970s, and London Bridge endures today.

For the remainder of the period under discussion, responsibility for maintaining the city transportation infrastructure followed pre-fire rules and the additional provisions stipulated in the Rebuilding Acts discussed in the chapter on the Great Fire above. Property owners, or their lessees, were responsible for maintaining the pavement in front of their lots. They still provided the funding, but they were no longer permitted to do it themselves or hire their own private contractors to do the job as London required the use of city paviors to assure uniformity in the fabric of the streets.³⁸

To police compliance, and monitor the completion of mandated repairs or new construction, the responsibility lay with the Commissioners for Sewers and Pavements that were given overarching authority over all transportation matters by the Rebuilding Acts. The Commissioners’ scope of responsibility continued to grow over the remainder of the seventeenth and eighteenth centuries, culminating in the 1771 Act, 11 George III, C. 29, which confirmed the various extensions of their role and restated that the commissioners could assess rates to fund

³⁶ Grosley. *A New Tour to London*, 26.

³⁷ Fielding, *A Brief Description*, 152.

³⁸ Inwood. *A History of London*, 366.

maintenance and compliance. By the provision of the 1771 Act, the Commission held “the sole power for ordering, designing, making, enlarging, widening, deepening, raising, altering, removing, repairing, cleansing, and scouring all common sewers, drains and vaults, and of paving, cleansing and lighting the several streets, lanes, squares, yards, courts, alleys, passages, and places *within the said city and liberties*.”³⁹ The 1771 Act covered London and its liberties, but the trend toward focusing power into a central authority would continue long after and affect many other aspects of London life. Eventually, it would expand beyond the ancient city and incorporate communities in the surrounding area, including Westminster, resulting in the establishment of Metropolitan Board of Works (MBW) in 1856. Although short-lived and replaced by the London County Council in 1889, the MBW was the first agency created to oversee greater London’s *collective* public infrastructure.⁴⁰ Founded in the year 2000, *Transport for London* is the inheritor of this role and today carries the responsibility for developing and maintaining transportation assets for the 8.6 million citizens of Greater London.⁴¹

Navigating London’s Post-Fire Transportation Space

As Londoners once again began to move about on the streets of post-fire London, it is

³⁹ “Public Act, 11 George III, c. 29: Act for Consolidating, Extending and Rendering More Effectual the Powers Granted By Several Acts of Parliament, for Making, Enlarging, Amending and Cleansing the Vaults, Drains and Sewers Within the City of London and Liberties Thereof; and For Paving, Cleansing and Lighting the Streets, Lanes, Squares, Yards, Courts, Alleys, Passages and Places; and Preventing and Removing Obstructions and Annoyances Within the Same” in John Raithby. *The Statutes at Large of England and of Great Britain from Magna Carta to the Union of the Kingdoms of Great Britain and Ireland, volume 13 from 8-George III to 14 George III*. London: George Eyre, et. al., 1811, 195-196.

⁴⁰ Inwood, *A History of the City of London*, 432-433. [n.b. Governmental agencies existed before the formation of the MBW, but they provided oversight for the individual boroughs. The 1837 Municipal Corporation Act brought most of London’s boroughs under a central authority, but the MBW also included the City of London, making it the first to include all of greater London under its purview.]

⁴¹ Mayor of London. *Annual Report and Statement of Accounts, 2014-2015*. London: Transport for London, 2015. <http://content.tfl.gov.uk/annual-report-2014-15.pdf>. URL verified: 7/19/2016.

difficult to determine what they expected from the renovated city. Street maps, such as those created by Ralph Agas in 1633 and William Harcourt in 1658, and guides to London, such as those by John Stow in 1598 and James Howell in 1657, were already known to early modern Londoners, and their usefulness would continue to improve significantly over the next several centuries. Those attempting to navigate the city streets in the immediate aftermath of the rebuilding effort, however, would not find any new infrastructure to help guide them on their way. There were a few streets signs in existence at the time; the first legislation mandating their use did not appear until 1771.⁴² For the walkers, the new sidewalks offered a safe haven from the dangers of trampling by vehicles. Of course, no system is without its drawbacks and sidewalks had them as well. Despite bollards marking the sidewalk boundaries, provision 22 of 11 George III, C. 29, shows that vehicles sometimes contested the reserved space of the sidewalk. This provision assessed a fine for vehicles that drove on the footpath—although this rule was more concerned with damaging the footpath than protecting walkers.⁴³

Sidewalks were, indeed, a great boon to walkers and, despite the growth of coach use and ownership, walking was still the main mode of travel in the late seventeenth and eighteenth centuries. De Saussure found this significant enough to mention that “English men and women are fond of walking” and goes on to say that even “rich merchants, gentlemen, and noblemen walk the streets in their finest clothes.”⁴⁴ Many of those who wrote of moving about the city described their journeys while walking; essentially, they wrote their musings as walking tours.

⁴² "11 George III, c. 29," Raithby, *Statutes-8-George III to 14 George III*, 203.

⁴³ *Ibid.* 202.

⁴⁴ De Saussure, *Foreign View of London*, 48, 113.

Karl Moritz walked everywhere, preferring to save money he would have spent on coach travel for other things;⁴⁵ Edward Ward, the editor of the satire, *The London Spy*, describes “the pleasure of two or three hours ramble in the street;”⁴⁶ and Pierre Grosley saw walking as the best way to know London “thoroughly.”⁴⁷ The author of this dissertation can attest that this is still the case in the opening years of the twenty-first century.

Those traveling on foot in late-early modern London, however, would have encountered difficulties with some familiar, as well as, some unfamiliar, problems. On the new footpaths, De Saussure warned his readers that sedan chairs were not limited to the streets and often used the sidewalks. Due to their desire to maximize their profits, sedan bearers moved very quickly down the footpath, “going so fast that you have some difficulty keeping up with them on foot.”⁴⁸ De Saussure tells us that there were 300 sedan chairs servicing the streets of London and an etiquette developed to let other users of the footpath know they were about. As they trotted at full speed down the sidewalk, bearers would shout at walkers in their way: “Have care,” or “By your leave, sir” and, according to De Saussure, if a walker did not “make room he will run a great risk of being knocked down.” De Saussure, himself, had this experience and swears that he “received a tremendous push which hurled me four feet further on, and I should undoubtedly have fallen on my back had it not been for the wall of a house which broke my fall...To my cost I thus learnt what the cry of the bearer means.”⁴⁹

⁴⁵ Moritz, *Travels in England*, 28.

⁴⁶ Ward, *The London Spy Compleat*, 23.

⁴⁷ Grosley. *A New Tour to London*, 25.

⁴⁸ De Saussure, *Foreign View of London*, 48, 167.

⁴⁹ *Ibid.*, 167-169.

Chapters two of this dissertation contained a discussion of the suitability of different pavement for walkers. Both rough gravel and soft earth provided fairly decent traction for pedestrians. While the footpaths paved with flat slabs of stone may have been ideal for foot traffic, when it was necessary for walkers to move onto the new rounded pebble paving in the streets, there appears to have been problems. The editor of *The London Advisor*, John Trusler (1735-1820), advised walkers to be cautious crossing the street when a coach was coming because the pavement was so irregular that “your foot may slip and you be run over.”⁵⁰ Pierre Grosley described the pavement as “round stones, have neither tail nor foot, nor any part so formed as to stand upon [emphasis added]: they roll around and hit one another incessantly upon a bottom [foundation] which is nothing else but a heap of dirt.” Later Grosley again complained by asserting that the streets were paved “in such a manner that is it scarce possible to find a place to set one’s foot.”⁵¹ Even Zachery Zeal, the pseudonym of the anonymous author of *A Seasonable Alarm*, a 1764 essay, probably satirical, criticizing the frequent change of paving materials, admitted the pavement was unsuitable, but humorously observed that the roughness of the pavement provided health benefits due to the exertion necessary to successfully walk on them.⁵²

If walkers had the new footpaths, why was it necessary to walk in the streets? The answer to that query is two-fold: first, the Rebuilding Acts mandated sidewalks only in the High Streets, so the sidewalks only existed in the busiest streets. Then there were, of course, the crowds of

⁵⁰ Trusler, *London Advisor*, 124.

⁵¹ Grosley. *A New Tour to London*, 35-36.

⁵² Zachery Zeal. *A Seasonable Alarm to the City of London on the Present Important Crisis*. London: W. Nicoll, 1764, 12.

people thronging the streets. While it took a while for the population decimated by fire and plague to recover, by the 1680s, complaints against the crowds in London streets began to reappear in contemporary reports. John Oldham (1653-1683) drew passages from Juvenal's description of life in ancient Rome to describe London in his *A Satire in Imitation of the Third of Juvenal*:

If you walk out in business ne'er so great,
 Ten thousand stops you must expect to meet;
 Thick crowds in every place you must charge through,
 And storm your passage wheresoe'er you go;
 While tides of followers behind you throng,
 And, pressing on your heels, shove you along;⁵³

Based on later passages that note London's landmarks, however, there is no doubt that the target of his satire is London in the eighteenth century. Edward Ward described the streets of London as "full of passengers, horses, coaches, carts, and wagons," the throngs of "men, women, children, rich, poor, gentle, and simple," going about their business "as if they never intended to come back again."⁵⁴ Later Ward adds a much more vivid account of the activity in streets of Goodman Fields (just outside of Aldgate, between the gate and the Tower):

People running up and down the streets in crowds and numbers, as if one end of the town was on fire, and the other was running to help 'em off with their goods. One stream of coachmen, footmen, prentice-boys, and servant wrenches, flowing one way with wonderful hopes of getting an estate for three-pence. Knights, esquires, gentlemen, and traders, Mary's ladies, virgin madams, jolts, concubines, and strumpets; moving on foot, in sedan, chariots, and coaches another way; with a pleasing expectancy of getting six hundred a year for a crown.⁵⁵

So, the crowds were formidable, which in many streets forced walkers to share the roadway,

⁵³ Robert Bell, ed. *The Poems of John Oldham*. London: Charles Griffin & Co., 1871, 200.

⁵⁴ Ward. *The London Spy*, 140.

⁵⁵ *Ibid.*, 339.

dodging carts, carriages, chairmen and other walkers—much as they had before the Great Fire.

Despite the new paving, the streets were still prone to damage from carts and carriages, so the “pits and sloughs” of former times continued to be a problem. In addition, efforts to keep the streets clean was an ongoing challenge—one that, by all accounts, the city appeared to be losing. John Gay commented on it, so does De Saussure who was also thankful for the sparse protection of the new sidewalks.⁵⁶ In a description, reminiscent of Peacham’s dousing from before the Great Fire, Pierre Grosley offered this comment:

The middle of the streets constantly filled with a dirty puddle to height of three or four inches; a puddle where splashing cover those who walk on foot, fill coaches when their windows happen not to be up, and bedawb all the lower part of such houses as are exposed to it.⁵⁷

Is it any wonder that walkers will continue to “assert the wall” while walking the streets of London well into the future?⁵⁸

The rules concerning street cleaning had changed little since the twelfth century when they first appear in the *Letter Books*. Until the seventeenth century, property owners were responsible for sweeping the streets in front of their properties out to the middle of the streets. By the time of the Great Fire, however, that had changed, and property owners were responsible only for sweeping the walkways in front of their properties and placing the refuse out for collection. The city’s legion⁵⁹ of raykers and scavengers, appointed by the city since time

⁵⁶ De Saussure, *Foreign View of London*, 167; Gay, *Trivia*, 15.

⁵⁷ Grosley. *A New Tour to London*, 35-36.

⁵⁸ Trusler. *London Advisor*, 123.

⁵⁹ John Stow lists the number of scavengers for each borough of the city in his 1598 *Survey of London*. Even at this early date, Stow reports over 100 scavengers averaging about six per ward. The highest number for Tower Streete ward, which had twelve.

immemorial from among the tradesmen of the city,⁶⁰ made those collections and cleaned the main part of the street twice a week. They were also responsible for removing snow and ice in winter. These rules were still in effect in 1800.⁶¹ There was the additional ability to wash the streets from the remaining conduits situated at high points in the city. The best street cleaning, however, came when heavy rains washed the refuse in the streets down to the Thames, immortalized by Jonathan Swift in his poem, *A Description of a City Shower*:

Now from all parts the swelling kennels flow,
And bear their trophies with them as they go:
Filth of all hues and odors seem to tell
What street they sailed from, by their sight and smell.
They, as each torrent drives with rapid force,
From Smithfield or St. Pulchre's shape their course,
And in huge confluence joined at Snow Hill ridge,
Fall from the conduit prone to Holborn Bridge.
Sweepings from butchers' stalls, dung, guts, and blood,
Drowned puppies, stinking sprats, all drenched in mud,
Dead cats, and turnip tops, come tumbling down the flood.⁶²

In 1741, the apparently fruitless efforts of the city to effectively clean the streets caused John

⁶⁰ Sharpe, *Calendar of Letter-Books, Letter-Book A*, folio 88b, 183 & "14 Charles II, c.2: An Act for repairing the High-Waies and Sewers..." in Anonymous. *A Collection of the Statutes at Large, Now in Force Beginning in the Sixteenth Year of the Reign of Our Late Sovereign Lord, King Charles I, Anno 1640 and ending in the Nineteen Year of the Reign of our now Sovereign Lord, King Charles II, Anno 1667, with the Titles of Such as are Expired and Repealed*. London: Jon Bill and Christopher Barker, 1667, 151-160. [n.b. The criteria for those selected to clean the streets very early in London's official record. The 1662 act, 14 Charles II, c.2, was the first time, the criteria was so specifically mentions "tradesmen."

⁶¹ Corporation of London. Commissioners of Sewers. *Whereas, the Commissioners of Sewers of the City of London and liberties thereof have received information, that the inhabitants thereof are frequently put to great inconvenience by the neglect of the scavengers and lamp-lighters, and are not acquainted with the means of redress; the said commissioners hereby publish to the inhabitants, abstracts of the scavengers and lamp-lighters duty, and will meet at Guildhall every Tuesday at six o'clock in the afternoon, to hear any complaints, and will fine the contractors, or either them, for any neglect*. [London], [1800?]. [Eighteenth Century Collections Online](http://www.ecco.org.uk/collections/18th-century-collections-online). <<http://find.galegroup.com/flagship.luc.edu/ecco/infomark.do?&source=gale&prodId=ECCO&userGroupName=loyolau&tabID=T001&docId=CB3330267974&type=multipage&contentSet=ECCOArticles&version=1.0&docLevel=FASCIMILE>>.

⁶² Jonathan Swift. *A Description of a City Shower*. <https://www.poetryfoundation.org/poems-and-poets/poems/detail/50578>. Accessed 8 February 2017.

Brownlow, Lord Tyrconnell (1690-1754) to lament in the House of Lords: “the streets of London, a city famous for wealth, commerce, and plenty, and for every other kind of civility and politeness; but which abounds with such heaps of filth, as a savage would look on with amazement.”⁶³

Of course, many of these issues affected those riding in coaches and carts, as well as pedestrians. Vehicles still splashed walkers, each other, and the surrounding landscape as well. The new paving materials also seemed to be a bad choice for the quality of the ride, as well. De Saussure reported that “the pavement is so bad and rough that when you drive in a coach you are cruelly shaken.”⁶⁴ Pierre Grosley commenting on the superiority of granite setts a few years after their first mandated use, reports a similar experience in 1772: “*except in the two or three streets which have been well paved [with granite setts, emphasis added], the best hung and the richest coaches are in point of ease as bad as carts.*”⁶⁵

So, two of our visiting witnesses, De Saussure and Grosley, speaking more than half a century apart, condemned the quality of the ride due to the bad pavement. The experience of coach travel, however, was also condemned by London’s satirists. William King (1663-1712), author of *A Journey to London in the Year 1698*, found riding in a coach a miserable experience, saying that the constant jolting was tiring.⁶⁶ Edward Ward, in *The London Spy*, asserted that the experience “so loosened my joints in so short a passage, that I shall scarce recover my former

⁶³ John Brownlow, Lord Tyrconnell quoted in Bucholz and Ward, *London*, 335.

⁶⁴ De Saussure, *Foreign View of London*, 72.

⁶⁵ Grosley. *A New Tour to London*, 39.

⁶⁶ William King. *A Journey to London in the Year 1698*. London: A. Baldwin, 1698, 6.

strength in a fortnight.” To which his companion (presumably a Londoner) responded, “you must consider you’ve not the right knack of humouring [sic] the coaches motion, for there is as much art in sitting a coach finely, as there is in riding a great horse.”⁶⁷ Londoners must have, indeed, “found the knack” as the number of coaches continued to grow in the eighteenth century, indicating that they found the benefits of riding in a coach outweighed, at least marginally, the quality of the ride.

The one area of transportation that remained remarkably constant in the period 1500-1800 was the experience of travel on the river. Passengers still hailed wherries, scullers, and other boats from dozens of access points along the river allowing hundreds, perhaps thousands, of trips a day to points between London and Westminster and beyond. It was the one thoroughfare where traffic was rarely a problem—although low tides, the damming effect of the bridge, and winter freezing still prevented optimal usage. That would begin to change in the nineteenth century with the replacement of London Bridge and the Embankment on the north shore of the Thames.

The Thames continued to be a preferred method of travel well into the twentieth century—diminishing gradually over the years as the city developed more efficient and comfortable land travel. The last cries of “Oars! Oars!” and “Scullers! Scullers” occurred long ago, but water taxis and river buses still traverse the Thames in the twenty-first century. In 2013, more than six million passengers a year travelled along the river, although a great percentage of those passengers were tourists. There are plans to increase that to twelve million with

⁶⁷ Ward. *The London Spy*, 144.

infrastructural improvements and the addition of new services by 2020.⁶⁸ When completed, passengers will be able to access river transport at nearly forty points along the Thames from Hampton Court in the west to Barking in the east.⁶⁹

One of the experiences of movement in London that changed most over the course of the late seventeenth and eighteenth centuries was moving about after dark. After the restoration of the Monarchy in 1660, just a few years before the Great Fire, the number of people travelling the streets at night increased substantially. Taverns, coffee houses, eating-houses, and theaters, along with the transport needed to carry them, all operating long past the tradition curfew times discussed in chapter two.⁷⁰ John Mackey (died 1726) wrote in 1714:

I must also tell you that taverns and coffee-houses are innumerable; and what is almost incredible, you can hardly enter into a coffee-house in an evening, but you find company, although there be above eight thousand of them, by a modest computation in and about London.⁷¹

By 1750, there were over 500 taverns. That number was matched by the number of coffeehouses, which in 1739 exceeded 550. Added to those were the new inns, dining establishments, clubs, which numbered approximately 2,000 in the mid-eighteenth century, and performance entertainment venues such as the theatres. All of these establishments created an opportunity for nocturnal social networking, providing venues that operated late into the night, catering to this new breed of nightwalkers.⁷² The increase in the numbers of people moving

⁶⁸ Boris Johnson, Mayor of London. *River Action Plan*. London: Transport for London, 2013, 6.

⁶⁹ Johnson, *River Action Plan*, 33.

⁷⁰ Inwood, *A History of the City of London*, 365.

⁷¹ John Macky. *A Journey Through England in Familiar Letters From a Gentlemen Here to a Friend Abroad*. London: J. Roberts, 1714, 208.

⁷² Bucholz and Ward. *London*, Alehouses, 189; Coffeehouses, 194; Clubs, 198.

about at night stimulated important changes in infrastructure and the law enforcement.

As discussed in chapter three, previously, there was an absolute prohibition against walking about at night. As mentioned in chapter two, this had changed by the time of the Great Fire, and the restrictions softened a bit. First, the nobility, persons of quality, and their servants, then anyone not engaged in criminal activity, were permitted on the streets after dark. There was a short hiatus in this enlightened attitude while the City rebuilt after the Great Fire, and the City ordered night watchmen to arrest all nightwalkers and hold them until morning.⁷³ The stricter enforcement was short-lived and after the city recovered from the fire, nightwalkers were only held if they could not “render a good account, both of themselves, their company and carriage.”⁷⁴ According to Matthew Beaumont, laws against nightwalkers survived the early modern period and were only formally repealed in 1827. Even then, some related laws remained on the books until the *Criminal Law Amendment Act* of 1967 finally abolished all obsolete laws including being “a common night walker.”⁷⁵

There is evidence, however, that by the opening years of the eighteenth century, the Night Watch rarely harassed average citizens and were, indeed, somewhat lax in their enforcement of the code. In 1714, John Macky declared that the watchmen “are generally so civil as to lead a strayed stranger to his lodgings with a lanthorn.” He goes on to warn the

⁷³ George Meriton. *A Guide for Constables, Churchwardens, Overseers of the Poor, Surveyors of the Highways, Treasurers of the county Stock, Masters of the House of Corrections, Bayliffs of Monnours, Toll-Takers in Fairs*. London: Crook, Leak, Roper, et.al., 1669, 104.

⁷⁴ Robert Gardiner. *The Compleat Constable*. London: Richard & Edward Adkins, 1692, 30; Charles Hallifax. *The Constable's Sure Guide*. London: S. Bladon, 1791,32.

⁷⁵ Beaumont. *Nightwalking*, location 547.

traveler, however, that the watch will immediately carry drunkards and rogues to prison.⁷⁶ *The London Spy* lampooned the constables by relating a story that also attests to the laxity of enforcement. A couple of constables accosted the author, Edward Ward, and his companions. The constables greeted them cordially and then enquired as to their business on the streets at night. Ward responds, “we are very sober and civil people, and have been about our business and go quietly to our habitation,” and then offers one of the constables a shilling. The constable says to his colleague, “I believe they are civil gentlemen... [turning to Ward] you may pass.”⁷⁷

While the enforcement of the law against Nightwalkers was changing, travel at night on the dark streets of London was still very dangerous and John Gay’s admonishment:

Let constant vigilance thy footsteps guide,
And wary circumspection guard thy side;
Then shalt thou walk unharm’d the dang’rous night,
Nor need th’ officious link-boy’s smoaky light,⁷⁸

was good advice. In chapter three, we discussed the slow adoption of street lighting in the city of London. By the eighteenth century, however, the city’s reputation as the “darkest capital in Europe”⁷⁹ was changing due to the growing number of people on the streets after dark who, according to Stephen Inwood, demanded better-lit streets,⁸⁰ along with the centralization of authority for matters infrastructural. In addition, City authorities saw street lighting as an

⁷⁶ Macky, *Journey Through England*, 207.

⁷⁷ Ward. *The London Spy*, 33.

⁷⁸ Gay, *Trivia*, 52.

⁷⁹ Inwood, *History of the City of London*, 365.

⁸⁰ *Ibid.*

effective deterrence to crime.⁸¹ Between 1694 and 1750, the City acted to remove the task of street lighting from property owners and placed it in the hands of city-contracted vendors who would construct and maintain the city's lighting infrastructure. The first such lighting franchise occurred in 1694 when the city contracted with the Convex Lights Company. The cost to the city was £600.⁸²

The city paid this fee, but it did not remove the responsibility of the costs of street lighting from property owners. They were still required to pay. The 1695 *Act of Common Council for Lighting the Streets...* ordered the owners to pay the contractor directly to install and maintain a lamp on the front of their buildings.⁸³ At this date, they could still opt-out and use their own lights. In 1736, however, the total responsibility for street lighting passed to the city and, henceforth, property owners were assessed a tax to pay for it.⁸⁴ According to William Maitland's *The History and Survey of London*, the tax in 1736 ran from 7 to 20 shillings, based on the property owner's poor rate.⁸⁵ The street lighting plan appeared to be effective and walking the streets at night in 1782, Karl Moritz declared:

I was astonished at the admirable manner in which the street are lighted up. ... The lamps are lighted whilst it is still day-light, and are so near each other, that even on the most ordinary and common nights, the city has the appearance of a festive illumination, for which some German prince, who came to London for the first time, once, they say, actually took it, and seriously believed it to have been particularly ordered on account of

⁸¹ Ibid.

⁸² Ibid.

⁸³ London Metropolitan Archives. *An Act of Common Council for Lighting the Streets, Lanes, Courts, Alleys, and Publick Passages of the City of London and Liberties Thereof*. Journals of the Court of Alderman, No. 52, Folio 60b, 21 June 1695, COL/CC/01/01/050.

⁸⁴ Inwood, *History of the City of London*, 365.

⁸⁵ Maitland. *History and Survey of London*, 30.

his arrival.⁸⁶

Steven Inwood says London, which had been one of the darkest capitals, now began to gain a reputation as the most well-lit.⁸⁷

Contesting London's Post-Fire Transportation Space

By the time John Gay wrote his *Trivia*, traffic in London had returned to, and surpassed, pre-fire levels and the amount of congestion on the streets became almost insurmountable. Londoners longed for a solution to the problem and it even became the subject of nostalgic literature. In *Trivia*, John Gay longed for a time when the streets were not so congested:

O happy streets, to rumbling wheels unknown...

Thus was of old Britannia's city bless'd,
E'er pride and luxury sons possess'd,
Coaches chariots yet unfashion'd lay,
Nor late-invented chairs perplex'd the way.⁸⁸

The old rules regarding traffic were still in place, but the growth of trade, the number of people needed to service England's growing empire, and an absolute limit on space, meant new methods would be needed to transport more and more goods and people. That paradigm shift, unfortunately, would not arrive in the early modern period, and for the remainder of the period under discussion, the city would work to fine-tune existing legislation and install upgrades its infrastructure.

As already stated, traffic was the main factor in the elimination of the city's medieval gates, and the search for a smooth surface that aided quick and efficient movement had to be, at

⁸⁶ Moritz, *Travels in England*, 28.

⁸⁷ Inwood, *History of the City of London*, 365.

⁸⁸ Gay. *Trivia*, 10.

least, one of the factors that drove the development of new paving materials. There were also experiments with directing traffic movement, such as occurred on Thames Street in 1681, when the city made it one-way and permitted access only from certain side-streets.⁸⁹ Reddaway reports that the traffic on London Bridge compelled the appointment of London's first regular traffic police in 1670.⁹⁰ In what may be the first official rule mandating modern Britain's left-based traffic-flow pattern, William Maitland reported that in 1722, the city instituted directional traffic on London Bridge. The rule specified that the traffic crossing from Southwark should travel on the west side of the bridge and traffic out of the city should travel on the east. An interesting side note to this new rule was that toll collectors were to collect the tolls "without making a stay of the cart."⁹¹ Presumably, to keep the traffic moving, the collector walked alongside the carts and collected the tolls on the fly. If cartmen did not have their tolls ready and forced a stoppage, they could be charged with obstruction.

Perhaps one of the most contentious transportation issues facing eighteenth century Londoners, and one that added significantly to the traffic problem, was carriage traffic—especially hackney carriages. Efforts to control the growth of hackneys pre-date the Great Fire, but as discussed in a previous chapter, the actual number of carriages on the streets was

⁸⁹ Corporation of London. Broadside containing the text of *An Act of Common Council for the Prevention of Many Incumbrances and Annoyances Which Daily Happen to the Streets and Passengers, by the Irregular and Disorderly standing of cars, etc...* Early English Books Online: http://gateway.proquest.com.flagship.luc.edu/openurl?ctx_ver=Z39.88-2003&res_id=xri:eebo&rft_id=xri:eebo:citation:18504946 . URL verified: 30 July 2016. [n.b. This was not the first instance of one-way streets in London—that occurred in 1617. See "Rules of the Road" section in chapter 2.

⁹⁰ Reddaway, *Rebuilding of London After the Great Fire*, 283.

⁹¹ Maitland. *History and Survey of London*, 52 & Pierce, *Old London Bridge*, 230. [n.b. The 1722 act codified an already existing practice.]

uncertain. In 1683, the city acted to set the number of coaches per license to one,⁹² so even if the license owners had employees, they were limited to sharing one vehicle. The fine for running extra carriages was £5 per vehicle, plus a 40s fine per violation. Enforcement of the law included the possibility of seizure and sale of the violator's horse and carriage and, at worse, imprisonment.

Still the city continued to license an ever-increasing number of carriages. The 1683 act, mentioned above, reset the number of licensed carriages to the pre-fire number of 400 and limited the number of licenses per person to two.⁹³ But the number of licensed carriages increased to 700 under William and Mary in 1690,⁹⁴ 800 in 1710 during the reign of Queen Anne,⁹⁵ and by the end of the eighteenth century, 1000 licensed coaches plied the streets of London.⁹⁶ Were there other factors that drove the increase? For example, although the Crown got a cut of every license from time immemorial, the language of the both the 1710 and the last increase under 11 George III, C.24 in 1771, suggests a “revenue enhancement” for the crown. The title of the 1710 legislation states that the money raised would be used for “carrying on the war and her Majesty's [other] occasions.”⁹⁷ The 1771 act refers to the previous act and

⁹² Corporation of London. *An Act of Common Council for the Better Regulation of Hackney Coaches*. London Samuel Roycroft, 1683, 10.

⁹³ Corporation of London. *An Act for the Better Regulation of Hackney Coaches*, 1683, 3 & 5.

⁹⁴ “5 William & Mary, C. 22” in Owen Ruffhead. *The Statutes at Large, volume 3, from the First Year of King James the First to the Tenth Year of King William the Third*. London: Mark Basket & Henry Woodfall, 1749, 576.

⁹⁵ “9 Ann, C. 23” in Owen Ruffhead. *The Statutes at Large, volume 4, from the Tenth Year of King William the Third to the End of the reign of Queen Anne*. London: Mark Basket & Henry Woodfall, 1749, 490.

⁹⁶ “11 George III, Cap. 24” in Raithby, *Statutes-8-George III to 14 George III*, 182.

⁹⁷ “9 Ann, C. 23” in Ruffhead, *Statutes at Large*.

specifically notes that that the money raised “shall be subject to the like uses and purposes, and under like penalties, as the other rents upon hackney coaches are applicable and appropriated by Parliament.”⁹⁸

As might be expected, existing licensees fought the increases, declaring that the city was already cluttered with carriages and an increase would cut into their, already meager, incomes.⁹⁹ There were those, however, who lobbied for an increase in the number of licensed carriages. Following the 1683 act that reset the number to 400, an anonymous pamphlet appeared arguing for an increase to 600, or even 800, licenses. This pamphlet charges that there was well above 1000 carriages operating illegally and that 800 “well-managed” coaches offered a better answer. Each license holder could also hire one additional person to drive his coach. The author of the tract asserts that this change would permit those operating illegally to purchase licenses and open up employment opportunities to those who could not afford licenses.¹⁰⁰ James Douglas, Lord Mordington (1651-c.1706), concurred in a 1690 tract, although Mordington and his partner, Martin Laycock (dates unknown), were seeking a lease from Parliament to become the licensing agency for hackney carriages, so a greater number of licensees would have been in their favor.¹⁰¹

⁹⁸ “11 George III, Cap. 24” in Raithby, Statutes-8-George III to 14 George III, 183.

⁹⁹ Two Examples can be found in Anonymous. *The Case of the Four Hundred Coach Men and Their Widows*. London : s.n., 1688. EBO: http://gateway.proquest.com.flagship.luc.edu/openurl?ctx_ver=Z39.88-2003&res_id=xri:eebo&rft_id=xri:eebo:image:58079 . URL verified: 3 August 2016. & Anonymous. *Further Reasons Against Increasing the Number of Hackey-Coaches*. London : s.n., 1690. EBO: http://gateway.proquest.com.flagship.luc.edu/openurl?ctx_ver=Z39.88-2003&res_id=xri:eebo&rft_id=xri:eebo:image:57736.

¹⁰⁰ Anonymous. *Reasons to Augment the Number of Hackney Coaches, within the Bills of Mortality, from Four Hundred to Six or Eight Hundred Most Humbly Tendred to the Consideration of Both Houses of Parliament*. London?: s.n., 1685. EBO, http://gateway.proquest.com.flagship.luc.edu/openurl?ctx_ver=Z39.88-2003&res_id=xri:eebo&rft_id=xri:eebo:citation:36282301.

¹⁰¹ James Douglas, Lord Mordington. *The Humble Proposal of James Lord Mordington, and Martin Laycock, esq., for the farming of the Hackney Coaches*. London : c1690.

One-thousand hired carriages serving London in the late eighteenth century contested the use of the transportation space with hundreds of carts carrying freight, sedan chairs, pedestrians, and a growing number of personal carriages. In 1668, Sam Pepys, who relied on hired coaches since a date that, almost certainly, predated the start of his diary in 1660, had resolved to buy his own coach and was seeking a place to store it.¹⁰² He acquired his coach in October of that same year and entries in his diary indicate that he became quite prideful about it. He let Thomas Povey (1615-1702) talk him out of buying his first choice because it was “out of fashion and heavy.”¹⁰³ When he took delivery of his new coach, he frequently mentions his joy at ownership. On 3 December 1668, he declared “And so home, it being mighty pleasure to go alone with my poor wife in a coach of our own to a play; and make us appear mighty great, I think, in the world...”¹⁰⁴ Indeed, there were other indications that personal coach ownership was becoming de rigueur for the growing middle class. The 1784 satire, *London Unmasked*, lampooned this trend, declaring the growth of coach ownership among the genteel classes a “fashionable folly,”¹⁰⁵ that often forced the owner into bankruptcy. The author goes on to relate a story of a doctor making a home visit. When the doctor alighted at the home of his female patient, her husband turned him away at the door because he had arrived in a hired coach. The husband declared that his wife would fly into a fit of hysterics “that would certainly cost her her life” if

¹⁰² Latham and Matthews. *Diary of Samuel Pepys*, volume 9, 39, 377.

¹⁰³ *Ibid.*, volume 9, 342.

¹⁰⁴ *Ibid.*, volume 9, Instances of pride: 381, 382, 383.

¹⁰⁵ Anonymous. *London Unmasked or the New Town Spy*. London: William Adlard, 1784, 64.

she knew he had arrived in “a hack.”¹⁰⁶ According to Stephen Inwood, by the time of *London Unmasked*, private ownership had risen to over 2500 coaches.¹⁰⁷

With the number of vehicles vying for space in London’s crowded streets, it is important to ask: had driver behavior, both toward their passengers and to each other, improved? Popular opinion of drivers of all types continued to be poor. The 1690 poem, *Kentish Dick, The Lusty Coachman of Westminster*, branded coachmen as sexually promiscuous—fathering illegitimate children and ruining young women.¹⁰⁸ Drivers of all sorts had a reputation for attempting to charge more than the official rate and a total disregard for those around them. John Gay gave this version of driver/pedestrian relations in *Trivia* in 1716:

If wheels bar up the road where streets are cross,
 With gentle words the coachman’s ear accost;
 He ne’er the threat, or harsh command obeys,
 Now may with utmost fortitude thy soul,
 To cross the way where carts and coaches roll;
 Yet do not in thy hardy skill confide,
 Nor rashly risque the kennel’s spacious stride;
 Stay till afar the distance wheel you hear,
 Like dying thunder in the breaking air;
 Thy foot will slide upon the miry stone,
 And passing coaches crush thy tortur’d bone,
 Or wheels enclose the road; on either hand
 Pent round with perils, in the midst you stand,
 And call for aid in vain; the coachman swears,
 And the car-men drive, unmindful of thy prayers.
 Where wilt thou turn? Ah! Whither wilt thou fly?

¹⁰⁶ Ibid., 6.

¹⁰⁷ Inwood, *History of the City of London*, 340. [n.b. It must be noted that the number of vehicles on the streets of London in the late eighteenth century covered the liberties, the surrounding communities, and Westminster in addition to the walled city.]

¹⁰⁸ Anonymous. *Kentish Dick, The Lusty Coach-Man of Westminster*. Broadside, EBO: http://gateway.proquest.com.flagship.luc.edu/openurl?ctx_ver=Z39.88-2003&res_id=xri:eebo&rft_id=xri:eebo:image:107393.

On ev'ry side the pressing spokes are nigh.¹⁰⁹

Gay also indicted sedan chair bearers as drunkards,¹¹⁰ but these low opinions were not limited to carriage and cart drivers. Other sources give similar opinions of watermen, and a late eighteenth century rulebook for watermen admonished them not to block other vessels or “molest, insult, threaten, or abuse” their owners and passengers.¹¹¹

Back on the streets of the city, some non-transport related obstacles were reduced or eliminated in the wake of the Great Fire. The Great Conduit, that enormous hindrance to effective travel that blocked much of the width of the east end of Cheapside was gone—it was destroyed in the fire and not rebuilt. By 1681, Richard Burton reported that most of the conduits had been removed.¹¹² The Little Conduit on the western end of Cheapside, at the foot of St. Paul's, was still in use and mentioned by Edward Ward in the *London Spy* at the beginning of the eighteenth century.¹¹³ Others, such as the one in Snow Hill, and some of the standards, remained as well to provide a gathering point for Londoners, but conduits were slowly disappearing due to the growing use of water piped into households from the Thames.

The nature of market activity on the streets of London was also evolving. The second

¹⁰⁹ Gay. *Trivia*, 54-55. [n.b. Passage quoted without correction from original text.]

¹¹⁰ *Ibid.*, 43.

¹¹¹ Great Britain. Commissioners Appointed for Improving and Completing the Navigation of the Rivers Thames and Isis. *A rule, order, or bye law, to be observed and kept by the bargemasters concerned in the navigating any barge, boat, or vessel, on the rivers Thames and Isis, ordered at a general meeting of the Commissioners.* Great Marlow: 1786, 12. ECCO: <http://find.galegroup.com/flagship.luc.edu/ecco/infomark.do?&source=gale&prodId=ECCO&userGroupName=loyolau&tabID=T001&docId=CW3305773002&type=multipage&contentSet=ECCOArticles&version=1.0&docLevel=FASCIMILE>.

¹¹² Burton. *Historical Remarques and Observation*, 70.

¹¹³ Ward. *The London Spy*, 93.

Rebuilding Act provided power to the city to allocate new space for markets,¹¹⁴ and the city then designated new market spaces at several places around the city, including Newgate Square, Honey Lane, and Leadenhall, among others. When the city resumed operations, they relocated all street vendors to new market places¹¹⁵ and removed them altogether from other locations, including Cheapside.¹¹⁶ The attempts to suppress street vendors, however, seemed fruitless and new street markets sprung up elsewhere, such as the one on Fleet Bridge at the turn of the eighteenth century.¹¹⁷ According to Colin Smith, street vendors would continue to be an important part of the London scene. As the city grew, they became nascent shopkeepers as their role changed and they began to act as distribution points for the major markets, such as those at Billingsgate, Leadenhall, and Newgate. By the late nineteenth century, many of them had moved off the streets entirely into storefronts.¹¹⁸

Finally, a word on encroachments: post-1666 building rules specified uniform street fronts; no projections, either signs or upper stories; and no street facing cellars. The power to monitor compliance and remove offending encroachments initially fell to city surveyors, but eventually, under the 1771 Parliamentary Act, 11 George III, c.29, this responsibility also passed to the Commissioners of Streets and Sewers.¹¹⁹ Of course, compliance was only as good as the

¹¹⁴ “22 Charles II, c. 11,” Pickering, *Statutes-CII to JII*, 291.

¹¹⁵ Inwood, *History of the City of London*, 251.

¹¹⁶ Harding, “Cheapside: Commerce and Commemoration,” 95.

¹¹⁷ Ward. *The London Spy*, 125.

¹¹⁸ Colin Smith. “The Wholesale and Retail Markets of London, 1660-1840” in *The Economic History Review, New Series*, 55. No. 1 (2002), 46.

¹¹⁹ “11 George III, Cap. 29” in Raithby, *Statutes-8-George III to 14 George III*, 199.

enforcement. A survey of the complaints of encroachments in the *Repertories of the Court of Alderman* in the decade after 1675 shows about fifteen cases of street obstructions. Examples include a privy (toilet) obstructing Lombard Street (repertory 85, folio 70b) and a whole building obstructing George Alley in Shoe Lane (repertory 78, folio 26), indicating that at least some of the old attempts to acquire portions of the streets for private purposes reemerged when the city began to return to normal after the Great Fire.¹²⁰

Conclusion

This dissertation figuratively listened to the comments of early modern eyewitnesses, and then compared those comments to official legislation, to build a description of London's transportation space. The purpose of this exercise was to identify problems inherent in the design and construction of the City's transport infrastructure, and set the stage for a study of the experience of movement in early modern London. In many ways, it takes the form of an annual report on the city's transport assets much like those published yearly by Transport for London, the City's transport agency in the twenty-first century

The comments left behind by those who used London's transportation venues on a daily basis provide an indicator of popular opinion of the City's transport policies in the period 1500-1800. Few of the opinions contained herein were offered as criticisms of the city's transport policy, but related as part of the writer's daily experience—much as twenty-first century Londoners might complain in their journals, blogs, or at a bus-stop on the Farringdon Road after waiting twenty minutes for a bus, then having two arrive at the same time. Comments on London's transport venues from writers such as Pepys, Evelyn, Dryden, Johnson, and Gay were

¹²⁰ *Repertories of the Court of Alderman*, Repertories 81-92 (1675-1684), COL/CA/01/01/085-94.

pleas for empathy from fellow travelers. In early modern London, where most people were strangers, due to the high number of immigrants and high death rates, commiseration of common experiences were an appeal for fellowship and community, along with a shared sense of purpose in acknowledging that the problem existed. Also, implicit in this appeal is an expression of frustration that the governing powers appeared to be doing little to resolve the issues at hand.

So, what was the City's transport policy in the early modern period? What responsibility did the governing elite assume in resolving the grumblings of its transport users? Although this dissertation's main focus is on transportation in sixteenth and seventeenth century London, to determine the evolution of transport policy, it was sometimes necessary to delve deeper into the past as many of the rules and regulations in place during the early modern era evolved from those enacted during the medieval period. In some cases, as in night-time activity on the streets, it was necessary to show how significantly it changed—in this case from absolute ban on nightwalkers to a social revolution in which early modern Londoners claimed the night as a time for leisure activity. In many cases, however, the methods enacted in the distant past were still in place, in some form, as our period drew to a close at the end of the eighteenth century. This can be found in street cleaning, street maintenance, and the use of tolls to fund it all.

At this time, it makes sense to discuss what wasn't found in the course of this study. Other than a few notes on prostitutes, rules concerning the movement of women are sparse in the official record, lending credence to the assertion in chapter three that such rules were more customary, than law. Our early modern witnesses also testified to several other issues that seemed of paramount importance. Although rules were published to control the congestion caused by carts, carriages, and markets, it was difficult to find any mention of efforts to control crowds blocking the streets—other than those rules on riots and mobs. There were no rules

concerning the crowds around the conduits or those attending public executions—although the aforementioned mob control rules could be interpreted to include these. In addition, witnesses specifically targeted the narrow streets as an area of concern, but they seemed of little concern to early modern administrators until the eve of the Great Fire when orders to widen the streets first appeared. The debate surrounding street widening and realignment during the rebuilding period after the Great Fire, and explained by Reddaway, perhaps explains why it was not considered before the fire. Regarding the issue of stranded ships at ebb-tide, there is little in the official record, except for dredging orders, before the Great Fire to show they considered any method to address this issue.

Although in a few places this dissertation traced developments in London's transportation space into the twenty-first century, in scope it draws to a close in the year 1800. The factor that drove the selection of that year as the terminus of this study was that the nineteenth century marked the genesis of a new age in transportation technology and methodology. In 1801, with the opening of the Paddington arm, the Grand Junction National Canal network added London to the Britain's growing manmade waterway system.¹²¹ For travelers on the streets of the ancient capital, the year 1832¹²² marked the arrival of the age of mass transit when George Shillibeer's (1797-1866) omnibuses appeared on London Streets.¹²³ Finally, by mid-century intercity

¹²¹ London Canal Museum. *History of Canals in Britain*. <http://www.canalmuseum.org.uk/history/ukcanals.html>.

¹²² London Transport Museum. *Public Transport in Victorian London: Part One-Overground*. <http://www.ltmcollection.org/resources/index.html?IXglossary=Public%20transport%20in%20Victorian%20London%3a%20Part%20One%3a%20Overground>.

¹²³ *Ibid.* [n.b. Omnibuses actually appeared in 1829, but were not allowed on the streets of the walled city until a hackney monopoly on hired coach travel was repealed in 1832.]

railways began connecting Great Britain's cities, arriving at London on its periphery, also at Paddington. The arrival of the railways spurred plans for an intra-city rail system and the first links in the transport system that would become the London Underground. The Metropolitan Railway system opened its first section from Paddington to Farringdon Street in 1862.¹²⁴ By the end of the nineteenth century, a new transportation paradigm had emerged—a system focused on moving large quantities of goods and people by the most efficient methods, guided by government. In 2014, *Transport for London* reported that forty-five percent of all travel within the city occurred on public transport, i.e. tubes, taxis, and buses. Interestingly, private transport accounted for only thirty-two percent and Londoners still walk twenty-one percent of the time.¹²⁵

Then, there is a question of whether the city was reactive versus proactive—by extension, were they maintenance or improvement minded? The City was probably proactive in the development of street lighting. Although, as shown in chapter three, street lighting began as an effort to address the issue of crime at night, street lighting had other benefits as well, such as aiding in the navigation of the streets in the dark. The vast preponderance of the evidence, however, shows that the city was reactive—responding to conditions only after they became problematic. In most cases, they acted to maintain the status quo. Much of the City's unresponsiveness may have been due to the number of those involved in the governance of the city—see chapter two. This could explain why proactivity, when it occurred, flowed from Westminster—the top of the chain in authority. The city mandated that the streets be kept in good repair, but it was Henry VIII and his successors who ordered the full paving of London's

¹²⁴ London Transport Museum. *Public Transport in Victorian London: Part Two-Underground*. <http://www.ltmcollection.org/resources/index.html?IXglossary=Public%20transport%20in%20Victorian%20London%3a%20Part%20Two%3a%20Underground>.

¹²⁵ Boris Johnson, Mayor of London. *Travel in London, Report 8*. London: Transport for London, 2015, 33.

streets—almost certainly in response to the needs of the increasing population that serviced growth in trade occurring at the same time. The same was true of the waterways: the city cleared away obstructions and dredged the rivers to maintain navigable depth, but in most cases, they were responding to impetus from Westminster. The city did consider a few technological innovations—such as water plows for dredging—and Christopher Wren’s idea for a series of embankments along the Thames to resolve issue of ebb tide. The dredging machines were not very effective, and it would be another two centuries before an embankment along the north side of the Thames became reality. Like most cities, then and now, London was reactive—incorporating new methods and technologies as the need arises—then only after those new techniques have stood the tests of time and cost-effectiveness.

The period 1600-1800, therefore, represents a transitional period in transportation history. It was an era before the creation of modern transportation methods and technologies, but also an era when the city experimented with many methods to deal with transportation in an era of rapid growth. As the city’s population and the need for more efficient transport grew, it seems logical to speculate that the availability of hired coaches that carried a few people may have provided some inspiration for the import of omnibuses that carried eight to ten times more people at a cheaper rate than hackneys.¹²⁶ The city placed responsibility for infrastructure maintenance in the hands of the Commissioners of Streets and Sewers, then after our period, the Board of Works and ultimately Transport for London, demonstrating a trend toward a centralization of authority to oversee all aspects of London’s transportation environment today. Centralization cut across the old jurisdictional lines to provide consistent oversight as the city grew and its citizens moved more frequently between the different municipalities of the old paradigm. The quest for better

¹²⁶ London Transport Museum. *Public Transport in Victorian London: Overground.*

pavement materials and methodologies drove innovation that resulted in macadam in the nineteenth century, and then modern asphalt. These developments do not demonstrate the inevitability of London's twenty-first century transport paradigm—that was the product of centuries of trial and error. It does show, however, that the early modern city of London recognized the symbiotic relationship between population increase, the growth of global trade, and the need for efficient movement, and then reacted in a way that allowed the development of new methods and technologies to accommodate the needs of all three.

It is important to note, therefore, that London's transportation environment from the beginning of this dissertation in 1500 to the present day is a story of an evolutionary process in action. Neither the early modern London transport paradigm nor its twenty-first century counterpart sprung into existence from nothingness. From 1500-1800, London took the methods and technologies of its medieval predecessors and changed and improved them before handing them on. It was, however, necessary to infuse those methods with new ideas from time-to-time, such as the import from Europe of first carriages in the 1550s, sedan chairs in the 1600s, and then omnibuses in 1832, as the need for more efficient movement made them necessary.

APPENDIX A:
IMAGES



Figure 1. *Saxon Map of London*. Museum of London and the Londonist. Hand-Drawn Maps: Anglo-Saxon London, 500-1050 AD. 2011, <http://londonist.com/2011/02/hand-drawn-maps-anglo-saxon-london.php>.



Figure 2. The entrance to Carter Lane, December 2012. Image by Author.



Figure 3. Lovat Lane, December 2012. Image by Author.

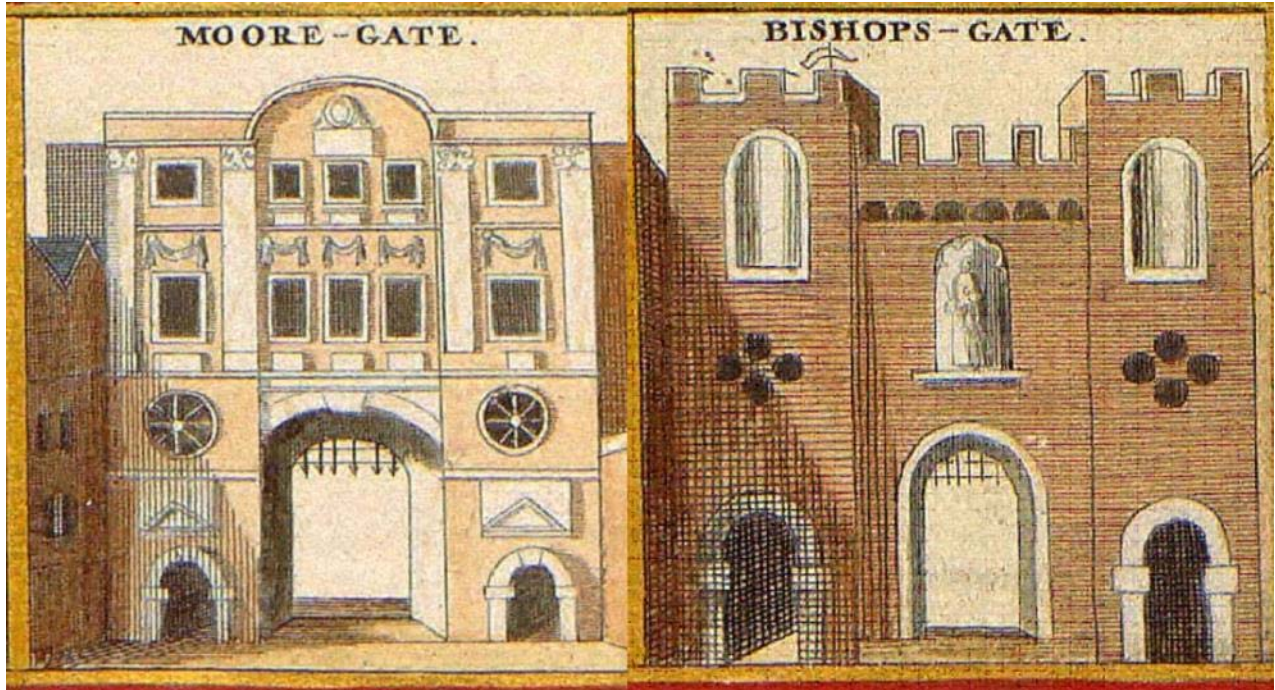


Figure 4. Moorgate and Bishopsgate by Wenceslas Hollar, circa 1650.

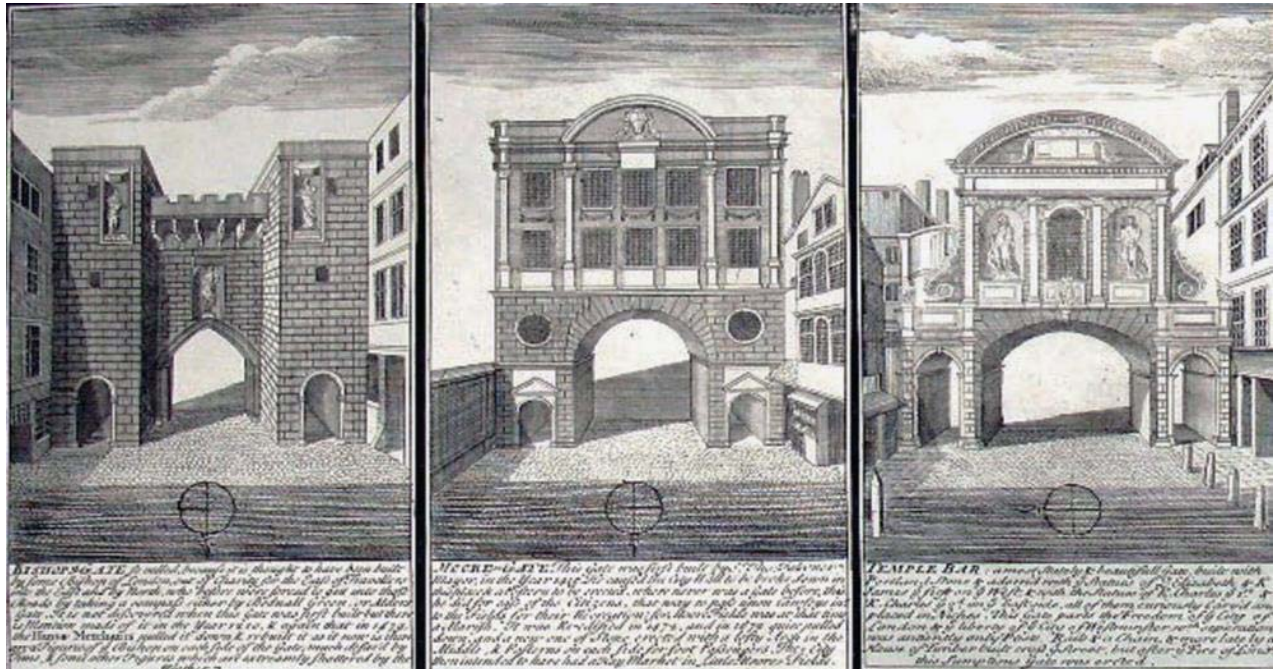


Figure 5. Bishopsgate, Moorgate, and Temple Bar, 1720. Detail of a drawing by Sutton.



Figure 6. Old Temple Bar, 1667.



Figure 7. Temple Bar in 1829.



Figure 8. Temple Bar, 1877.

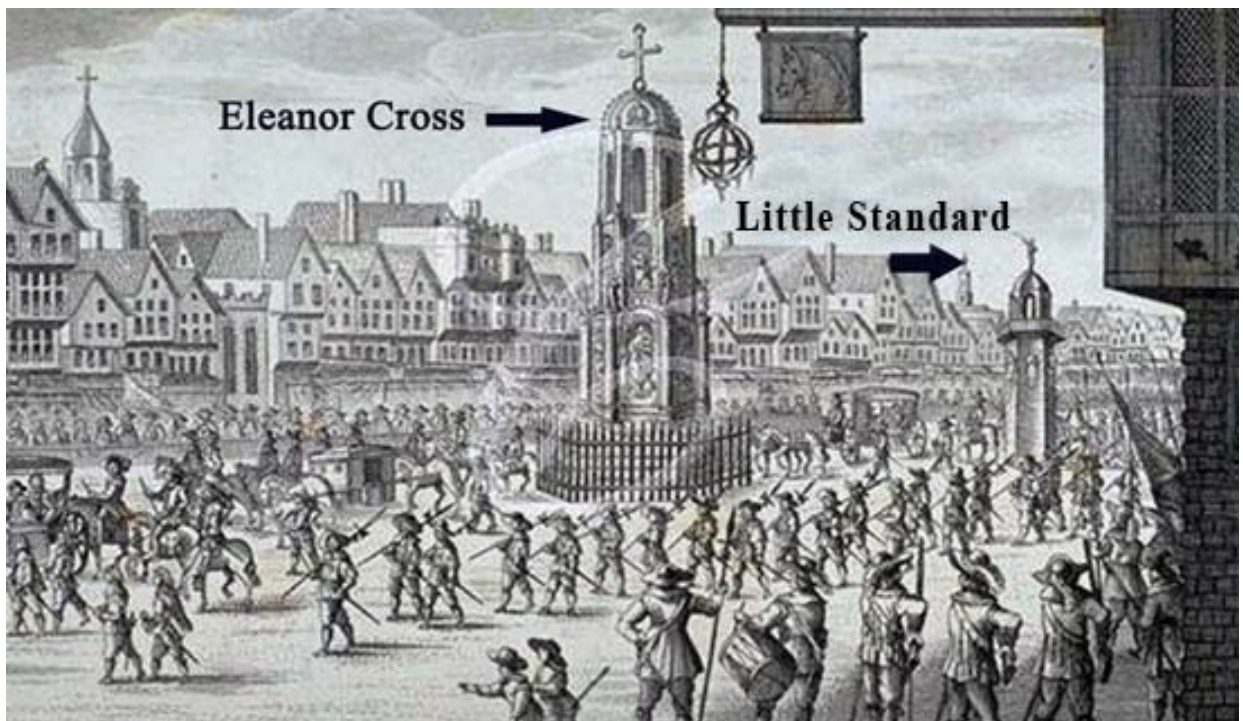


Figure 9. Herbert and Wilkinson illustration of the procession of Marie de Medici along Cheapside, 1633. Note the Little Standard, a smaller fountain, at the right

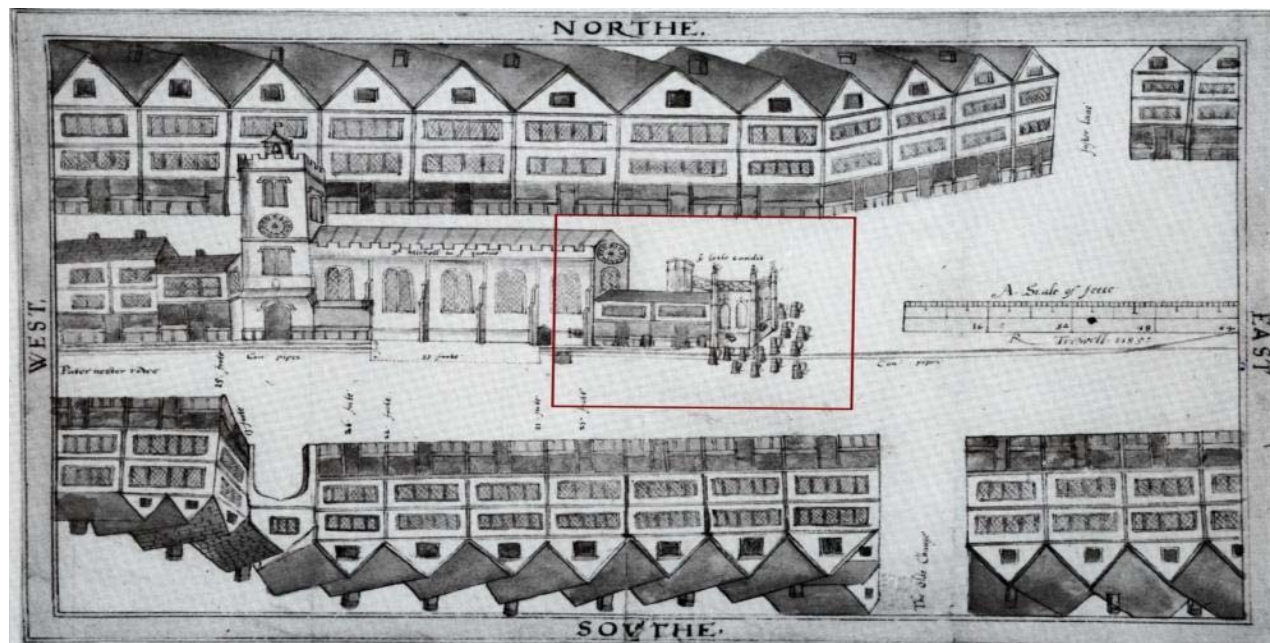


Figure 10. The Little Conduit at the west end of Cheapside (inside red border) from *The London Surveys of Ralph Treswell*, page 57. It was situated next to St. Michael le Querne Church.

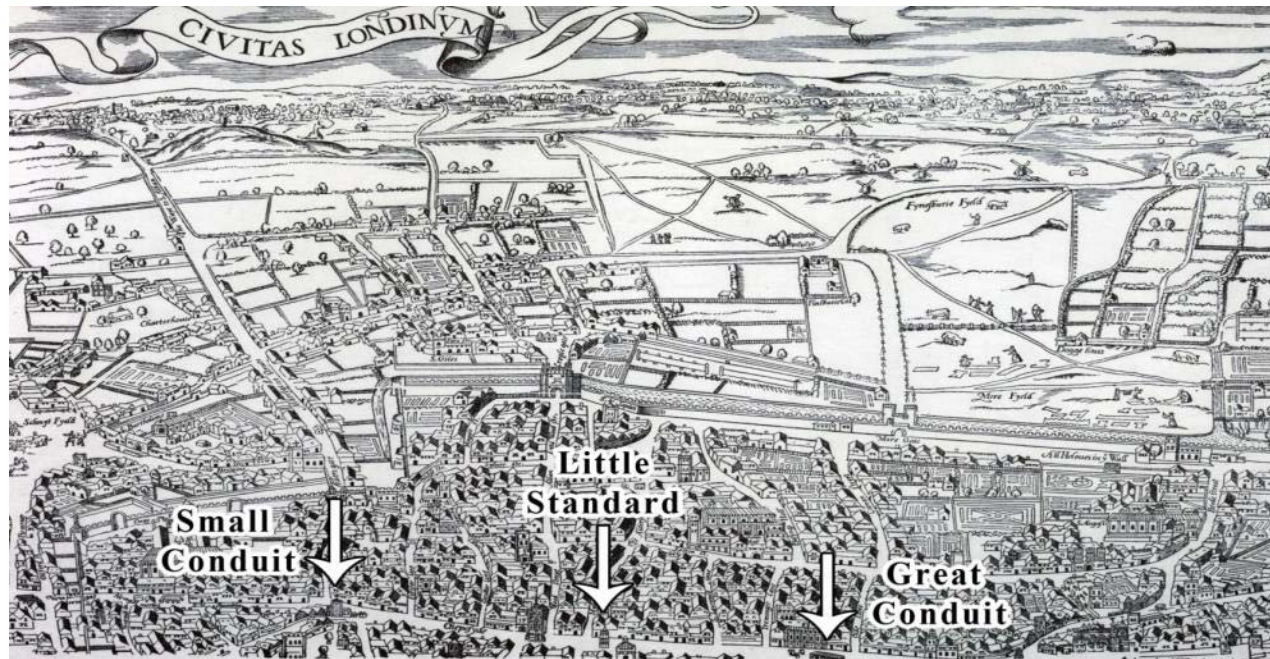


Figure 11. Panel from the Ralph Agas *Map of London*, 1633. The arrows show the Great Conduit, the Little Conduit and the standard by the Eleanor Cross.



Figure 12. Christopher Atkinson in the pillory outside the Corn Exchange in Mark Lane surrounded by a horde of people, 1785.

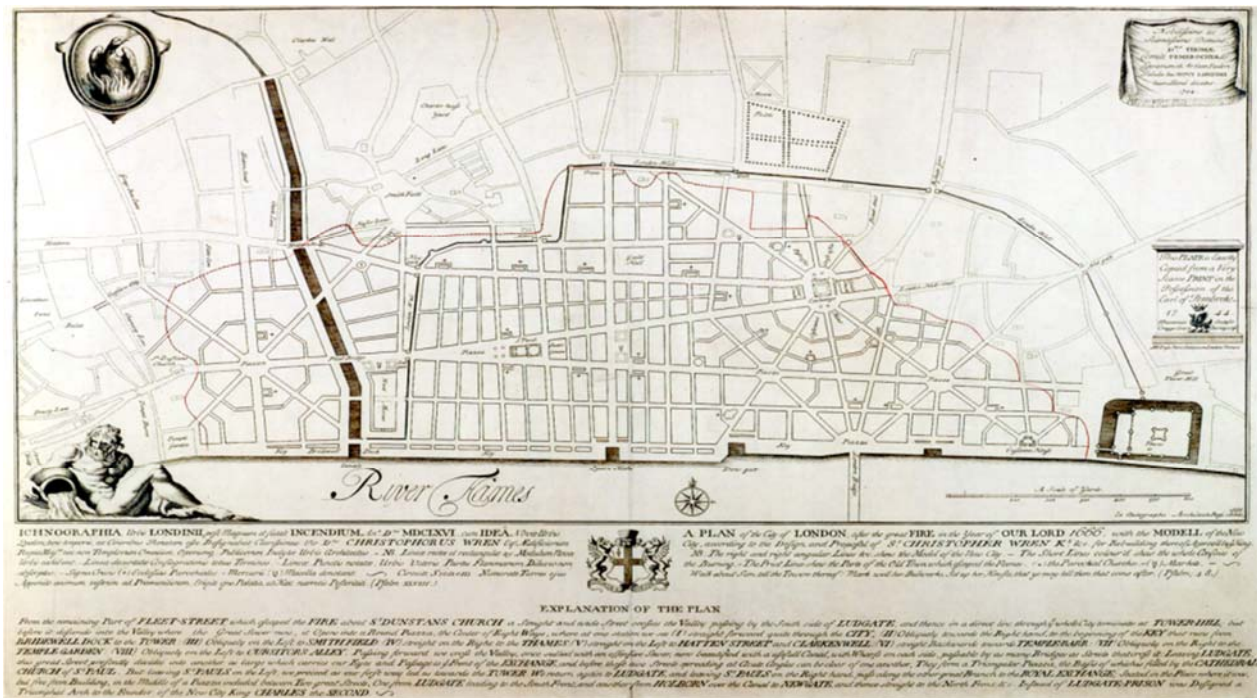
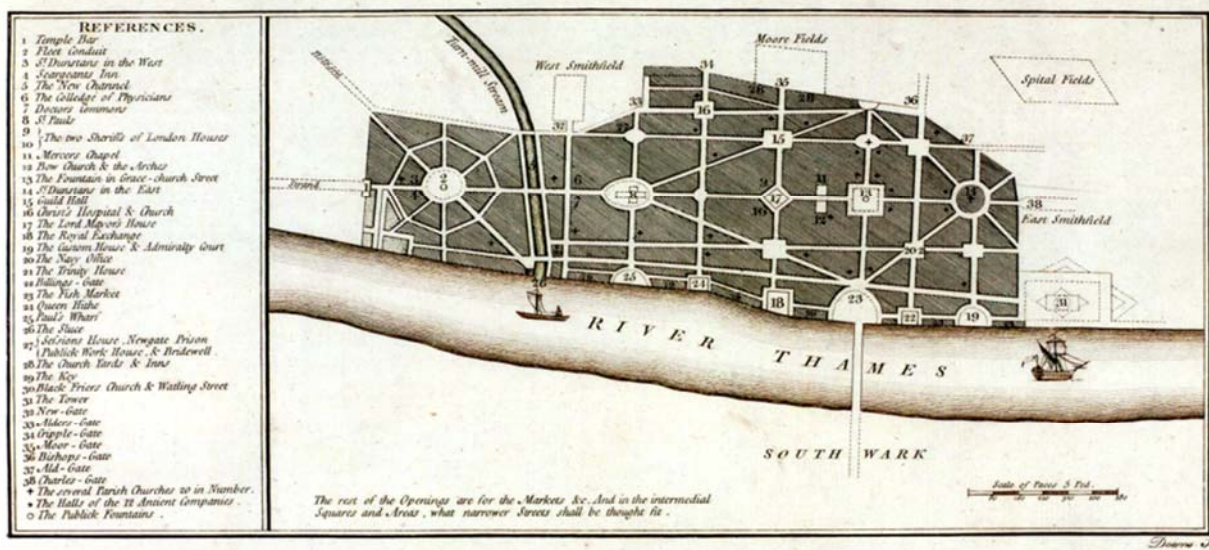


Figure 13. Christopher Wren's Rebuilding Plan from the London Metropolitan Archives Collage Collection, catalogue number: 30629.



Sir JOHN EVELYN'S PLAN for Rebuilding the CITY of LONDON, after the Great Fire in the Year 1666.

London: Published as the Act directs, by Alex: Hogg, at the Kings Arms, N^o 16, Paternoster Row.

Figure 14. John Evelyn's Rebuilding Plan from the London Metropolitan Archives Collage Collection, catalogue number: 30304.

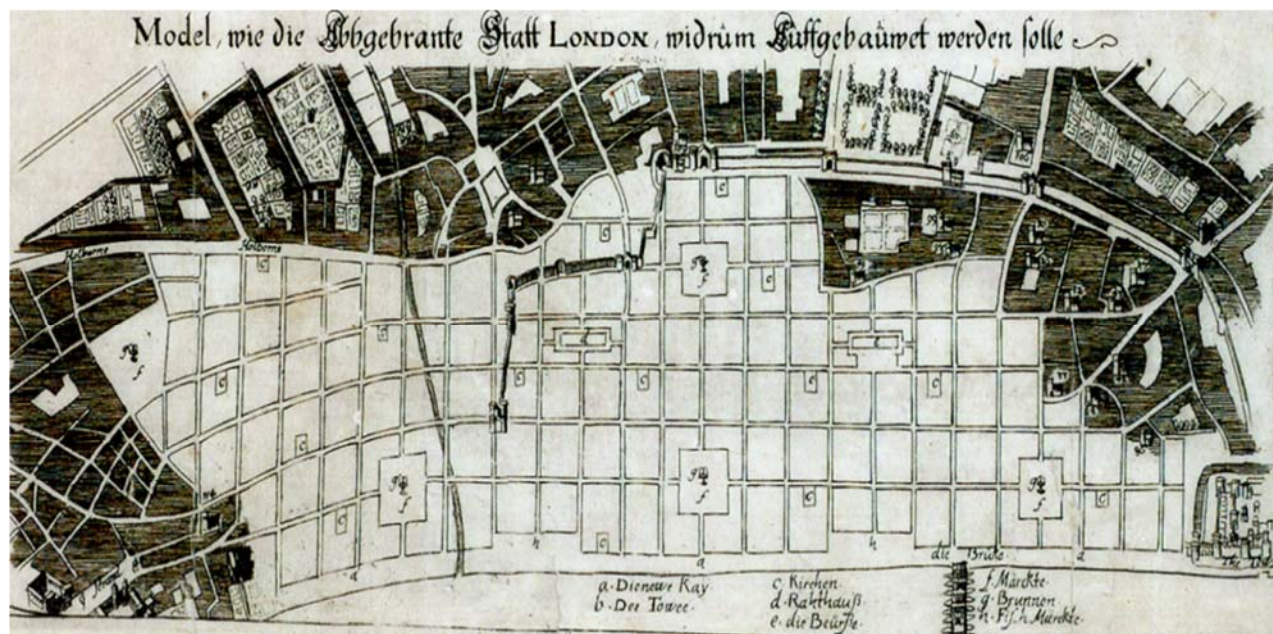


Figure 15. Robert Hooke's Rebuilding Plan from the London Metropolitan Archives Collage Collection, catalogue number: 30302.

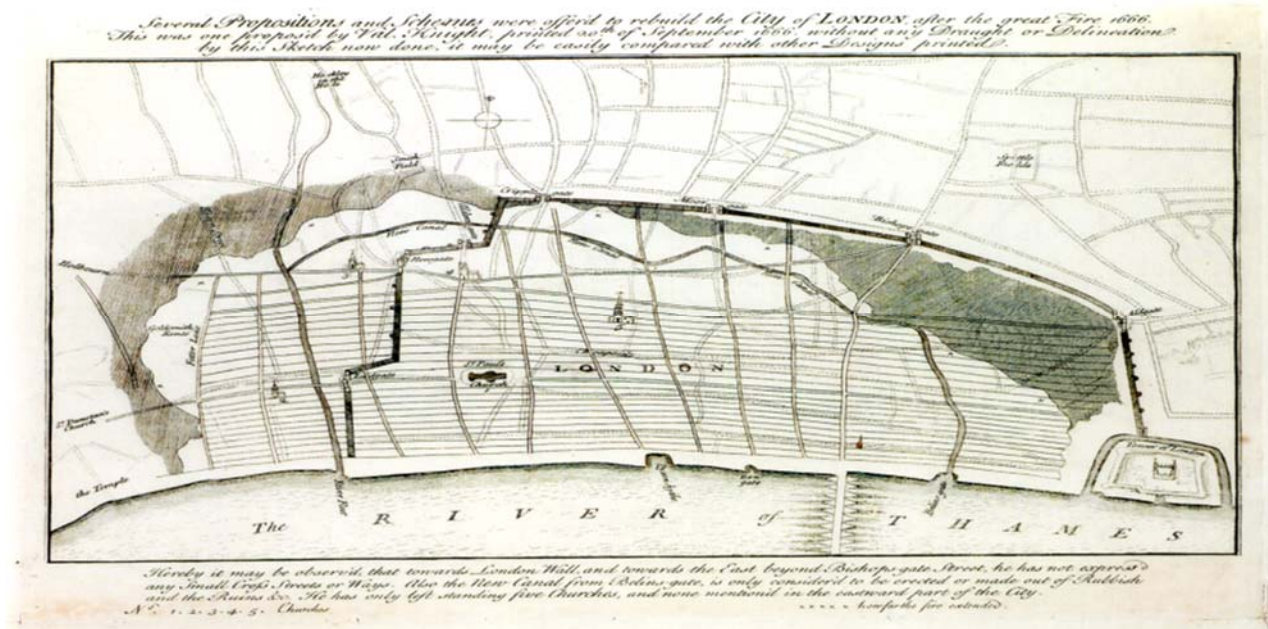


Figure 16. Valentine Knight's Rebuilding Plan from the London Metropolitan Archives Collage Collection, catalogue number: 30283.

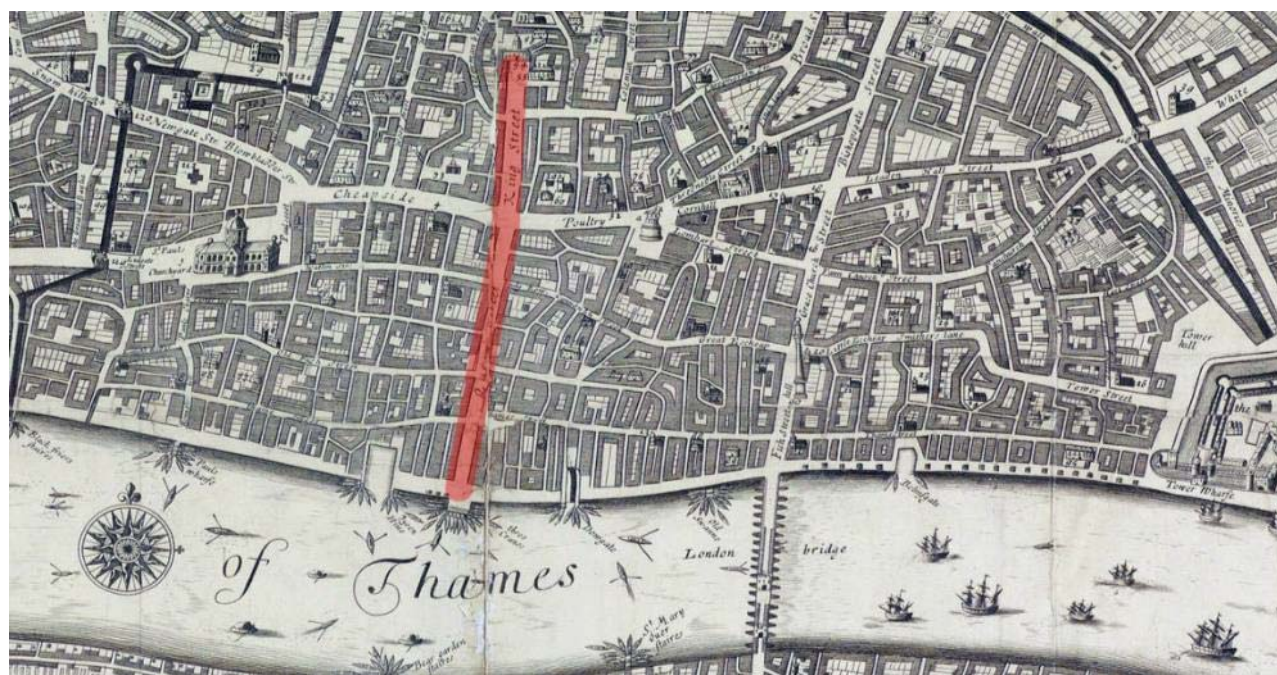


Figure 17. *Map of London*, 1676 from the Museum of London, catalogue number: 005836. New Streets, King and Queen, highlighted in red.



Image 18. Example of Cobbled Streets, Nantucket Island, Massachusetts. Image by Tim Clayton.

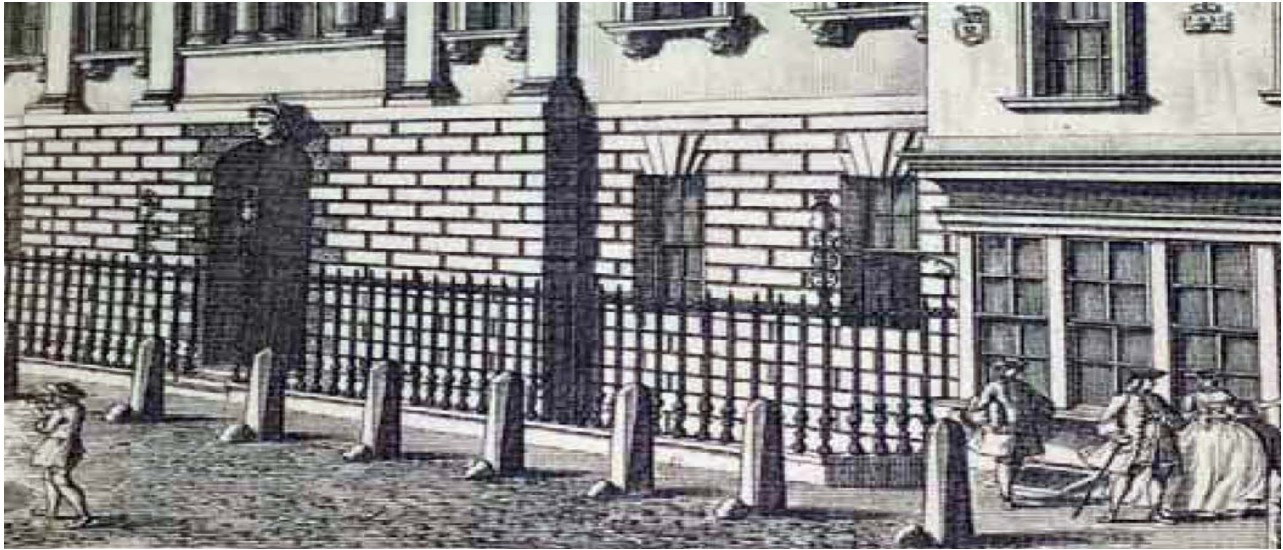


Figure 19. *Timber bollards, Fenchurch Street*, John Donowell 1753, Guildhall Library¹



Figure 20. George Cruikshank, Illustration of John Gay's *How to Turn a Corner*, 1818.²

¹ *London City Street Scene Manual, Volume 2, 7.*

² Inwood, *History of the City of London*, figure 32, between pages 392-393.



Figure 21. Modern bollards from the City of London (England). *Street Furniture*. Accessed 12 July 2016. <http://www.cityoflondon.gov.uk/services/transport-and-streets/roads-highways-and-pavements/Pages/Street-Furniture.aspx>.



Figure 22. *Catharine Knowland, the Last to Hang on the Tyburn Tree, 1759*. Accessed 7 June 2017. <http://www.executedtoday.com/2016/06/18/1759-catharine-knowland-the-last-to-hang-on-the-tyburn-tree/>

APPENDIX B

1310 MURAGE TOLL DESCRIPTIONS AND CALCULATIONS

APPENDIX B
1310 Murage Toll Calculations

Murage Tolls as Listed in *Letter Book A*, Folio 132.

- Almonds (per hundred) – 1d.
- Corn* (per load) – 1d.
- Cheese (per wey) – 1d.
- Cumin (per hundred) – 1/2d.
- Figs (per basket) – 1d.
- Ginger (per curda) – 1d.
- Grain (per kark) – 18d.
- Herring (per thousand) – 1/2d.
- Honey (per cask) – 6d.
- Licorice (per hundred) – 1d.
- Pepper (per hundred) – 2d.
- Salt (per sieve) – 1d.
- Vinegar (per barrel) – 2d.
- Wood (per basket) – 18d.
- Unguent* (per wey) – 1d.
- Wine (per cask) – 2d.
- Tallow (per wey) – 1d.
- Wax (per hundred) – 2d.

- Brasil* (per kark) – 12d.

- Coney-Skins* (per hundred) – 1d.
- Lake* (per hundred) – 3d.
- Leather (per dozen) – 1d.
- Greywork* (per thousand) – 12d.
- Cloth (per trusell) – 18d.
- Silk (per pound) – 1d.

- Aluminum (per hundred) – 1d.

- Copper (per hundred) – 1d.
- Iron (per 7 sheaves) – 1d.
- Lead (per kark) – 2d.
- Tin (per thousand) – 2d.

- Millstones (per unit) – 1d.

- Cymat (per kark) – 2d.

Calculations:

Total value of tolls-118 / 32 tolls based on individual units of sale=3.7p average per toll.
 £94/9s/6d (converted to pence or 22,674d) / average per toll or 3.7p=6128 transactions.
 Transactions are defined as 3.7p per unit of measurement as specified above.

Weight Definitions:¹

- Hundredweight: hundredths varied from place to place, but the 1835 Imperial Weights and Measurements Act set it at 112 pounds.
- Thousandweight: equivalent to 1120 pounds.
- Curda: unable to define, but apparently a standard measuring unit for spices.
- Kark (carco): karks varied from place to place, but on average it was equivalent to 3.5 hundredweight or 392 pounds.
- Sheaves: an inexact weight define as any collection of 30 pieces of iron, each weighing about 100 pounds.
- Sieve: appears to be equivalent to 1.25 pounds.²
- Trusell: any bundle, probably tied to hundredweight.
- Wey (Weye): equivalent to 2 hundredweight or 224 pounds.

Merchandise Terms

- Brasil: fabric dye.
- Corn: any vegetable or fruit.
- Coney-Skins: rabbit skins.
- Cymat: A plant product used in dyeing and tanning.
- Greywork: a type of fur.
- Lake: Linens.
- Unguent: grease, oil, or other viscous substances.

¹ Definitions of weight and terms come from various online dictionaries.

² The Stuart London Project. *John Strype's A Survey of the Cities of London and Westminster*.
http://www.hrionline.ac.uk/strype/TransformServlet?page=book3_215

APPENDIX C
TRANSPORTATION PROVISIONS OF THE REBUILDING ACTS
AFTER THE GREAT FIRE OF 1666

APPENDIX C

Transportation Provisions of the Rebuilding Acts after the Great Fire of 1666

STREET LAYOUT REORGANIZATION

- Wren:** Square/Rectangular grid with 5 main thoroughfares slicing across the city to provide direct routes from individual gates along with an unspecified number of minor streets. X-shaped cross streets intersecting at focal points across the city including the Royal Exchange, St. Paul's Cathedral, the Customs House, and London Bridge. There were also focal points at three along the east/west route from the Tower Gate to Ludgate. A new district outside of Ludgate centered along Fleet Street was designed with a set of cross and x-shaped streets intersecting at a piazza at the center. Each of the streets was connected midway, creating an octagonal arrangement of streets. Wren's provided for the preservation of those areas inside the wall that survived the fire.
- Evelyn:** Very similar to Wren's; focal points remain at the Royal Exchange, St. Paul's and London Bridge, with the addition of Moorgate. Angular streets arranged in a diamond-shaped, connect the focal points with piazzas midway along each axis. The new Fleet district design matches Wren's. No apparent provision for the preservation of those areas inside the wall that survived the fire.
- Hooke** Grid of matching squares throughout the old city, including the Fleet district. The Royal Exchange and St. Paul's inset within the grid. Four large piazzas arrange in a triangle, evenly spaced across the city. Newcourt's plan provided for the preservation of those areas inside the wall that survived the fire.
- Newcourt:** Similar to Hooke's: a grid of matching squares, but the squares were to be much larger, 570' x 855'. Each square with a central plaza for a church to house the total population of a pre-fire parish
- Knight:** Grid of very long rectangular blocks throughout the city including the Fleet District. The only focal point is St. Paul's. Knight's plan provided for the preservation of those areas inside the wall that survived the fire.

STREET CONSTRUCTION RECOMMENDATIONS

- Wren:** Main thoroughfares specified at 90 feet with 34-40 feet for secondary roads. Plan called for grading steep streets to allow for easier road traffic.
- Evelyn:** Main thoroughfares specified at 100 feet with 34-40 feet for secondary roads. Plan called for grading steep streets to allow for easier road traffic.

Hooke None.

Newcourt: To be determined by number of parish “blocks.”

Knight: 20 to 60 feet depending on use.

OTHER NOTABLE PROVISIONS

Wren: New docks and Quays along the Thames. New Bridges for the Fleet.
Relocation of markets.

Evelyn: Evelyn advocated relocating sewers (kennels) and water pipes out of the roadbed along with paved, segregated walkways for pedestrians. Dredge and widen the Fleet to make navigable and improved bridges. New docks and Quays along the Thames. Relocation of markets.

Hooke None.

Newcourt: Three new gates in the city walls.

Knight: Thames Bypass Canal.

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VITA

Noah P. Phelps is a native of Cincinnati, Ohio where he spent much of the first four decades of his life. Before beginning the Ph.D. program at Loyola University Chicago in 2005, he earned a Bachelor of Arts in History at the University of Cincinnati in 1995. In 1998, he entered graduate school at Wright State University where he earned a Master of Arts in the Management of Historical Institutions, also known as “Public History,” in 2000.

After earning his B.A. in 1995, Phelps participated in the “Work in Britain” scheme administered by the British Home Office that allowed him to work six months in London where he gained an enduring love of this great city. He has since returned to live in London three times and his length of residence there now totals nearly two years. Before returning to the United States after a year-long research sabbatical in 2012, his London friends informally dubbed him an “honorary Londoner.”

Professionally, Phelps has spent his career gaining experience in administration and operations. Before returning to university in 1990 to complete his undergraduate work, Noah spent seven years in business management where he advanced to area administrator status and he oversaw hiring, training, and staffing for a company with twelve retail outlets in Cincinnati, Ohio. While attending university, both during his B.A. and M.A., Phelps gained experience in I.T. and web-based solutions design and development. After completing his Public History degree, he entered a career in museum and archives management. His first position was as the Director of Archives at the Muskegon County Historical Society in Muskegon, Michigan from

2003-2004. In 2005, Phelps moved to Chicago, Illinois to begin work on his Ph.D. Upon his arrival, the Sigma Chi Foundation hired him to oversee the historical collections of the Sigma Chi Fraternity at their International Headquarters in Evanston, Illinois. Since, taking up that role, Phelps has taken on additional responsibilities. He now oversees the Foundation's web-application development and I.T. needs and administers the Foundation's real assets in the form of the J. Dwight Peterson International Headquarters building in Evanston, Illinois and the 180-year old Sigma Chi Founding Site at Miami University in Oxford, Ohio. He also administers funding for maintenance of the Fraternity's collections of Monuments scattered across the United States and Canada. All of these responsibilities fall under the Sigma Chi Foundation's Department of Information Management of which Noah has been the Director since 2011.

