

BUILDING A LEGACY OF INEQUALITY INTO THE
FUTURE OF FOR-HIRE TRANSIT FROM THE HACKNEY
HORSE TO THE AUTONOMOUS TAXI.

A Dissertation

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by

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TRANSIT FROM THE HACKNEY HORSE TO THE AUTONOMOUS TAXI.

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Cornell University 2021

This dissertation explores the emergence of ride-for-hire technology and how it has consistently been built into structuring unequal access to society in ways that will inhibit emerging technology like the autonomous taxi from providing equal or equitable access in the ways it is being promised.

Separated into 10 chapters and a preface, the trajectory of this dissertation starts in the present, documenting current use of for-hire systems. It then travels back to the origins of these systems of transportation, progressing through time to formative moments in the industry to demonstrate how they continue to become incorporated into existing but unequal societal structures. I establish that for-hire transit has long been the province of elite travel and thus can be understood as a communication of the priorities of dominant sectors of society. I show how these structures are built atop one another as new and evolving systems of for-hire transportation emerge. Though each emergence comes with promises of emancipation through equal, equitable, or accessible transit, that promise is never realized as capability and complications around access are folded into these emergent systems, adapting to an unequal society as it is, and not the vision of some more equal society as it can be. Finally, I emphasize that this is not a problem of the past. By considering the emergence of new for-hire

systems called ridehail, and documenting tensions in emerging technology of the autonomous taxi, I show how new systems remain bound to problems of unequal access because they are modeled after and work amongst systems that have been designed to regulate access to society unequally. Thus, emergent technologies such as the autonomous taxi, like its forbearers, can never achieve their promises of more accessible, equal, or equitable access without building in an awareness not only of the unequal structures they may help reinforce, but also the unequal access they may unknowingly perpetuate. Overcoming these issues then cannot be solved by merely the deployment of more efficient or safe technologies without also addressing tensions in material, social, and regulatory landscapes upon which for-hire transit relies and in turn are relied upon.

BIOGRAPHICAL SKETCH

John Lunsford is completing his dissertation in his eighth year of study in the Department of Communication at Cornell University. His areas of specialization include understanding the social and cultural involvement in technology's incorporation into society, how it impacts social process, how institutional interests are communicated through design, and what that communicates about our society, particularly around questions of equity, accessibility, and equal access. Broadly he is interested in understanding the tradeoffs between legacy and emergent systems, networks, and social structures as society and emerging technology adjust to one another, how these can be deployed in strategic ways to foster particular visions of society, and how emergent technology is influenced by existing material, political, and social structures.

While at Cornell he received a Master's in Communication in 2017. Prior to joining the doctoral program in 2014, he spent five years as a web engineer while completing a Master's degree in Cultural Anthropology from George Mason University. He also has a Bachelor's degree in Political Science from Old Dominion University.

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LIST OF ABBREVIATIONS

APP	Application Platform
BASR	Bureau of Applied Social Research
CAPTCHA	Computer automated public Turing test
EPA	Environmental Protection Agency
GE	General Electric
GM	General Motors
NMTAA	National Mass Transportation Assistance Act
NAWSA	National American Woman suffrage association
NFHA	National Fair Housing Alliance
NPR	National Public Radio
NTSB	National Transportation Safety Board
NTHSA	National Highway Traffic Safety Administration
ODT	Office of Defense Transportation
OED	Oxford English Dictionary
OPA	Office of Price Administration
OPC	Office of Petroleum Coordination
ORR	Office of Radio Research

OWI	Office of War Information
PAW	Petroleum Administration for War
PIWC	Petroleum Industry War Council
TNC	Transportation Network Company
USDOT	United States Department of Transportation
USPTO	United States Patent Trademark Office
VC	Venture Capitalist
WAV	Wheelchair accessible vehicle

PREFACE

Introduction

Since its earliest beginning in the 13th century, for-hire transportation has communicated the priorities of the dominant society in was designed to mobilize. I propose that the regulation of for-hire access, including taxis, can be read as a communication of dominant society's priorities. It is a means by which society and social structures of power are maintained by shaping the conditions for the emergence of for-hire transportation and ensuring that its folding into social process benefits those that designed the conditions of its emergence.

Common to popular discourse around new transportation technology is this emancipatory promise that technology emergence is free from the agendas and designs of the people and social priorities that created it; that somehow technology, unburdened by problems of inequality in our society, can effectively transcend those problems by virtue of its mechanical, and therefore unbiased, operation. In this sense emergence is treated as a punctuated moment where for-hire technology just exists, neatly incorporate into society while somehow standing apart from its unequal distributions of wealth, power, and influence.

Objective

Throughout this dissertation I push back against this sentiment by considering how the emergence of for-hire transportation's unequal regulation of access has and continues to enact the unequal distribution of resources. I examine how such

inequalities are being rebuilt into the future of for-hire services in rideshare and autonomous technologies precisely because designers, funders, and other stakeholders of these technologies frequently position their emerging systems as purely beneficial. In doing so, these stakeholders become unable or unwilling to recognize that for-hire transit is but one, albeit a significant, part in structuring access to society's resources and that emancipation, equality or equality around access can not be achieved so long as new instantiations of for-hire systems are built atop firmly ensconced material, political, and social structures that are designed to support one another in pursuit of maintaining the vision of an unequal society.

Outline

Each chapter in this dissertation is designed to illustrate a different dimension of the argument that for-hire transit is communication, particularly ways that emphasize its part amidst of political, material, and social structures. I begin in the present, exploring taxiness and our cultural understanding of what the taxi is to society, where it fits in, and how that is incorporated into emergent transit like ridehail, and yet-to-emerge transportation like the autonomous taxi. I then explore the taxi as an industrial form of ritual practice that makes meaning in maintaining society but doesn't promote meaning making as an activity unto itself. Next, I trouble the relatively mundane activity of taxiing by presenting a vignette, directly from my observation data, of how a person is denied access to the taxi, and through the taxi is denied access to resources by society.

Having raised the question of unequal access, I draw upon archival research and academic texts to condition our understanding of this idea of unequal access as a function of for-hire transit, designed as intended, not an unfortunate byproduct. I explore some of the first records of for-hire transit in the 13th century of the hackney horse, followed by the emergence of the for-hire hackney carriage in the 17th century and how its use was neatly elided into the rise of the middle-class merchants in support of Victorian industrialization to the detriment of the disabled, and of itinerant populace. I assemble accounts to show how taxi use and urban environment were incorporated to foster a certain vision of society. This extends into the rise of urban development in the 19th and 20th centuries when White urban developers and architects, emboldened by the success of a prototype White city (both in architectural and ethnic sense) in Chicago, contributed to the development of cities like Boston, San Francisco and Washington, D.C. The success of this new urban paradigm was contingent upon fostering a more productive vision of society, creating opportunity to those viewed as genetically gifted, the White largely Protestant upper- and middle-class, and isolating people seen as genetically predisposed to be a detriment to the progress of a specific vision of society. By strategically incorporating geographic placement of city plans and the transportation infrastructure to access them, the taxi was molded into viable transit only for the elite. Yet for-hire transit flexibility was the justification for not having to extend mass transit networks into rural, poor, low infrastructure areas of cities like Boston.

Next, I show how this strategic isolation was largely successful leading into World War II. With assessments like institutional residents not included (see Chapter

5.7.6), groups of people were isolated by unequal distribution of access. In combination with limited allocation of resources to these populations during the war, poor, isolated, and low infrastructure communities were hindered from being able to recover in the postwar environment.

In the following chapters I explore World War II as a seminal moment in crystallizing the modern taxicab's place in society. I show how political externalities and regulatory frameworks bounded taxi performance through practical operation and as an executor of institutional agendas. Meanwhile, cultural propaganda campaigns shifted public expectation around taxi use. Together these forces had a lasting effect on the industry performance and expectation, further cementing the taxi's presence and, for those denied access, its absence as a demonstration of the realities around unequal access.

Since World War II, regulation and public expectation of the taxi has remained static. And though often seen as woefully outdated, it is the standard upon which emergent for-hire system compare themselves. I draw on personal interviews and public discourse around ridehail, using Uber as an example of the industry, to show how the unequal regulation of access persists. I argue that unequal access is not the fault of any one driver, passenger, or company, but of a network of structures that regulate access to society resources by design. I finish by considering the tensions between the liberating promise of for-hire access to bring equity to a much needed inequitable transit landscape, and how it can never hope to achieve that promise if we

never consider the complex inequitable structures upon which emergent and yet to emerge systems are laid.

Tension Of Studying Absence

Several times I argue that taxi is an elusive object of study. I mean that in two ways. One, for-hire transit occupies a nebulous space that is simultaneously a fixture of urban life and a supremely transitory object – or amalgam – of use. This unique combination often allows it to fade into the background, in similar ways that we do not see particular within service industries. For example, Fred Davis (1959) mused about similarities between the taxi industry and other profession where the worker goes unnoticed – waitresses, cooks, repairmen.

Second, the taxi is elusive because it has largely escaped academic attention until recently. Historically, accounts of the taxi are in background descriptions of moments and anecdotes in a broader story. For example, for Virginia Scharff (1992), the suffrage taxi was yet another example of (White) women’s progression of automobile use, occupying just three paragraphs amongst hundreds of pages. Thus to document the history of the taxi, I had to pull in advertisements of the time, newspaper articles, autobiographical accounts, and original correspondence to fill in the environment around which the taxi took place.

Which brings me to the style in which I present data: because the significance of the taxi has gone mostly unacknowledged, I frequently bring to bear what little information there is to assemble a broader picture of the taxi and for-hire transits. To do this I assembled information from published works and original archival documents

that build out the environment, conditions, and pressures around which and into which for-hire transit emerges, and which for-hire transit was designed to support. This is continually contextualized by original data gathered through ethnographic work including surveys, observation, participation in focus and working groups, and interviews. It is difficult to study something that was designed to be unseen, and so I look toward to an account that can paint the shadows of what that absence meant, and the kind of vision of society it helped build.

Key Terms

There are some key terms I employ through the dissertation, and I arrived at them purposefully.

Taxi amalgam: There is little agreement in the limited references to the taxi that articulates the appropriate way to use the term. Is it a noun or verb? A taxi or to taxi? The interchanging is more than semantics choice of words. It informs on how the public sees the taxi: not as a person, a machine, or a social role but a combination of the three. Its use demonstrates that although the public sense of taxiness is not a fixed object, its place in society is maintained through expectation and regulation. To capture this complexity, I use the "taxi amalgam."

Built environment: Although often concerned with the landscape constructions of things like buildings and road networks, conventional interpretations of the built environment often preclude instantiation of political intervention that conditions how the road is allowed to be used, and social activity, the way in which the road is used in practice. The same applies for buildings. While a road encourages driving, it does not

demand the driver stay in a lane, move a certain speed, or vector in a particular direction. In this sense, how the road is operated upon becomes just as constructed and maintained as the activity of driving and the road which is driven upon. Thus I have included these broader meanings in the term "built environment."

Industrial ritual: Typical understandings of any ritual involve the activity of meaning making between the individual through the activity of the ritual, with others, and/or whatever institutional body governs the rituals practices. Where taxiing and other for-hire transit differs, as I explain in this dissertation, is that the process of taxiing does not encourage social connections. As Fred Davis noticed in the 1950s, taxi relations were fleeting and designed to be so. While I identify five elements of the ritual (Chapter 2), I note that their placement can shift over time (Chapter 9) or with the inclusion of other technology (Chapter 1). The way these elements cohere toward the accomplishment of the ritual, irrespective of social connection, lends further to the idea that even through the gradual automation of its elements, the ritual was not designed nor does it encourage meaningful connections between participants.

Rather the ritual is intended to sustain mobility, and the advantages such mobility affords, in the interest of maintaining a certain specific, though unequal, vision of society. I argue that what matters is the completion of the ritual in an industrial context for the maintenance of society through mobility of the elite. This association with the elite is in part the way taxi and other for-hire use can be read as a communication, not of the diverse priorities of a diverse society, but the vision of a

near singular vision of White dominant groups intent on molding society, maintaining it, and shepherding its future to their exclusive benefit.

My separate definitions of these terms bring me to my last point. Why do I not consider the intertwining of dimensions of the built environment as sociotechnical or heterogeneous—well traveled terms in the science and technology studies space—to articulate an enmeshed network of human and artifact. The term sociotechnical does have some relevance here, whether in the definitional contours of categorizations like sociotechnical systems, imaginaries, or in the activity through which they articulate systems of human and non-human in motion; that is, to do something, perform something, enact something or produce something. But what many of the sociotechnical categories do not typically include are aspects of the landscape, which themselves are treated as impacted features upon which action happens, not unlike certain articulations of, for example, platforms and neutral spaces within or upon which social interaction occurs. This careful language unmoors the platform or environment from the activity enacted upon and within, and in doing so restricts the range of interaction and culpability and the degree of messy involvement contours of what has become built imposes on the activity conducted with in. In this dissertation, I seek to trouble that circumspection which considered activity sans the material environment in which activity, and particularly denial, is not only enacted upon or within, but with the participation and even encouragement of the built environment.

The industrial ritual and its place as a deployment unit for maintaining society, buttressing priorities already laid by the built environment, is the context into which

all for-hire systems have and continue to emerge. While the specifics of those priorities may have evolved over the last 800 years, for-hire transit continues to serve and be designed to service the elite as a means to maintain an unequal order to society through an unequal access to resources. While this dissertation cannot hope to untangle the many intricacies and numerous connections around this environment built unequally, it is my hope that it begins a conversation around access that welcomes in the intricate mess and the way it can be used and misused to perpetuate the functioning of particular visions of society in the hope we can begin to build instead a more equitable one.

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CHAPTER 1

1 INTRODUCTION TO TAXINESS

1.1 *Introduction*

In 2019, my partner and I took our toddlers to the dentist. On a table in the waiting room was a yellow and black taxicab, carved from wood (Figure 1-1) and surrounded by other similar vehicles that represented helping professions including a police cruiser, construction digger, ambulance, firetruck, and food truck.

Figure 1-1

Photograph Wooden Taxicab, Authors Collection



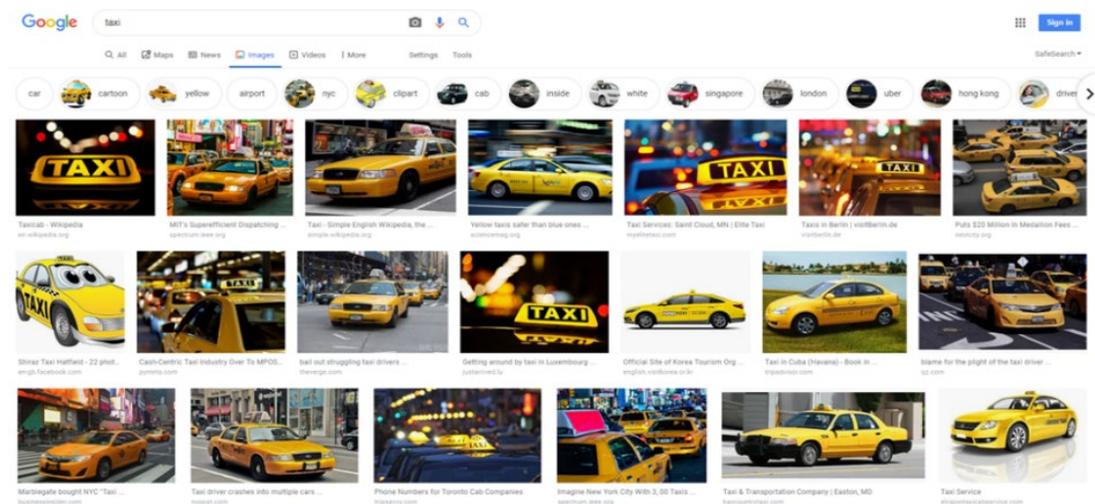
Note. Photograph shows a yellow wooden taxicab with no wheel and painted black windows sitting on table.

Though a relatively simple toy of carved and painted wood it was a communication of what the taxi was. Set against the backdrop of other service professions, the toy presented a material discourse designed to teach children the taxi's place in society and society's use for the taxi. Scholars like Machin and Van Leeuwen (2009) noted similar discursive capabilities of toy soldiers which serve as a means to teach children the priorities of a society in relation to the role a toy embodies. The *toyification* of the taxi communicated something unique: the embodiment of a recursive partnership between society which the taxi helps maintain, and a taxi whose parameters of emergence and operation society helps mold. In this sense the taxi is more than a toy, it is a discursive media object and platform through which dominant society communicates its priorities.

On August 14, 2019, I conducted Google searches using the keywords *taxi* and *taxicab*; the uncurated results appear in Figures 1-2 and 1-3.

Figure 1-2

Google Search, Keyword "Taxi", Author's Collection.



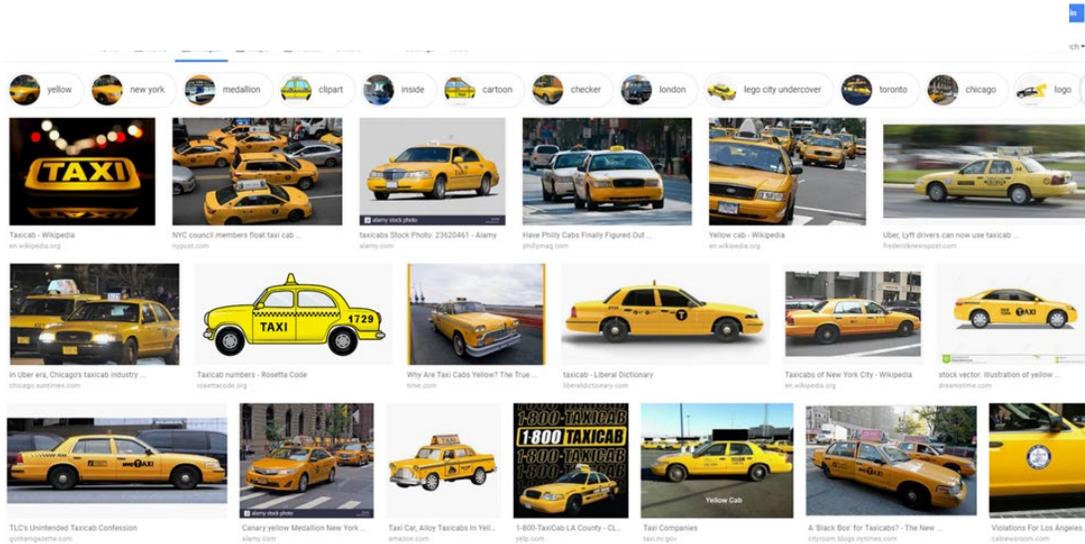
Note. Image is a screenshot of Google search results for the word Taxi, on the web page, browser's images tab. Contents of images show 20 different depictions of a yellow taxi.

The images are remarkably similar to the toy. Both are an attempt to resolve this attention to taxiness in ways that are simultaneously familiar and intuitive. Although taxis come in varying styles, sizes, colors, frameworks, and propulsion systems—Boston's taxis are white—the sense of taxiness and its relations with society are communicated in highly recognizable iconography of this composite yellow symbol in both the toy and the search results.

It is no coincidence that these images, the toy, and the next example (Figure 1-4) resemble each other. Gillespie (2016) suggests that the algorithmic rendering of cultural objects is an example of institutions' participation in valuating and distributing information as they both provide and sort culture, or in this case re-present cultural artifacts. He writes, "in particular, assertions of cultural value, always based on prediction, recipes, and measurements of what makes something culturally valuable are incorporating algorithmic techniques for doing so" (p. 53). The images returned from the search results do not mean that there are no white taxis. Rather the iconic yellow taxi holds more cultural value in the direction, maintenance, and reproduction of a culturally agreed-upon understanding of taxiness, however vague or opaque. The search results communicate a culturally held understanding of what the taxi looks like

Figure 1-3

Google Search, Keyword “Taxicab”, Author’s Collection.



Note. Image is a screenshot of Google search results for Taxicab, on the web browsers images tab. Contents of images show 19 different depictions of a yellow taxi.

and some of its relations to society, alongside Google’s interest in maintaining this specific understanding of the taxi. It is a communication not only of what makes a taxi, but what makes a taxi valuable and reveals as well from whom has the authority to make such determinations, and what they benefit from maintaining this vision of taxiness.

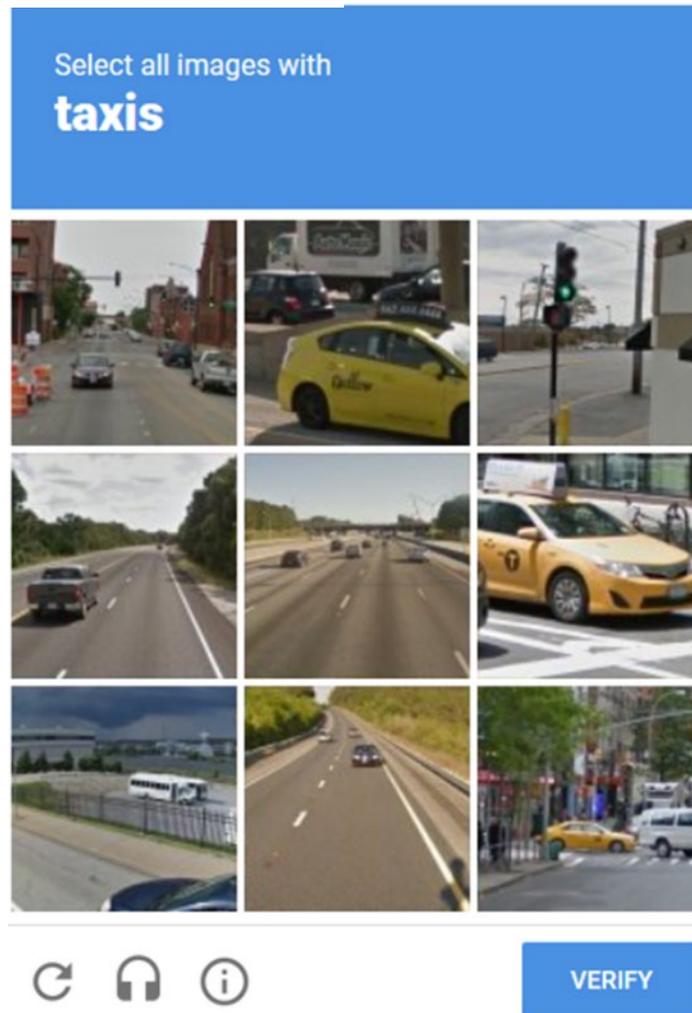
On the surface, the value in a taxi is in the knowing of it. What these images suggest is a specific interpretation of the knowing of it, a sensibility that directs searchers to recognize the taxi as an object, a role, and its place in society. taxi-based role in society. From children’s toy to algorithmic result, it can be easy to divorce the seemingly simple identity and labor of taxiing from its legacy of society building; to

overlook this patterned legacy where unequal regulation of taxi access both communicates and reinforces the unequal structuring of society. In this way it is similarly convenient, however shortsighted, to treat emergence of the taxi, ridehail, and now the autonomous car as unencumbered by the legacies built into the material, social, and political practices of for-hire transit and the ways such practice have been neatly folded into the unequal distributions of access. Just as it would also be shortsighted not to acknowledge Google's and other institutions' investment in producing a specific cultural understanding of taxiness, the legacy of that artifact's role, and its intersection with institutions own developments towards the taxis' autonomous future.

Take, for example, this screenshot (Figure 1.4) of a Google captcha I encountered in early 2021.

Figure 1-4

Taxi Captcha, Author's Collection



Note. Image depicts a 3 by 3 grid of pictures each containing different street photographs. The Captcha request asks the user to “select all images with taxis”.

Captcha, or Completely Automated Public Turing Test, is a test designed to regulate access of web traffic by distinguishing between a human user and an artificial one or *bot*. Regulation of access is decided by the successful

navigation of the captcha verification which dually confirms one's humanity and allows passage through the captcha gatekeeper. Unsuccessful use of the captcha tool blocks or limits progress and the ability to access the digital space and thus also denying access to whatever resources it may provide.

This presence and activity of gatekeeping which the captcha and user mutually enact is participation in cultural production that uses a commonly held understanding of taxiness to both regulate access to digital space and reinforce existing and future understanding of what the taxi-society relationship should be.

Its use as a gatekeeper is the regulation of access to digital space, Google's condition for passage is an alignment with what the company envisions as appropriate representations of taxiness. In this way, Google as a knowledge producer reinforces the culturally held understanding of the taxi buttressing similar modes of cultural production such as the search results. In this case, a user indicates agreement with Google's production and regulation of taxi identity as necessary for accessing digital resources in society. By doing so, the user not only demonstrates their personhood, which Google then validates, but also performs their belonging to a society that identifies with this particular grouping of taxi sensibilities.

And yet the taxi's place in society is fomented by more than the retracing of cultural objects and the contours of publicly imagined taxiness. The reproduction and agreement of the taxi as a specific cultural object is also the identification of taxiness built into the digital landscape as a condition of passage into a particular digital space. As a Google-run captcha, the gatekeeping task performed demands that users verify their understanding of what a taxi is supposed to be, to look like, and to represent.

Google in particular smartly reuses that labor of verification to train how autonomous taxis recognize their driven counterparts¹ and in doing so human decision makers are cultivating an artificial intelligent understanding of the taxi, thus building a specific legacy of taxiness into both into an institutional understanding and technological operation of the autonomous car. What is built into the operation of the autonomous taxi is a set of sensibilities that not only helps define the context for appropriate taxi use but who gets to use it.

In formulating the autonomous taxi's development, stakeholders in its emergence bring with it a legacy of urban relations and expectations that have over time cemented the taxi's place in society. Perhaps unknowingly this trajectory of taxi framing that bring with it a legacy of unequal access, sits in opposition to the emancipatory potential of equitable, safe, and efficient access that for hire institutions from the hackney horse to the autonomous taxi, have promised.

The taxi as we know it today belongs to a broader tradition of for-hire transportation whose ritualized practice (Chapter 2) has been conducted in similar ways with the same elements for the better part of 800 years. Also called ride-for-hire, paratransit, or ridehail, the task of taxiing fell into common practice in the early 14th century London with the use of the hackney horse to travel between cities (Chapter 3). Yet the use of it was cost prohibitive for most, limited in direction, and could be commandeered by the royal court at any time.² By the 17th century, the hackney

¹ The transportation technology blog Mobility 21 (2021, January 24), out of Carnegie Mellon University explores and explains the Google captcha process and product.

² For examples of post road design and post road conduct see Beale (2018), for commandeering of for-hire transit see Hill (1942).

carriage and coach became the intra-city transit solution to a dearth of middle-class mobility options. Cultural practices that regulated taxi access framed within Victorian notions of social order and structure, proceeded to bar middle class women, itinerant laborers, and disabled people from access through financial, geographic, physical, and cultural means. Material relations of taxi access spanned across vehicles, urban landscape, regulatory activity, and social movements.

Even then the possibility and promise of the taxi's emancipatory potential held wide public appeal, and denial was seen not as the product of unequal systems but unscrupulous driver decision making.³ Expressing a common sentiment of the day, and echoed for years thereafter, Charles Dickens wrote, "from my earliest youth I was taught to regard cabmen as birds of prey" (1860, p. 414). Though Dickens came to revise his sentiment, popular culture did not.

In the early 20th century, the word taxi was anchored in popular discourse around the emerging combustion, taximeter-equipped automobile (Chapter 4). The new technology of the car competing with steam, electric, and horse varieties answered issues of reliability, efficiency, and waste, while the taximeter's automated distance-cost calculation was heralded as the solution to unscrupulous drivers. Still guided by Victorian gendered norms, men had access to the combustion cars that could travel further and faster while women were encouraged to use the electric car to keep their labor and personhood anchored at home. Resisting these norms a decade later some leaders of the women's suffrage campaign incorporated a taxi into the

³ Examples of driver fault can be found in Dickens (1860), Gilbert and Samuels (1985), and Moore (1902).

iconography and logistical mobility of the movement. Yet the price of White women's acceptance of both personal and political mobility was paid in the denial of Black women's participation not only in the movement but in political, social, and economic process of society. In Chapter 4, I demonstrate how these strategic goals were communicated and enacted in the suffrage taxi's Whites exclusive service, strategic exclusion of Black participation, and an alignment with contemporary White supremacist agendas.

While industrial and social momentum was shaping the contours of acceptable taxi access and use, a new City Beautiful urban planning movement reshaped taxi access to privilege the wealthy but with the appearance of equitable accessibility (Chapter 5). First in Chicago, then in Boston, urban planners and architects redesigned city landscapes to help regulate access to the benefits of a fast-growing society. Borrowing faulty logic from a growing Eugenics movement city designers and policymakers rebuilt Boston to be a more efficient and productive city by strategically isolating people considered genetically, morally, and ethnically inferior. The promise of taxi mobility was essential in cementing financial, geographic, and physical isolation by providing justification for building mass transit systems around disadvantaged communities, where taxi access was designed to be essential for mobility and financially and physically unreachable in ways that not only condition access at the time, but fixed inaccessibility into Boston's landscape.

Leading into World War II, international politics, federal and local government, alongside burgeoning oil and automotive industries set the stage for a redefining of taxi access, strategically leaving out Black, disabled, and poor people

from the evaluations of America's war capability and distribution of resources (Chapter 6). These groupings were also left out of the tallying necessary resources for communities to survive the war. Many of those resources, such as oil and rubber, were heavily regulated in ways that reshaped both the performance of taxiing and the public expectation of taxi travel (Chapter 7). Vast media campaigns complemented changes in legislation and recordkeeping that demanded taxi drivers regulate access of their potential customer both by intent and geographic location as proxy for federal and local judgments correlating personal productivity to wartime contribution. In Boston, taxi use communicated the interests of the wartime government (Chapter 8). Taxis were centered into populous geographic locations both to regulate their use and keep them localized in an effort to militarize taxi fleets, helped reproduce existing parameters around urban isolation by refusing service for people travelling for leisure and those that lived outside population hubs in poorer communities.

By the 2000s, taxis were joined in the for-hire marketplace by ridehail companies (Chapter 9). Formally known as Transportation Network Companies (TNCs), ridehail services like Uber and Lyft replaced previously socially driven aspects of taxiing with application platforms (*apps*) accompanied by the promise of solving issues still endemic to a now century-old industry. However, ridehail apps did not solve the industry's problems. If anything, technological advancements in communication and greater demand for corporate transparency exposed problems in the for-hire industry that far exceed overcharging drivers (Lunsford, 2020a, 2020b). Inconsistent service, poor driver behavior, expensive and at times exploitative rides,

now sit alongside discrimination experienced by riders or would-be riders by gender, race, ethnicity, disability, or affiliation with any thereof.

Despite the pattern of longstanding problems in the for-hire industry, many accusations of unequal service are still firmly aimed at the driver. That is not to say all criticisms are undeserved⁴, but as this dissertation shows the exclusive focus on drivers obscures institutional involvement and participation in building a society where limitations, qualifications, or regulations around access frequently enacted by the driver are by institutional design. And the encroaching sublimation of driver decision making beneath technological guidance does not erode the act of decision making so much as it shifts the locus of agency from driver to guiding institution.

Yet many solutions promised by proponents of emerging technology solve the perceived problems enacted by human drivers. Looking forward the same is true for autonomous cars, which are being promised as safer, more efficient, and more reliable than for-hire drivers. What autonomous technology promises is not complete autonomy, but autonomy from the abuses enacted through the misuse of driver agency.

Like its forbearers there is an emancipatory promise in the emergence of the autonomous taxi and its ability to provide safe, efficient, and equitable access to transportation. And like its forebears there is an expectation that for-hire transportation's emancipatory potential stems from strategic but inaccurate vision that the activity of emergence is somehow untarnished by interests and agendas of society

⁴ A published personal journal Robert Hazard (1930) not only comments about regularly overcharging passengers but walks the reader through how to do it. Though in his defense he did it to afford food.

or its drivers-turned-enactors institutional authority. These promises suggest that automating the act of driving frees the passenger to participate in daily life unencumbered by driver-induced problems but does so without reconciling longstanding issues of unequal access built into the taxi itself as well as its operating urban environment.

In this dissertation, I explore tensions between the for-hire transit as an industrial form of ritual practice, the rituals place as a strategically deployed part of the urban landscape, for-hire transit role in structuring a built environment designed to regulate access unequally, and the reoccurring yet unachievable emancipatory promise of emerging for-hire transportation technologies. I suggest that, contrary to longstanding popular belief, problems with the for-hire industry do not stem solely from deviant acts of driver behavior. Although supporting institutions may present for-hire transportation's promise as fair and accessible, this image contrasts with the reality that for-hire transportation was never designed to provide equitable or even equal access to society. Instead, access to society and its benefits have been strongly linked to the maintenance of an upper- and middle-class White masculine social order. Where the presence of for-hire transit facilitates access, its absence has been carefully constructed to limit access or deny it all together. I observe these tensions playing out not only in the past, but the future of Boston as the autonomous taxi's promise of equitable access conflicts both with its own legacy of strategic deployment and unequal regulation of access and in the practical realities of its technological development and prospective deployment in a modern capitalist society.

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CHAPTER 2

2 TAXI RITUAL, WORK, AND COMMUNICATION

2.1 Introduction

Everyday millions of people use ride-for-hire transportation (e.g., taxis, rideshare, carshare, and ridehail) to navigate urban environments. In New York City, these services account for approximately 950,000 trips a day.⁵ In 2018, across the United States, Uber drivers made 3.1 million⁶ trips per day, and Lyft made just over 1.5 million per day across all its users. When examined by state, Uber accounted for 81.3 million rides across the state of Massachusetts. Over half (42.2 million) originated in the city of Boston,⁷ which averaged 115,616 rides per day. Information on taxi use is more limited. Often regulated locally with different reporting standards, and within those localities, they operate in privately-owned, single-license or multiple-license fleets of cars.⁸ Given the varied environment in which taxis circulate fleets may or may not report comprehensive ridership statistics. According to the Taxi Consultant Report, taxis make roughly 40,000 trips per day (The City of Boston, 2013, p. ES-5) and are essential to circulating people around cities, contributing to cultural, economic, and technological possibilities.⁹

⁵ Obtained from New York City Taxi and Limousine Commission (2018) Aggregated Reports Taxi and Rideshare Data.

⁶ Uber (2019) Uber's US Safety Report 2017 – 2018.

⁷ Mass.gov (2020) 2018 Data Report. Rideshare in Massachusetts.

⁸ Not to mention that most cities have fixed number of cabs, as a regulatory holdover from the great depression, while Uber and Lyft in branding as Transportation Network companies, have no such requirement at this time.

⁹ Considerable work around this has been done about transportations role in city growth see Wilcox and Nohrova (2014) and Marshall (2014).

Although taxis lack the usage statistics of emerging ride for-hire systems like Uber, these emerging companies based their model of operation on how the public does and is expected to use taxis. In the very first slides of its pitch deck, Uber founder Garrett Camp positioned “UberCab” as a direct competitor to an aging taxi market (Camp, 2008). It was not only a business proposition; it was also a way of operating. Uber mirrored its practice after a longstanding tradition of for-hire transportation, which taxiing had dominated for so long. In doing so, Uber was able to tap into an existing taxi market and disrupt it by offering technology-based solutions for the problems of a beleaguered and aging taxi industry. At the forefront of this shift was the Uber App that housed tasks typically left to the driver such as sorting who would be eligible for rides, matching riders with drivers, negotiating transit routes and destination, and facilitating payment for services. Importantly, the ‘disruption’ Uber promised here was not in the process of how people used for-hire transit, but in the ease of its coordination leading up to and throughout the process. By doing so, Uber was able to leverage existing public expectations around how taxis work in people’s daily lives, strategically reducing the amount of time it would take new users to become familiar with their product thus limiting the amount of work it took for the public to learn their new product offering of UberCab. A recent Pew study indicated that this was relatively successful as only 2% of people did not know what ride-hailing services were (Jiang, 2019).¹⁰ In addition to widespread knowledge, consistent completion of rides suggests that unifying characteristics consistently guide the for-hire process. In 2019, 42,201,375 rides were started, and 42,341,218 were completed.

¹⁰ For frequency of ridehail use see Jiang, (2019, January 4).

The difference of 139,843 rides that were terminated early or terminated for other reasons accounted for only 0.33% of the rides.¹¹

Although the use of for-hire solutions like taxis has been in the domain of common knowledge¹² for some time, little academic attention has focused on understanding the communication work that makes up the contours of the for-hire process around which systems, new and old, are framed, and what in particular this process communicates about the society that uses it. Existing research on the taxiing eschews an attention to for-hire process in favor of systems within which taxicabs operate by examining industry, labor, regulation, and positioning of the taxi market (Blasi & Leavitt, 2006; Bruno, 2009; Bruno et al., 2015; Douglas, 1972; Teal & Berglund, 1987). Other research has focused inside the cab on seatbelt use (Fernandez et al., 2005), tipping practices (Ayres et al., 2004, Devaraj & Patel, 2017), cruising (Seymour, 2018), and violence (Gilbert, 2011). Perhaps the closest comparison is Fred Davis's work on the fleeting relationship between taxi drivers and passengers (1959) or Anderson's research (2014) that considered the communication of hailing as a discreet process, detached from the broader activity of taxiing.

Recently, a growing body of literature concerned with taxi alternatives, like rideshare companies Uber and Lyft, have become the focus of academic attention. Some of these works have considered a disruption of the industry (Cramer & Krueger, 2016), psychological risk (Li et al., 2019), health (Bartel et al., 2019), and use (Young

¹¹ Ridehail policies elaborate on what is contained within the 0.33%. In ridehail terms a ride is not started until the passenger has not only hailed the car but entered it and issued directions. See Uber's Guidelines on use (Uber, 2020).

¹² Indicated that taxi use has been integrated into film, news, children's toys without explanation or context as articulations of everyday knowledge.

& Farber, 2019). Though taxis and ridehail service have often been poised as opposites, they are incredibly similar dimensions of the same industry. Many of the topics framed today as problems of ridehail were present in autobiographic accounts of taxi drivers going back to the 1930s (Betts, 1930; Hazard, 1930; Hodges, 2007; Kelley, 1993; Salomon, 2013; Vidich, 1976), consistently identifying the same or similar concerns about competition, use, health, and psychological stress.

Taxis and other for-hire services provide essential transportation alternatives to car ownership, mass public transportation, biking, and walking. They are particularly useful for their flexibility. These services are not bound by the need to find parking like privately owned vehicles, the predetermined routes of mass transportation, or the time inefficiencies of walking or cycling. In Chapter 7, I show how the localization of taxis to densely populated areas found in cities is a holdover from changes to operation policies made during World War II. During the 1940s, legislation consolidated many taxis to high population areas as a strategic measure to conserve resources (Chapters 6, 7), reshaping service parameters and public expectations around taxi use (Chapters 7,8) and making taxis available for militarization (Chapter 8) with each instance offering insights into the communication of societal priorities through the taxis strategic deployment and shifts in service. The effect was recursive rebuilding of the taxi's place in society. Taxis came to populate urban spaces, the public looked for taxis in those spaces, shifting the scope of taxi use away from leisure and long-distance almost exclusively in favor of work-related short trips. Though many strict policies of the time have since been lifted, the cycle continues as taxis look

to the cities for the majority of their business, being in the place where people expected them to be.

2.2 Back and Back Again

Uber and Lyft were not the first to copy the for-hire model to challenge an outdated competitor. The pattern has roots in 13th century England when horses, known as hackney's (also Haquenee or Haknenei),¹³ were available for-hire to travel between cities. This was one of the first opportunities for people from outside the nobility, military, or merchant class to find transit between cities apart from walking. People approached a post where hackney horses were tethered, paid a fixed price to rent a horse calculated by a ratio of distance and time, then rode it to their destination, dropping the horse off at the owners' network or holding on to it for the return ride. The horse followed a preset path of posts in a rudimentary algorithmic-like system, and the passenger was not expected to navigate much at all. By the 1600s, the practice expanded to travel within cities. While coaches for the wealthy were available in the 1500s (Thrupp, 1877), it was not until the 1620s that John Baily had carriages purposefully built as affordable for-hire transit for an underserved middle class (Gilbert & Samuels, 1985; Moore, 1902). These carriages were found for customers waiting at the maypole on the strand.¹⁴ When the area became busy, drivers took their

¹³ Described in Gilbert and Samuels (1985), Pepys (1932). The common practice can be found in the Patent Rolls of the Reign of Richard II in 1396 (p. 712-713). OED lists several variations to the spelling over time. Referred to 'hakenei', and their owners as 'hakeneymen,' horses for-hire were used to travel between cities and towns (e.g., London and Dover) in the 14th century. Further description of this system can be found in early accounts of the kings messengers from the 12th to 15th centuries (Hill (1942) and in the use and layout of post roads found in Beale (2018).

¹⁴ Rogers (2005) describes the The Maypole in the Strand was a large wooden pole that was used as both a gathering place and for Mayday (May 1) celebration of Mayday games and rituals. According to Rogers the maypole was outlawed for a brief time and on the site protestant opponents commissioned the construction of the Church of St Mary la Strand. In being a site of festivals, it was also a gathering

carriage out to look for potential passengers in a practice called *plying for-hire*, which today is called *cruising* (pp. 10-11). These carriages estimated fares or offered predetermined fares. Passengers were expected to pay once the transportation service had been provided.

The same series of practices continued between 1890 and 1930, when emerging combustion-engine cars jockeyed to replace horses, electric cars, and steam cars as the primary mode of for-hire transit. Meanwhile, taximeters replaced most other means of calculating the cost of the ride but by no means discontinued the need to pay. In the United States, cultural and political changes in the 1940s in Boston and elsewhere shaped the taxi industry practices and policies to resemble those we recognize today (Chapter 6,7,8). The driver had been moved inside the cab of the car and flat rates or taximeters automated fare calculation across the industry. Specific waiting areas called *stands* are still used as taxi waiting areas, and drivers actively engage in cruising with the hope of finding passengers in need of transportation services (Gilbert & Samuels, 1985).

The accumulation of similar practices spanning roughly 800 years has contributed to a public understanding of what the *taxiing process* is, and parallel expectations around the taxiing process appear worldwide. For-hire alternatives like Uber and Lyft shape emergent ridehail solutions around the same five elements I identify as essential to, but not entirely hierarchical within, the ritual's production

space for commoners. That the for-hire carriage was situated there is a testament of whom this new practice of taxiing was geared towards – the common people already gathering in the area. The move was not unlike Uber and the taxi industry. During the time Capt. Bailey found an existing potential market and the location of his work reflected that.

including (1) hailing, (2) getting in, (3) destination, (4) paying, and (5) getting out. Autonomous taxis are actively being designed to accommodate the experience around those points in the absence of a formal driver and used to make plans in anticipation of an autonomous future. What these historic and pervasive trends signal is a ritual-like process that societies have needed to address public transportation since the early expansion of urban landscapes. Nevertheless, rote patterns or repeated practices do not make it a ritual, nor is a ritual analysis productive for every social process. What benefits from an understanding of taxiing as a ritual is the way institutional priorities are communicated through repeated daily practice. Building off of Carey's (2009) argument that a ritual view of communication is oriented "not toward the extension of messages in space but toward a maintenance of society in time" (p. 15), I argue that taxiing is a ritual that is structured by institutional priorities and enacted toward the accomplishment of a societal need of flexible transportation, and not a ritual for the participants. In essence, taxiing is a ritual, not for individual actors, but for society as a mechanism to help maintain its needs and priorities. This consideration is grounded in three aspects: (a) its historical presence, (b) widespread knowledge of the 'taxiing' procedure, and (c) the way it is deployed at a societal level to plan for the future of the ride-for-hire industry.

Taxiing as a mechanism for mass transportation is not about the individual practice. Rather, it is the way millions of individual practices, although varied, all move toward the accomplishment of a societal ritual. What joins 800 years of for-hire practice, passes through the taxi and ridehail competition of today to the autonomous industry's future is a material, social and political firmness to the expectation of where

for-hire transportation fits into our daily lives in support of the continued maintenance of society. It is not the production of individual meaning-making, but the production and maintenance of societal-level meaning and ways of organizing through time. In the next section, I establish the five elements essential to the ritual's practice.

2.3 Rituals in Social Practice

Many scholars have considered the work of rituals in social practice and institutional relations. Since its formulation as an academic form of inquiry in the early 1900s, scholars have considered the way rituals participate in social processes and are deployed to describe certain practices. Durkheim (1912) and Van Gennep (1909) figured prominently in research linking rituals to sacred things and binding those religions or religious practices. Many attempts to standardize the classification of a ritual's constituting parts (e.g., Knuf, 1993) builds in the link to religion as an essential quality of its individual and group practice. In the field of religious studies, for example, Grimes' (2010) *six modes of ritual sensibility* and Bell's (2009) *index of six features* were designed to standardize interpretive and qualifying dimensions of ritual investigation. Although both Bell and Grimes argued for rituals' application outside of religious life, the extension is grounded in the idea that society reflects religion. The work of rituals is grounded in both the effort that devotion requires and the role it plays in influencing the social process. Yet, in some of these formulations that seek to standardize how work can be articulated, it confines it to certain ways of both articulation and interpretation.

For many, the work of rituals is an evident everyday activity in the maintenance of society. Moore and Myerhoff (1977) demonstrated a resistance to the

ritual–religion linkage. They argued “with Taylor, Durkheim, Weber, and Frazer in the background, the association between those formalities we call a ‘ritual’ and their religious or magical purposes has been so strong that analysis of the two has invariably proceeded together” (Moore & Myerhoff, 1977, p. 3). In their edited volume on *Secular Ritual*, they described a ritual as a significant source of meaning-making and communication, whereby collective memory does not have to be tied to religious worship (Moore & Myerhoff, 1977). They caution that while not everything social should be deemed a ritual, many things not strictly religious could benefit from a ritual analysis. It is their definition of ritual as “an attempt to bring some particular part of life firmly and definitely into orderly control” (Moore & Myerhoff, 1977, p. 3) which frames my thinking about taxiing as a ritual practiced between society and the institutions that govern it.

Many studies have gone on to explore ritual sans-religion, focusing instead on administrative and institutional relations. The work of and within ritual analysis spans from the mundane (Garner, 2015) to the scientific (Gusterson, 1996); from country farms (Broad, 2013) to city politics of racial appropriation (Sheriff, 1999) and to queer identity (Howe, 2001). Still others investigated the kind of work a ritual performs. Rituals have been useful in capturing ways to mediate conflict (Durkheim, 1912; Gluckman, 1954; Turner, 1970), used to project an image of the self we want society to recognize (Goffman, 1964), and affixed as an understanding of the world for participants (Bateson, 1972). The work of rituals is reflective of social mores demonstrating that rituals are situated within cultural and political context (Carey, 2009; Douglas, 1986; Geertz, 1977; Goffman, 1959; Turner, 1970), in ways that

reinforce dominance narratives (Lyons, 2005), and in networks where relational power produces and reinforces rituals' shaping (Bell, 2009; Douglas, 1986; Foucault, 2019). Sometimes the work of rituals is conceptualized in terms of its temporality, as a rite of passage, and in its liminal stages (Douglas, 1972; Turner, 1970, 1974). Still others suggest it is a form of boundary work such as administrative (Anderson, 2016), logic (Altheide, 2016), or indexing (Bennett, 2016).¹⁵ They suggest the conditions under which a ritual can be found and limit the kinds of meaning it can produce. A similar sentiment was echoed later by Carey (2009) in treating a ritual as a form of communication with society. In this way, a ritual becomes an expression of institutional relations.

At first, attention to service industries, like taxis, seems at odds with a ritual interpretation. On one hand, rituals often have strong notes of routine and permanence. On the other hand, taxiing is, by its task, a flexible enactment of mobility that discourages permanent connections (Davis, 1959).¹⁶ Carey (2009) provides a helpful framework here. By thinking about the practice of a ritual as the playing out of a "drama," Carey argues that the internal structure of the ritual communicates certain ideas about the world, which is then reaffirmed through its practice. As a key point, these ideas are meant to *confirm* the structure and ideas about the world, not challenge

¹⁵ Borrowing from W. Lance Bennett (2016) who describes indexing as the frames of logic used often by news institutions. The act of indexing performs a decision making logic about news sources and frames, these kinds of frame articulate institutional identities by presenting and confirming ways of thinking about the world during ritual like practice of news consumption, like reading the paper, such and those outlined by Benedict Anderson (2016) and Michael Schudson (2011).

¹⁶ That is not to say that driver and passengers cannot find meaningful interaction. Rather, I am arguing that the ritual does not promote the conditions for meaning-making, though it can and does happen. Many times this happens in acts of kindness and compassion and in defiance of the rituals regulatory logic, safe practices, or advisable behavior.

it. It is “a situation where nothing new is learned but in which a particular view of the world is portrayed or confirmed” (Carey, 2009, p. 16). The character of this sentiment is important in two ways. One is that the goal of the ritual is not to teach but to confirm. The architecture of the Catholic mass is to rectify one’s faith. In this way, taxis are similar. People do not typically seek out taxis unsure of whether the taxi will get them to their destination. Instead, it is the opposite. The continued use of for-hire systems is predicated on the assurance they can provide reliable transportation. The role of new information, like where to go and how much to pay, is in the interest of playing out the ritual’s drama to its end, not challenge the ending. Second, the taxiing ritual portrays its practice in certain ways. It portrays its structure and the contours of necessary taxi driver relations that move the ritual forward. This portrayal comes from outside of ritual to the institutions that regulates its practice. Additionally, this view of a ritual does not commit the ritual to internal inflexibility; rather, it opens up the ritual to be flexible in its accomplishment of transportation.

In this chapter, I establish taxiing as work in the form of a ritual by identifying the same five elements inherent in all for-hire rides that are both common to the ritual's practice and essential to its production. In addition to historical accounts, I identify these moments through 18 months of ethnographic investigation with methods including participant observation; countless sidewalk and coffee-shop conversations; I recorded and transcribed and coded 25 driver and 25 passenger for a total of 50 interviews specifically focusing on the ritual of the taxi (Table 2-A).

I choose to present below two detailed accounts as representative of the larger data pool. First, they are two accounts from the same taxiing task. By speaking

beforehand and following up afterwards, I was able to capture both the passenger and driver perspectives. Second, they both were a relatively unexceptional experience and thus offered a good middle ground to showcase the average practice of taxiing. Third, this shift in focus allowed me to devote greater attention toward the common structural issues of the ritual and away from cataloguing the breath of individual experience. Fourth, it exposes the dominance of ritual process over social connection. That is to say, even with the breath of 50 experiences catalogued, the diverse relations between drivers and passengers had little impact on whether or not the task of taxiing was achieved. Although relations could impact how it was achieved, the need to progress through the ritual superseded the necessity of social connection. And fifth, the middle ground mundane recording of the ritual allows it to be a platform upon which most other taxiing experience can be laid. As long as the ritual is accomplished, the turn of those behaviors does not matter to the structural forces to which the ritual is designed to contribute. Of course, there are more dramatic accounts, and how those accounts shape the structure is worth study at another time, barring extreme exceptions,¹⁷ all other instances of ride-for-hire had to pass through the same five elements. Irrespective of social arrangements or dispositions that two strangers always passed through, five essential points within the ritual are a powerful occurrence.

¹⁷ See section 2.1 for ride data. A ride is not started until the passenger has not only hailed the car but entered it and issued directions. Contemporary TNC companies argue they use this definition so that drivers cannot choose people by destinations. At the time of data collection (both for this study and the larger aggregates) Uber has since allowed drivers to see destination in an effort to give their driver greater agency. This opens up opportunity for discriminatory practice like those of the taxi industry. For example, I had drivers ask me things like, “Are you sure you don’t want to go into Cambridge? I have to go that way anyway”. I can just as easily see that question in the other direction, asking not to drive somewhere or to pass on a rider when their destination does not align with driver interests.

2.4 Methods

It is a common practice to muddle details about respondents for their protection, preference or for some other reasons. The two experiences I present here are composite accounts in the sense that details about them are taken from multiple respondent accounts so as to disguise their, particularly the drivers', identities. This deviates from a practice of altering identifiable information from in a single source from something that is accurate to something that is not. Instead, this method presents the near interchangeability of driver-passenger combinations while still concealing the drivers' identities.

There is an almost endless variation to the combinations of passenger and driver personalities and the resulting communication born of that interaction. Drivers and passengers were sometimes more cautious, chattier, grumpier, or more knowledgeable than the account I present, but each could agree they have had rides like this. Taxi drivers operate in comparatively small, competitive, and sometimes violent spaces. In Boston, only 1,825 taxi licenses, called Medallions, are on the road at any one time.¹⁸ These are driven almost around the clock by a pool of drivers for individual owners or as groups of cabs with a single-owner called fleets, a smaller group that owns their cabs. As of 2018, the pool of drivers had dropped to about 3,000 compared with 6,000 the year before (Graham, 2018). Much of this has been credited to the high competition provided by alternative for-hire services like Uber and Lyft as well as the poor and corrupt operating conditions for the driver within fleets.¹⁹ I

¹⁸ According to the Boston industry taxi report (2013 p. ES-3)

¹⁹ For an exposé on corruption within the cab industry, see the special extended report on the taxi industry conducted by the Boston Globe, "For Boston cabbies, a losing battle against the numbers".

promised drivers anonymity because they were concerned about their routes, skills, or practices being identified, as well as fear that their safety would be threatened.

The second reason for protecting the confidentiality of participants is attributed to the political environment. According to a 2004 study by Schaller Consulting²⁰ as well as more recent investigative reports about the industry, cab drivers are predominantly immigrants in Boston²¹ and other cities like New York City.²² Additionally, some drivers may have questionable legal status.²³ In the political environment when these data were collected (August 2017–January 2019), federal security and perception of immigrants as a threat was at an all-time high. Therefore, identifiable markers, artifacts, descriptions, or pictures that might add evidentiary value to this dissertation might also create additional risk for drivers, passengers, or their networks and were therefore eliminated. Each respondent was assigned a random set of numbers, six digits for drivers and five for the passenger. Those numbers were then randomized and set to the order of D1 to D25, and P1 to P25, where D represents drivers, and P represents Passengers as seen in Table 2-A. Figure 2-1 distills that information in a patterned process where 16 experience began with an app hail, 25 experiences with street hail, and nine with a call hail.

²⁰ See Schaller Consulting (2004) report on the taxi industry.

²¹ The City of Boston, Taxi Consultant report (2013).

²² See Flegenheimer, M. (2014, February 9).

²³ In 2016 Weinstein & Kirsner reported that Boston Fleet owner, Edward Tutunjian, was charged with taxi evasion, failing to pay overtime, and hiring illegal immigrants.

Table 2-A*Process of Taxiing Experiences*

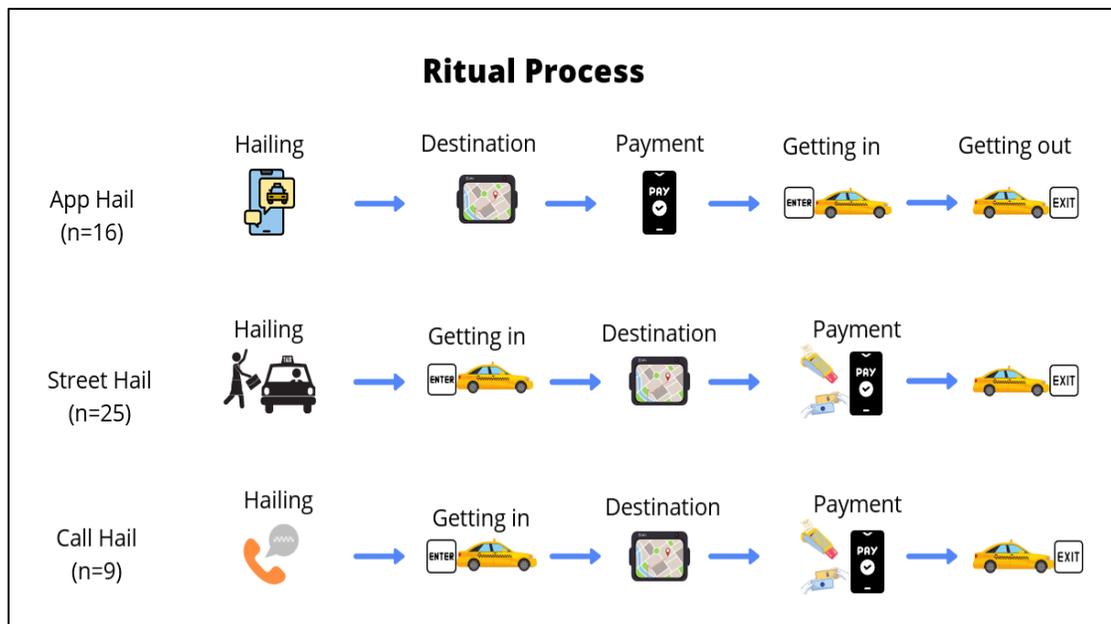
Participant	Hail	Assist In (y/n)	Destination	Payment	Assist Exit (y/n)
D1	Street	n	In car	Cash	n
D2	Street	n	In	Cash	n
D3	Street	n	b4in	Cash	n
D4	Street	n	b4in	Cash	n
D5	App	n	App	App	n
D6	App	n	App	App	n
D7	Street	n	In	Cash	n
D8	App	n	App	App	n
D9	App	y-luggage	App	App	y-bags
D10	Service	y-luggage	2x. Call & in	Cash	n
D11	Service	y-pet carrier	2x. Call & in	Cash	n
D12	Service	n	2x. Call & in	Credit	n
D13	Street	n	In	Cash	y-older
D14	App	y-luggage	App	App	n
D15	Street	n	In	Cash	n
D16	Street	n-bad back	In	Cash	n
D17	App	n	App	App	n
D18	App	n	App	App	n
D19	App	n	App	App	n
D20	App	n	App	App	n
D21	Service	n	2x. Call & in	Credit	n
D22	Service	n	2x. Call & in	Cash	y
D23	Stand	y-shopping	b4in	Credit	n
D24	Stand	n	b4in	Cash	n
D25	Stand	n	In	Cash	n
Participant	Hail	Assist In (y/n)	Destination	Payment	Assist Exit (y/n)
P1	App	n	App	App	n
P2	App	n	App	App	n
P3	App	n	App	App	n
P4	Service	n	2x. Call & in	Cash	n
P5	Service	n	2x. Call & in	Cash	n
P6	App	n	App	App	n
P7	Service	n	2x. Call & in	Credit	y
P8	Street	n	In car	Credit	n
P9	Street	n	In car	App	n
P10	Street	n	In car	App	n

P11	Street	n	App	App CC	n
P12	Street	n	App	broken then App	n
P13	Street	n	getting in	CC broken then App	n
P14	Street	n	getting in	CC broken then App	n
P15	Street	n	b4 in	Cash	y
P16	Street	y	b4 in	Cash	n
P17	Street	n	b4 in	Cash	n
P18	App	n	App	App	n
P19	App	n	App	App	n
P20	Street	n	In car	Cash	n
P21	Street	n	In car	Cash	n
P22	Street	n	In car	Cash	n
P23	Street	n	In car	Cash	n
P24	Service	y	2x. Call & in	Cash	n
P25	App	n	App	App	n

Note. Process of Taxiing experience of Passengers and Drivers $N = 50$ (Drivers = 25, Passengers = 25) collected over 18-month period from August 2017 to January 20

Figure 2-1

Taxiing Process Grouped By Elements



Note. Graphic representation of Process of Taxiing experience of Passengers and Drivers $N = 50$ (Drivers = 25, Passengers = 25) collected over 18-month period from August 2017 to January 20

In making this choice, I open this examination up to expected vulnerabilities. On one hand, inattention to the social differences between the individual practices of the ritual facilitates a mode of interpretation where interpersonal exchange is not central to the ritual's practice. This may be especially strange given the public perception of the chatty cabbie. Secondly, verification of any individual accounts is made more difficult. Yet, without respondent protections, there may be no accounts. To this end, I cataloged the riding experience of 25 drivers and 25 passengers separately to limit the need to hedge interpretations or limit comments. This also gave passengers and drivers time to coordinate with interview schedules that did not interfere with the often hurried activity they were engaged in. Due to the nature of the profession, passengers and driver accounts shown here are deliberately not matched. The intent was not to corroborate their experiences as a measure of validity but to understand the breadth of the experience from the passengers and drivers as a process. The account that follows is the mundane, unexceptional, and average collection of taxiing as a process, rather than the meaning of that process as it relates to the individual experience.

There are strengths to this approach beyond the spirit of trust that researchers owe their respondents. An analytical strength allowed me to establish the commonalities between experiences, which revealed the structure as a societal ritual.

Focusing on that instead of cataloging individual techniques demonstrated that the ritual is not bound to any one set of techniques, but rather accommodates mobility within its structure—one which all services, in almost endless social and technical combination, move toward the completion of the ritual. In keeping with conclusions, Davis (1959) also illustrated that community-building and individual relationships are not essential to the ritual's goal of maintaining society through transportation. To that effect, a ritual is not a location of meaning-making so much as it is a part of a larger structure wherein meaning can be made, applied, or overlaid.

Throughout these accounts, I deploy examples from film, television, and news to reflect on these sentiments as a matter of public consciousness and topics in public discourse that transcends any one individual experience. Of course, these accounts are often representative of dominant narratives situated in time and space of contemporary political and cultural thought. Despite the positional interpretation embedded in media examples, their existence is at least, in part, representative of an ongoing discourse and evident in larger conversations. For example, consider the interaction between Humphrey Bogart's character Philip Marlowe and the nameless female taxi driver played by Joy Barlow in the film *The Big Sleep* (Hawks, 1946). Whether someone interprets the interaction between them as shameless flirting or sexual predation does not change the fact that sexual advances happen in the terrain of sharing a ride. As illustrated by Uber's most recent safety report, advances happen toward passengers and drivers alike.

An obvious question that follows could ask whether media examples already exist, the point of articulating the individual experience. There are three reasons in

particular. The first reason is to open up where communication *work* happens, which is evidenced in the mundanity of daily life in a way not often represented in curated and stylized media accounts. The second reason builds off the first—to illustrate where the work is going, its boundaries, where the ritual begins and ends. The third reason is to consider whether the ways the ritual work becomes embedded in people’s daily lives.

2.5 Victor: The Passenger

It was January and raining in Boston. The brief spike to 40 degrees the day before had turned the pathways that circulated people around the city into a slushy mix of dirt, oil, and salt; however, this day, it was windy and the temperature was back into the 30s. The chill turned the rain to ice before it hit the streets and collected atop the newly re-frozen morass of wintry road muck.

Victor was waiting for a bus that did not come. He was not a particularly tall man. He was about 5 feet, 10 inches, with a slim build. The ring of short, cropped graying hair that circled the top of his head marked a darker hairline that had been actively receding for a while. Despite the chill, he wore no hat. A long duster-length overcoat ran from a high collar down to nearly his ankles. Underneath was a grey sports coat and a pair of dark woolen pants that led to brown socks and matching brown dress shoes. His clothes were worn, but well attended. He was, by his admission, a frugal man. That is why he liked to take the bus. Victor looked to his phone and again his watch as if he expected some disagreement or wanted confirmation. The bus should have been there by now. He looked at his phone again and tried to swipe it open. Fruitlessly sliding a textured gloved finger across the screen over and over. The gloves were supposed to work with smartphones, but they never

perform quite as well as advertised. Seemingly frustrated, he pulled the glove off quickly, the icy wind made skin contact uncomfortable, and chewed away at his phone's battery. It worked. His phone confirmed that the bus was late, and now so was he—or rather, he would be if he waited for the next one to come. He would have to take a cab.

2.5.1 To Hail

At this moment, Victor entered into a longstanding practice called *hailing*. While some might be more familiar in its recent adoption with *ride-hailing services* of Lyft, Uber, and others, the practice is much older and has long been a fixture of communication in the ride-for-hire community. According to the Oxford English Dictionary (2019a), the term hail, as a greeting, is rooted in the 12th century; however, *to hail* as a means to catch the attention of a vehicle-for-hire originated at the turn of the 16th century as a means to hire a ship for transport (OED, 2019a). Also in early 1600s, John Bailey, a retired naval officer in London, started one of the first large-scale public intercity for-hire services of horse-drawn or *hackney* carriages. Carriages were available in the early 1600s and by 1623, they were disrupting the business wherryman²⁴ (also known as watermen) so much so that they their issued a public complaint (Moore, 1902, p. 182). Typically assigned to inns, in 1634, Bailey had carriages made and he stationed a celebratory post, the Maypole in the Strand, in Westminster London. There, hackney drivers awaited passengers to come to them. Gilbert & Samuels (1985) argue with Moore (1902) that the etymology of taxi stand derived from their instantiation in the Strand. Strand (Moore, 1902, p. 184) where

²⁴ The jobs of wherryman or watermen were to transport people by boat down the Thames River.

taxis wait at designated areas for passengers to come to them. According to Gilbert and Samuels (1985), the Maypole grew overcrowded with carriages waiting for work, so some took it upon themselves to go trolling for potential customers. At the time, in 17th century London, the practice was called *plying for hire* now known as *cruising*. Amidst this practice, hailing emerged as a tool of communication to attract the attention of the now cruising drivers. At the time, it could also be used as a measurement of distance—*within hail* was used similarly to the contemporary phrase *within earshot* (Moore, 1902, p. 236). Within hail was inserted into both song and myth in the for-hire community for many years indicating it had long been a commonplace measurement of distance by which a driver could reasonably hear or see a would-be rider.

Hail was exactly what Victor planned to do. He looked around to see if any taxis were waiting for his patronage that he could summon. There were not any, and that annoyed him. What he was looking for was communication by way of signage indicating a taxi stand where he could reasonably expect a car to be, or by way of signal light atop a boxy car that illuminated the word *taxi* or *for-hire* or something similar that indicated a taxi was able to take riders. After spending several moments to confirm there were none available in his immediate vicinity, he continued to the next step of summoning a taxi.

Carefully, he leaned out into the street facing the direction of oncoming traffic. He raised his right hand as if to ask a question and waited. He had timed the movement with the changing of the nearby light. As the light turned green, a fresh wave of cars cascaded down the street. Victor was casting a signal out into the ether

with the expectation it would be caught. In Boston, when a driver sees such a signal, and if they are on duty and with no passengers, they are legally obligated to pick up the passenger.²⁵ A car just behind the frontrunners on the far side of the street honked once, flashed its lights, and the man inside made a slight vertical wave with his hand. The taxi driver had acknowledged Victor's call for a ride as Victor's signal was met with the taxi's own. At that moment, an informal contract was made. Victor had summoned the role of the taxi into being in needing transportation and seeking out the taxi as his solution. The driver's singling back served two purposes. One was to temporarily claim ownership over Victor as a potential customer; the other was to send a message to Victor that confirmed that claim. Victor gave a slight upward nod with his chin to acknowledge the driver's signal, accompanied by a brief raising then lowering of his upheld hand. In confirmed a social contract to trade payment for transportation service.

True to Victor's expectation, the taxi driver deftly, and somewhat dangerously, darted through traffic to cross the street in a way reminiscent of Frogger trying not to get squashed. And like Victor, the driver knew that part of his job was to operate the vehicle precariously close to danger in the name of efficient service. This was not a new tradition. Demanding a taxi to go faster or weave through a traffic jam or invent a hidden route that compressed time and distance is a common expectation of many taxi riders and common knowledge by many taxi drivers.

The taxi pulled up next to Victor, the rear of the car sticking out and partially blocking traffic. Not being right next to the curb, Victor had to step out into the road -

²⁵ See Boston Police Department rule 403. (2008, August 29)

slightly to get in. It was an inconvenience for Victor. His shoes would get dirtier as the curb is where snowplows deposit the product of their work. It was a precarious step. The jaggedness of the frozen, melted, and refrozen icy road mixture gave the illusion of grip against the reality of being deceptively slippery. That the position of the cab was a product of both its acute angle of entry and the impassability of an ice barricade that separated the unplowed from the plowed areas of the street was not a consideration over the inconvenience Victor was preparing to endure. Victor opened the door, tossed his black suitcase-style messenger bag in, and quickly followed, situating himself behind the front passenger's seat, diagonal to the driver. An expected moment of silence met Victor as he situated himself. The ritual progressed.

Since Victor had summoned the cab over, he had been making assessments and judgments about the future of the engagement. Most immediately, he had been deciding whether he had cemented the temporary commitment of using this taxi he had engaged when bringing the taxi over or look for another. There was already a certain social pressure, an obligation to use this taxi as the driver had already worked to meet Victor's hail. As the taxi scooted towards him, Victor noted that the driver was exactly what the cabbie should be, deft at moving through traffic. It was a skill that for any other driver might be seen as remarkable, but Victor saw it as a qualification of the profession. "It's what cabbies should be" he said. "You don't want to get in a plane and be surprised that the pilot is good, why should standards for taxis be

different?” The comparison is, of course, imperfect but what he is speaking to is the skill required for operation in the context of the profession.²⁶

2.5.2 *The Work of Hailing*

At its core, hailing is a functional act of communication intended to solicit temporary transportation. For Victor, the hail was the tentative beginning, an opening of possibility for service and patronage that has necessitated the for-hire ritual’s longstanding existence. Hailing was both conversation and negotiation. Victor’s signal was acknowledged by the driver and sent back for approval.

Embedded in that communication was a mutual understanding of what that communication entailed, what it assumed, and what it was not responsible for covering. In this way, the act of hailing was a negotiation of whether the taxi, which I refer to here as an amalgam that enjoined person, vehicle, and role into a singular use of ritual operation,²⁷ that would perform the transportation duty Victor expected of it. This communication was accompanied by the promise that Victor would respond appropriately, in kind with payment. Thus began the tentative formation of a social

²⁶ Though the comparison begins to fracture when you add in context. While you would not expect the operator of a commercial airline to make precarious turns and close calls with other airplanes, it is an expectation of cabs under relatively common conditions of urgency. There are also substantial differences in terms of agency, liability, culpability, value of the vehicle or craft, the likelihood of injury or death, unequal technical difficulties in keeping a plane aloft compared to a car able to move forward, and the navigation these concerns in the context of the relatively large number of people on a plane versus the small number of people in a taxi. This is further complicated by the relatively normalized capacity which the public approaches fatal car accidents and the national tragedy of an airplane accident, though consistently in the United States deaths in the former (36,560) far outweigh number of deaths in the latter (p. 393). Automobile related statistics for 2018 obtained from National Highway Traffic Safety Administrations (NHTSA) (2019), and airline statistics obtained from the National Transportation Safety Board (NTSB) (2019).

²⁷ A very limited nod to this kind of intersection between driver and role joining was mentioned briefly in Davis (1959), and citing Goffman’s non-person where the person becomes absorbed into the role. Examples, Davis argues, “are Legion” (p. 160), and goes on to describe numerous scenarios where the driver becomes subsumed into the role of taxiing.

contract. More importantly, this was not a negotiation of what the transportation duty of the taxi amalgam was or what Victor was obligating himself to in terms of payment. Both of those were assumed by both parties. Accompanying those assumptions were expectations in the designation and performance of what *driver* and *passenger* were, which themselves were determined by social and cultural mores outside of enactment of this ritual, but which also formed the basis of its roles. Additionally, this was not a negotiation of what the contours of the service would be, merely the agreement that this moment was building toward completion of the transportation for-hire contract. Communication is a varied array of signs and symbols moving toward the transit goal of the taxicab.

The work performed extended beyond its functional designation of roles and participation, or enactment of communication. This extension is partly why a ritual interpretation is beneficial and proof of its presence. The act of communication relied on preexisting designations of *passenger* and *taxi amalgam* within the relatively fleeting context of the ritual. These designations are not negotiated between driver and passenger but between people and the institutional authority that has outlined behavior in this circumstance. The predetermined nature of these roles is evidence of the taxi's longstanding presence in the terrain of the public imagination when we impart upon each other and our children beginning at a very young age. Despite never having met before, both Victor and the driver knew what their place was in this arrangement.

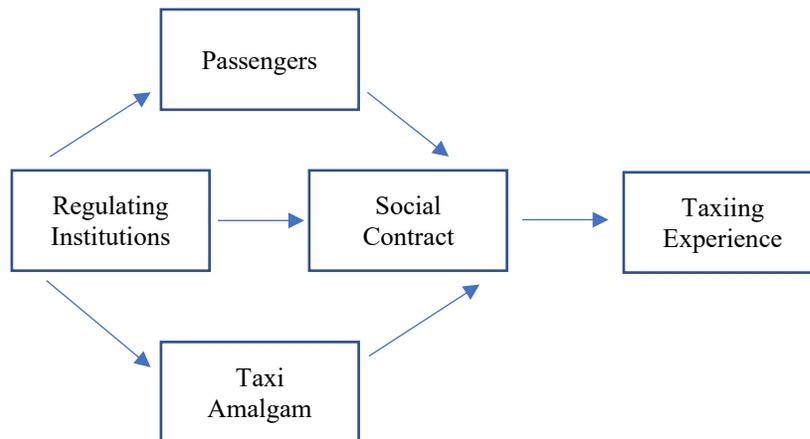
Another testament to ritual's relation to social structure is the formal designation of the roles and their responsibilities through institutional authority.

Boston’s Department of Transportation²⁸ or another regulating department (Chapters 7 and 8) structures how cars can operate on streets and what is expected and permissible in the context of that operation. The Boston Police Department’s Hackney Carriage unit regulates and enforces laws that dictate what gets to be recognized as a taxi as well as how they can operate in society.²¹ The taxi industry sets rules of behaviors and expectations that reinforce how taxis are to be presented.

Within these roles, a designation of power and authority is communicated (Figure 2-2). This power and authority assemble where formal governance meets

Figure 2-2

Taxi Communication Model



Note. Process of communication related to the activity of taxiing.

public expectations. Yet, institutional authority bolsters the creation of the tentative social contract but operates at its periphery, letting communications and cultural expectations that predetermine the taxi and passenger roles lead the mediation of the

²⁸ The City of Boston’s (2021) transportation department promotes the emancipatory promise of equitable access to transportation.

for-hire experience. This authority often presents itself as a resource, like term sheets that outline individual costs of driver assistance, wait time, carrying luggage, and other things drivers do. Engagement with this resource is optional, which differs from other articulations like credit card machines, or partitions with which passengers are forced to interact.

The anticipation of hailing reveals a kind of logic that shapes how people think and institutions regulate hailing and the for-hire journey. Victor shaped how he decided to hail to increase his availability and visibility in anticipation of a taxi's availability. By looking for a taxi stand first, then noting the proximity to a busy intersection, he considered how his location impacted the possible availability of a taxi. By recognizing that he was not at a taxi stand, he knew that immediate availability was unlikely. Thus, Victor elected to initiate the hail by hand. Doing this rendered him visible to the taxi driver, and temporarily created for him the role of passenger.

It was not just Victor's action that rendered him visible as a would-be passenger. As taxis are not able to solicit people to see if they want a ride, Victor's movement allowed him to be visible both physically and through regulation. The movement unlocked the conditions imposed on drivers to see and ignore people who are not passengers and treat them as if they were not visible in the context of the passenger-taxi arrangement, making Victor simultaneously available and visible.

The act of hailing also rendered the taxi visible as the taxi is also subjected to this logic of availability. Taxiing, as being both the designation of amalgam and the mobility role of taxis and their constituent parts, only becomes visible upon need, in

distinguishing it from the other cars and drivers on the road. Policies and practices are designed to increase time visible and decrease time invisible, or time as not a taxi. The term *deadheading* illustrates this point. When a taxi driver is deadheading, he is driving around without a passenger. Sometimes this is used in addition to cruising, but more often it is when a taxi is returning to a location after a trip. The assumption here is that taxis are only rendered visible and valuable when in use. World War II policies strove to limit deadheading and increase taxi efficiency. In these terms, deadheading was not only wasteful but dangerous to the war effort. Deadheading by present-day taxi drivers is considered time wasted. For taxi owners, it is time when their car should or could be making money. Outside of the taxi industry, deadheading is often a complaint leveraged against taxis in the context of creating unnecessary congestion. For emerging taxi alternatives, deadheading is a pain point that demonstrates the inefficiencies of an antiquated industry. Uber's proposal for funding, their pitch deck, to disrupt the taxi industry suggested they could eliminate deadheads through the more efficient use of networked systems. Note that does not seem to be the case. Uber drivers succumb to the same politics around hailing as taxi drivers. In a way, this has formed the basis of ridehail companies' argument that drivers are independent contractors.²⁹ Uber drivers are only driving for Uber once they are paired with a passenger; up until that point they are available to be drivers but not acting in Uber's capacity. Taxi drivers that drive for Uber and Lyft can sometimes do so

²⁹ In Uber's S-1 (Initial Public Offering) filing with the Securities and Exchange Commission on April 11, 2019, the company stated "We believe that Drivers are independent contractors because, among other things, they can choose whether, when, and where to provide services on our platform, are free to provide services on our competitors' platforms, and provide a vehicle to perform services on our platform." <https://www.sec.gov/Archives/edgar/data/1543151/000119312519103850/d647752ds1.htm>

simultaneously. Far more non-taxi drivers double up³⁰ as well as they are only committed to the specific service when they accept a contract, and thus are rendered visible as a representative of that service.

2.5.3 *Entering*

At first glance, the taxi was exactly ordinary and the older car body was partially covered by snow and ice that gathered on the outside of the cab's windowsill. Victor expected this would not be a luxurious ride but the fair condition of the car, paired with the competence of the driver's ability, reassured him concerning the safety of the ride. Victor grasped the cold handle. It was wet and very heavy. He had to wrench it to open the door. For Victor, the discomfort of the wet handle immediately began to reshape his expectation of experience, the sensory input seeming to override the visual judgment of the driver's skill. The heaviness of the handle, the difficulty of opening and maneuvering the door gave the "fine" cab a lumbering feel. The driver of this beast might have the skill, but Victor was preparing to be underwhelmed by the quality of the cab's service, if not its technique. How quickly Victor's expectation shifted just by touching the car. Victor's perceptions of the quality of the car communicated several things that influenced whether or not to continue with the for-hire contract. The condition of the car communicated a frugality or cheapness. Did the driver not keep it well enough? Or was going to be one of those cabs that occasionally broke down. The fact that many drivers were *assigned* a car at the beginning of each

³⁰ My observations about doubling up is consistent with observations made by Alex Rosenblat's Uberland (2018).

shift either did not register to Victor or he was not aware. Yet, seeing the amalgam of the driver, role, and vehicle were unavoidable.

His expectation was confirmed, at least in his estimation, as he dipped into the back seat. A patch had been neatly sewn to cover what was most likely a tear in the fabric but otherwise, the seat was clean, although worn. The cheap material rubbing against his pants and the shifting of his long coat made a swish-swish sound as he situated himself. A blast of heat confronted Victor; it was jarring and uncomfortable even though he was quite cold from standing out in the inclement weather. The floor was dirty. He found that irritating but also expected. The streets were a mess, and he was surely adding to it, as was his right as a passenger. The next thing he noticed was the smell. There was a brief moment of tension. “I didn’t know if it was going to be the weird cab smell or, worse if someone had been sick. Lucky for me it was just the weird smell.”³¹ He had never been in a clean cab, a new cab, one that did not smell weird, but he had been in ones that smelled terrible. When asked why he kept taking cabs when he expected to be underwhelmed, he responded, “that just what you get when you order a taxi, the shit *is* the experience ... besides, what choice is there?”

This research was not so long ago that Uber and Lyft, and a host of for-hire alternatives, were not available, but for Victor, they did not carry the legitimacy of the

³¹ More than 50% ($n = 30$ of 50) of rider respondents mentioned the ‘smell’ unprompted when asked to describe their experience in for-hire vehicles. In the movie *Ghostbusters* (1984) a passenger failed to notice an undead zombie taxi driver as if to indicate that service and smell were on par with the normal cabbage experience. In 2011, Keith Staskiewicz a writer for Entertainment magazine wrote next to an image of a skeleton driving a taxi “just remember it’s not polite to complain about the cab smell”. In 2014, the San Diego airport began subjecting taxi drivers to a body-odor test, highlighting malodors as an expectation of experience. These odors do not stem solely from the taxi; the car serves as a working space that holds a driver for several hours a day and circulates people (that all also smell different for a variety of reasons). Several uncomplimentary forums have sprung up discussing the smell of taxis, Ubers, and other for-hire cars which will not be discussed here.

taxi industry or that longstanding feel that, in part, make them so unspectacular. In a way, the discomfort was comforting because it was familiar. It was a reassurance of the validity and safety of this ritual, the endorsement of longstanding frugal policies and familiar prioritizations and tradeoffs between a comfortable, frugal experience, and flexible expediency when public transit alternatives broke down.

For Victor and many others, the sense of smell and touch figured prominently in shaping his perception of the taxiing experience. Victor demonstrated that his expectation was fluid enough to accommodate the reality that shifted more negative than positive. In this way, the moment of contact with the taxi was not only communication through the senses but with the memories that had shaped his expectation of what this particular experience would entail. As the experience moved from conceptual to the real it, was continually informed by the expectation of past and future experiences. For Victor, what mediated this experience were expectations around safety, convenience, and comfort.

At this moment, Victor had somewhat dueling yet nested expectations. One was what he was expecting this experience to be based on his limited knowledge and series of assessments about the cab. The other was shaping these expectations based on what he believed this experience could be. The latter was more grounded in his mental image of taxiing, a sort of ‘best of’ complications. They did not represent any one particular experience, as he recalled them to me later, but rather represented the best moments in taxiing he could recall. In that, it was always going to be an unattainable comparison to the now. Usually, the moments that stood out to him were

either surprisingly good or terrible. It is also important that he did not remember full experiences. Most of the taxi experience faded into the normal, unremarkable territory.

For Victor, the act of getting in the car was a part of the ritual where the passenger gives the driver (who is likely a stranger) control of their safety. With 36,560 automobile-related deaths in 2018, traffic collisions are a well-known hazard of driving on the road.³² Victor used his knowledge and expectations, confirmed by his entrance into the vehicle, as a means by which he could assuage trepidation about traffic safety. While I cannot claim to know if Victor was thinking about NTSB fatal accident statistics, what can be assumed from here is that he was entering into a situation of concern regarding his safety that he had come up with informal criteria of evaluation (that merged the driver and vehicle) to assess if the situation was safe.

There was an important transfer of power being played out at this moment that was regulated by more than social convention. Behind Victor's expectation that the cab was relatively safe was the insurance that the practice was being regulated safely by overseeing instructions, and not only his trust in the capability and manufacture of the amalgam. Cab companies, and drivers, had to follow certain regulations about who was qualified to drive, the conditions of the vehicle, and how drivers could behave while taxiing. Failure to do so would result in a revocation or suspension of the taxiing license in mostly a repercussion-enforced system. Built into that system is the assumption that if one taxi or fleet failed to comply with the laws or failed to provide a safe experience under the government's guidelines, there were many cabs ready to take their place. Sachs' (2016) analysis of common carrier law amongst rideshare

³² Figure taken from National Highway Traffic Safety Administration (2019).

companies demonstrates the overlapping and stabilizing nature of insurance, standards, and liability requirements are designed to support each other, thereby stabilizing industry requirements. Common Carrier laws in Massachusetts (as 159A³³) can also be seen as a form of this institutional buttressing of for-hire ritual practice. These regulations enforce the ritual's practice, and in doing so, articulate the narrow ways in which the ritual can be practiced. The presence of these kinds of laws was as much a part of shaping Victor's expectation of taxiing at this moment as they were part of shaping the personal experiences he draws on.

Entering into the car marked a functionally and symbolically important moment in the ritual. The integration of consumer and for-hire transit is functionally necessary and specific (without being exclusive) to the ride-for-hire ritual. To step on a plane, get in a taxi, mount a horse, or step up into a carriage is necessary in the execution of the for-hire task. Its functional necessity is grounded in the for-hire's responsibility toward a shift in mobility embedded into the practice and public expectation of the role (Chapter 7). By seeking out a for-hire transit solution contemporary users of taxis or rideshare seek a change in their mobility. What has remained constant is the ritual's focus on passenger mobility, not driver rights, status, emancipation, financial security, or other corners as the driver's humanity or personhood is not essential to achieving the task of conveyance. In broader strokes,

³³ The 191st general Court of the Commonwealth of Massachusetts General Laws, Part 1, Title XXII (22) Chapter 159A: Common Carriers of Passengers by Motor Vehicles. See also Sachs (2016).

what the mobility of the passenger accomplishes, millions of times a day, is the mobility of society.³⁴

Essential to the activity of the ride-for-hire role is a moment where a person seeking a change in mobility enjoins with the thing offering the change for a fixed period. Beyond functionality, it was also deeply symbolic. It was the moment that marked the substantiation of the social contract. Here, the tentative contract for for-hire service had been arranged. When Victor hailed the taxi, and the taxi responded by light, horn, and wave, and at the acceptance of Victor's nod, he proceeded to act in anticipation of that contract. Getting into the taxi was the continued acceptance of that arrangement, communicated through action.

In this way getting in the car necessitated communication and itself was an act of communication. It communicated to the driver that Victor was affirming what was a previously social contract, it communicated that in doing so, Victor relinquished some measure of control of his own safety. It communicated a willingness to be guided by policies that ensured Victor's safety under these circumstances and an erosion of the driver's control, and it signaled the progression of the ritual opening up the opportunity for the next moment essential to rituals production.

2.5.4 *Destination*

Soon after Victor sat down the driver piped up with the question Victor was waiting for: "Where to?" This was the next part of the ritual, setting the destination.

³⁴ There is a substantial amount of work around 'automobility' and what mobility does for and to society. What that literature tries to achieve is a rich and complex discussion that cannot be included here, but more to the point is not relevant to a ritual interpretation frame. Some of automobility's early work is addressed in WWII chapters 6, 7 and 8.

The question was pitched in an even tone like it was less curiosity of the driver and more an opening for the opportunity to input information. The procedure of the ritual demanded that if Victor did not volunteer the information of where he was headed, the driver needed to ask to proceed to the next part of the ritual. Victor expected the question, having not volunteered the information when he got in the cab. “Faneuil Hall,” he told the driver. To clarify he added, “North and Clinton.” Victor then sat back and waited. He wondered if this was going to be one of those chatty drivers. The driver returned Victor’s communication with a nod indicating receipt of directions, checked his mirrors, and sped off down the street.

In this instance, there was not much space between the issuing of directions and getting in the vehicle. But important changes occurred, nonetheless. The issuance of directions was a commitment that transitioned the social contract to financial contract, from the promise and potential of service to the obligation to pay for services rendered. Within that change, it was both a functional and symbolic act. Functionally, it was a necessary moment of guidance specific to the profession. The hiring of a ride to take someone from one place to another, but to do that, the one providing the task must know where to go. For the taxi driver, it cemented the contract between passenger and driver, a contract that traded transportation – and the knowledge, skills, and technologies necessary to complete it for the agreed-upon commitment of payment. But this moment also indicated the ritual's flexibility. Sometimes a passenger can set the destination as they enter the car and again while in route. In the absence of that activity, the ritual does not falter, but built-in is the flexibility to prompt the destination with questions. The driver is that point of flexibility, asking

where to? Where ya headed? Or just simply Address? Sometimes adding a sir, ma'am, or even boss at the end. I once had a driver add 'asshole' to it instead. He swears he was talking to a jaywalking pedestrian, although it would not have mattered to my progression of the ritual, only my experience of it. More importantly, the prompt is phrased in no one way in particular, but the message it conveys, if not the language itself, seeks input on where the user wishes to travel.

The ride continued for 20 minutes. Though Victor and the taxi driver chatted, neither could remember about what. Partway through the trip, Victor pulled out his phone and looked intensely at it. He punctuated the action with a thoughtful 'hmmm', complemented by a furrowed brow, pursed lips. He wanted to appear very engaged, he told me afterward. It was a strategic set of moves, a way to be polite but still deny the driver further conversation, to distance himself appropriately, and proceed to a more economic and less social activity. The body language Victor would have used to communicate would have been something more open like "meeting the drivers' gaze in the rearview [mirror]," but he was tired of talking and wanted to check his email, and importantly he, as a passenger, had the power to do just that.

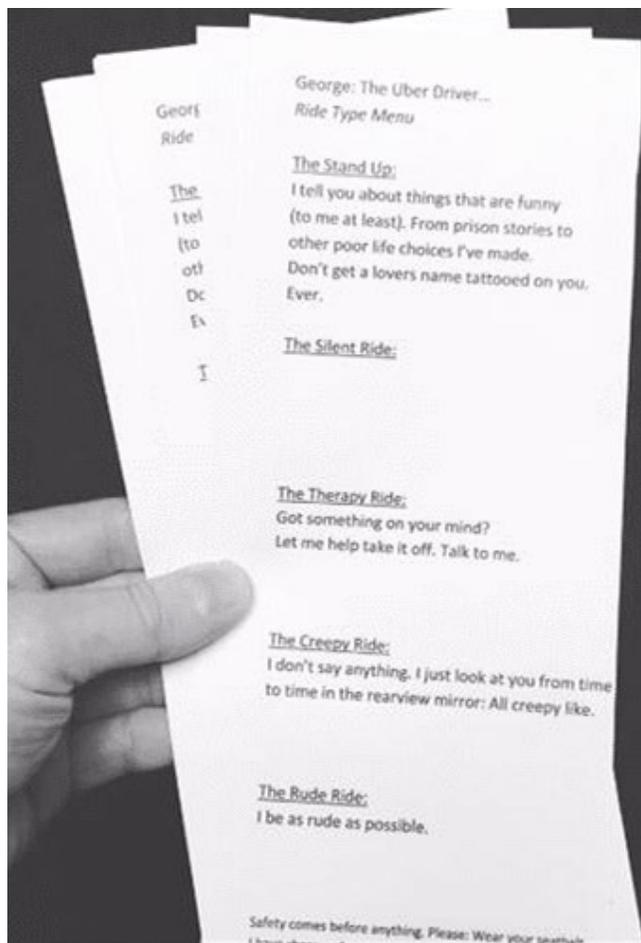
The move is both communication and technique. As a technical move, Victor's use of the phone was dually motivated by efficiency and politeness, and both to the end of not having to talk anymore. As an efficient move, he would be able to use some of the time commuting to do work. Given that he was already going to be late, this was particularly helpful. It was also, in Victor's estimation, the polite way to signal he did not wish to talk. Another behavior and a common set of signals were interjected into the ritual of the taxi, but certainly not originating there. The ritual had space for it,

space to bring in practice that meant other things into the gaps of the ritual and there is little of the ritual's necessary functions that structure the time in transit. Social beings have filled it with being social. Other riders thought of it like this "it's like finishing a sentence with a stranger then putting in your earbuds. Sends the same message." To most people the signal is clear; it is a polite request to be left alone. As a social convention without structure sometimes drivers do not or choose not to. One passenger admitted to being frustrated at the amount of chatter he was receiving from the driver eventually said forceful "bitch, just stop talkin.'" Despite the impoliteness in contrast to Victor's own, it did not interfere with the ritual itself. And navigating this interaction is in part why the Uber driver created his menu. From the passenger's perspective, once a passenger like Victor sends that kind of signal, the driver needs to be on the lookout. One driver said, "If you keep talking, it's a quick way to irritate passengers, and an irritated passenger is a low tip" for a taxi, or a low rating too for those registered through an app.

This navigation of passenger-driven interaction is typified in an example in Figure 2-3. An Uber driver, George Ure, created a "menu" for social engagements, part comedy stunt, part satire commentary, part serious; the move illustrated the kinds of ways the intermediary transit time is filled in the production of sociality. It also illustrates the very well-known—in the public imagination—idea that these times and spaces are managed by confluences of personalities and expectations. This kind of communication extends beyond limited arrangement by driver and passenger and emphasized a cultural work at play. What comprised the user's taxi experience was not the act of being transported but the interaction that filled in the time.

Figure 2-3

Ride Type Menu



Note. George Ure’s Menu [Uber driver ride type menu] in Alfonso (2019).

Direction is an essential part of the for-hire ritual, but it is also different from the elements of hailing and entering because of the possibility of it happening more than once, and its place in the ritual. This difference illustrates the ritual’s need to stay internally flexible in the accomplishment of its transportation goal. While there is an initial moment where a direction needs to be conveyed to set the for-hire to task, it can

happen elsewhere during the ritual, as maintenance and addition. A shift in priorities or a change in traffic can necessitate a change in destination. Though it is not done with the same potency of the first issuance that creates the contract and commits the user turned passenger to participate in conveyance. Alternatively, riders can change their destination via taxi or ridehail app and have it update the driver in-situ.

There is an important demarcation of power here as well. The passenger embodies an extension of authority that is allowed to issue the taxi directions. Passengers have broader control over where they travel and command over the amalgam that allows them to do it. Passengers, as Victor demonstrated, hold power through their ability to dictate how drivers are allowed to be social. While many passengers use body language to indicate their preferences, other passengers scream at, spit on, or physically assault drivers violently and sexually.³⁵ In this, the ritual (and its regulating authorities) have designated the passenger's power to determine service. How passengers interpret that can vary tremendously. Despite these actions leveraged against drivers and passengers too,³⁶ part of the ritual's resilience is its ability to ignore any embedded social implications that do not impact the ritual's process. It can leave drivers feeling terrible or passengers with a poor experience, but it does not matter or impede the ritual's production. Davis' (1959) concludes that taxi-customer arrangements are fleeting, are not conducive to lasting connection, and facilitate the disregard of what would normally be devastating social interactions.

³⁵ For a more detailed breakdown of assaults common to the for-hire profession see Gilbert (2011) on occupational violence against taxicab drivers.

³⁶ For example, Uber's 2017-2018 US safety report illustrated that both passenger and drivers are vulnerable to assault, yet despite the presence of it most for-hire rituals were completed, indicating that driver and passenger feelings are not particularly relevant to its completion.

2.5.5 Payment and Departure

As Victor finished his ride and the taxi dropped him off near his place of work, he had the option to pay with cash or credit. While many apps take over this procedure, it did not change this exchange's necessary place as part of the ritual. Victor hardly ever carried cash with him for regular spending, so he elected to use a card. The driver asked if he would like a receipt and Victor answered with a simple “yes.” There was not a practical reason for this though since Victor would not get reimbursed for the ride. He just liked having a receipt.

For Victor, the receipt functioned as a sort of proof of this transaction that straddled material, social, and legal parameters, a demonstration that the ritual was successfully conducted. As an artifact of the for-hire process, it provided him comfort and reassurance. Beyond Victor’s practice of the ritual, his participation again further propagated it. Whether an app, credit, or cash, the financial institutions that guaranteed these transactions did so as a part of a much larger financial system. Where money was supported by, for example, the Treasury Department (and systems of commerce more broadly), the regulations that told Victor how much to pay the cab also had set the rate for the taximeter calculation by distance and fee.

Boston's political hierarchy had established the commitment to these measurements in 1909 (see Figure 2-4). At the time, city officials led by the state Commissioner of Weights and Measures, Daniel Palmer, had set up a street course and

marked distance with special plates specifically to judge the accuracy of the meter. Afterward, the city endorsed the use of the cab across its 250 running taxicabs³⁷.

Figure 2-4

Plates Used in Marking Courses for Testing Taximeters.



Note. In 1909, Massachusetts Commissioner of Weights and Measure, Daniel Palmer, ordered testing of all taximeters using marked distance plates illustrated above (State is to test all taximeters, 1909).

Like the cab rides before, this experience did not change Victor's perception of riding in a taxicab. It was the ride he expected, and he expected the next ride would be

³⁷ The number had been estimated in the Boston Globe's coverage of the event to "250 odd" meaning that it was roughly, rather than precisely, that number. See "State is to test all taximeters" (1909, December 1) for additional information.

the same. Victor's near-complete control over how the for-hire ritual played out contributed to this. He expected a certain kind of ride and performed the necessary actions to produce the ride he expected. These actions and distributions were supported by the driver's behavior and the rules governing the structure of the taxiing process. This reifying combination of behaviors, expectations, and structure reproduces this ritual over and over again for Victor and millions of others. It is in that continued reproduction and its constituting parts that make this a structural ritual that has continually addressed society's need for a flexible transportation solution.

The exact contours of the way Victor practiced this ritual do not look like everyone else's, but more importantly, they did not have to. The goal of performing the ritual is the completion of the for-hire task. To accomplish that goal, participants follow essential parts of the ritual's practice. How they go about hailing, entering into, setting a destination, paying, and exiting the taxi or other for-hire vehicles are necessary but flexible in how the rider accomplishes those tasks. Whether through an app or a street hail, acting on the need for transportation is accomplished. Having the fare determined by the taximeter or the application is still automating the process away from human decision making and as such, does not need in-cab decision making to accomplish the task. This process has not, since the 13th century, been entrusted to the human decision making, like posts, not people guided the horses from city to city. The work of teaching the horses to follow posts likely fell to the owners.

The ritual has a flexibility that can accommodate multiple versions of itself. Engagements of sociality arise in the moments in between necessary ritual processes (like issuing directions) and are not necessary to the production of that ritual.

However, that is not to deny their importance outside of the ritual practice. Passengers use the ritual and a surefire way to solve a transportation problem, but the transportation problem is not the end of the passengers' task, it is a means to accomplishing something beyond the ritual's practice. In this way, the ritual mediates the exchange, the way for the passenger to move in pursuit of a larger goal, just as the ritual itself is a part of addressing a larger societal need to circulate people.

2.6 Aman: The Driver

Aman had been on duty for a few hours. His dashboard was carefully set up to remind him of things in his life that mattered. A picture of his girlfriend taped above the left driver-side air vent. Her smile reminded him of when they were kids. The placement of the picture was deliberate. It was practical as he was always checking that mirror and his gaze would pass over the image and remind him of who he was and what he was doing here. But the placement was also private. He did not want her to be a talking point or a question intruded upon by passengers that did not care. To them, he felt like an attraction, a zoo animal. She meant more to him than that. She was not for them. A painted metal cross hung on a simple silver chain that descended from the review mirror. His particular brand of Catholicism came from an area of the West Indies from where he immigrated. Though he incorporated an appreciation for "earthly traditions" as he described it, in his practice of religion, advertising Catholicism was a strategic move that went over well in Boston. At best, he found the cross to help strike up a conversation, or at least combat some of the reservations and barriers he figured were imposed by his foreign status and darker skin. If nothing else, he felt, maybe someone was less likely to rob him if they saw a cross staring at them. It was a free

country, and he was free to practice any religion he wanted, “so long as it was Christian,” he had said wryly.

The rest of his cab was not remarkable. He had some brown wooden prayer beads a friend had given him looped around the gear selector of his Toyota Camry Hybrid. A stand for his phone and a dock for the wired earbuds that he often wore only in one ear, a charging cord always attached to his phone, an aftermarket stereo panel with rainbow colors that made up the LEDs on the face, a bottle of water, a soda, and small folding knife in a fold under his seat. The partition that maintained a division between the driver’s compartment and the rear passengers was clean if a bit scuffed. Several times he tried to use a special cleaner to eliminate the fogginess created by scuffs on Plexiglas but to no avail. The other side of the partition he tried to keep clean, the credit card machine worked reasonably well, in the off moment the screen advertised commercials. He had a few info pamphlets about the city and a magazine in the back. Affixed to the windows he kept his cab license number, contact information for the taxi agency, the car's medallion number, and a sheet outlining the terms of service for taxiing in Boston. Today he was adding a new sign – “please do not spit on floor.” It has gotten so bad that he had to switch to rubber mats, something he has been meaning to do anyway since it started to snow.

Cleaning fabric mats with road salt and other junk was always tough, but at least it absorbed water or spit. Gum, or worse, chewing tobacco (‘dip’) was a different issue altogether. With his new rubber mats, it just sits there all melting into a pool at the bottom of the cab. People complain; other people have been so grossed out they just get right back out of the cab. But he told me, “that’s when I know it’s time to

clean it.” He does not like it dirty, but sometimes it gets worse if he is not actively thinking about it. With the partition, it is hard to see back there and if the job is going well one person gets out and another one gets in.

“How am I suppose clean?”, he asked me rhetorically. “As soon as someone gets you to have to go-go-go! Or they get upset”. He went on a small tirade about customer happiness. “They get upset; they don’t tip you. They don’t like the spit, they don’t tip you, but, they leave their garbage on the floor anyway.” Listing among the things he usually finds are wrappers, newspapers, bottles, diapers, condoms, and occasionally a spent needle. He does not want to know from what. “You can’t win man. You can’t ever win.”

Another driver had commented that the job is an “endless parade of people you never see.” Yet, most drivers agree that the bigger the parade, the more successful the day. One driver called them ‘shadows’ of people, commenting on the combination of limited connection and the feeling of entitlement that passengers disregard for space demonstrates. “Sometimes you just get the worst of someone.” A chilling thought. Aman and many others keep reminders of things that make them feel grounded. For Aman, his preparation for a day of driving is a strategic balance between the placement of things for the job and small reminders of his personhood.

Despite this internal dialogue and the discontent about unequal relations, Aman, like so many other drivers, would put on a mask I started to call ‘taxi driver face.’ Drivers referred to it in many ways like *mask*, *workface*, or simply *the job*. What they articulate was a presentation of a happy disposition they believe customers expect. Some drivers saw this as a mechanism to push down their feelings or to not

focus on things that customers do, which under normal circumstances would be rude or offensive behavior.

The adoption of the taxi persona serves two functions. First, it is a business decision. There is a belief that a happy driver gets more tips.³⁸ Outlined as one of the many strategies drivers employ to get tips, in 1959 (Davis, 1959, p. 163-164), some drivers still practice “happiness” time to time if they think the passenger has a sensitive ear. For Aman, such passengers were “sympathetic to the pains of life”. In those instances, he strategically deployed a sick child, old injury, or the expense of saving to propose to his girlfriend (though he still rarely ever showed her picture). He had a lot of White Bostonians “save” him that way, he said. It might be strategic but argued that it was necessary and allowed him to pay to see a doctor, get a car fixed, or he sent money home to his family. Driving a cab does not earn a lot of money, it just looks like they make a lot of money. He argued that the driver only got a small percentage and most did not make enough to both save money and eat. Aman sometimes skipped lunches to save for a wedding ring. Second, the taxi persona represented, quite literally, the body posture (particularly the face) of remaining cheery to create a more friendly experience for the passenger.

The tension between public perception of cab drivers as a lucrative, even greedy, profession and the poorly paid reality is not only present in today’s environment but throughout history as well.³⁹ It is also not exclusive to the taxiing

³⁸ This was a cultural change from the 1940s and earlier when cabbies would tell ‘sob stories’ lamenting their situation to leverage public guilt for tips and to address the very real problem that they were paid wages that were unlivable and thus depending on tips to survive. (Owen 1943, pp. 160, 161).

³⁹ Davis (1959) provides example of taxi drivers making equivalent to middle class wage became news and instead of being couched as equal to everyone else, the text of the article positions drivers as

profession. Ridehail drivers often protest ridehail policies about better, more stable, or fairer pay.⁴⁰

Aman had been driving for a few hours when he stopped at a traffic light. He was cruising, driving around an area looking for passengers that appeared to be looking for cabs. In Boston, it is illegal to elicit fares by asking people if they want a ride. At a cabstand, where taxis wait in line and are called in order, work is a sure thing but there is a longer wait because those in front get passengers first. Other stands technically should also go in order of placements, but with no one overseeing it, and since drivers cannot solicit passengers, they must wait for passengers to come to them. In the absence of someone with the responsibility to summon cabs (such as at an airport), passengers can approach the line of a set of waiting cars unaware of the hierarchy or order. The certainty of work makes many taxi stands coveted spots. Hazard (1930) recounts fistfights or other behavior to secure their place at a taxi stand; the film *Taxi* (Ruth, 1931) also demonstrated the value of taxi stand spots.

Cruising offers uncertain prospects. A driver could search for hours for a passenger or find one after another. Cruising creates the possibility of opportunity while also creating the possibility that the driver goes home empty-handed. It also facilitates the illusion that if an industrious driver is skilled enough, they are constantly making money. Many industrious cab drivers are constantly on the lookout

greedy, irresponsible, and undeserving. Connolly (1970, May 6) notes that drivers have to account for considerable expenses and the take home is much less than it seems. More recently the investigative series by the *Boston Globe* (2013) revealed that cab drivers have to pay for other expenses to owners and agencies that use local policy to enforce inequality, including paying bribes. If a driver elects to not pay the bribe they do not get as many fares or they get the fares in the dangerous parts of town, which they cannot refuse as it is illegal for drivers to refuse the call.

⁴⁰ For example, Romjue (2016, June 13).

for the next passenger, sometimes they find them, and sometimes they do not. As such, an illusion is predicated on the illusory possibility of a limitless supply of passengers. This mentality is not without personal cost. The always-on and never-at-rest psychology of the moment gives some cab driver the *yips*, a colloquial term for a nervous condition originating in the 1940s and still utilized today.⁴¹ It was explained to me that the term is modeled after the sound small and easily startled dogs make: “yip yip.”

This illustrates the kind of moment where promise and reality disagree. Skilled drivers cannot out-skill an absence of passengers, and with regulations prohibiting solicitation, drivers cannot persuade passengers into their vehicles, which for many reasons is probably for the best. In popular discourse, the limitless illusion seems to have shifted to TNC drivers, with the promise of endless possible opportunities and the flexibility to match. Unfortunately, these promises rarely reconcile with the reality facing taxis. If non-imagined customers were limitless, then both dimensions of the industry would be working at full capacity, if the drivers wanted it enough. Promises are powerful generators of hope and TNC marketers are quick to accommodate. As taxi reckoning is easily explained away as a combination of TNCs offering a better cheaper service, and the lack of taxi driver skill in finding customers, and not an issue of supply.

⁴¹ Taken from Owen (1943, pp. 160-161). The taxi driver’s golden age. This account talks about cabbies getting the yips. According to personal interviews the nervousness associated with the yips or a similar, is still recognized as the cost of doing business for veteran drivers. More recently the Boston Globe reported drivers experiencing “chronic behind-the-wheel anxiety” (2013, p. A10).

2.6.1 *The Hail*

At that moment Aman's industriousness was active. He scanned the streets and sidewalks for people interested in a fare. His eye caught someone in a movement he recognized as resembling a hail: a man leaning out slightly into traffic, looking like he was trying to be seen and measuring that against the dangers of leaning too far into the road. What singled this person out among other passersby was the lean in conjunction with a raised hand, almost in a question. To Aman, the likelihood that this was a potential fare was strong, and he had to claim the fare before another cab did. It is a contentious moment full of possibility, competition, legal threat, and personal danger. Aman honked to test the waters of acknowledgment. This honk was both risky and completely necessary to the act and art of cruising. It is risky not only for how it is used but how it can be interpreted. It was an auditory signal that toed the line between acknowledgment and solicitation. If his assessment was correct and this person desired a cab, and if his honk was interpreted as an acknowledgment of that need then it was brought into the taxiing ritual, and not a solicitation. If he had honked and the man was merely waving or communicating to another car then it could be at worst interpreted as a solicitation, and at best the honk would go ignored. This was complicated by the possibility of competition, as fares were coveted things. If Aman hesitated and another cab honked or otherwise signaled the man and the man accepted, and this interaction was followed by Aman's honk then it could not only be construed as a solicitation by trying to pull a customer away from a legitimate—albeit informal—beginnings of a contract, as well as an attempt to pinch the fare of another cab, who had likely just gone through the very same set of judgments and risks that

Aman had assessed. Hesitation and the light turns, and the fare would be gone; hesitation and the fare was claimed, and the fare would be gone. Risks confronted Aman on all sides.

The risk did not stop there. If the man was not looking at him (or rather his taxi) or had already solicited another taxi, then technically, Aman could be accused of soliciting a passenger. In policing terms this can be accompanied by a small fine, and in rare cases it can result in the loss of license. It can be difficult to prove, but also troublesome, as refuting it takes lengthy amounts of time (not working) at the police station or courthouse. Recent history⁴² and several drivers that I interviewed suggest that certain authorities can be encouraged to lessen the severity of any such infraction, a mutual easing of financial discomfort that a ticket and court time would bring.⁴³ Formal ramifications were not Aman's only concern. To find a passenger while cruising is a coveted affair. The value of which is increased by the risks incurred by the drivers necessary for cruising. To poach another cabbie's fare is not only a cultural faux pas, it can be accompanied by physical threats, acts of violence, and destruction of property.⁴⁴

He decided to act. Aman honked the horn once. It was a measured deliberate signal, a soft short staccato push of the horn. A technical move carefully executed so

⁴² See Latour (1999, December 9), Neuffer (1990, March 2), and Estes (2003, p. B3)

⁴³ This engagement is also fraught with tensions and risk. If you have ever travelled in less than safe spaces around the world you may be aware of the slide money into the page of your passport trick. If the inspecting person was amiable the maneuver they took the money and sent you on your way. If they were not one can claim it got in there by accident and was never intended for such a maneuver. A similar practice can go over when handing an officer license and registration.

⁴⁴ Another longstanding tradition of the industry that was both common knowledge among my respondents and has been articulated through various sources of media. For example, the film *Taxi*, directed by Roy Del Ruth (1931) illustrated some of the dangers of what the news at the time had called the 'taxi wars.' Robert Hazard (1930) also described similar accounts.

as not to produce a full-throated beep. The distinction is essential to convey the correct message. A lite soft beep is a polite signal, a garnering of attention familiar to those aware of the nuance of polite horn signals. The signal says *over here!* This man knew the nuance of the lean and hail and likely would be aware of other nuances of the taxi environment as well. He would also be aware that a full-throated honk communicated something entirely different. A heavy-handed protracted honk would shift the intent of the signal and its vector. The heavy signal, jarring, loud, and offensive can be heard throughout the city and is designed to make known a driver's displeasure at some version of roadway interference. Such a traffic-oriented honk might even go unnoticed by the person looking to hire a taxi. This moment is not just the opening of a potential social contract with a passenger; it navigated a fine line between a legal and illegal practice that was both a demonstration of skill and negotiation of risk.

A brief honk and at the same time Aman flashed his lights. The man looked over to him, raised his outstretched hand slightly more. Aman took that to mean the man acknowledged his claim and nodded in response in a receipt of the message. Looking around him carefully Aman exploited any gaps and hesitant traffic to slide across the lanes through the intersection. His actions incurred the aforementioned brusque honk from displeased roadgoers, but he paid them no mind. He had a customer. The work of getting a passenger almost done. The moving traffic, slightly icy roads, and the short distance between the light where he spotted the man made his arrival to the curb less parallel and more acute than he would like, but drivers adapt. Through skill, he was lucky to only block part of one lane, and it a testament to his skill that he did not block more. That always gets people riled up, "but" he said with a

wave of his hand, “people always get mad at taxis anyway, as a driver you have to learn to shrug it off.” Aman indicated it was particularly easy because they were not honking at him as a person, they were honking at the taxi. Another example of how Aman’s personhood was subsumed into the machine person role of the taxi for the time he operated it.

At this moment, Aman revealed something about the taxi’s expected place in culture. It is both acceptable for people to be upset at taxis and for taxis to operate on the fringes of the law and driving customs to acquire passengers. Many drivers realize they must navigate this tension to pursue their work, road-goers expect semi-hazardous behavior from taxis, and passengers expect drivers to work, on the customer's behalf, on the periphery of legal driving behavior. He also hinted at a complex dialogue of car horns with taxi drivers are often aware both in the way that these horse signal relations to the taxi amalgam and for the different messages they convey.

Aman pulled up next to the hailing man. He positioned the car as close to the curb given the pile of ice and snow and the trajectory of traffic. The man lowered his hand. In other situations, Aman might get out to help, such as if the hailer had luggage or looked like they might require assistance opening the door or getting in. Some cabs were better equipped to handle wheelchairs or assistive technology, and though Aman’s did not boast special equipment, it did not prevent him from looking at those fares too, though other cab drivers were not as accommodating. The taxi driver was both the point of flexibility but also the judgment of when to deploy that flexibility. Importantly, that decision making is not often in the hands of a driver, merely the

execution of it, and in this way is not unlike current debates about autonomous car decision making capacities. In Boston, if the driver is on or off duty and notices a passenger with different mobility requirements, the driver is required by law to stop and help or notify the cab company for assistance. Boston Police Department (2008) Rule 403, section 5, part 4 states:

Every licensed Hackney Carriage Driver, upon becoming aware of a request for service from a person using a wheelchair, shall be under an affirmative obligation to use any available means of communication to assure that a WAV [wheelchair accessible vehicle] taxi is dispatched to such person as soon as possible.

What this marks is an important shift in the legal framework regarding not just taxi use, but how far the taxi amalgam extends into the drivers' private lives. Through this regulation, the driver is never free of the amalgam, is never off, and is responsible for being a point of flexibility for the structure of the city to achieve equitable service to people with different mobility needs. It is an admirable goal, but the work of it trades recognition of one person to another. This transition is significant because it further cements the idea that the industry is not built in the interest of the driver, but in the service of passengers and toward the accomplishment of city mobility. That driver's personhood becomes inseparable from the amalgam of driving so long as the city permits its license. It is particularly difficult for those that rely on for-hire driving to earn a living, but struggle to see their personhood in their work, and now the responsibility of that work encourages the public not to differentiate the taxi driver from the taxi.

There was also a kind of transmutative work at play. During this process, there was an important shift in Aman's internal discourse that transformed the passenger from a potential customer to a commodity. At the onset, he was looking for potential fares as people hailing a cab. Some drivers described this as a *hunger* and couched the search in terms of hunting. Nearing pickup of the passenger, Aman's language changed from passenger and customer to 'fare'. There is an important possessiveness in the moment of confirming the ritual's initiation, in the claiming of a fare, and in thinking about potential passengers as coveted commodities that could be owned for the time in which their needs overlap with the taxi's service. Here the work of ownership is taken up by the driver, not in recognition of the passengers' personhood, but of the need of that passenger's role which that person represents.

2.6.2 *Picking up and Direction*

Aman pulled up to the curb and waited for the man to get in. Through signs and signals, he confirmed that this is what the passenger wanted, but it was yet to be confirmed from the passenger side. The would-be passenger slipped in the back and adjusted himself like so many passengers before him. At this point, the man transitioned from a man to a customer, in taxi terms—a fare. Full confirmation of accepting the taxi's service was not realized yet, but Aman needed to consider it as if it had. As soon as he pulled up to the man, he began making observations, assessments, and adjustments. This was not a usual corner or easy corner from a street design perspective, so it probably meant that hailing a taxi was a last-minute decision. The man knew some of the procedures evident in the confidence in which he hailed the taxi. This probably meant that the man had certain expectations. No hat or scarf in

this weather might mean he had found the cab too cold. Aman turned up the heat slightly and turned down the music. He did not like it hot in his cab, but after being in that wind for any amount of time, the man could use some thawing out. Older people tended to like less loud music; that was not his preference, but he did not mind. He just hoped they did not request talk radio; he did not have the energy to feign interest in whatever political issue was the talk of today. But he would feign interest because that is what the customer would expect. Drivers make all sorts of personal categories that represented groups of customers.⁴⁵ They operate as a sort of heuristic device so the cab driver could not know how to proceed with relations and expectations of passenger needs, as well as safeguards for the driver to manage the expectation around what kind of treatment they will receive. The system is imperfect but necessary given the limited time a driver had to assess passengers and the fleeting nature of the relationships.

The man sat down, and Aman waited. He wanted to allow the passenger to speak, to not feel rushed, but he had to carefully balance that with the fact that his car was blocking traffic. After what his experience and intuition told him was a reasonable amount of time without a prompt, he provided one. “Where to?” he asked. His volume was not so loud as to be mistaken for yelling, and not so soft that you have to repeat yourself. Another careful balance. “Faneuil Hall,” the fare said. “Faneuil Hall, ok” Aman repeated back. The repetition was doubly productive. For one, it confirmed he

⁴⁵ Davis (1959) listed a rough typography of personalities and experience drivers saw in passengers including *The sport*, *The Blowhard*, *The Businessman*, *The Lady Shopper*, and *Live Ones* (p 162-163). Others were classified by behavior including jerks, slobs, yokels and public transportation types (p. 161). These are from a gendered perspective representative of the time, and worthy of their own discussion. However, it demonstrates drivers have a continued need for these kinds of heuristic devices.

had heard the man correctly, neither of them wanted to be going in the wrong direction and marking the transition to a formal contract for hire. The other part was that he said it as he plugged it into his phone's GPS to set the destination. He had a relatively clear idea of where to go, but you never knew with traffic. The traffic updates on the GPS made it a quicker ride. His customers were often pleased that he never seemed to get stuck in traffic. Aman liked to take credit for that, saying it was his driver's intuition, his connection with the city. But really, he said, "it's the GPS." After getting to know Aman, I got the sense that it was some of both. GPS augmented his knowledge of the city to give him up-to-date routes, and that helped make more efficient the routes Aman already knew to travel. Sometimes he bet the GPS was wrong and would go a different way. Asking if it turned out well, Aman shrugged "about 50/50." The distinction between who got credit for the work (man or machine) did not matter to Aman in the practical sense, only that the work of efficient navigation was accomplished. "Getting there is the job," he said.

Two important facets of the taxiing ritual happened there. The first was confirmation that taxiing was indeed what the potential passenger wanted to do. Recognizing that entering into the stranger's car puts one in a vulnerable position, Aman tried to navigate the social interaction in a way that had comfort and necessity to meet halfway. With the directions, the social contract transitioned to a financial one formed.

This moment of entering and the issuing directions was a renegotiation of the distribution of power between passenger and driver, although it was somewhat unbalanced. For Aman, the negotiation started when he was hailed. The split-second

decisions and the accommodations he tried to make for the passenger signified a preference for the passenger's needs over his own. The integration of GPS into his practice of taxiing furthered the blending of Aman's personhood into the taxi amalgam.

Differently for the passenger (Victor) to have his needs put before another's was a moment that Victor did not recognize as a powerful one, merely his right or entitlement as a consumer. Unlike Aman when it was a giving of control, Victor presumed control was an option all along, that he was entitled to it as an agent in charge of deciding how to get to work.

2.6.3 Payment and (not) Tips

Throughout the ride, there had been the usual amount of communication between Aman and the passenger. Some of it was about what was on Aman's mind, local changes to the city and small talk like the problems of construction and traffic. For a cab ride, this was uneventful, the beige version of a taxi experience. It was unremarkable enough that neither of them remembered the content of their interactions beyond nondescript and unspecific statements about the weather, traffic, and work. After about 20 minutes of driving, Aman arrived at the destination. "Right here," said the passenger indicating an area with a sidewalk where he wanted to be dropped off. Aman had been checking on the passenger periodically in case he sent any signals that he was too hot, too cold, the music was too loud or soft, or if the passenger looked like he was watching in anticipation for a turn or landmark. Sometimes this was a moment to insert a little history. Sometimes he would use it to anticipate a change in directional preference. Aman guessed the direction was coming, just did not know

when until now. Quick to react, Aman nodded and immediately began looking for a break in traffic that would allow him to pull over. In another demonstration of precise driving technique, Aman was able to change lanes and find a place to park temporarily, and illegally, despite the little warning given.

This is another example of where taxis seem to operate on the fringe of legality. The demand of the profession is they let passengers get out wherever is most convenient, and taxis are allowed some flexibility in where that happens, sometimes in temporary and accepted defiance of parking regulations, fire lanes, accommodation zones, and other lawbreaking areas. As inherently transitory objects, taxis seem to be allowed this flexibility both in the service of the customer's demand and the expectation that the taxi will soon move on. Aman pulled over and waited for a beat. If the passenger did not ask about the fare cost, Aman would tell him. "What do I owe you?" Aman recalled the passenger saying. "\$15.80" Aman responded. The passenger asked for a receipt, and Aman was obliged to give him one. Though he was careful not to show the annoyance, the receipt was a burden and an extra thing he had to keep, maintain, pay for, ensure was working, and offer as part of the service. He would rather people use the app or just pay cash. Taxi credit and receipt machines were incredibly cumbersome, costly, and inefficient. Apps were better, but they still took a piece of his earning for use. Cash was great, but he did not like carrying much of it in case he was robbed. When he had a cash-heavy day, he sometimes skipped meals and limited breaks in favor of the safety of the cabs partitioned interior.

During the ride, Aman periodically looked for opportunities for conversation, but he did not like to focus on it the way he knew other drivers did. Drivers engaged in

conversation for any number of reasons.⁴⁶ For the most part, the reasons drivers talked with passengers could be grouped in a few non-exclusive categories. Drivers talked because they wanted to. It helped pass the time and they saw it as an expectation and believed it helped with tips. “Maybe it helps with tips,” Aman supposed it could not hurt, “unless you annoy them,” he added. For him, it helped pass the time. Part of the taxi driver’s mask was to buffer the relationship between driver and taxi, and it did the same with conversation. Aman guessed he looked for opportunities to talk but was not conscious of strategically using talking to encourage tips. If anything, he used it to fill the silence if the person looked like they were troubled or open to conversation – not unlike the therapy method described by the Uber driver in Figure 2-3. In his opinion, that was a practice of the old guard of cab drivers, “but those are dying out” he said soberly, referring to the rash of suicides amongst taxi drivers, only some of which made the news.⁴⁷ Aman and many of my respondents (and many others⁴⁸) see the attention to broader user experience beyond conversation to be both a present expectation and the future of the for-hire industry. According to Aman, at least new (i.e., young) drivers knew not to be so obvious about their interest in tips. In his opinion, it was more about good management of the service than any one moment of conversation; managing good rapport with the cab company, managing a clean car, managing a good experience for the passenger. This management idea or others like it

⁴⁶ See Davis (1959) pp. 163-164 for description of tips and techniques.

⁴⁷ What Aman is referring to was recent news coverage of taxi driver suicide. For a discussion see Salam (2018) and Garger (2018). That cab driver suicide is so prevalent so as to become a subject of popular discourse is itself a testament to its frequency. Again, this labor discussion is framed in terms of its psychological weight and ‘economically precarious’ situation.

⁴⁸ Uber offers training about the management of these things and many drivers see it as integral to the practice in the name of customer service. See Rosenblat (2018).

were relatively widespread across the for-hire industry.⁴⁹ Every cab driver I interviewed had something to say about tipping.

Tipping is often a point of contention between the driver and the public. According to Davis (1959), drivers think about tipping because it represents a fundamental necessity for making a living wage, and it is the most unpredictable part of the job and that which drivers have or perceive to have little semblance of control. Many of my respondents deployed conversations, service, or even magical means (e.g., prayers, incenses, etc.) that make the driver feel like they had control. That combination makes drivers particularly vulnerable to public sentiment and industry practices. Davis (1959) noted that the negative public perception was that drivers had “preoccupation with tipping.” Jayaraman (2014, 2016) also acknowledged that tipping is often perceived by tippers as optional practice tied to gift-giving, appreciation, and exceptional service. Jayaraman and others have noted that across service industries, tipping is a way for companies to justify paying workers less than minimum wage. In this view, tipping is the mechanism that shifts operational costs onto the public without formally increasing the price of goods and services. But the effect has made part of the service provider’s necessary salary optional and vulnerable to a host of other factors beyond conversation, experience, or service quality. The move places pressure for achieving a living wage on the relations between driver and passenger, and not between driver and institution or institutions and passengers.

While the nuances of tipping history and relations are only briefly discussed here, it is important to distinguish the nuances of tipping and salary from the payment

⁴⁹ Retweets and agreeing comments are used as indicators of idea agreement.

of service. The difference relevant to the ritual is between the fact that payment happens, and not how (or how fairly) it happens. For the ritual, the fitness of payment is part of the ritual's flexibility within the architecture that demands that payment happens somewhere. Whether it is paid before the ride or after, determined by an app and algorithm or a meter, payment almost always occurs. In Boston, most fares used in this way describe the cost of the ride, and are determined by the taximeter as the ride progresses. In some cases, as with TNCs, the app estimates the cost of the ride upon reservation or 'hail' and charges it at the end of the ride. Taxi apps like Curb function similarly, allowing you to hail from the street or the app, and if you hail from the street there is a code on the screen inside the vehicle that will sync to the cab you are in. Other places use a predetermined amount for distance or *flat rate* more commonly seen in mass transit options like busses and trains. Payment has to happen for the resolution of the ritual.

Even before the passenger fully exited the vehicle, Aman's thoughts had moved back to hunting for the next passenger. This shift marks a liminal stage of waiting for a taxi once a passenger's needs rendered him visible, continuing the rituals cycle.

2.7 Ritual of Taxiing

The ritual of taxiing is a fluid arrangement of signs, symbols, signals, and expectations that are arranged and rearranged in a near-endless combination of stranger relations, needs, and locals. Regulation hems in where certain parts of ritual happen and how they should be performed. This fluidity both keeps the ritual flexible and moves against a consistency typically demanded by things of ritual status. Each

time the taxiing ritual happens it can vary widely, yet the goal of the structure of the ritual is not as a moment of meaning-making but of society maintenance.

The ritual's longstanding presence is a communication response to a societal need for a flexible transportation solution in urban environments. The ritual's structure communicates how the ritual should be enacted. Combined with public perception and driver flexibilities, the transitions necessary for moving the ritual forward are accomplished in routine and expected fashion. In this way, the ritual houses mundane acts of interpersonal communication. In agreement with Davis, these mundane acts are inconsistent with developing interpersonal bonds. They are designed either to move the ritual process or fill time; they are not designed to establish connections. In fact, barring exceptional circumstances, most drivers and passengers do not know one another's names and do not remember the content of the conversation. Taxi drivers as part of the ritual seem to remember it less than passengers, as their practice of it is repeated up to 20 times a day. For passengers, taxiing is not an end goal but a means to achieve something else. The situations produced by taxiing can stand out more as though they might be unremarkable. The experience differs significantly from other parts of their day. This seems to be further mediated by how much the passenger engaged with the driver. The more a passenger uses technology (e.g., phones, earphones, etc.), the less the experience stands out, and the more taxiing falls into the background like scenery to their day rather than a feature of it.

The ritual is a scaffolding that assembles social and communicative actions to facilitate the enactment of transportation. Where transportation is more than the

logistical necessity, it is an articulation of social and cultural prioritization, a valuation of people, places, and time.

The ritual effaces as it supports; continually reconstituting power and authority of governing institutions while at times rendering participants invisible to one another and larger structures of power and authority. The function of communication is to move participants through the ritual's practice and, in doing so, move forward the practice of the ritual in the constitution of the dominant society.

2.7.1 Ritual for Society

Everyone I spoke with throughout my research, even if they did not use taxis or other for-hire systems, had a general idea about how to use one and relied on the process of taxiing to articulate the rest. As a drama, it has a beginning, middle, and end, which taxiing accomplishes in the completion of the ritual. Lastly, the ritual's ability to participate in something beyond itself is evident of the each taxis practice of the ritual and its compounding effect not only of performing the ritual but reifying its continued systematic practice. With each passing of the ritual's activity, nothing new is learned or challenged in the process and in doing so each ride reifies the structure of power and ordering of society that dictates its operation. For Carey (2009), this again falls into the purpose of the ritual as "the maintenance of society over time" (p. 16). What Carey suggests is not a framework into which all rituals can be hammered into, rather, he encourages considering what the ritual does and what the practice of the ritual communicates.

The moments essential to the practice of taxiing can be seen by comparing driver to passenger accounts. Though they do not happen in exactly the same ways,

both acknowledge the presence of five specific moments that move toward the accomplishment of the taxi's goal of transportation. Those moments are hailing, entering, destinations, payment, and exiting. Beyond Aman's driving, beyond Fred Davis' investigation in the 1950s, for nearly 800 years these same five points were essential to using ride for-hire transportation. The same was needed to use the hackney horse, the same for using a hackney carriage, the same when using rideshare, and the same for speculation on how to use autonomous taxis.

There is a permanence in the ritual's longstanding presence that communicates a need beyond any taxi or other vision of the for-hire transportation solution, beyond specific cultural or technological dependencies of the moment. The for-hire ritual's continued presence indicates its role in maintaining societies; its priorities communicate whatever vision of society it is maintaining. Many of those priorities are seen in the ritual structure, including framing how the driver is allowed to communicate with the passenger, where cars can be found or the conditions they can be hailed, the regulation of taxi's upkeep, excluding of course the quality of the experience.

The things it excludes, the absence of things, is also a form of communication. The regulatory priorities that favor the passenger's health, welfare, security over that of the driver are evident in the policies it creates. Keenly felt are limited policies other than against physical and sexual assault that limit passenger action, and many policies to limit driver agency so the driver is not making decisions but carrying out decisions made by relating bodies. Yet, Boston's Police Department couches that limiting of personhood and carrying the responsibility of moving a societal ritual forward as a

privilege. Boston's regulatory update Rule 403 Section 5 ends with "Remember: Operating a taxi within the City of Boston is a privilege, not a right. Your constituency has these rights. You have this responsibility."

The ritual creates a kind of operational logic, grounded in the sociological memory in such a way that invokes people to anticipate and change their behavior in expectation of taxi service, in anticipation of which people change their behavior. Where and how to hail, the call and respond of destination setting, and the negotiation of payment facilitates a rubric the pursuit of which is born to accommodate the rituals need to progress forward through it. Aman strategically oriented things within the cab in light of the kinds of interactions rituals he did and did not encourage. Similarly, he shaped his behavior of cruising around the ritual's initiation practice. Victor similarly directed the summoning of the taxi in line with the logic of where the taxi would be expected. His raised hand in the practice of hailing cast the beginning out, communicating with nothing directly but in anticipation that others (i.e., taxis) were also following the logic of hailing. The logic also serves to guide the ritual's progress forward with limited contestation for any involved parties. By design, the ritual brooks limited interference in pursuit of its transportation goal, and any social interaction beyond the ritual's production is limited in its power (typically in favor of the passenger).

Another point that illustrated the ritual as a societal level process, not an individual one, is that participation in the ritual is not the end, but a means to an end. One of the other prominent characteristics of many rituals is its containment as a practice, a practice of itself for its ends. But taxiing and other for-hire use achieve

something more. For the driver, it is a job a means by which they can take care of their needs and their family's needs. The completion of the ritual for the driver is in an unending cycle. There is not broader meaning being accomplished, no devotion to a higher power beyond the work. While some do find pleasure in the social connections that may happen, the ritual is not designed or contingent upon the driver making meaning out of it.

In a similar vein, the ritual is not designed for passengers to make meaning beyond the accomplishment of a transportation solution *en route* to something else. Taxis as mechanisms of transportation and articulators of institutional forces participate in a sliver (barring traffic of course!) of the passengers' time and is typically not an end but a means. Yet, it is an essential form of flexible travel, practiced worldwide, millions of times a day, for many years. If anything, the societal level ritual is a devotion to the continued production of dominant (populous) cultures, certain visions of ordering the world, and persistent perspectives on urban growth. As Carey suggests, ritual form of communication is about the maintenance of society. This ritual helps stabilize the production of the organization of society, and in doing so communicates those structures to the millions that participate in its practice.

2.7.2 Ritual Discourages Relations

Taxiing as a mundane operation of a vehicle that takes someone from here to there does little to encourage individual production of meaning. Fred Davis (1959) said, "the cabdriver's day consists of a long series of brief contacts with unrelated persons of whom he has no foreknowledge, just as they have none of him, and whom he is not likely to encounter again" (p.159). That holds true today. Even in

increasingly connected environments, drivers and passengers do not turn that connection inward. Victor and Aman never knew each other's names. As this recounting demonstrates, that knowledge was not essential to the completion of the ritual. The taxiing ritual is designed to operate in the absence of significant social bonds, where communication not essential to rituals guidance is given little value.

Ritual structure creates minimal need for the social work of negotiation and relation building. The process that has typically encouraged the work of social interaction is being automated, building in assumptions, and building out the need for interpersonal negotiation. The reasoning is a functional one, one that is for the gain of the ritual process and the efficiency of the practice in moving the most people with the least effort and time. But as the ritual turns to efficiency, there is decrease demand for interpersonal relations.

Body language of taxiing's design coupled with the transition of power guided the ritual process. Turning away from the driver discourages not only interaction with the awkwardness of someone not facing you, but it also invokes a feeling of inattention, and indeed that is not unfounded as the driver's main focus is, or should be, to drive. As a response, inattentive passengers often do not feel obligated to attend to the comments or ideas taxi driver's exhibit, and sometimes have trouble hearing them. Similarly, facing away drivers have a difficult time reading people. Often, somewhere between occasional to the incessant frequency of looking in the rearview mirror, a habit often regarded as creepy by passengers, is an attempt to repair the closeness face-to-face relations bring. Thus, the ritual turns propriety on its head. Or does it? If instead, the ritual is not about the driver and passenger relations, then how

they cooperate in parallel to the ritual has little relevance beyond moving the ritual forward.

Automating hailing, directions, fare calculations, and even tipping removes the need for social interactions. Many interactions have been pushed to the periphery of the experience through automation, rendering the need for social negotiation previously used to accomplish those things obsolete. Unnecessary additions were deployed at times to fill a void (like chatting) or viewed as and for strategic manipulations to change tips or ratings, provide little repair to a system designing away from interactions.

Partition and other technological intercessions (Chapter 3) like credit card machine, apps themselves, or advertisement screens, let alone the trove of other distractions passengers and drivers bring in continually discourage social interactions in the cab in favor of mediated interaction that extend outside it. In many ways, these material, technological, administrative, political, and design decisions shift the labor of interaction to other processes, platforms, and institutions. Not only does the effect of this seem to remove the authority of that negotiation from the in-car relationship, but it also encourages the driver's position to be subsumed into the for-hire ritual as a flexible node that provides adaptations when necessary to help the ritual to move through the process and complete its goal.

That is not to say that meaning-making cannot happen or that cultural situatedness does not matter. But those specifics have not reshaped the intent of the task. In other words, the for-hire industry was never designed to accommodate the

driver in favorable ways. It has always been about the needs of society as seen through the flexible transportation for individuals.

2.7.3 Ritual as Media and Work

The ritual is media in the sense that it contains multiple mediums through which interaction happens toward the accomplishment of the societal goal of flexible transportation. The physical medium that plays to the sense of both material and communicative actions, a medium of social conventions that provide a framework for operating in social moments, technological both within the ritual (e.g., credit card machine, GPS, etc.) and brought in accompanying the passenger and driver (e.g., smartphones, laptops, earphones, etc.), and regulatory mediums (e.g., licenses, insurance networks, financial institutions, operation guidelines, company, and government policy) are all nested within the ritual and participate in the guidance of its production.

With the layering of media, there is also a layering of work. There is the work of the ritual's production: the physical acts of driver and passenger together in the mutual coordination of moving the ritual forward, the getting in and out, of hailing (which is sometimes shifted to agency or app). The driver also performs work alone, applying technique, experience, practices, judgments, and flexibilities to respond to ritual and public need, the work of masking the self in the name of service, and participating in the incorporation of their personhood. Nested within that is the presence of verification technologies like GPS, taximeters, credit machines, and apps which shift the work of fare calculation and distance determinations from the driver passenger exchange, taking over through algorithms and hidden human labor to best

advantage the managing institution. There is work of endorsement as licensing and financial institutions operate as stands-in in place of social relations, verifying that participants are allowed to be where they are.

This work feeds into other ways of thinking. Bennett argued that media, particularly news, performs an indexing function by deciding on the range of voices to present. This ritual performs an indexing function by deciding the range of voices to present, how those voices are presented, and the weight of what matters in the ritual's practice. Institutional and cultural voices given preference and authority are, in order, institutions, passengers, and drivers. Yet, drivers themselves can act as gatekeepers in the interest of the institutions that regulate them.

There is also work performed by the object, the car as a technological assemblage. As society moves onward toward discussions about autonomous technology and other for-hire innovations, the work of the object becomes an important locus of work. The automobiles with varying degrees of autonomy not only navigate roads, but many index road conditions, speeds, hazards, heartbeats, cognitive activity, and a host of other things to distinguish the appropriate from the inappropriate, unsafe, or dangerous. In some significant ways, the work of the automobile (not wholly unlike the work of the driver) should be recognized as separate but deeply enmeshed with the work of human decision-making and prioritization that occur in its design.

2.7.4 Ontological Effect

The taxiing ritual is an ontological act producing different experiences for the passengers and drivers, which come together to coordinate, as Annmarie Mol might

suggest, briefly in pursuit of moving the ritual forward. As the ritual serves as the intermediary to coordinated action, drivers and passengers are not bound by in-cab arrangements. Moreover, this is where the ritual fits into the daily lives of passengers and drivers as a mean to accomplishing something else, and not an activity for meaning making in and of itself. What the amalgam is to the passenger is not the same as what the amalgam is to the driver, despite recent additions to extend its influence throughout the whole of drivers' lives.

The accounts do not line up exactly. The passenger/driver pair that I modeled the accounts from do not line up exactly in a few ways. They do not always agree on what was said, or who initiated what. For example, the driver remembered the passenger saying, 'right here' and the passenger remember the driver pulled up to a stop. This is less a case of lying, as the participants had no reason to lie, and more an indication of what they viewed as important. Part of what the movement of the ritual demanded from Aman was its proper conclusion that included dropping off and payment. After which the ritual, and the processes that undergird its pursuit like cruising, continue unabated to repeat again and again, replacing drivers like cars once either is run ragged. There is a reason 'hackneyed' derived from Hackney entered public discourse to mean less valued, overused, and tired⁵⁰ and about the dull eyes of an overworked horse or driver. The vision that drivers are tools for ritual production presents a fundamental disagreement of the nature of the driver's personhood. For Victor, the end of the ritual was a moment of transition, part of a trajectory of events

⁵⁰ According to the Oxford English Dictionary (2019b) the etymology of the word Hackney relates to the evolution of the word hackneyed meaning no significant in importance and overused or overworked.

in a day, a method for obtaining the current need of transportation and whose actions confirmed the ritual's conclusions about its use.

2.8 Final Thoughts

The accounts do not line up exactly and I tried to reflect that in the relaying of these moments. My intention was not to interrogate any inconsistencies. I often asked people, as I did with the two that frame the Victor and Aman experiences, to ‘take me through’ their most recent ride. The subtle differences, in story and perspective, combined with the idea that neither could remember the other name says something important about the sociality of this process. First, and consistent with Davis’ conclusions, the taxiing ritual does not encourage the building of interpersonal social connections. The taxiing ritual encourages the continued production of the taxiing ritual, a way to move through a cycle of events that facilitate transport despite the inconstant nature of social connections. Victor and Aman’s experience was neither the best taxi service I have heard about, nor was it the worst. It is not that the experience does not matter, but rather the product of the ritual does not depend on it mattering to the people involved.

The ritual also communicates its priorities, and in doing so reveals the context of the ritual. The internal structure is flexible and produces different experiences. Drivers are more integrated as a functional aspect of the ritual rather than for whom the ritual is intended. Passengers utilize the ritual not as a focus but as a means to accomplish something else. The lack of meaning that needs to be produced defines conceptions of the ritual that put people as its determined focus. Additionally, the ritual's design and production do not encourage lasting social connections between

participants. It allows them to more easily operate independently and only come together in pursuit of the ritual's purpose. The ritual then is not meant for individuals. People produce it, history and institutions structure expectation of it, but it is a society that needs it, and it reproduces the structure of the society. This reveals this ritual to be somewhat distinct from other forms that focus on the meaning-making of individuals.

The statistics presented at the opening of this chapter depict a story of widespread taxi and for-hire transportation use. Through those millions of rides, an industrial ritual of taxi use has been created. The practice of for-hire transportation lends not toward an individual act of meaning creation and maintenance, but an industrial practice that fosters the maintenance of society and communicates its dominant priorities. As will be demonstrated in the next chapters, contemporary unequal access to this form of transportation stems from a legacy of limited access built into the environment as a means of moving a specific vision of society forward.

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CHAPTER 3

3 BUILDING FOR A LEGACY OF UNEQUAL ACCESS

3.1 Introduction

There is a common pose and movement to someone looking for a ride to hire. It is a move shared across time and for-hire iterations, by those looking for a carriage, a taxi, and now an Uber or a Lyft. People display it differently in minor ways, but the general look is the same, and the process of it while not always the same procedurally, forces navigation of for-hire transportations' essential elements. That is the beauty of searching for a ride; the practice has been so ingrained into so many societies for so long the signs and symbols, markers and, measures used to communicate around the ritual have become a kind of common culturally held knowledge. For someone looking to become a passenger, it is a coordinated movement that speaks of searching, one that in the most practical sense communicates a need for mobility, to be taken from one place to another. It is a staccatoed activity that itself harbors limited immediate intrinsic meaning beyond navigation or the intermittent functional use by passengers that deploy it as a means to an end or an activity that transports them toward accomplishing something more important. But culturally held for whom? What does that holding communicate about the priorities built into the environment, and representing the society that regulates access? For one, and the focus of this chapter, it communicates not only a need to be seen by the driver but by society as the established social order. That is, if that social order has deemed you, the would-be participant, as valuable enough to participate.

In the previous chapter, I suggested that for-hire transportation is not meant as a ritual for individuals, but the maintenance of society. In keeping with Carey's interpretation, that ritual is communication for the maintenance of society, the work of maintenance then transforms the mundanity of a repetitious act into a mechanism for articulating cultural mores of an established social order. Where social order, borrowing from Goffman (1971, p. 288), can be described in the relations of power and the structures that help comprise it, in the ability to motivate people to inscribe certain ways of doing things into certain ways of thinking and going about doing things.⁵¹ But the social order is not fixed in natural law or positivist fact, or as Turner (1977, p. 65) conditions it, it is not itself factual because it is in part built, negotiated, and produced, by influencing societal structures. That said established social orders are, or at least seem to hold some form of stable semi-permanence. For Latour that takes the form of durability (1990) through the material objects built to encourage and enforce an ordering of society. In part, according to Law (2012), because of co-productive entanglements and relational effects (Law, 2016), objects, institutions, knowledge, practices, and bodies *tend to* (p. 148) hold up a social order in ways that reinforce and reproduce the other.

If social order is to be represented in relations, there is something unique to be said of the taxi and other instantiations of the for-hire ritual. Something about pattern more than permanence. Of course, the social order of feudal Europe is not the same as

⁵¹ Echoing the work of Pierre Bourdieu, Wacquant (2008, p. 316) as quoted in and Navarro (2006, p. 16), argues that the duality between the individual and social is in "the way society becomes deposited in persons in the form of lasting dispositions, or trained capacities and structured propensities to think, feel, and act in determinate ways, which then guide them in their creative responses to the constraints and solicitations of their extant milieu."

the democratic United States. Yet, as this chapter will demonstrate, there is something to be said for how for-hire transportation helps articulate and regulate social order by regulating access to the ritual. In understanding the ways in which the built environment and the for-hire service mutually constitute each other suggests this can be read as a communication of institutional priorities and the vision of society they desire to mold by regulating access.

Not everyone seeking access is permitted entry into the ritual. Driver prejudices and material structures are often and easily blamed for denying entry to the ritual. The power to deny uniquely may be personally held, but the power to deny in mass is structural. Denial can communicate preference built into the for-hire environment in ways that make claims about how society should be ordered and who is deserving of service. Regulating ritual access can be viewed as an act of social ordering, both symbolically as representation and communication of institutional priorities and logistically as a means of structuring the built environment to produce access for some and discourage or prohibit access for others. Although technology may shift where in the ritual's practice key elements sit or alter the forms they take, the need to be seen, to be acknowledged through the regulation of ritual access, and the visibility to society which that acknowledgment brings, remains a consistent aspect of the ritual's participation in establishing, communicating, and reinforcing an order to society.

The section that follows is a vignette of one particular would-be passenger's experience. Unlike the accounts of Victor and Aman, which were reminiscent of the other accounts of ritual activity I gathered, Gyn's experience was different and

difficult to capture. The difficulty in capturing this experience is in the invisibility of it. The experience itself is absent, it is a would-be rider's attempt at an experience. Her anonymity has already been rendered in her invisibility to the ritual, enacted by drivers. The intentionality or causative link between driver actions and the following responses account of denial is a single account, and not a composite. Her invisibility is already established by the systems that facilitate her unequal access to society, which includes cab driver behavior.

3.2 Gyn

On this day, this ritual began like countless others. At the time of writing Gyn was a young adult woman having recently finished a class at a local university. She was staring out into the street, head bobbing left and right but mostly focused leftward toward the intermittent stream of incoming traffic. She wore Sorel winter boots that laced up the front, stopping halfway between ankle and knee, and ending with a puff of faux fur linings at the top. Her pants were form-fitting, black with a hint of sparkles, but were only visible from knee to mid-thigh where the grey parka with light grey highlights took over, zipped fully up to the chin. A colorful scarf set in a pink argyle pattern draped across her neck and shoulders, threatening to fly off after an occasional bout of city wind-tunnel gusts and matching dark pink gloves kept her hands from the same cold. She wore glasses that had half fogged and half frosted in the most unhelpful way possible for seeing, and she had frequently tilted her head down slightly to look around them to see up the street. She wore a dark wrap around her head, carefully positioned to cover her ears and forehead swooping back just below her hairline before curving down to the nape of her neck and back up to the other side of

her head. In addition to keeping her warm, it appeared to keep her hair in check, a medium-length set of thick black curls appearing unruly as they spilled out over the top of the wrap and hung freely about her face.

As I watched she leaned out slightly past a parked car into oncoming traffic, lifting a gloved right hand into the air, she left it there steadily to be seen by an available cab. Though dark outside it was not difficult to see the pink glove silhouetted by a tide of oncoming headlights. As I watched the cars pass, I noted that first she was still, then raised on her toes slightly, followed by a slight wave of her hand. Like many parts of the ritual, this was a calculated move, a set of precise communications cast into the street, with the hope of being picked up and returned in car form. Her wave conveyed her need for a cab driver's attention, not a wave to a friend seen across the road, but one of urgency, demanding attention and service. The first cab passed in the middle of a three-lane road without stopping and carried through to the next intersection where I lost sight of it. Gyn kept her hand in the air and waited. She leaned out into traffic, slightly further this time, bargaining more of herself and her safety to be seen, acknowledged as deserving of service like nearly everyone else. With the motion, she picked up the heel of her left foot to counterbalance her body's sudden shift in weight. It was a taxi hail lean like any other, that is to say, it was specific in posture and context as to be nearly unmistakable for what it was. It is important that it was unmistakable, neither exactly like every other move made by countless other people, but also as a whole, the same. More cars came and another cab passed her by, this one too did not stop. Maybe they did not see her, I had thought at the time, wondering if the nearby parked cars hid her more than I thought. She seemed

visibly frustrated. She lowered her hand and flexed it, took a slow breath in and out as if to center herself. The exhale misted around her head before falling to nothing as it settled around her as if she needed a reminder of the cold. She reset her shoulders, and her hand shot back up preparing for the next wave of cars. The light up the street turned green again and again I watched a third cab go by without stopping. The top light highlighting TAXI made it easy to pick out the car in the stream of traffic. After all, that was the message the light signal was designed to convey. As the third one passed, Gyn's hand lowered slowly coming to chest height and turning over, fingers curled inward into a fist except for the middle one. Her left hand came up to meet it in the same turning motion. She was giving the taxi the double bird. What I learned in the moments that followed was that she was not just giving the American version of the expletive 'fuck you' to the taxi drivers for ignoring her, she was giving it to the structuring institution that allowed them (the drivers) to deny her transportation, and in doing so, limited visibility to society and encouraged her to question her deserving of that visibility.⁵²

⁵² There are two points I want to make here. The first is to note my position of privilege as an observer, in particular a white masculine observer. The second, building off the first, is the tension of applying that privilege to the interpretation of events as I described them, Gyn's lack of visibility and her feelings toward it. This tension of turning the analytical lens of observation onto a culture from an outside perspective has been discussed extensively and cannot be done justice here. In the contemporary environment where I write this paper there is a concern toward an overabundance of applying a white person's analysis to a black person's lived experience. To ward against misarticulating events, or an interpretation that echoes my position of privilege both as a white masculine person and as a researcher, the observational and interview data that I present here was evaluated and approved by my respondent. In this chapter, I seek to limit interpretive analysis of her experience. Instead, the testimony of her experience and feelings toward that experience affirms the idea that transportation, and in particular the for-hire ritual, participates in a unequal structuring of society, and the social, political, and material structures that help comprise the for-hire industry's built environment are being and have historically been designed to reinforce and remake that inequality through use. I welcome and encourage additions, comments and critiques to these conclusions especially from other people who have experienced it firsthand.

I had recently been spending time with drivers and thought to defend the driver in my head. I had initially thought this problem of visibility was largely functional. Gyn's position and the position of the parked cars, the inclement weather, the streetlamps, and the headlights all casting mutated shadows vying for light, or some combination of all the above could have made it difficult for a driver to see her. Maybe there was no space to pull over and get to her safely, though I had seen plenty of unsafe vehicular bullying perpetrated by feckless taxicabs careening across several lanes in the span of moments at the chance of a fare. Maybe there was some public ordinance disallowing taxis to pick up on this street.⁵³ Whatever the reason,⁵⁴ the reality was that at least three cabs, with their top lights on to signal they were 'on duty' had passed a woman going through all the normal motions of hailing a cab.

I approached the woman standing there, hands lowered now holding a smartphone. I told her I was a researcher and if she minded if I recorded what I just saw, only I was not quite sure what that was yet. She looked at me sideways and

⁵³ This happens to be both a common academic argument and an equally common public vocalization around the burden of proof for taxi driver discrimination against passengers. For a highly litigious rendering of this argument see legal scholar Richard Thompson Ford's work *The Race Card* (2008) which specifically references the cultural claims of racist preference in taxi service.

⁵⁴ I was not able to track down those specific taxi drivers, so I cannot judge their intentions and what they saw or did not see. But to that and to Ford's (2008) argument I want to note two things. The first is that taxi drivers have commented in my personal interviews, through literary texts, and in news addressed elsewhere in this dissertation that drivers actively engage in strategic preferencing of potential riders. This has taken several forms. Administratively, drivers can report riders as not there or pretend not to see them. Hazard (1930) is explicit about this. While not all were necessarily racist in their preferencing of some people over others, their actions help produce inequality by regulating access unequally based on snap judgments, stereotypes, or bias. These decisions are enacted in regulating access and thereby reinforcing the unequal structuring of society. The second point, and one which I make this work to specifically address, is that the for-hire industry's participation in the unequal structuring of society is not born from single acts, but rather is built into the cultural, political, and material frameworks which bind the industry to both a history of practice extending back hundreds of years, and to the present day structuring of society and the for-hire industry's participation in maintaining it.

finally said, 'do whatever.' I thanked her and asked if she had a second to talk. I explained the practice of hailing and how that is changing as the taxi transitions to ridehail, which in turn may transition to the autonomous car. Still thinking about it functionally, I asked why she thought they, taxi drivers, did not see her. "They saw me," she answered. "But" I said emphatically, "they are legally obligated to stop if they [see you]..." She cut me off before I could finish the last two words. "They are not legally obligated to do shit," she responded sharply. After a long moment, she sighed, "It's because I'm Black." Gyn followed flatly, "most people I know do not even try [to hail a cab] unless they know somebody, or just called a service or something so they have to pick you up." "How do you know?" I asked her. Her answer came after another long stare. "You can feel it. You can feel it when someone tells you you are not worth picking up, and they do it 'cause they know they can get away with it and nobody's gonna stop them."

For Gyn, summoning a taxi was both a functional necessity and more than transportation. It was necessary for accessing areas where public transportation had limited travel, a public transit desert. It was also a social ordering of personhood and societal value backed by the institutional authority that did not have to prioritize her or her community's access to transportation. For Gyn, denial of transportation because she is Black was both a racist act and the structuring of a racist system that perpetuated these acts; practically speaking it limited her access to the city. This had the added effect of forcing her to plan for being denied transportation, to build in more time for transit and alternate forms and networks of transit, which also limited the amount of time she could spend on other things. In other words, she had to spend more

time planning to go the same distance as someone else. The alternative, and not planning for that extra time and additional layers of infrastructure necessary for travel, creates the possibility of missing appointments, meetings with friends, or being late to job interviews. All of these implications further limit her access to society, services, opportunity, and support structures. Yet, having to spend more time moving the same distance as someone else with more privilege limits those things as well. It is a cycle that perpetuates itself and it is designed to do exactly that to maintain an ordering of society that puts Gyn at a social, economic, and political disadvantage.

For many riders like Victor, his personhood walks entitled into the ritual with him. As this chapter demonstrates, the ritual's cultural environment was built for people like him: typically White, employed, of average or greater wealth, from well-kept and well-funded areas, with no additional needs that complicated his access and participation in for-hire transportation. For Gyn and many others, that is not the case. While discrimination is not a new phenomenon for the taxi industry,⁵⁵ most scholarship considers the locus of discrimination to start and end with driver decision making.⁵⁶ It makes sense as the driver is the closest and most obvious actor whose decision appears to produce discrimination. Discrimination as an articulation of inequality does not happen from individual acts, though individual acts can discriminate, but through the collective interaction of personal actions and societal structure. That is not to say drivers hold no responsibility. Drivers as arbiters of ritual access are in part responsible for discriminatory acts, but they must be set against the

⁵⁵ A wealth of literature cataloguing studies and accounts of discrimination are available. For a recent summary see Brown (2018) pp. 2, 26-28, 150-151.

⁵⁶ There is a concern regarding bias in algorithmic decision making that I will address in Chapter 9.

backdrop of social, political, and material structures that allow and even encourage such acts to happen.

As an industrial ritual, geared toward the maintenance of society, and a conduit through which governing institutions communicate their priorities (see Chapters 1, 3, 6), the for-hire ritual helps build an environment that orders society by prioritizing some group's access over others. In Gyn's experience, the communication was not in access but the denial of it. Through denying ritual participation for-hire use has not only consistently communicated institutional priorities that disadvantage her access to society, but actively participates in the structuring and enforcing of a social order that preferences others' access over her own. Importantly, the incorporation of denial as a product of the built environment is not a new phenomenon. Its presence and invisibility are also a product of a legacy of social priorities dating back to the 1300s with the introduction of the hackney horse. In the remainder of this chapter, I challenge the strictly material interpretation of the built environment by incorporating the cultural conventions that provoked and governed its use through a historical analysis of the rise of the industrial for-hire ritual.

3.3 The Built Environment

The built environment of the for-hire ritual regulates who should be allowed to use it and under what conditions or circumstances. For people denied use of for-hire services, they are denied more than just transportation. In what is frequently described as the "mobility gap," researchers have recognized the disparity in for-hire service toward people based on race, ethnicity, gender, and sexual orientation (Brown, 2018, 2019; Ge et al., 2016; Walsh, 2008; Wrigley, 2013) and in non-White neighborhoods

compared to White neighborhoods (Hernandez, 1992; LaMendola, 1991; Spiegelman, 2016). Yet, contemporary media coverage around who can use for-hire transportation publicly projects an image of egalitarian access despite acting to the contrary (Chapter 8). Between victims of discrimination, researchers of the phenomena, and public finger pointing⁵⁷ by taxi and ridehail companies alike, the mobility gap is often considered to be propagated almost exclusively by drivers who enact their prejudices on a vulnerable public. Yet, absent from many of these analyses is attention to ways the built environment has both historically and presently shaped the parameters around taxi access and use. Policies, cultures, and practices involving inequalities related to incarceration, housing, transportation, or economic opportunity, for example, should not be disentangled as discrete cultural operations separate from the structuring of taxi use. Nor should the institutions that continually see to the unequal structuring of the for-hire built environment be free from the criticisms they, and the public, so often leverage toward drivers exclusively. That is not to say driver decision making should be absolved of the responsibilities of their actions, rather, that the driver's role in regulating, and more particularly, denying taxi access is the communication and enactment of an institutionally driven social order that consistently builds an environment that privileges some groups' access to society over others.

In this sense, the built environment is a sociotechnical assemblage of cultural, political, and material relations through which the built environment communicates an ordering of society by preferencing some people's mobility over others. It is a structuring of access to opportunity that encourages continued access to opportunity,

⁵⁷ See Ge et al. (2016) and, in popular discourse, see Hu (2017) and O'Brian (2016).

where visibility to social, political, and material processes correlates with societal value through participation and access to opportunity. On one hand, passengers allowed entry to the ritual are advantaged with access and the choice to interact with cultural, political, and economic institutions (Heitmann, 2018; Seiler, 2008). On the other hand, people denied entry are not only denied transportation, but they are also denied the choice to participate and have that participation reflected in the operation of society. Like opportunities, that denial propagates itself structurally. People denied transportation are visibly limited in their participation in society, people less visible to policymakers are disadvantaged when it comes to benefitting from transportation policy, and people invisible to designers find barriers to transportation access that to others are unseen. This difficulty of access translates to limited economic mobility sets up future problems with intergenerational economic mobility (Smeeding, 2016), limits political participation (Gay, 2011), and social and cultural opportunities and support systems (Bonaccorsi et al., 2020). The present-day for-hire built environment continues a structural legacy that limits the mobility of already disadvantaged groups and in doing so participates in structuring both present and future inequalities in society.

Transportation policies, culture, and materials participate in prioritizing certain people over the needs of others have roots in some of the earliest instantiations of the for-hire system. But it is not exclusively a problem of the past. Preferencing people in ways that reflect the ordering of society is continually remade in the emergence of new forms of for-hire transportation: horses in the 13th century, carriages and coaches in the 17th century, the emergence of taxis in the early 1900s, and again more recently

with the emergence of TNCs like Uber and Lyft.⁵⁸ In the previous chapter, I argued that for-hire ritual communication serves institutional interests and represents the values and priorities of the society it serves. That prioritization reflects a deep-seated interest in mobilizing the people that are seen as responsible for the functioning of society. In American cities, this has largely been the province of the White middle and upper class which represents the majority of government officials (Gardner, 2013), business owners (U.S. Small Business Administration Office of Advocacy, 2018), and source of consumer spending (U.S. Bureau of Labor Statistics, 2019). While general ridership statistics demonstrate that people across demographics use for-hire services⁵⁹ overwhelmingly, the people denied access to the ritual fall within minority categories of race, ethnicity, sexual orientation, sexual identification, and disability (Brown, 2018; Middleton, 2018).

Despite a longstanding criticism of discrimination on the part of taxi drivers (Brown, 2018; Gilbert & Samuels, 1985), most criticism of both taxis and TNCs alike focus primarily on driver relations as perpetrators of unequal treatment. While actions of drivers do matter, they happen as participants in larger structuring of the for-hire environment. In this chapter, I link the claims of the driver-led discrimination to the built environment's unequal structuring of transportation access to demonstrate a pattern of denial to the for-hire ritual as a means of perpetuating a dominant, and institutionally led, structuring of society.

⁵⁸ For a more nuanced discussion of the involvement of TNCs like Uber, see Chapter 9.

⁵⁹ See Conway et al. (2018) for a cataloguing of survey trends

To do this I first reconsider the cultural structuring of the built environment, not exclusively the domain of the material, but as a sociological and political work. Second, I explore legacy relations between the built environment and the emergence of new modes of for-hire transportation with a particular focus on ways the built environment structured ritual denial and exclusion as a means of ordering and communicating the order of society. Third, I situate contemporary for-hire access within the roots of early 20th century Eugenics culture by examining the ways the automotive taxi's emergence was incorporated into an environment built to limit the access of women, disabled people,⁶⁰ and people of African descent, with particular attention to how the Eugenics movement's structuring of access denial had lasting implications on for-hire transportation's built environment. I conclude with a discussion on ritual access and its relations to visibility and societal participation, and consider how the patterns in emergence not only re-present each time a new vision of for-hire transportation emergence but how those values are incorporated into and communicated through transportation access, as well as feedback into how people think about themselves and their place in society.

3.4 Linking Ritual

When talking about ritual surprisingly little attention is given to the built environment that often scaffolds the ritual's practice. One reason for this could be that ritual analysis often prioritizes the social and cultural activities and meaning-making between participants and institutions. Frequently, analysis of objects is often

⁶⁰ See Appendix A, a letter to the reader, on my deliberate choice to use "disabled person" instead of the administratively correct person-first language of "person with a disability".

secondary to social and cultural actions and their relations to agreed-upon cultural systems of meaning. This approach places a distinction between what has been materially built, and what is built by cultural systems of meaning or woven into social processes. What this also does is relegate the contours of the built environment to specific material constructions, separate from political structures and sociocultural processes on which rituals deeply rely. Yet, people participating in rituals frequently utilize objects that often become ancillary to the activity of participation, material interlocutors that participate in constructing a ritual's practice and its meaning. In other words, objects are indispensable to the collective creation of practice as a ritual within which both sociocultural expectations and political structure also take part.

My argument for a broader view of what comprises the built environment is acutely pertinent to an industrial ritual. As this work will demonstrate the for-hire ritual's place in society has largely prioritized productivity of the people society considered most productive over equitable access especially for minority groups classically viewed as underproductive; and of the transportation of the many quickly, over fostering meaningful individual experience. The industrial ritual, like many other rituals, is highly formulaic. Unlike classic interpretations of religious rituals, the for-hire ritual maintains the status quo by acting as an intermediary, rather than a meaning maker. As a boutique form of transportation, it helps structure access to the built environment, and the built environment is in turn designed to shape how and in what contexts people should be permitted to access it.

A closer look at the ritual's built environment befits an understanding of how the ritual both communicates and participates in articulating society's priorities. By

examining who is denied access, how denial becomes built into the environment, and the implications of that denial we can also consider how the regulation of access has not only become a lasting mechanism of ritual participation but a means through which ritual access communicates and reinforces the dominant social order.

This process borrows an analytical position from Howard Becker's work on labeling deviance. Becker (1963, 2007) argued that exclusionary categories not only communicate information about those being excluded, but they can also communicate who is doing the excluding and their reason(s) for doing so. In this frame then ritual denial can in part view exclusions as acts of communication as well as acts of mobility or mobility denial. In the exclusion of access, the decision making of exclusions communicates society's valuation of place dominant social order. In that sense, the driver, material environment, or algorithm may regulate ritual admittance through enacting exclusions, but the reason or logic for doing so is deeply embedded in a set of cultural prioritizations that have been built into the for-hire transportation environment.

3.5 What Constitutes Built

Thinking about the taxi and other iterations of the for-hire industry as part of a structuring element of society is about relations; participation in building an environment that strategically regulates access as a means of enforcing a dominant social order. The relationship between taxis and conventional understanding of the built environment seems almost antagonistic. Taxis, sometimes conceptualized as mostly frivolously mobile free agents of transportation, may seem to differ from the immobile, almost exclusively material structures that constitute conventional

understanding of the built environment. Research into the taxi and other for-hire instances, companies, or iterations are typically confined within the industry and its evolution (Gilbert & Samuels, 1985), industry culture (Berry, 2006), sociological practices involving customer relations (Davis, 1959), trust (Gambetta & Hamill, 2005), and tipping (Ayres et al., 2004), or the ever-increasing autobiographical accounts⁶¹ and driver stories compendiums (Rosenblat, 2018). Yet, because these are about the enactment of services, the relationships between drivers, cities, and customers mean that these accounts begin *after* a ritual denial has already taken place. Studies that expressly look at denial focus on the enactment of prejudices by driver and algorithm or are treated as discrete problems of a company (e.g., Brown, 2018; Hernandez, 1992; LaMendola, 1991; Spiegelman, 2016; Wrigley, 2013). Such analysis often treats these acts as outliers of what is imagined to be a more progressive social order, as fringe agents acting in ways that do not represent the interest of a better, or thought to be better, society. Yet, as this research demonstrates, the operation of for-hire transportation echoes prioritizations set by society guided by a kind of productivity logic that places a higher priority on the mobility of people believed to support society best. Conversely, groups seen as less productive contributors to the maintenance of society are consistently disadvantaged both by and reflected in the denial of for-hire services. It is this consistency that makes it denial and issues larger than single instances of a driver, algorithmic, or corporate misbehavior. As an industrial ritual, the activity of taxiing and other for-hire iterations is mobilized for the maintenance of society and prioritize fewer services for those who

⁶¹ For a list of several autobiographical accounts, see Chapter 2.

contribute less to that maintenance. From this perspective, denying access to the ritual is not misbehavior, but a form of cultural work enacted by a built environment designed to echo, enforce, and propagate the dominant social order.

For the taxi and other for-hire transportation, the built environment includes a strong infrastructure component. Taxi stands, for instance, evolved as fixtures in city landscapes following the emergence of carriages and coaches. Stands are designated areas where taxis, carriages, and even rideshare can wait for passengers. Specific areas, city roadways, and curb/sidewalk combinations are laid to accommodate or build in the presence of these stands. These stands fall under conventional interpretations of the built environment captured as infrastructure, landscape, material, and artifact conceptualizing it as the domain of human production, ingenuity, and engineering. For Mumford (1961) and Anderson (2019), much of the built environment includes the structure and infrastructure of city landscapes in support of the urban activity. This position is less critically echoed by the federal government⁶² who defines it similarly as “the man-made or modified structures that provide people with living, working, and recreational spaces” (U.S. Environmental Protection Agency [EPA], 2020). The built environment of taxi stands then also includes urban design such as roadways and residential locations that curate, reflect, and accommodate the activity and flows of people, resources, and ideas.

⁶² See also the National Center for Environmental Health Division of Emergency and Environmental Health Service Factsheet on the built environment (2011) and the Transportation Research Board and National Research Council Special report 298 (2009) on the intersection of the built environment and driving.

Taxi stands, continuing with that example, also communicate the priorities of society through structural design, urban and suburban placement, and legal frameworks. Rapoport (1990) suggests that the built environment signals relations with society, a nonverbal mode of communication that articulates builder and institutional interests, agendas, priorities, and meanings. Winner (1980) argues that the material landscape of the transportation environment including bridges, busses, and beaches, can articulate the politics and priorities of society's dominant culture. Critiques of Winner's argument⁶³ question the voracity of his claims about parks, New York busses, and low bridges, but these dialogues converge at their mutual acknowledgement that discursive form or moral force exerted on society by the material environment is not merely a means by which buildings bring order to social phenomena, nor are they examples of how social investments instill value and power in their relations with the material environment. Rather, I interpret their meeting point at the convergence of where social and material environs are cooperatively constructed and consolidated; not from an ether of all possible realities, but with intent, direction, goals, and resources. It is one thing to prove or disprove the account that Robert Moses built a bridge to keep the poor away from beaches, and it is quite another to say that bridge building, as a means of building toward a certain vision of society does not expect to accomplish that vision on its own. It does so in concert with transportation networks, options, urban design practices, cultural expectations, and dominant cultural narratives.

⁶³ For notable critiques debating the ability for artifacts themselves to have the agency of politics see Woolgar & Cooper (1999).

I argue that this too is communication by participating in the navigation of everyday life material objects or artifacts which embody and enforce political ideologies. Latour (1992) called artifacts in the built environment “relentlessly moral” (p. 232) referring to artifacts’ capacity for presenting and uncompromisingly enforcing society’s moral positioning. Such positioning, according to Scott (1998) and Wacquant (2008), has been determined by the dominant culture's belief in what should be considered right and fair. As communication of societal priorities, we can look again to the development of taxi stands. Coaches for-hire, an earlier version of the taxi, emerged in response to the public need for mobility. That emergence created the need for public waiting areas, known as ‘stands’ to hire a coach. Importantly, stands as parts of the city landscape were approved by the local government, and located in areas where mobility could be encouraged for upper- and middle-class merchants, a rising group of non-aristocrats. In this instance, taxi stands can be understood as a communication of institutional interests and a reinforcement of the ordering of society by who is and is not valuable, as well as a propagation of society's existing values. By expanding the power and authority of the state, merchants bolstered the position of the ruling class.

Communication is also built into interaction with the taxi's material environment. Material design strategically encourages ways of consumer interaction (Thaler & Sunstein, 2009) as a reflection of corporate interests (Norman, 2013), and can shape compulsory routinized behaviors that are hard to change (Schull, 2012). Taxis not only communicate the interests of the politicians that regulate them or industry lines that design and produce them, they also create users that can use them

(Latour, 1992; Woolgar, 1990). For Latour, a door, designed with hinges and handles that function only a certain way inures not only how the door can be opened, but the approximate height, strength, stability, and mobility of the person doing the opening thereby making the door useful. Taxi doors require similar negotiations with material objects. But in configuring the user, to borrow the parlance from Woolgar, also configures who is not the user.⁶⁴ A heavy handle and even heavier door that opens outward does not beckon a wheelchair user with easy access. The physical demands of stooping, sliding, and reaching necessary to get in a taxi limits, if not outright prevents, someone with mobility difficulties from using it without assistance and in doing so discourages people from taking up the user's mantle.⁶⁵ The for-hire industry, and modern public transit infrastructure more broadly, has not been designed in mass to accommodate people with disabilities and its current design creates barriers to their use. Rosenbloom (2007) indicated people with disabilities were not meant to be users. What this communicates, among other things, is an industrial and political cost-benefit calculus that did not see it beneficial to redesign transportation's material environment to be accessible.⁶⁶

⁶⁴ There is a distinction I want to make here between someone not intended to be a user and someone prevented from being a user. Certainly things can be used in ways they were not meant for, or users with a different vision for their use. But in those context those people are not denied access or opportunity for becoming a user to being with.

⁶⁵ There is a case to be made that a taxi driver is not yet a taxi driver until they have a fare, nor is a rider a rider until they are in the cab. Users of taxis are constructed by taxi use and construct taxis as they use them. For a discussion employing Goffman's concept of mutual construction as co-construction see the Oudshoorn and Pinch (2005).

⁶⁶ Implementation of the National Mass Transportation Assistance Act of 1974, (U.S. Senate, 1977, p. 482) used cost-benefit studies and found it prohibitively expensive to accommodate disabled people through urban redesign law, implying that the contributions disabled people make did not outweigh the cost of making the transportation network accessible.

The taxi-built environment in the way I use it here is not solely the province of material objects. Law (2012) suggested that in addition to reflecting cultural mores the engineering of the built environments' material structures is enmeshed in social and political priorities. Sociotechnical networking of material, political, and cultural arrangements shape, support, and help constitute each other, and in doing so encourage obduracy of the networked whole. Law suggests that "from the standpoint of the network those elements that are human or social do not necessarily differ in kind from those that are natural or technological" (p. 108). In this sense it is not only the taxi stands that constitute the 'built environment,' it is how stands impart the knowledge to the public that taxis gather here, and to taxi drivers that people gather here. It is the regulatory policies and their enforcement that allows taxis to gather only in certain places and behave only in certain ways. It is the advantage of mobility granted to riders facilitating their access to social, economic, and political participation in society.

Together material, cultural, and political arrangements do not just create cultural preferences, they are designed to help build and to reinforce them. These arrangements do not only vocalize political priorities, material design and cultural behavior re-present them. It is a cultural work that navigates and negotiates transportation's place in society and in doing so communicates society's priorities. The ritual's built environment then is not only contained within, for example, Victor's material interaction with the taxi cab, the seats, and the icy curb (see previous chapter) but the way that Gyn was denied the opportunity for that interaction; within the policies that dictated where the car could wait and cruise and where both Victor and

Gyn looked for them, in the practices of nonverbal communications in the back and forth of hailing that in part regulates ritual admittance, and the obduracy of the cabs material environment role as a regulator of admittance.

3.6 Early Institutional Denial

It can be difficult to illustrate a tension between who is visible and who is not when those rendered invisible are removed from the higher-level statistical view. Institutionally this focuses broader public attention away from people denied access and toward people it serves. Reporting usage of ridership activity by institutions bears no mention of people not served, and there are limited ways to capture who was denied access. In 2018, in Massachusetts,⁶⁷ TNC reported that 42,201,375 rides were started, and 42,341,218 were completed. The difference of 139,843 rides that were terminated early means that 99.66% of the rides as enactments of the ritual were completed.⁶⁸ In most service spaces having a 99% success or completion rate is successful, though notably, Uber does not describe what constitutes ‘completed.’ Another way this is captured is through market share, which assesses how many riders one company services out of the total riders available (Richter, personal interview, July 30, 2018). But both judgments on the rituals' success preclude people denied entry into the ritual. This in part is a carefully crafted fiction that enables both government and corporate institutions to promote the image of equitable access to transportation and egalitarian access to society that transportation provides. This

⁶⁷ See Mass.gov (2020) 2018 Data Report Rideshare in Massachusetts, which gives a breakdown by region and ridership aggregate.

⁶⁸ See Uber website and explanation for how rides are completed. Importantly, the website obfuscates what constitutes qualifications for a completed ride

selective recordkeeping presents a particular challenge in historical contexts.⁶⁹ Using documentation to understand ritual denial is difficult when those unserved and unseen by society are rendered invisible through recording of a history that is absent of their presence. The problem this institutional and administrative invisibility work presents for researchers has curated an academic focus on driver behavior. Driver behavior is an important indicator of personal preference in terms of cultural activity and dominant cultural narratives⁷⁰ and is indicative of taxi driver practices, techniques, and behaviors,⁷¹ both of which communicate a culture of acceptability. Exclusively focusing on driver culpability as perpetrators of discrimination⁷² also performs a kind of invisibility work. By deflecting the influence of institutional forces and cultural flows that guide driver action away from critical inquiry research overattributes culpability to drivers. The result is that institutional frameworks that enable such actions largely go under-examined.

I want to draw on two examples to illustrate this tension. The first is historical. During World War II, taxi drivers were directed to inquire about the intentions of passengers.⁷³ One of the ways they were required to do this was to ask people if they were using a taxi for leisure or business and if the answer was leisure, they were to deny people transportation. For a few months during the early 1940s, traveling for leisure in Boston and elsewhere was prohibited in the interest of conserving fuel and

⁶⁹ Patricia Fumerton (2006) has a discussion of this problem at the beginning of Chapter 4, p. 47.

⁷⁰ For cultural examples see Packer (2008); Seiler (2008); Heitmann (2018), and Sorin (2020).

⁷¹ There are a myriad of instances where driver preference can reshape how they attend to the task of taxiing in tandem with social norms. For early taxi use, see Hazard (1930) and Betts (1930); for more contemporary use, see Vidich (1976), Kelley (1993), Hodges (2007), and Salomon (2013).

⁷² For examples, see King and Saldarriga (2017, p. 182) and Brown (2018, p. 26).

⁷³ See Russell Owens interview with taxi drivers during World War II (1943, p. 18-19).

rubber for the war effort. For a long period, this was a cultural, though not legal, expectation. Taxis were seconded under the authority of the wartime government, and part of that requirement was to question passengers. Taxi drivers were a conduit for ritual denial, some of the terms of which were set by the government through the drivers themselves were blamed by the public. Of course, there were instances of drivers exploiting the situation to act out prejudices or for monetary gain, and there were instances of drivers ignoring this legal framework to transport people anyway. Yet, exclusive analysis on driver behavior would absolve the wartime government of the responsibility of the policies that shaped the taxi's operational environment, an environment that specifically precluded not only people traveling for leisure but also low-income communities from taxi service (and societal mobility) at all.

The second example is more contemporary. In modern research, taxi absence is frequently judged as a marker of discriminatory action.⁷⁴ However, this absence is not always so straightforward, nor is every application of absence the work of erasure on the part of the driver. Taxi drivers dispatched by a service (as opposed to cruising or waiting at a stand) can experience passenger no-shows as much as one out of every three trips (Los Angeles Department of Transportation as cited in Brown, 2018, p. 114). Unfortunately, drivers can also use the 'no show' excuse to administratively legitimize action (represented by inaction) which may or may not be discriminatory by presenting a person that is there as not there. The move translates an act of erasure by the driver into an act of self-erasure by the would-be passenger; a moment of ritual

⁷⁴ For examples, see King and Saldarriga (2017), Ge et al. (2016) and, in popular discourse, Hu (2017) and O'Brian (2016).

denial into a legitimate attempt at service. What then becomes public record makes the actual no-shows indistinguishable from people denied access. The administrative structure of the taxi company, taxi unions, and local governing policies enabled this to happen in the specific way that no-shows are captured. Denying ritual entry was not only captured as deviant acts of driver agency but through ‘legitimate’ acts of denial. Taxi drivers following the letter of the law may have to refuse service for several reasons. For example, if they have committed to another call, are heading back to a taxi stand as certain laws require, legally unable to answer a street hail, or are off shift and thus no longer covered as a taxi driver by insurance. Unfortunately, taxi drivers can equally deploy these reasons as excuses so as not to have to pick up someone. Lyft and Uber drivers also have a rubric for accountability that is similarly exploitable. Drivers can deny service by not selecting someone for a ride, canceling a ride after accepting it, use various tactics to get the rider to cancel, or use the administrative wrangling tactic of the no-show.⁷⁵

The breadth of reasons and practical techniques for how drivers deny someone access changes with technology and environment including: denying someone based on the color of their skin, pretending not to notice someone hailing, arguing they are on break, driving through areas with the lights off deliberately, making excuses about picking up another occupant, citing a problem with the car, and being spontaneously off duty. However, what these differences communicate is that there is a distinction

⁷⁵ This is a broad array of literature which all orbit public discourse around the subject. For academic examples, see Brown (2018) and Rosenblat (2018). For examples of driver cancellation reasoning see Wehmeyer (2017), and passenger response to driver cancellations see Griswold (2018) and Dorsey (2018).

between legitimate and illegitimate forms of denial codified as an either legal or illegal denial. It communicates that certain forms of denial have been legitimized by institutional authority. These represent not only what constitutes appropriate forms of ritual denial but ways that have been integrated into the practice of taxiing. Institutional endorsement is what makes legitimate ritual denial from illegitimate and illegal denial. In the latter, the driver regulates ritual access through personal decision making (and times personal prejudice) and in doing so places driver agency equal to regulatory power. Institutional endorsement of ritual denial also communicates the qualifications for who can be denied access to the ritual and when have already been built into the transportation environment. As conduits for institutions, drivers are relied upon to administrate the ordering of society as articulated by regulating bodies and to perform it robotically. Yet, there is a tension here that also relies on drivers to be preeminently flexible in translating personal interaction into ritual participation; to be necessarily flexible and inhumanly impartial. Yet, contrary to the majority of academic focus, the tension provoked between role-based necessary flexibility and flawed human decision making does not eliminate the formative pull of political, cultural, and material frameworks on the breadth of decisions a driver can make, particularly since the boundaries between the legal and illegal forms of rider denial are politically flexible and socially porous in ways that reflect society's concerns of the moment.

What does institutionally-wrought legitimate denial look like? Uber, Lyft, and taxi ridership statistics have limited metrics for documenting how many people are denied participation in the for-hire ritual. For the reasons stated above those metrics

are neither a blanket indication of denial nor do they recognize the institution's role in denial's enactment. On one hand, making ridership denial a searchable statistic would undermine the carefully crafted fiction that access to for-hire transportation is egalitarian and that the institutions that govern it are neutral bodies operating for the public good.⁷⁶ Companies like Uber, Lyft, and taxi fleets rely on this image as a selling point to attract customers (Murphy, 2018). On the other hand, for institutions, there is no practical reason to record it. As egalitarian as advertisements and public policies might make it seem, these services are only available to those that can pay for them. A for-hire industry employee remarked, "The company puts a premium on information they can use. If you don't have the money to pay for [the service] then we're not going to waste time or effort or advertisements targeting you. Money down the drain" (Anonymous, personal interview, February 16, 2018).

Determining how valuable someone is by how much money they can spend has long been a way for institutions to help assign that person value to society, and importantly, internalize that value (Turow, 1997, 2011, 2017). But there is more to it than that. Transportation, while personally useful, is infrastructurally essential to a city's survival. In setting the boundaries of access to transportation based on economic participation denial becomes not only an issue of transportation but placement in and access to society.

We have so many users that we don't need to cater to the lowest common denominator. Changing the system or the setup to accommodate one or two

⁷⁶ This echoes an argument made by Tarleton Gillespie regarding algorithms and their institutional controllers interest in appearing neutral in the eye of the public (Gillespie, 2014, p. 187).

people that have trouble with access would cost more than we would benefit from adding one more user to the pool. Let's face it, [we] got so big you need us more than we need you. (Anonymous, personal interview, February 16, 2018)

This illustrates another tension central to for-hire ritual's participation in ordering society. It is the striking of a balance between providing enough flexible transportation to maintain society and doing it in a way that is still profitable. Egalitarian in their image but not in practice, for-hire institutions strategically calculate peoples' value and usefulness using societal structures like geographic residence and disposable income to segment market service areas⁷⁷ and shape transportation cost.⁷⁸ On the surface, it may not seem like for-hire institutions structured discriminatory practices like limited economic opportunity or housing policies (Coates, 2014). Yet they consistently benefit from the segmentation of society by using those demarcations of inequality to second as demarcating lines of service (Ge et al., 2016). The denial of transportation furthers this structuring, building upon what is already being built and re-communicates social order through regulating access along discriminatory lines. As targets of policies and practices Black and Brown Americans, disabled people, and outspoken women were targets of political,

⁷⁷ The particulars of market segment are not addressed here but for a description of different ways segmentation occurs and why see Hansotia and Wang (1997) and Weinstein (1997), and assigned different influential weighted structures by Kalafatis and Tsogas (1998). For an overview of general marketing segmentation theory and practice see Weinstein (2004).

⁷⁸ For example, taxis run on a relatively simple cost for distance pricing model that disadvantages people who live further away from central city locations, additional factors including prejudices fold into the calculation of whether or not drivers will take a fare but not directly how much it costs. A more complicated example is Uber's dynamic pricing model that reflects a similar logic and also considers congestion and other factors (Chen & Sheldon, 2016).

structural, and social inequities which were further enacted through denial of for-hire use and shaped them as non-participants, audience segments of little value. In doing so, taxis and other for-hire transportation helped perpetuate the structuring of a build environment that not only limited access and mobility within the for-hire networks, but also increased their erasure by limiting access to broader economic, political, and social opportunities in society. This is not strictly a problem of deviant driver decision making, but one of the strategic building of an environment that favors access and participation of some groups over others.

In other words, taxis and other for-hire institutions are in the business of maintaining social order. The self-serving interest of profits cannot be underestimated. Normally, invoking an interest in profits is paired with criticism, and there is certainly that. Taxis perpetuate inequalities by regulating access unequally in reflection of existing structural inequalities. The emergence and use of for-hire transportation have also been co-opted for its revolutionary potential. As a flexible means of transportation, the for-hire ritual can buttress attempts at reordering society just as it can buttress inequality though this occurs with more regulation and the financial realities of for-hire transportation are still a point of contention.⁷⁹

As Gyn's account demonstrates, not everyone is allowed access to the ritual and when they are, access is conditional, limited, or more difficult to achieve as is the access to society for-hire ritual provides. It is precisely this interwoven collaboration

⁷⁹ See Shepard (1969, p.3) for a description of the Paradise Cab Association a taxi company founded in response to dominant taxi networks refusing to serve Black passengers and communities.

between transportation and existing structure that communicates and labors for a certain ordering of society.

I was able to observe Gyn's attempt at accessing the ritual precisely because I was there to witness it, but it was in speaking with her that I learned the problem of denial went beyond driver services. The analysis that follows focuses on institutional influences of taxi denial as they intersect with and are shaped by the emergence of for-hire transportation. This is for two purposes; first, to establish a pattern of society using denial of for-hire services to maintain an established social order; and second, to demonstrate the architecture of the built environment has deep historical roots in a society that extends beyond the tensions of the moment.

3.7 Early Ritual Denial: 1300s

Before the emergence of the hackney as a horse for-hire in Medieval England (c. 1300), ride-for-hire services were virtually nonexistent. The use of horses for transportation typically followed an ownership model available almost exclusively to the military and political aristocracy (Stephen, 1990). The exception of course being cart horses that were used to work fields or haul agricultural and textile goods from the countryside to the nearby city (Langdon, 1984), but even their use was limited. Ritual denial and the mobility it provided were pervasive because there was no ritual. Not for lack of innovation but because horse ownership and use both materially and symbolically represented membership in the upper echelons of social structure (Boniface, 2015; Greene, 2008; Herbert-Davies, 2018; McShane, 2011). Who had horses and who did not articulated an ordering of society between the ruling class and the rest of the population. This was more than a symbolic division. Lack of

transportation infrastructure limited cultural, economic, and geographic mobility and by doing so limited the opportunities of the commons to challenge the established order of society.

When the hackney emerged at the turn of the 14th century, it became some of the first for-hire transportation between cities for people other than elite members of society. It was not only a safer alternative to walking, but it also opened up opportunities for cultural and economic exchange (Johnston, 2011), while elevating the social status of some of the middle class (Boniface, 2015; Greene, 2008; Herbert-Davies, 2018; McShane, 2011). But it was only a sparing delineation, a fragmentation of a new merchant class (Thrupp, 1989) from the previously homogeneous grouping of not aristocracy. The emergence of the hackney largely benefited the few wealthy enough to regularly use it (Thrupp, 1877, p. 32). Thus, the use of the hackney built upon existing income inequalities of feudal society that parsed use along class lines, reinforcing existing divisions of wealth, as access to other cities expanded for merchants (many of whom were already low-ranked aristocracy).⁸⁰ The hackney was used to reinforce divisions of wealth by being financially inaccessible to the majority of people.

Infrastructure expanded along the lines of wealth and inequality. A posting system buttressed quality and navigation through roads between cities accessible by horse, but not always accommodating to foot traffic - the still regular means of travel for the non-wealthy (Philp, 1866). Horses were trained to move unguided between

⁸⁰ Thrupp (1989) noted many of the merchants already included minor noble titles such as “sir”. It seems far rarer that the industrious commoner was able to secure enough wealth for intracity trade. For example, see Thrupp (1989), p. 110, Table 8, and footnote 18, p. 108.

posts along the road in a rudimentary program-like operation that solidified specific routes used to travel to access cities (Langdon, 1984). These routes and their development structured the flow of wealth through regulating access to a specific few, and then buttressed that access with other policies. Langdon notes that landowners were able to tax goods and people traveling along these routes and some of the earliest for-hire regulations (Richard II, 1396, pp. 712-713) created legal penalties for banditry and other instances of stopping the movement and appropriation of hackney horses.

What this shows is the structuring of the cultural, political, and material environment to accommodate the hackney's emergence to best advantage those already advantaged in society. Transportation and the accumulation of power it enabled buttressed the status of the wealthy. The development of roads, posts, and legislation communicated this prioritization, and that the maintenance of society was the maintenance of the status quo of feudalism.

It took nearly 200 years from the hackney's emergence in intercity travel that the hackney use was appropriated to challenge the order of society. During the Peasants' Revolt in 1381, Tyler and other revolt leaders were able to mobilize the peasantry across England precisely because they were able to hire a horse and expedite travel.⁸¹ While the rebellion was unsuccessful in its immediate goals, the mobility

⁸¹ Wat Tyler is depicted and described as riding a horse. According to Boniface (2015) bloodlines were not measured during that time and that gait and description was used to identify horse breeds. By description the horses used by the Peasants' Revolt were hackneys and acquired because of their for-hire ability. See Riley (1868).

afforded to them helped limit further exploitation of the poor (Justice, 1994) and set the stage for an end to feudal rule in England by the 17th century.⁸²

3.8 Continued into the 1600s

During the 17th century, the built environment was structured around the emergence of new for-hire transit, the hackney carriage, and coach. A two- or four-wheeled box with seats drawn by horses, the hackney carriage was an innovation because of its for-hire ability and rent model of ownership (Straus, 1912). Like its predecessor, the hackney horse, all but a select few were denied access. In this way, the carriage's emergence was able to participate in building an ordering to society that could now include middle-class men while continuing to disadvantage women, disabled people, and immigrants.

The emergence of the hackney carriage in the early 1600s addressed a public need for flexible intra-city transit 'to let' or rent (Straus, 1912). Carriage ownership and maintenance were prohibitively expensive for anyone but the wealthy (Thrupp, 1877) and the for-hire alternative enabled new mobility for the emergence of London's White male middle class. The rise of the middle class was grounded in city expansion and access to economic opportunity (Gunn, 2004) and the inclusions of the middle class in the social order of British society.⁸³ It was not a re-ordering of society but an adjusted ordering that now included moderately well-off men and their families into the privileged aspects of society. Such privilege included access to opportunities like

⁸² Heller's (2011) comparison of literature on the decline of feudalism illustrates that the transition was marked by mobility that afforded not only the increased exchange of ideas but their relation to agricultural production and the employment of wages rather than unfree labor.

⁸³ In addition to Gunn's work around class, see the many works by Donna Loftus on the emergence and sustenance of the middle class in England (2006, 2014, 2017) and Gray and Loftus (1999).

political participation, economic opportunities of trade, and broader cultural participation through the arts. But the opportunity that could be attributed in part to access enabled by for-hire transit was conversely the structuring of denial of that opportunity through denial of access to transportation.

3.9 Building the Victorian Environment

The growth and expansion of cities like London made it difficult and dangerous to navigate on foot. The haphazard expansions of cities communicated an almost frenetic need for increased housing and roads to accommodate a growing population and trade (Hanson, 1989). Previous public transit was confined to the waterways and limited by those routes (Frith, 1895), which became increasingly ineffective to traverse the city's new expanded terrain (Thrupp, 1877, p. 38). As cities like London continued to expand, flexible mobility in the streets was dominated by the city's ruling class in the form of private carriages and coaches (Field, 2017). The built environment here favored those wealthy enough to keep a carriage, driver, and horses on hand, granting them ad hoc access to the city's sprawling resources and enabling communication to travel across disparate parts at the speed of horse travel. The exclusionary use of carriages by class and financial requirements represented a prioritization of influence, information, and access that heavily favored the existing ruling class.

For-hire carriage emergence into 17th century society was far from frictionless. The male White middle class that eventually found privilege through increased access to mobility initially encountered considerable resistance from the established elite. Yet, compared to how women and people with disabilities were treated, White men

experienced a more moderate and surpassable structuring of denial that was navigated through the legal politics of the moment.

Though feudalism was in decline until its abolition in 1660 (Heller, 2011), the centralization of transportation kept access to city power firmly out of the hands of the general public. While the wealthy already had access to trade and private coaches, they also had control over the transportation areas of the city. Before the Great Fire in 1666, many of London's ports of entry by road or water were held and taxed by established members of the aristocracy (Hanson, 1989). Denying transportation access to all but the elite helped politically and economically structure the environment in continued favor of those elite. It also communicated a social ordering that echoed feudal society and persisted beyond, continuing to structure the power of the gentry even as society transitions away from the feudal system of governance.

Not only was transportation access to the city limited by political hierarchy, but the city's material environment itself would also have been a problem for the general public. The haphazard construction of city streets, notes Hanson (1989), would have left some streets no more than 11 feet across, and the side streets would have been worse. By typical carriage's size and length (Straus, 1912, p. 74), some of which measure more than 10 feet wide (Thrupp, 1877, p. 40), carriages would have found navigating city streets extremely difficult. This problem in particular would have been only partially solved after the redesign of London following the Great Fire in 1666. The city's redesign, notes Hanson (1989), followed the main corridors that led to and through wealthy districts. Though wider, they were still designed to best accommodate the mobility of the wealthy ruling class. The city's architecture and limited economic

flexibility of the non-elites would have made both widespread availability and adoption difficult.

This was not a problem exclusively of materials, routes, or economy that dampened the hackney carriages' emergence, it was also deeply political. The political response to the hackney carriages' emergence collectively communicated an unease by policymakers. When Captain Bailey had four carriages built and placed on The Strand in Westminster to let in 1633, it was a calculated move to make transportation accessible to the public (Straus, 1912, p. 88) who at that time would have consisted of White middle-class men of moderate or more wealth (Hunt, 1996). Elite mobility both aided and reinforced social order, and general mobility threatened it. In the early years attempts to build an environment that limited carriage use took cultural and political form. For example, John Taylor decried their use (Straus, 1912, p. 59) as an act that diminished the status of the nobility and elevated (especially economically, the status of the undeserving lower class.

“O happy streets, to rumbling wheels unknown,
No carts, no coaches shake the floating town!
Thus was of old *Britannia's* city bless'd,
Ere pride and luxury her sons profess'd.
Now gaudy pride corrupts the lavish age,
And the streets flame with glaring equipage;
The tricking gamester insolently rides,
With *Loves* and *Graces* on his chariot's sides;
In saucy state the griping broker sits,

And laughs at honesty, and trudging wits.”

Not only was Taylor lamenting the incursion of loud for-hire carriages roaming the streets with greater frequency, but he was also commenting on what he perceived to be the degradation of London through the erosion of the upper class. The phrase “Loves and Graces” refers to the common practice of purchasing carriages in disrepair from the nobility. It was a common way for early hackney carriage owners to circumvent the normally prohibitively expensive act of having a carriage to navigate the city, to circumvent denial of a for-hire production. Once purchased, hackney carriage owners would keep the signals or marks of the previous owner. The act communicated to the public the noble history of the carriage in the hopes to entice their patronage.

The sentiment was echoed in legislation when King Charles I proclaimed that, by June 24, 1635, coaches were outlawed in London and surrounding areas - unless in use by the elite.

The great number of Hackney Coaches of late time seen and kept in London, Westminster, and their suburbs, and the general and promiscuous use of coaches there, were not only a great disturbance to his Majesty, his dearest Consort the Queen, the Nobility, and others of place and degree, in their passage through the Streets; but the streets themselves were so pestered, and the pavements so broken up, that the common passage is thereby hindered and

more dangerous; and the prices of hay and provender and other provisions of stable, thereby made exceedingly dear. (Charles I, 1636)⁸⁴

The communication was both literal and symbolic. That such a decree was necessary communicated that the establishment of the city was concerned with the encroaching presence of for-hire cabs. That this agreed with the sentiment by Taylor among others mentioned a decade earlier indicated this was a longstanding issue, a drawn-out process which other mechanisms, such as artistic expression against hackney use, was not an effective enough deterrent. Politically, the coach posed a threat to the ruling class not only as it equaled symbolic elevation with status, but also the access to society transportation afforded. Yet, it was not addressed in this way. Instead, the limiting of for-hire vehicles was grounded in the sentiment of annoyance and more that it damaged the state of the streets in a way that made walking problematic for the commons. It was a clever redirection of public displeasure over the deteriorating state of infrastructure concerning the working class, and redirection of culpability for that failing away from the state and toward this new insurgent technology.

In other words, the wear on the material environment (Roads) was at supposedly provoked by the use of a transportation mechanism (Carriage) it was not equipped to handle. Instead of adapting the material environment (roadway and infrastructure), the proclamation suggests reverting to a time when everyone but the

⁸⁴For full account see Charles I, By the King. A proclamation for the restraint of the multitude, and promiscuous use of coaches, about London and Westminster (1635), also abbreviated in Straus (1912, p. 90).

gentry walked - thus denying them access not only to the ritual but the benefits of economic and political visibility it afforded.

The response by coach owners was problematic for the elite unexpectedly impacting availability. Most owners, writes Straus (1912), were too burdened by the cost of keeping a driver, horses, and coach maintained in case someone of quality decided they could be useful, and so stopped driving for a time (p. 91). Straus noted the availability of carriages dwindled not only for the merchant class but for the wealthy as well. During this time with the court's approval, Sir Sanders Duncombe was issued a patent for a sedan chair.⁸⁵ Not only did the new policies limiting the presence of coaches did not apply to the chairs, but it also echoed the sentiment that society returned to a time before the general public was mobile. His innovation briefly reinvigorated the transportation selective hierarchy as a reflection of social status.⁸⁶ Allowing coach use, only to outlaw it again, to become available, only to be outlawed again and become available again was in part the cultural work of emergence both working out where the hackney carriage could fit while communicating the interests of the dominant social order.⁸⁷ Other strategies to diminish the popularity of the coaches largely failed (i.e., from restrictions to competitions to cultural workers of plays and poetry). New policies were put into place to limit the number of coaches, limit their

⁸⁵ Sedan chairs consisted of a seat on a platform held aloft on poles by servants. They were incredibly expensive and considerably slower than horse travel but because they relied on foot traffic of servants, did minimal damage to roads.

⁸⁶ The temporary shift to the chair communicated several things. Economically, this communicated that the gentry had access to this form of transportation. Visually, it demonstrated a renewed dominance over the poor by virtue of being carried by them, and that the use of such slow transportation meant that users were wealthy enough to waste the time in transit.

⁸⁷ John McCulloch's (1844) *A Dictionary, Practical, Theoretical and Historical of Commerce and Commercial Navigation*, illustrated many of the changes in early coach regulation, p. 620.

supply of resources (e.g., like horseshoes) limit where they could travel, create a licensing system to increase the costs payable to the government but the popularity of the coaches seem to be the tipping point in the built environment.⁸⁸

There was a moment of suspension in emergence. As the technology emerged, it threatened to re-order society. To deny the emergence within the built environment was to deny ritual participation to those, particularly of the middle class, who could use it. The work to overcome the suspensions, which lasted around 80 years, resumed when public use outweighed the structuring against ritual by policies and materials. Some of this may have been because the public had little to lose as their value was minimal under feudal rule. It was a moment of emergence that challenged the homogeneity of the built environment, reconfiguring it to reflect a different, though subtle, reordering. Hogarth (2014) likened the contestations presented by the coach to Foucault's concept of 'Heterotopias' as places that contest, subvert, or counter the spaces or practices from which they sprung.⁸⁹

3.10 Building Inequality for Women

However, the emancipation promised by this new form of mobility was not meant for equitable distribution or access, especially when it came to challenging the role of women in the social order of society. In some ways, this new form of mobility signaled a pairing off and redistribution of wealth, part of which led to the rise of the middle class in London (Earle, 1989). In other ways, the structure of the built

⁸⁸ For original documents see *An affidavit of hackney coaches* (1694). London, s.n.; *The case of the hackney-coachmen* (1695); commentary on the increasing popularity of coaches as for-hire transport see Hogarth (2014).

⁸⁹ For original text see Foucault & Miskowicz, 1986, p. 22-27, or as discussed in Hogarth (2014) p. 14-15.

environment was maintained, if subtly shifted, to newly reflect a social order that included middle-class men while maintaining other divisions. While the built environment around emergent for-hire transportation slowly began to privilege the White male merchant class, it was carefully structured to discourage access by women (Fumerton, 2006, p. 21; Gowing, 2000; Shoemaker, 2001), people economically disadvantaged such as immigrants (Fumerton, 2006), and disabled people (Turner, 2012). Emergence was managed to not elevate too many and denying access to the ritual helped maintain the existing order of society.

Similar to the opposition to adoption experienced by middle-class men, women too experienced the economic barriers that denied ritual access. But for women achieving ritual access was more difficult than their male counterparts. Not only did families have to contend with the difficult task of paying a high cost for a for-hire carriage, but women were not in control of their wealth (Gowing, 2000; Steinbach, 2013). If a woman wanted to temporarily hire a carriage for transportation, she would have to request access to funds from her male relations. In addition to financial approval, this move would have required, to some extent, cultural approval by the male head of the household, introducing additional barriers to accessing the ritual. As for-hire carriage use by women was culturally frowned upon, it was unlikely that women would receive such endorsement, doubly so if it were a household that could only afford to prioritize one person for travel. As Steinbach (2012, 2013) noted, men were typically the partner that worked outside the home, coupled with sole access to

the family money, they were likely to prefer mobility for themselves.⁹⁰ Especially since popular culture believed that middle-class women, along with any others seen as socially undesirable (such as those who were poor, sick, disabled, or immigrant), should stay home and not subject the public to their presence. To deny women access not only became an economical choice, but one of maintaining propriety, and thus the established social order.

Culturally, women also encountered more ritual denial than men. Not only would women requesting mobility be challenging the order of elitism, but they were also challenging Victorian ideals about the division of labor. The work of denial took the form of plays and sermons⁹¹ as some of the most common methods of communicating information from the royal courts to the general public (Muzzarelli, 2014). Many of these works articulated a position that linked women's use of for-hire coaches as a threat to the established masculine-led social order (Clark, 1985; Stallybrass & Jones, 1991). These works⁹² charged that women using coaches were deliberately usurping masculine authority, challenging the sanctity of family roles, corrupting the idea of the silent obedient women, endangering others with infectious ideas, and luring the largely blameless men to the sins of infidelity.⁹³ Misogynist and self-styled water poet John Taylor wrote against the mobility of women for

⁹⁰ In terms of prioritization men frequently put their needs above others in the household. Steinbach (2012) argued that men with the option would retreat to clubs to escape the burdens of home life (p. 27).

⁹¹ See Thomas Adams (1615) "Mystical bedlam, or the world of mad-men" for example of sermons that demonized women for venturing outside of traditional sociocultural responsibilities.

⁹² Examples of the works that demonstrate these roles include: *Epicene or The Silent Woman* (Johnson, 1609); *A fool's preferment, or, The Dukes of Dunstable a comedy* (D'Urfey, 1688); *The Scourge of Villanie* (Marston, 1598).

⁹³ Hogarth's (2014) analysis of popular media at the time argued the use of carriages as a 'transgressive' space for women to defy the order of society.

threatening to usurp the moral order by equating them to prostitutes. In a lengthy poetic diatribe against the growing mobility of coaches and women, Taylor (1869) wrote, “To conclude, a coach may be fitly compared to a whore. A coach is painted, so is a whore” (p. 244). It is a frequent line, one that Hogarth (2014, p. 20) and others deploy to articulate the cultural problem with empowering female visibility.⁹⁴ Hogarth argued that riding in a coach made a woman’s passing both visible and audible in the public sphere.

Making noise in this sense became descriptive both of the literal noises of carriages⁹⁵ which threatened to disrupt people's lives and a symbolic act that threatened to disrupt the economic, political, and cultural ordering of society. A woman's ability to ‘make noise’ ran counter to her culturally assigned the role of deference and silence (Steinbach, 2012), placing ritual access at odds with maintaining the current vision of society. Access to the for-hire ritual not only challenged her place as silent, invisible, yet indispensable for running the home, it helped her render visible the necessity of her labor by its absence. More women participating in social, cultural, political, and economic activities that access to transportation provided would have challenged men’s centrality in culture, economy, and politics by forcing them to either not have families or stay to care for the home. The latter would be counter to the continuation of society and the former challenging the masculine dominant social order. The for-hire ritual then, as an industrial practice, was a tool for the maintenance of social order, but not a single social ordering. It was used to reflect the masculine

⁹⁴ See Hogarth (2014) for examples of making noise evident in plays.

⁹⁵ For example, in the play *Epicene* by Ben Johnson (1609) the main character, Morose, specifically chose a house on a narrow street so he did not have to hear horses and carriages drive by at all hours.

class in the ordering of Victorian England, but not on its own. As both a product and producer of the built environment, the ritual alone is not enough to maintain social order. It needs, for example, cultural and political investment in denying ritual access for those that would use the ritual to challenge the structure of society.

The hackney carriage was not a tool of emancipation that yielded immediate results. That would continue through women's suffrage in the early 20th century. Instead, ritual denial in the form of social, political, and financial limitations largely overwhelmed the intermittent itinerant use of the hackney carriage by women. Denial of access to for-hire transportation limited their mobility in society and reified the strength of cultural mores that sought to sequester women in their homes and reduce both their visibility and the visibility of their labor.

3.11 Linking Itinerant and Disabled Denial

Where women were discouraged culturally from participating in the for-hire ritual, others were denied it altogether. Poorer communities denied access to the ritual included immigrant, migrant, and local working poor, or itinerant laborers (Fumerton, 2006) and disabled people who were defined not by their disability or interaction with the environment but homogenized by the burden they imposed on society.⁹⁶ For both the itinerant poor and disabled people that were poor, denying access to the ritual occurred economically, geographically, culturally, and physically under the rationale of productivity and safety.

⁹⁶ This sentiment continued from the early Middle Ages c1200 - 1400s (Metzler, 2006), through the 17th century to the 19th century (Turner, 2012; Turner & Blackie, 2018). There is an important crossover between at risk itinerant laborers and disability, especially in the turn toward the industrial revolution in the 19th century where physical disability took on more prominence as a topic in public discourse.

The structuring of access denial was powerfully multidimensional, yet what that denial meant and how it was achieved was different in important ways. Materially, the poor in Victorian society lived in narrow, hastily built, and frequently run-down areas of the city (Fumerton, 2006). These areas suffered from limited maintenance and overcrowding both by people and buildings (Hanson, 1989). The small size of the street meant that carriages could not come to them, the lack of economic incentive meant that drivers had no reason to try, and the legal parameters that dictated where carriages could travel meant that it might have been illegal to do so. While this was inconvenient for non-disabled people, those with disabilities would have found navigating the material environment to travel to locations where carriages were kept additionally difficult. The out of the way location of these communities compounded the problem of access and continued to build ritual denial. For-hire coaches had designated areas where they had to wait, which themselves were located in places like the Strand in Westminster, in upper to middle-class city thoroughfares which were located away from poorer communities.⁹⁷ This was a calculated move, one that built additional layers into the environment of denial. For the itinerant working poor laws that limited their mobility controlled both their geographic movement and economic presence (Fumerton, 2006). This would have significantly limited the prospects of immigrant laborers utilizing the hackney as they would have been prohibited from accessing areas of the city.

⁹⁷ This was so that the upper class did not have to be subjected to the presence of the lower classes. See Loftus (2014, 2017), Steinbach (2012, 2013), and Turner (2012).

Economically, for the itinerant laborers and disabled people that were poor hiring a coach was neither affordable⁹⁸ nor a productive necessity. The dual structuring of this made ritual denial virtually insurmountable. Social and legal controls often had the itinerant laborers working near where they lived thus not needing transit (Fumerton, 2006). This allowed limited transit to not impact the productivity of itinerant labor, nor would transit networks have to be built to navigate both low wages and the need to transport underpaid laborers. This structuring both denied ritual access and used denial to perpetuate inequalities on which the unequal distribution of wealth depended.⁹⁹ Denying access was expected for disabled people. Access to even mediocre economic opportunity was not realistic, and the social environment demanded that disabled people stay out of sight (Hogarth, 2014) when not institutionalized or legally granted the right to beg (Fumerton, 2006, p. xii; Turner, 2012). Like itinerant laborers, denying access to the hackney carriage encouraged the control of disabled people's mobility and through that their presence and influence on society. Not only did a lack of access function as a mechanism for control, but it also meant that the environment built around hackney access did not need to accommodate people with disabilities or without wealth.

⁹⁸ Judging by the amount the lower class made through wage labor (Davis, 1962, 1973; Fumerton, 2006), and factoring in that at the time food shortages caused inflation from between 400 and 600% (Stone, 1966, p. 42), the lower class working poor would have had difficulty finding enough food to eat and pay for housing, let alone have the disposable income to hire a carriage or coach. Put this in context with the cost of hiring a coach, which in the 1600s was fixed at 10 shillings an hour for the first hour. Using economic figures from both Bowley (1900) and Porter (1997), the average servant, for example, made around 10 pounds a year and the conversion rate for currency was 20 shillings to 1 pound. Thus, an hour's for-hire ride could cost 5% of a person's yearly earning and a round trip 10%, before factoring in additional expenses of time and labor. Such a cost makes it very unlikely that lower classes would hire a carriage often. The fees were congruent with Quaife's (1821) Hackney coach records of the 18th and 19th century.

⁹⁹ In conceptualizing the working and invisible poor Patricia Fumerton (2006) distinguished between the vagrant and the itinerant laborer, the destitute traveler, and various delineations of il/legitimacy.

The environment built to limit mobility also prevented visibility. Encouraging the uncontrolled mobility of the itinerant poor would have run counter to the careful regulation of their labor and the intent of that labor. As it did with merchant class men, and fractionally for middle-class women, access could have increased visibility to society and in doing so have opened up opportunities for greater political and economic participation. Encouraging the mobility of disabled people would have brought up issues around access as well as run counter to the Victorian sensibilities that focused the burden of disability onto the disabled person, a problem with the self rather than a problem of inaccessibility built into the environment. The immobility was necessary for the production and maintenance of society,¹⁰⁰ and to allow them mobility would undermine the social order and destabilize the political and economic structures on which Victorian society relied.

Ritual denial also prevented the structuring of a sympathetic environment. Victorian society is often regarded as having little sympathy for the working and nonworking poor (Fumerton, 2006; Turner, 2012). Part of this stems from society's ability to systematically keep the disadvantaged out of the public view.¹⁰¹ This suggests that increased visibility through ritual access could have increased their visibility, and generated public sympathy toward the unequal conditions that structured their place in society. Yet, doing so would have challenged the economic

¹⁰⁰ Fumerton (2006, p. 152) suggests that controlling immigrant labor by controlling how much they were paid and their geographic mobility was essential for producing class divisions. Cheap immigrant labor allowed for the continued centralization of wealth in the upper and new merchant class.

¹⁰¹ Fumerton (2006) suggests that there is a positive relationship between increased visibility and increased public sympathy for poor working immigrants (p. 191), though she makes no claims about how much visibility may increase public sympathy.

order that relied on low-wage labor, and jeopardized the current structuring of society that saw to and reinforced their marginalization. By denying immigrants and other economically disadvantaged people access to the ritual, the elite in Victorian society saw the structuring of a built environment that maintained the unequal distributions of societal participation, and thus the ritual was built around maintaining the structure of an unequal society.

3.12 Productivity and Safety

Denying immigrants access to the ritual was necessary for a society dependent on cheap labor, but that was not the case for disabled people who were perceived to lack such productive potential (Turner, 2012). For much of society, the relationship between disabilities and tolerance operated on a sliding scale commensurate with social and financial status. Turner argues that for men of status, “It transformed them from a position of masterly command to infantile dependence” (p. 111). The dependence that Turner speaks of is the disabled person’s dependence on others (either people or policies) to help make the material environment more navigable. Importantly, it was not just the environment around the coaches that were difficult to navigate and necessitated assistance, but getting into the coach itself. The design of the coaches, outlined by Thrupp (1877), made getting in and out physically rigorous. For those that could afford it, this disadvantage could largely be overcome by the use of servants¹⁰² to assist in transport and the ready availability of carriages and coaches to move them through the city.

¹⁰² Turner (2012, p. 111) outlines an account of a wealthy man requiring servants to carry him to and from carriages.

For the majority of non-wealthy people that did not have servants, did not have a family to rely on, a rare benefactor, prior investments, or have the status to demand public tolerance (Metzler, 2006), ritual denial served the purpose of segregating them for the health of society. At the time scholars, political actors, clergy, and the general public believed that disability could be a physical or spiritual affliction (Turner, 2012). In instances when society could not cure disability to return the person to productive usefulness (Turner et al., 2017) they needed to be kept from the public. This isolation was practiced not only socially but through transitions and legal frameworks as well.¹⁰³ In addition to public sentiment against the unsightliness of disability (Turner, 2012, p. 46) there was a fear that disability, especially ones rooted in poor moral choices, was contagious.¹⁰⁴ To deny physically disabled people the use of for-hire transportation was meant to contain the spread of disability. Note earlier women were discouraged from using hackneys because it made them look like a whore. Viewed through a lens of disability, part of that logic was rooted in the misunderstanding around disease transmission, that moral disability could be transmitted through extramarital affairs, which could be encouraged by the conspicuous use of the hackney carriage.

In more general terms the new mobility provoked by the hackney carriage's emergence, if not restricted, could grant the contagion of disability new mobility as

¹⁰³ The conditioning of disability, especially physical disability, as unworthy of access to society built into the environment. Turner notes that legal grounds for divorce if someone developed a disability that could not be cured (2012, p. 45-46, 48).

¹⁰⁴ Examples of this include a woman touched by a person with an amputated limb accused the disabled person of transmitting a disease that caused her child to be born without a limb. Or that sometimes limbs must be amputated to preserve the life of the soul (Turner, 2012, p. 39).

well. This was centered on the pervasive belief that disability stemmed from inherently unfavorable or inferior characteristics which in turn predisposed certain people to contract it. These characteristics could include poor upbringing, heredity, lack of education, appearance, mannerism, skin color, accent, promiscuity, and even laziness (Fumerton, 2006, p. 94; Hitchcock, 2004; Turner, 2012). It was here where popular culture was able to discursively extend the threat of disability contagion to other members of society including people with physical and mental disabilities, as well as pejorative references to local, immigrant, migrant, indigenous, or former slave laborers as ‘dirty’ and ‘savage’ people (Fumerton, 2006; Hitchcock, 2004; Turner, 2012).¹⁰⁵ Contemporary theories that stigmatized Blackness as a deformity, creating a strong link between savagery, Blackness, and disability (Turner, 2012, p. 29)¹⁰⁶ easily elided into stigmatizations about productivity and disability. Those denied access to the ritual for cultural, economic, and political purposes became justified in the denial of for-hire access as a means for control for the maintenance of society. If disability were to afflict itinerant workers already susceptible, then it could jeopardize the source of labor necessary for the maintenance of the economic order of society. Though

¹⁰⁵ Though slavery was first outlawed in England on June 22, 1772 (Wiecek, 1974), in the case of *Somerset v Steward* (p. 86), the practice of slavery faced continuous legal battles up to 1834 and its technical practice of enslaving people continued (Alibrandi, 2015) either through practices that sought legal expectations to abolition or that defied the law with little to no repercussion.

¹⁰⁶ There is an important link that Turner (2012, p. 12) makes between a perception of physical deformity by the elite and the causes of hard unsafe labor, frequently performed by itinerant laborers. Deformity, interchangeable with disability, was juxtaposed against the idea of ideal beauty. The scars and hardships that result in visible scars, limps, back problems, or missing limbs that came from difficult labor (outlined in Fumerton, 2006) allows for a social equation that itinerant laborers (often comprised of immigrants) are more susceptible to contracting disability because they are the group more subjected to dangerous labor practices. It is in part, the justification for standards of beauty that allowed elites who had wealth to curate and mask imperfections, and jobs that did not pose the same physical health risks, to structure an environment that predetermined them to be of the best genetic stock and most worthy of leading society.

disability was communicable to others of similar weak dispositions, it could be transmitted to the upper class as well with severe societal consequences (Turner, 2012, p. 29). The implication here was that those of higher status had more to contribute to the maintenance of society than economically disadvantaged itinerant laborers and disabled people. Increasing the mobility of lower classes posed a threat of usurpation to the upper class as well. It is a tension echoed in the early instantiation of for-hire service. The increasing mobility of groups marginalized by the built environment threatened to elevate their socioeconomic and political status. If history is any guide, an action would enable them to challenge the entrenched systems that have been structured to both marginalize and exploit that marginalization. Thus, denial of access to transportation became about containment and control both of threats to the established social order, and those needed by that order to maintain it.

The emergence of the hackney carriage as a flexible mode of transportation was strategically incorporated into preexisting aspects of the built environment. As a newly minted ritual through continued practice from the 17th century onward, its emergence was deployed to reinforce existing ideas about the ordering of society. The hackney carriage was both participant and subject as social, political, economic, and material structures used the regulation of access, and particularly denial, to regulate the order of society through access and participation. Denial of access communicated that the hackney carriage was built in response to the environment as a reflection of its inequalities, and so too it helped build the environment in a slightly modified reinforcement of that order. Though it elevated a new merchant class, hackney carriage's emergence used (and was used) to participate in a society-wide minimizing

of participation and influence of middle-class women, disabled people, and itinerant laborers.

As Becker (1963, 2007) suggested, the creation of exclusionary categories reveals agendas and interests of the creator of those categories. It is from there we can use the regulation and denial of access as communication of agendas and interests of the regulating, or dominant order of society, to better understand how the hackney carriage's emergence participated in structuring the order of society. First, those that helped shape the contours of emergence. Regulations defined its acceptable location and use, material development sought to accommodate only those most productive members of society, charges for building, and fees for licensing created the economic environment within which carriage owners and operators were forced to navigate. To afford operation costs drivers had to cater only to the privileged, attending only to those who were physically available, geographically present, and financially sound enough to use them. Each of these illustrated some of the contours of privilege in Victorian society and comprise, along with the taxi, of what became part of the built environment. The persistent use and denial of the ritual communicated both how society was being built to privilege certain people's access in part by limiting the access and opportunity of others. It communicates a preference for those who were deemed beneficial and a mechanism of control and containment for those whose access threatens the established social, political, and economic order. Physical, economic, and social access to mobility discouraged and nearly prevented use for everyone but the most privileged disabled people, while the threat of it and the legal structures that limited mobility helped justify unsafe and underpaid labor practice for

itinerant workers. The regulation of access held up class divisions of labor, buttressing the cultural prioritization of masculine authority by elevating only men that fit into the lower echelons of privilege, while denial of carriage access worked as means to silence and contain outspoken women. Denial of access to the hackney carriage then was built into the environment that privileged a select few, and in this way maintained the social order of those already in power. What access and the denial of it can help illuminate is its participation in such structures of inequality, and its building into social, political, economic, and material practices that comprise dimensions of the built environment, in ways that reflect and reinforce dominant cultural prioritizations of the moment.

But before we dismiss this cultural work of emergence as merely a historical setting, the following chapter demonstrates that this same order, the same preferencing, the same privileging of access continues, unbroken, into the built environment of the 20th and 21st centuries. In the next chapter, I present how the materiality of the modern automobile communicated and reproduced the tension between equitable access and societal dominance. As for-hire transportation transitioned from Europe to the United States with the emergence of the taxi, American society took with it those similar Victorian values that guided transportation's role in structuring an unequal society in ways recognizable and still influential in the 21st century.

Dominant society found ways to rearticulate, justify or reason why these inequalities still need to exist through Eugenics programs and the remnant ideas of societal productivity left in their wake. Predictably then, the emergence of the

automotive taxi as the next iteration of for-hire transportation, just as the carriage before it, was built into the framework of the environment again as an articulation of social order through access and reinforcement of that order through the regulation and denial of that access. Even though industrialists like Henry Ford who shaped early automobile culture, and pioneers of modern urban design such as Fredrick Law Olmsted Jr. and David Burnham sought to reimagine for-hire access through the automobile, and its incorporation into modern urban landscape, the next chapters show that they did so with a specific vision in mind of how society should be shaped, and who should be able to access it.

3.13 Appendix A: “Disabled Person” Terminology

This note elaborates on my deliberate choice to write “disabled person” instead of “person with a disability” as it is discussed throughout this dissertation. Referring to a person with a disability is the administrative standard for talking about disability in society. But in recent years what is referred to as *person first* language has been sharply criticized by many members of the disability community. Among the many reasons for this, two stand out to me. One is that the language positions disability as something that can be carried separately from the person and as such can be shed, dispensed with, or fixed. When a person with cold hydrates and rests the cold falls away and the body returns to whatever normal is for that person. When a person with luggage stores, unpacks or loses said luggage it is easily separable or can be made so from the body that owns it. The person, in that regard, can be disentangled from the thing they carry, have, or suffer. Not so with a disability. Treating disability as carry-on luggage inures a false sense of normativity that a disabled person should be able to attain without their disability. Furthermore, it fails to recognize fundamental shifts in experience and worldview that allow for an accounting of the disability in ways that purely address its functional relationship to society, something I comment more on later in this dissertation. Second, person-first language obfuscates where disability interacts with the surrounding environment. It discursively places the onus of responsibility for navigating an uncompromising environment is on the disabled person, not the environment or more pointedly, not on the designers, administrators, and builders of that environment, not the policymakers that allotted its building funds, or the cultural practices that prioritize the productive capacity of non-disabled people,

which I also talk about more in Chapter 4 and 5. Putting ‘disabled’ first forces recognition that the built environment is structured to discourage their mobility while allowing an appropriation for the ‘disabled’ label from its discriminatory roots.

There are tensions in this decision. One among many is in some people’s resistance to reclaiming the word disabled, particularly among nondisabled allies and caretakers. One way that seems to appear, in my experience, through a belief that the word *disabled* as a negative descriptor cannot be shorn from its uncomplimentary roots, sometimes coupled with the concern that allies invoke or are seen as invoking, those roots by using the term, unable to claim positive discursive transition intended by the linguistic shift.

Putting ‘disabled’ first is not a stance that all are comfortable making, and it was not a choice I made lightly. However, as a neurodiverse person who has often been captured as a person with a mental/cognitive/developmental/learning disability, I am choosing to dispense with the ‘luggage’ approach and attempt, albeit imperfectly, to structure my language accordingly. This was a strategic choice and a personal one, given that the following chapters tackle precisely how the built environment builds in inequality through creating a for-hire transportation system that is available to some and not others. Given that such recognition is in part the impetus for shifting away from the person-first language I thought it both appropriate and within my power as a member of the disability community, to reflect that shift in my writing. Though it may be uncomfortable at times (my partner at first suggested I change the language), disabled people or the disability of a person in my view is not shameful, embarrassing, or derogatory, and more importantly, it is not separate from their personhood.

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CHAPTER 4

4 INDUSTRIAL ENVIRONMENT AND THE SUFFRAGE TAXI

4.1 Introduction

On October 3, 1913, New York Times coverage of Olive Shultz's Suffrage Taxi ("Suffragette Now Runs a Taxicab") painted its emergence as an act of resistance against Victorian norms that segregated mobility by gender. Set against the backdrop of the women's suffrage movement reporters and researchers suggest a socially deterministic link between a suffragette's ingenuity and a passive automobile's emancipatory potential. Yet, making the taxi ancillary participant in suffrage relations obscures the significance of the taxi by effacing the cultural and material pressures that built denial of women's access into the burgeoning automotive environment. To demonstrate the implications of this oversight, I break this chapter into four parts.

First, using business records, interviews, and firsthand accounts I examine how industrialists like Henry Ford, advertisers, and car dealers built an industrial automotive culture privileging White men's access to the gas-powered car while also denying or limiting access based on gender and race.

Second, using advertisements and cultural commentators as indicators of popular discourse, I show how the cultural movement to bind women's mobility to electric cars was a strategic move. Dovetailing with the practices of denial already being ensconced into the industrial environment, the movement to limit women to the electric car was an attempt to re-center women's societal mobility to the home at a time when women were demanding greater participation in society.

Third, by examining records of taxi use and biographies of early 19th century taxi drivers I demonstrate the regulation of access by gender and race, favoring access by White men, translated to the regulation of taxi access, and particularly the denial of taxi use. As the United States' taxi industry shifted from eclectic forms of transportation power (i.e., gas, horse, steam, and electric) to the combustion car it took with it the cultural traditions and limitations built into the automotive industry. For example, segregation laws meant White drivers did not have to service Black passengers, and drivers could deny unaccompanied women access.

Lastly, I show how the suffrage taxi was not only a sensational symbol for the suffrage movement, as news coverage indicated, but a vital vehicle of ideological communication and a demonstration of the complexities and tensions of emergence work. I argue that Schultz's taxi and its association with the suffrage movement was a strategic binding of White female productive potential to their geographic and political mobility with the promise of maintaining White supremacy. By showing only White patrons in publicity photos and during the act of taxiing, Schultz signaled a commitment to the maintenance of a segregated status quo. Thus, both for the suffrage movement at large and for her specific role as a taxi driver, Schultz regulated access in ways that privileged White people. Importantly, her regulation of access was not an individual act of deviance absent from institutional support. Using correspondences between National American Woman Suffrage Association (NAWSA) leadership, mutual financial support, and the taxi's role as a symbol of the suffrage movement during the 1913 march to Washington, I demonstrate the movement's support of the taxi's regulatory actions. Schultz's choice to segregate access to the taxi was echoed in

the practices and priorities of the NAWSA leadership's commitment to segregating society in the interest of reclaiming White women's place in the dominant social order. Thus, the taxi's relations as both a symbol and vehicle can be read as communication not only between the NAWSA's leadership and society, but communication and pressures of the power and position of the male-dominated social order; dominance social order as well.

I conclude with a discussion of how the regulation of automobile and taxi access were both provoked by the built environment and became part of it, reproducing inequalities around access. The taxi's emergence was built to work within society's existing political, economic, and material infrastructures already regulating access unequally. I consider how the suffrage taxi was a mechanism for negotiation of women's mobility within the status quo, an acceptance of their renegotiated place in the White masculine dominant social order, which did not remake relations. To challenge their limited mobility, women seeking mobility had to conform to the inequalities built into the structure of society that privileged the affluent over the poor, men over women, and White people over everyone else.

4.2 The Built Environment and the Taxi

At the turn of the 20th century taxi drivers and owners sought to replace aging or expensive transportation mechanisms like horse, electric, or steam power for the cheaper combustion automobile alternative (Gilbert & Samuels, 1985). Yet, this shift was not without complications. Industrialists, advertisers, and social movements in the early 1900s helped build in problems of access to the combustion automotive industrial environment. The near industry-wide shift to combustion automobiles

translated problems of access regarding social, economic, and physical tensions onto taxi use. This problem was particularly evident in the emergence of the suffrage tax.

Leading industrialist Henry Ford and his competition built an industrial environment to privilege White men, create barriers for Black men, exclude disabled people and ignore women – at least until it became financially detrimental in the 1920s. In the suffrage tax, I show that problems built into the industrial environment and culture of the gas automobile transposed onto the regulation of taxi access.

The transposition of the tension inherent in the emerging automobile market became a taxi problem with Ford's use of the assembly line to lower costs of the Model T. In 1908, the emerging technology of combustion engine cars found a secure footing in the practical economics of a consolidating taxi industry. Its emergence was a cheap solution to challenge the popular though expensive and short-ranged electric automobile. Up until that point, taxi drivers and owners did not have to commit to one kind of automobile; they could use both and do so freely (Gilbert & Samuels, 1985, p. 34). However, decreasing infrastructure for electric car use (Scharff, 1992, p. 39) made sustaining them as cabs prohibitively difficult. Not only would sourcing parts for electric vehicles become harder, but the maintenance costs would also be prohibitive to the profession, which already operated on razor-thin profit margins. With production networks in decline, Scharff (1992) noted that reduction in broader public interest occurred a few years later in 1912 and 1913, as electric vehicles failed to keep up with gas-powered cars in terms of cost or practicality (p. 39).

Despite cultural work to position electric and combustion use along gendered lines,¹⁰⁷ the electric car's expensive cost and limited range could not compete with the low-cost availability of the Ford Model T (Scharff, 1992, p. 56). Although, as Gilbert and Samuels noted (1985, p. 34), this decline was helped by the demolition of more than 300 electric taxis under suspicious circumstances. The shift in the industry from using vehicles that both men and women could ride in, to almost exclusively combustion-engine cars would have eliminated one of the primary sources of women's geographic mobility and social participation.

The decline of electric car use, and thus women's mobility, was furthered by the consolidation of wealth, in part by taxi owners who converted fleets of taxis to combustion engines in mass.¹⁰⁸ Gilbert and Samuels (1985) noted that the overall wealth in the United States increased in the 1920s to 1930s (p. 38-39). That wealth was not distributed among the general American public. According to Saez and Zucman (2014), it was consolidated among a few wealthy individuals and families, some of whom were early investors in the taxi industry and were almost exclusively White males.¹⁰⁹ By 1915, these individuals began consolidating the disparate taxi drivers, owners, cars, and engine types into homogeneous giant taxi fleets. Some were bought out, others coerced by threat and the use of violence,¹¹⁰ and a previously

¹⁰⁷ See the essay by Virginia Scharff entitled "Femininity and the Electric Car" (Scharff, 2004).

¹⁰⁸ See Gilbert and Samuels (1985, pp. 33, 38-45) for statistics on early ownership and fleet use. Electric vehicles ceased to be a profitable option before 1910, and the increasingly inexpensive nature of combustion cars positioned them for widespread adoption by taxi owners.

¹⁰⁹ Future magnates of the for-hire and transportation industry were noted by Gilbert and Samuels (1985, p. 39) as John Hertz, Morris Markin, W. Lansing Rothschild, and Frank Sawyer.

¹¹⁰ A number of authors note the particular violence of taxi conflict and 'wars' during the time of consolidation. The violence was also featured in the movie *Taxi!* (Ruth, 1931). The description of the movie reads: "independent cabbie Matt Nolan is primed to let his fists and handgun deliver payback after a big taxi firm uses intimidation and violence to squeeze out small-timers."

scattered industry was now controlled by a wealthy few. As part of the homogenization process, the variety of cars were largely changed out for combustion automobiles. Thus for those who could afford a taxi, gas-powered vehicles were the only choice.

The pervasiveness of combustion engine taxis held some important implications for denial leading through the last years of the suffrage campaign and into the Great Depression. According to Walsh (2008), society had not yet dispensed with Victorian-era divisions of labor nor the cultural work performed to associate men with combustion cars and women with electric. However, the decline of electric cars and electric taxis made vehicles deemed appropriate for women to use more scarce until after World War II. That did not mean that no one was interested in improving female mobility, but rather that the ‘cult of domesticity’ that positioned a woman's mobility beneath that of her husband “remained strong” (Walsh, 2008, p. 381). Only women, typically from upper-class society with both the means and fortitude to withstand accusations against their morality (Steinbach, 2012, p. 17), their sanity, or criticism of their person (Scharff, 1992, p. 25; Walsh, 2008, p. 381), drove combustion-engine cars.¹¹¹

This consolidation of wealth also meant that car ownership was reserved for upper and middle-class wealthy. Though Ford’s Model T facilitated an unprecedented push for making car ownership or use accessible to the working middle class, the barriers to doing so (e.g., good-paying wages and insurance) favored White men. For

¹¹¹ Importantly, many women with the means to do so did drive in defiance of cultural norms and with financial (and sometime spousal) support.

urban cultured women, it was still limited to the upper class. Walsh (2008) noted that women of elite cultural and financial status like Edith Wharton, Gertrude Stein, and Rose Wilder Lane had the gravitas to own and operate a car in their contemporary city environment, in defiance of, or exception to, cultural norms around women driving. For most others, car ownership for recreation would remain culturally and economically out of reach until World War II. This positioned the taxi as a viable alternative to car ownership. Yet, the cultural and financial barriers that enacted a narrative of the prohibition against the mobility of middle-class women were transferred to taxi use. While it is hard to capture how many women did not ride a taxi, autobiographical accounts of the early 20th century taxi drivers Betts (1930) and Hazard (1930) warned of the problems and responsibility of driving an unaccompanied woman and the frequency with which women appear in their stories is limited. For Betts, the first account of having a woman as a passenger was in the early 1920s (p. 166).¹¹² Other public accounts placed female taxi riders in an unfavorable light. For example, the New York Times article “The Iliad of a Taxi Driver” (Fox, 1922, p. 46) described stories of women riders who planned poorly, were absentminded, or had a drug addiction. The later publication “Portrait of the New York Taxi Driver” (Mackenzie, 1934, p. 9) waxes nostalgic and describes in unflattering terms the relatively new and unnecessary problem of having intelligent women as fares. Together these accounts suggest that in the early 1900s women

¹¹² The author estimated the year here based on a few particular details. One was that Dave Betts had returned from World War I, placing the years in at least the latter half of the 1910s. This was further narrowed by the use of the term ‘tarantula’ (p. 159) to describe a fare that had been drinking, coupled with a reference to his opposition to Prohibition (which did not start until the 1920s), and that he was for women's suffrage (p. 140), which all suggest that the account is after 1920.

passengers, particularly single or unaccompanied, were relatively scarce due to cultural reasons and its unaffordability. The cultural backlash criticizing the motivations, dispositions, morals, or general intelligence of women passengers indicates a deep-seated cultural resistance to a change in the mobility and visibility of upper- and middle-class White women. This resistance is congruent with cultural resistance to women voting noted by McShane (1994) and Scharff's (1992) research noting women's general use of automobiles to attain personal and societal mobility.

4.3 Material Conditions of Denial

Other forms of denial were resonant in the emerging taxi market, restricting the mobility of other demographics beyond middle and upper-class women. The operation and use of many different types of automobiles were both difficult to access and physically demanding. The material design of accessing or using early cars, whether electric, gas, or steam-powered, did not cater to the needs of disabled people or others with mobility assistance. As the Model T began to dominate the automotive market, problems of access and use were consolidated within its design. Accessing and using the Model T was physically and cognitively demanding. What this consolidation did was to locate the problem of access and use onto the individual. It was incumbent upon the person with mobility needs to figure out how to make transportation work despite the environment not being designed to facilitate their access. For example, according to operation guides, the driver had to enter through the passenger side because the placement of the steering column made an entry on the driver's side impossible (McCalley, 1994). Sitting in the back seat could unlatch the driver door, and the car was lifted quite high off the road making the step used to access the car

precarious in the best of circumstances. The operation of gears, levers, and switches to make the car move required strength and coordination. It required so much movement it became referred to as “the Model T dance” (Elliott, 2016). People with mobility concerns or problems with coordination would have needed someone to help them into and out of the car. The material design of the car and how it was to be used were structured forms of denial, arbitrating access only for the most physically fit, mentally capable, or privileged enough to have someone drive for them.

This marked an important shift in relations with the Model T and the automotive taxi more broadly. The material relations built into the car by the Ford Motor Company, among others demanded the individual figure out how to physically navigate the car to use it. Industrialists like Ford were most concerned with low-cost materials and speedy assembly rather than user access (indicated in Sorensen, 1956, p. 138, 141, 191, and cited in Scharff, 1992, p. 112).¹¹³ What should have been an issue between car manufacturers and the users was instead shunted to be a problem of driver-passenger relations. Both Hazard (1930) and Betts (1930) described circumstances around which their labor outside of the cab was necessary for helping a passenger navigate the material environment. Drivers were expected to help people who were older, sick, injured, or under the effects of alcohol or drugs (p. 39-48, 52-53) to navigate a built environment whose obduracy discouraged independent mobility. Their accounts reflect a broader transition in the responsibilities of the

¹¹³ Examples of this include the difficulty of cranking the car to start it, the frequency with which many early Model T's caught fire due to poor design decisions, or the placement of the steering column that made entering the car through the driver side door a feat of contortionism. Regularly drivers entered through the passenger side. In one instance, Olive Shultz remarked that her car was so cold that she cut a hole in the bottom and used the head from the exhaust to keep her feet warm and comfortable.

driver. Simultaneously, expectations of labor beyond the task of driving also became built into the environment around taxi use. The duty to help make the inaccessible material of the built environment accessible became part of the taxi driver's job. Drivers' decisions helped buttress the accessibility of the material environment, while also shifting the problem of accessibility onto drivers' decision making, giving over the task of regulating access to the driver instead of making changes to the car's physical infrastructure. It also represents a gendering of the taxiing profession.¹¹⁴ Between the transition to combustion-engine cars, the masculinity they represented, and the physical labor, dangers, and authority of regulating admission that the taxi driver's labor now included the taxi of taxiing, its role in society, and those who propagated it effectively gendered the machine, driver, and social role amalgam masculine.

While some of the technical aspects of the car, such as starting with a push-button ignition instead of a crank, making driving easier for those who could afford it, the task of entering and exiting the vehicle did not enter into the discourse of aftermarket personal car design until after World War II. Aftermarket products like General Motors' (GM) Valiant conversion in 1946 ("Accessing America: Postwar Era," 2005), and Drive-Master hand control system in 1952 (Drive-Master, 1952) grew out of increasing demand for mobility by veterans injured in the war and others whose mobility was limited due to polio or other conditions. It was not until 2010 that the first factory line wheelchair-accessible vehicle, the MV-1, was made publicly

¹¹⁴ For a discussion of gendering culture of taxi drivers and personal gender identity, see Berry (1998). For further reading on relations between city landscapes, gender, and the car industry see Walsh (2008) and McShane (1994).

available (Vehicle Production Group LLC, 2010). Denial for physically disabled people was made firm in the inaccessibility of mass-produced cars. The physicality of the job prohibited disabled people from driving a taxi, thus also denying them economic opportunity. Passenger denial was hard-baked into the high steps, complex mechanics, and heavy steel body that made access difficult. What this communicated at an industry level was that the participants as users of the car of people that could access the Model T was more valuable than societal participation by those that could not. Given Ford's perspective that people had to earn mobility through hard work and labor, the group that most benefitted from mobility were White employed male non-disabled workers.¹¹⁵

Other than physical denial produced by an inaccessible material environment, and the regulation of denial based on corporate disinterest and driver preferences, segregation was another form of legitimate denial built into the emergence of the combustion taxi. Scholars of segregation in American society, such as Raper (1933) and Myrdal (1996), offer some insight contextualizing the deliberateness of denial, while others such as Johnson (1998) and Sandefur (2004) linked segregation to moments in transportation history. According to Myrdal (1944, p. 796), segregation in the transportation industry meant that Black people seeking to ride in a taxi needed to hire almost exclusively Black taxi drivers. This was noted by Johnson (1998) in Tulsa, Oklahoma in the 1910s where White drivers could regularly refuse Black passengers

¹¹⁵ Some ways Ford articulated this included the belief that disabled people were less productive or had less potential than non-disabled people, that Black workers should be segregated from White workers and paid them less, that women should care for the home, and that lazy people were undeserving of the benefits mobility provided to society.

on ground of segregation, until a driver jitney (nickel) service using a Ford Model T (p.16). Sandefur (2004) similarly noted the taxi's use as a strategic tool both of emancipation and of social order in Baton Rouge, Louisiana in 1953, and Montgomery, Alabama in 1955. In these cases taxi-like services sprung up to aid Black community's mobility, but were halted by White leadership for any number of reasons including poor driving, lack of permit, a Black driver, or asking for too low of a price. In any case the established social order used the rule of law as a mechanism for strategically denying access to society by Black communities.

This had significant implications for building in denial as a means to reinforce and echo social order. Denial here for Black passengers seeking transit was multilayered. It included denial of supply, as Black taxi drivers were limited partially due to the informality of some drivers as 'licensed taxis' (Raper, 1933). If passengers could afford to traverse the economic denial of high-cost use, they had to navigate denial in the form of a threat to personal safety. Raper found that taking or attempting to find transportation from a White driver was dangerous, noting taxi drivers participated in lynchings (p. 395). That threat encouraged self-denial of mobility that was combated through communicating community-held knowledge of safe driving areas. This took the form of *The Green Book* (Seiler, 2008, p. 117, 119, 207), a guide for safe places Black people could travel, particularly in the southern United States. In many of these cases, denial of taxi access in certain areas contributed to and was shaped to decrease, the visibility and participation of Black people in a social order that prioritized the mobility of White middle- and upper-class society.

For Black passengers, denial was regulated not just by the taxi driver's preference and the passenger's affluence, but also the taxi driver's race. The prospect of driving while Black was a risky one. Not only did taxi drivers already experience a risk of harm, but segregation culture put Black drivers at more risk than their White counterparts. Both legal requirements and economic precarity inured into their position the idea that taxi drivers had to pick up anyone that wanted a ride. Yet, segregation made the prospect of encountering a dangerous or even life-threatening situation very real, and in doing so built-in denial both for taxi drivers and the passengers only they could help. Raper (1933) researched a not-so unusual case of a Black taxi driver picking up White men and being killed as a result. The men murdered the driver, shot his riding companion, who was also Black, and stole the car. During the trial, the defense counsel for the men argued that "the taxi driver was a potential rapist of White women. Capitalizing on this and similar prejudices they got the murderers off with a sentence of but five years each" (p. 256). The argument itself communicates that the murder ensured the maintenance of an unequal society. By linking the victims' race to the expectation of violence and risk it posed to the higher members of the social order, the lawyers argued for the maintenance of a society that saw Black men and Black bodies as threats to both White persons and law and order. But incorporating these ideas into the built environment did not stop there. The lawyers that justified murder for the protection of society went on to successful careers. Raper notes that "one of these lawyers is now a congressman, while the other holds an important county office" (p. 256-257). As a political and cultural dimension of the built environment, the political advancement of the attorneys into elected

positions communicates cultural support for the ideas they espoused in the pursuit of their work. This advancement allowed them to further embed into the legal and social environment the idea that Black mobility should not only be feared but treated as a criminal act. In this, there is a subtle denial, communicated both through the lawyers' advancement and the limited sentencing of the murderers that encouraged Black people to limit their mobility under the premise that should they not, it would be limited for them.

4.4 Automobile Emergence

Researchers have noted different ways in which the emergence of the combustion automobile at the turn of the 20th century was quickly incorporated into society's cultural and material landscapes. Kline and Pinch (1996, p. 763-764) neatly corralled early literature of the car's emergence into different categories of integration such as urban construction, economics, city life, and rural use. Heitmann (2018) and Flink (2001) considered the broad-scale cultural impact of the car's emergence coordinated with the flow of daily life, though Flink's early work (1970, 1975) was critical of industry dominance and near-exclusivity of economic opportunity for the social elite. McShane (1994) added the cooperative urban expansion of the American city and Seiler (2008) explored 'automobility' as emerging automobile culture and the social, economic, and political benefits provoked by newfound mobility and Packer (2008) considered the formation of a dominant car culture reinforced by specific media narratives, policies, and social practices. Others take a more industrial approach. Lewis (1976) explored the influence of Henry Ford and his combustion and assembly line technology on American car culture, McCalley (1994) concentrated on

the Model T's impact on culture and industry, and even popular media investigations like Elliot (2016), nostalgically revisited the complexities of early vehicle operation. These demonstrate that the built environment into which the Model T combustion-engine car emerged already had guidelines and policies upon which to frame its use. Ford and others had built cars before the Model T. Roadways were already accommodating gas, steam, and electric automobiles as well as the steel of shod horses' hooves, and the banded wheels of carriages. As combustion automobiles were quickly adopted by taxi drivers for use in the for-hire industry, so too did they lean upon the material and legal infrastructure, knowledge, practices, and public expectations that shaped their use. Lewis (1976), Lewis and Goldstein (1983), McShane (1994), Rae (1965), and Scharff (1992, 2004) all indicated moments where car culture was built, integrated, or incorporated into the existing environment. Marvin (1990) demonstrated this to cross urban industries, as innovations in home electricity around the same time were quickly elided into the flow of everyday life.

These technologies emerge encumbered by the conditions or pressures imposed on them by the built environment and add to it, rather than drastically reshape it. Many innovations like the combustion car were developed in conversation with the needs of everyday society. For the car combustion was seen as the answer to limitations posed by horse, electric, and steam power. But it carried with it existing cultural commitments that already unequally regulated mobility. For example, Kline and Pinch (1996) acknowledged that the combustion automobile's emergence was "inscribed for masculine use," in a similar fashion as the hackney carriage had been in the 1600s. McShane (1994, 2011) noted that the newfound mobility provided by the

car was deployed to support the continued social, political, and economic dominance of middle- and upper-class White men.

Scharff (1992, 2004) and Walsh (2008) observed that the electric automobile was gendered both as a female in form and a female in function. That is in part what makes the suffrage taxi's emergence a significant moment. Though taxi in some form had been integrated into everyday life, as a combustion vehicle the suffrage taxi straddled urban life's social, political, and material division between masculine and feminine. Scharff (1992) commented "at once domestic and theatrical, the Suffrage Taxi represented the merging of female and male spheres and announced women's arrival on the public stage" (p. 82).

The suffrage taxi as an important moment had largely gone unnoticed in taxi histories. Though few in number, works charting taxi history have acknowledged the emergence of the combustion engine's influence on the industry. Gilbert and Samuels (1985) acknowledged the industry shift from carriage to the car, and the car's consolidation into fleets, while Warren and Linskey (1976) traced shifts in taxi design through photographs from the early 1800s to 1970. While these accounts acknowledge the popular shift from horsepower to combustion automobile use by 1907, the fundamental task of for-hire transportation has remained relatively unchanged. Yet, neither acknowledge the presence of the suffrage taxi. One explanation could be that men chronicling the history of a traditionally male occupation may see one female driver as unimportant, or worse, an intrusion. From an institutional interpretation, the authors could also have seen Schultz in the scope of the role of 'taxi.' Aside from an important re-gendering discussed later in this chapter, Shultz could have been

overlooked precisely because she both good at the role and consumed by it. Although news accounts at the time regard her as a consummate professional (“Suffragette Now Runs,” 1913, p. 3), she was a driver in an industry of drivers. What made the suffrage taxi remarkable, according to Scharff (1992) was both the presence of a female driver, in defiance of gendered norms for car and taxi use, and its symbolic value and attachment to the suffrage movement.

4.5 Constructing Denial

Even though it may appear that middle-class women had access to transportation as much as their male counterparts, this was not the case. In the early 1900s, American society culturally employed the Victorian doctrine of ‘separate spheres’ (Steinbach, 2012, p. 133) and applied it to automobile use and ownership (Scharff, 1992, p. 40). ‘Separate spheres’ was the idea that men and women operated in different parts or ‘spheres’ of daily life. Men’s work involved labor outside the household and control of land and finances, while women’s responsibilities were tied to maintaining the household and raising children. Women who used transportation to seek opportunity and visibility outside of the home could be threatened and were seen as moving against the established social order. Threats included incarceration in asylums such as what happened with suffrage leader Alice Paul (Zahniser & Fry, 2014), social ostracization, or accused and incarcerated for being a prostitute like Lizzie Schauer in New York City (Matthews, 1994, p. 3), a commonplace phenomenon for working-class women (Scharff, 1992, p. 103). By labeling women seeking mobility as mentally ill or morally corrupt, policymakers, officials, manufacturers, and other stakeholders invested in maintaining the established social

order could undermine the accused's standing, opinion, and thus their influence in polite society. The result of a burgeoning car culture that shaped early taxi use was not only the control of women's social mobility, it was also a form of denial that hampered women's ability to participate in society, where doing so would have challenged their place in the separate spheres social order. The mobility of women is not only applied here to the governance of their geographic mobility but the governance of political and economic mobility as well.

For women at the turn of the century, access to the automobile was conditional upon social status, wealth, and choice of conveyance. Most women motorists, observed McShane (1994, p. 159-160), were wealthy even if they did not look it. It was the passenger women who could afford to be in fancy clothes that were impractical attire for driving. Desirable societal characteristics that distinguished upper- and middle-class elites from the rest of society were echoed in their choice of automobile. Scharff (1992) remarked that combustion automobiles were seen as loud, dirty, efficient, rough, and, like a good working man, permissibly malodorous after hard labor. As such, they were considered culturally appropriate for masculine use. It was a linking of the qualities of the car with the qualities of a productive man.¹¹⁶ At the time many people believed that the kind of car a man chose to drive or ride in not only communicated his manliness and thus fitness to be productive, but it also helped

¹¹⁶ While masculinity in the early 1900s carried with it much more nuance, these strategies to articulate the nuance were less public. The public image of the man or masculinity correlated with aggression, prowess, and assertiveness that articulated his ability to secure resources. For an exploration of that nuance in tension with public image, see Carnes and Griffen (1990).

establish and maintain it in the eyes of both himself and the public.¹¹⁷ In this way, the combustion automobile became both symbolic and literal articulation of masculinity.

Scharff (1992) wrote that women were culturally encouraged to drive or ride in electric automobiles as opposed to combustion engine cars. The reason for this was mutually reinforcing. Traits associated with the combustion engine car, and the masculinity it represented, were unbecoming of refined women. The increased mobility a combustion car provided a counter to a woman's place as a home maker. Electric vehicles were seen as quiet, refined, demure, and tame (p. 105). Just as the presentation of masculinity correlated with the use of combustion-engine cars, the use of electric cars mirrored what male-dominated society expected of a Victorian American woman (p. 40; Miller, 1922, p. 261). The discrete categories for men and women bound social utility to automobile use. What was considered 'appropriate use' of automobiles paralleled and fed back into Victorian ideas about gendered divisions of labor, limitations of societal interaction, and the advancement of society.

Scharff (1992), McShane (1994), and Walsh's (2008) research points to the cultural pervasiveness of this dominant ideology amongst the urban elite advocated in particular by upper-class White men and wealthy women. Unlike the middle class, they would not have found the exorbitant cost of an electric vehicle prohibitive or held enough cultural gravitas that they did not need to abide by such convention. For example, popular and influential industrialist Henry Ford supported the segregation of

¹¹⁷ This is consistent with automobile use and culture in the United States. For example, historically, see Heitmann (2018), through media see Packer (2008), for ties to the car's technical operation and fixing as masculine see Kline and Pinch (1996), and for cultural interaction within political, social and personal spaces see Seiler (2008).

labor by race, gender, and disability. Miller (1922) observed Ford's support of this convention. They argued that once a woman married, her 'sphere' became the home which stood in opposition to promoting the mobility of those tasked with the making of the home. Echoing Ford, Miller wrote:

A home is a place inhabited, not an apartment to which two working people come tired from their labor, to rest from a day's work. A home is a place inhabited by the spirit of home-making which spirit somehow requires the pretty constant bodily presence of the home-maker, who is supremely the woman. (p. 262)

However, it was not only socio-cultural links between the attributes of the car and the representation of gender roles that inured limitations into the transportation environment for women. Cultural expectations dovetailed with the automobiles' material capabilities buttressing the link between car use and social order. For example, Ford advertisements for the combustion engine Model T boasted at most 20 miles per gallon, and a 10-gallon for a quoted range of 225-250 miles (Ford Motor Company, 1908).¹¹⁸ Once the tank was empty it could be quickly refilled, allowing the user or rider to return to the road almost immediately. This allowed for greater mobility by limiting the time a driver was forced to be stationary to refuel, both saving time and extending the geographic range of possible travel. The flexibility afforded by this technology paralleled the permissible geographic and social mobility allowed of upper-class men, but not women. The link between masculinity and combustion automobile use was further cemented through the physical demands of operating a car.

¹¹⁸ Merrill, Sharp, and Osborne (2008) argue it was realistically more like 155 miles per tank.

Without power-assisted steering, braking, and shifting, accomplishing the task of driving took demonstrations of strength and skill.¹¹⁹ Coupled with the frequency with which early combustion automobiles had to be repaired—a dirty, hands-on, and stereotypically masculine task that often fell to the driver—combustion automobile operation was a distinctly masculine endeavor. Such public displays of strength, technical knowledge, and driving prowess would have been considered unbecoming of a ‘separate spheres’ woman (Kline & Pinch, 1996, p. 779; McShane, 1994, p. 153, 163; Scharff, 1992, pp. 52-55). To enforce these ideas, male motorists made female drivers unwelcome on the road. McShane lists numerous ways they discouraged women from driving including practical jokes, aggressive driving tactics, rude comments, and threats (pp. 159-160). He also notes limited infrastructure as women had trouble getting help at service stations, police ignored or avoided them, and hotels would deny women services. What these accounts indicate was a pervasive framework of cultural, administrative, and technical activities that was built and maintained to discourage women from using the combustion automobile unaccompanied by a male relation.

4.6 Building an Electric Car for Women

Though already a part of the urban landscape, the use and development of electric-powered automobiles in the early 1900s became associated with womanly use. The way women were culturally linked to the electric car, its industrial development,

¹¹⁹ These expectations stand in contrast to the needs of farm work emphasized by Kline and Pinch (1996), which for practical purposes of labor prompted women to adopt driving more readily at this time. However, this position does not refute the thesis here. If anything, it emphasized a distinction between the refinement of city life and the necessary rough demands of country living. In this sense, roughness of personality of labor was still associated with the combustion automobile.

and the innovation, or more accurately the absence of innovation, formulated a built environment around electric automobile use that can be read as a communication of the priorities of the male dominant society. Just as men were linked to combustion engine cars and discouraged access by women, the built environment also helped position the electric car as best suited to women's needs thereby communicating and reinforcing what the current social order needed from women.

The Detroit Electric, noted in Scharff (1992, p. 38), was advertised along similar lines: “to the well-bred woman—the Detroit Electric has a particular appeal. In it she can preserve her toilet immaculate, her coiffure intact.” This advertisement claims that the electric vehicle, as opposed to its combustion competitors, offered a ride that did not threaten the manicured presentation of a woman’s clothes (toilette) or hair (coiffure). The advertisement also reinforced the idea that the electric car was an appropriate means of transportation for women interested in maintaining a sense of propriety. Positioning the electric car as symbolically compatible with the image of the ideal neo-Victorian woman while also creating an incompatibility with the combustion car was a communication that represented a popular cultural narrative in an affluent society. Delineating what a woman could or could not be through her car use was a means by which White male-dominant culture could control and link the cultural mobility of women with their geographic mobility.

This was a pervasive ideology that straddled industrial to social life. Industrial influences like Henry Ford supported the masculine-feminine division up until the

mid-1920s¹²⁰ when he began advertising toward women. This gap in Ford's efforts from the beginning of the century, however, opened up a market for advertisers of electric automobiles that were losing the general market competition to the growing availability of the combustion car. It was a competitive strategy with cultural implications, as advertisers across the electric industry sought to capitalize on the popular Victorian link between women and home-maker ideals, and in doing so reaffirm them;¹²¹ so did advertisers across the gas car industry do the same for men while it was financially convenient and culturally appropriate.¹²²

Electric automobile advertisers and manufacturers had difficulty competing with the cheap practicality of combustion automobile for general transit. Instead, many pivoted to selling their cars to the husbands of upper-class women, and by the 1920s to the women themselves. Communicating with the men purchasing cars, advertisements in magazines such as the *Life* magazine (Clarke, 2007, p. 20), *Literary Digest* (Scharff, 1992, p. 38), and *Better Homes and Gardens* would regularly tout the electric car as something suited for womanly use due to its limited range, simple operating procedures, and redundant systems to prevent accidents. For example, in a survey of early 19th century automobiles, Hall of Fame motorcyclist Floyd Clymer wrote “in 1905 electrics were favored by the weaker sex because they required no cranking and there were no obnoxious exhaust fumes” (1953, p. 24). In the short

¹²⁰ This is when some of Ford's own advertisements started to appear that specifically targeted women as drivers, rather than as beneficiaries of being driven.

¹²¹ Examples of this linkage can be found relating to the auto industry in Scharff (1992), McShane (1994), and Walsh (2008), across industry practices in Marvin (1990), and farm work and machinery use in Kline and Pinch (1996) demonstrating a popular link not isolated to the automobile industry.

¹²² Roberts (1976) noted a number of occasions where advertising messaging for the gas car paralleled both technology development and a growing cultural acceptance of women drivers, for example the progression from push button start as the solution to a technical hurdle for women drivers (p. 111).

statement, Clymer was able to synthesize many prevailing beliefs of the moment. First, his statement relied on an assumption of strength as an innate biological difference with an attached value. According to his metric of value, the lack of strength as a ubiquitous trait of women was a deficiency. There is an important communication of social order in the interpretation of this sentence. In this example ‘weaker’ emphasizes that it is the woman’s strength that is lacking and not some other problem that impairs car operation such as the design of the crank or its mechanical resistance to being turned. Clymer used gas-powered car operation as the metric to evaluate strength thus defining the imagined woman’s weakness by her equally imagined inability to operate a gas car. I call these imagined because it was an oft reiterated idea that was also proven an inaccurate assumption. As Kline and Pinch (1996) demonstrated, women were perfectly capable of operating early combustion vehicles for rural use and farm work. Additionally, the word ‘weaker’ suggests comparison with a differently sexed person that is stronger. By presenting the category of the female gender as the subject to which weakness is inured, the author implies the stronger gender category is male, presenting the logic that men are proved stronger by their ability to operate a crank and in doing so entitled to own and operate the gas car, a sentiment also echoed by Henry Ford (Ford & Crowther, 1936). Conversely, a women’s inability to use the crank predisposes her to operate an electric vehicle.

To do otherwise implies that someone else (e.g., a man) would have to crank the car for her, a solution both impractical for general car operation and improper unless the woman was married to the man or she was wealthy enough to have a chauffeur. The association with women and a lack of strength was a flawed

justification for positioning women beneath men in the hierarchy of social order; and the use of the car both an articulation of that order and a vehicle by which the order of social dominance is continually reinforced.

The addition of ‘obnoxious exhaust fumes’ introduces a sensory dimension and refinement to the interpretation of Clymer’s (1953) statement. When the woman is the subject noun, she is the one who finds the adverse smell of exhaust obnoxious and thus avoids using a gas-powered car. In this interpretation, it is clear that the woman user is the target noun of the adverb *obnoxious*, which modifies the verb *smell* to constrain the breath of experiences a smell can invoke to indicate that she, the woman, finds the smell offensive. Placing the smell of ‘obnoxious exhaust fumes’ to the car’s use suggests that bad smelling fumes and their source, the combustion automobile, should encourage a woman of means to avoid such context by using an electric car. Yet, this can also be interpreted a second way, echoing the social order that puts the concerns of men over those of women drivers consistent with the reasons which public elite tried to relegate electric use to women. Since the writer (Clymer) has identified as male with a demonstrated investment in defining femininity as a qualifying factor for inferiority, the obnoxious adverb can be a framing of his experience of women who drive or ride in gas-powered cars. In this interpretation, the women shift from the noun experiencing the offensive smell to the object to which the noxious smell is applied. Thus, whether the woman is offended by the smell becomes irrelevant. The focus is shifted to the one experiencing and offended by the smell, the man, who is now subject to a woman driver’s offensive smell. The situation of an offensive-smelling woman would have been abhorrent to any person invested in the imagined high-class

Victorian woman whose identity was defined, in addition to her appropriate lack of strength, by her sweet or clean smell. The two qualifications of weakness and smell are linked in this imagined persona of the woman of class demonstrated a belief that the infrastructure of mobility in society, particularly the emergence of the car, was elided into existing practices, to reinforce them, that positioned men's access above women.

Clymer was not alone in his opinion. Advertisements provide a window into the intersection between industry and the target market for early automobile—upper- and middle-class White communities. For example, Rauch and Lang's Electric car advertisement, which promised that "any woman can run the car safely" (The Rauch & Lang Carriage Co, 1910, p. 67¹²³) speaks to the safety or durability of the electric car and positions its slow speed, heavy body, and easy operation as selling points that capitalize on the popular as a woman was believed to be incompetent, clumsy, or simpleminded¹²⁴ and thus prone to accidents. Far from obscure references to an individual gimmick by a single company, Rauch and Lang's advertisements represent industry-wide messaging. The Columbus Electric's marketing suggests the well-dressed woman would not be comfortable in a gas-powered vehicle (The Columbus Buggy Motor Co, March 9, 1912, p. 498) also posting similar advertisements (e.g., January 13, 1912, p. 88). Hupp-Yeats approached the problem from a different angle. Instead of discouraging women from driving gas-powered cars, they argued that

¹²³ Advertisements with similar messages appeared on February 5 (p. 243); April 2 (p. 659); March 5 (p. 449), May 7 (p. 935), and November 3, (p. 815).

¹²⁴ For example, a joke published by Ford in Clymer (1953) p. 151 made fun of the simple-minded mother who was confused about the presence of a Model T.

electric cars were more suited for women by playing on the popular idea that women were delicate and their experience needed to be less physically strenuous. The advertisement read: “women with memories of torn skirt hems and sprained ankles will appreciate [this car]” (Hupp Corporation, 1912a, p. viii; 1912b, p. 221). The advertisement referred to a specially designed step that extended between the body of the car and the ground. The justification for this ‘innovation’ was both practical and cultural. On one hand, a large step, like into a Model T or a horse-drawn carriage, was difficult to manage in a long dress with a limited hem line, like as a woman of culture might wear. The advertisement suggested that women who wore these kinds of clothes could maintain their cultured appearance in an electric vehicle while also encouraging women that drive or rode in electric cars to consider themselves cultured women, further solidifying the link between gender, class, and use. It also tapped into the association that women of class were fragile and needed to be cared; a step removed the foot of space that existed between the car frame and the ground which was more of a hazard than a woman of class should have to endure.¹²⁵

While the material presentation of the electric car communicated that a woman rider was of high standing in the social order, the capabilities of the car were also designed—and advertised—to reaffirm the expectation that a woman's duties should be centered on the home. One example of this was the limitations and lack of development of the electric car’s battery. According to Schiffer (2010, p. 75), the range of electric vehicles was limited to between 20 and 40 miles based on the

¹²⁵ Notably, this also demonstrates that accessible design for people with physical disabilities was possible in early iterations of the car, but not a priority as most disabled people who were also poor could not afford the cost of an electric car which could be as much as six times the cost of a Model T.

heaviness of the vehicle, conditions of the roads, and charge of the battery.¹²⁶

Compared with the gasoline counterpart, the electric car battery significantly limited its range and mobility of its users. This constrained the access of any, predominantly female, users to local routes in urban areas. Magazines at the time advertised for limited mobility, recasting the limitation as a feature. “It will go as far on one charge as you will ever care to ride in a day” (Raunch & Lang Carriage Co, 1910 p. 67). The implication was that women did not need to travel far from the home in the first place. For others it was “ideal car for city and suburban use” (Baker Motor Vehicle Co, 1910 p. 66), expecting that female homemakers were the ones who stayed in suburban and urban areas. These kinds of advertisements were not only commitments to the limited capacity of the battery, but also an expectation that their female user should not need more than what the limited range provided. The general mobility of electric car users was bolstered by its slow rate of charge. Once depleted, the electric car’s battery could take around eight hours to recharge. For the men to whom electric car advertisements were addressed¹²⁷ the delay in charging was touted as a design feature instead of a drawback. The lengthy charge time and small battery prevented too much and too frequent female mobility while leaving space for the completion of housework without

¹²⁶ Others had a more conservative approach. Clymer (1953) for example, said the average distance per charge was between 20 and 25 miles (p. 24).

¹²⁷ Scharff (1992) notes some examples on p. 38, 39-40, 47, 63, and 129-130, and Kirsch (2000) on p. 86, 93, 101. Other original material can be found in car and culture magazines published from 1898 to the mid-1920s, including articles in *Touring Topics*, “Why people Buy Motor Cars” (1925) p. 25; *MOTOR*, “Who Says the Woman Pays: The High Cost of Woman” (1921, August) p. 73; “Would Women Buy This Car” (1924, September) p. 29, as well as advertisements in *The Literary Digest* e.g., Baker Electric (1910, January 8) p. 66; Rauch & Lang (1910, March 8) p. 67; Columbus electric (1912, March 9) p. 498; and Hupp-Yeats electric (1912, January 27) p. viii.

the distraction of travel, and still provided increased localized mobility to complete errands more efficiently. Scharff (1992) wrote:

Just as conservative commentators admonished someone to forgo high-powered business and political activity and conserve their energy for domestic tasks ... so the electric vehicle might fulfill its mission as an ever-ready runabout for daily use, leaving extended travel and fast driving to men in gas-powered cars. (pp. 39-40)

The implication was that the long waiting time for recharging and limited mobility was not as suited to the needs of men as they were to women. It also reinforced the centering of women's labor in the home and simultaneously discouraged greater political and economic mobility that could have challenged the male-dominant social order. But the advertising statements have an implicit value embedded within them as well, beyond matching the users of cars to the ordering of society. It is a communication that the productivity of women is most valuable in the home and the productivity of men outside of it. It also suggests that broader mobility of men was more highly valued than the mobility of women, or at least that the mobility of affluent men was more beneficial to the maintenance of a society where affluent men held most positions of power.

Entrepreneurial and industrial stakeholders contributed to the gendered distribution of car use, actively limiting innovation to control the mobility landscape. On the one hand, this came from the absence of innovation. Manufacturing industries responsible for the development of the battery chose not to develop one with a longer-range capacity that would have enabled electric cars to travel further. Thomas

Edison's early work with Henry Ford speculated about a larger capacity battery, but he ultimately chose not to pursue it (Scharff, 1992, pp. 38-39). Scharff notes that Edison's electric company failed attempts creating a longer battery made it unprofitable for a dwindling market, and Ford did not pursue women as customers until the 1920s (Walsh, 2008, p. 383). Others, however, saw the development as unnecessary. C.H. Claudy, the automotive columnist for the magazine *Women's Home Companion*, remarked that these were cars with a 'circumscribed radius' (noted in Scharff, 1992, p. 41) that allowed women the ability to maintain propriety while accomplishing the small tasks of daily life.

While some might have seen the limited range and long charge times as a weak point in automotive sales, others saw it as an opportunity. Advertisers and industry manufacturers were quick to capitalize on fragmenting markets for car types based on social roles and the current order of society. Several advertisements from car manufacturers, such as those noted by Scharff (1992, pp. 38-40, 129-130) also dovetailed with developments by home product manufacturers such as General Electric (GE). Where advertisers sought to sell electric cars (to men) for women, companies like GE produced home charging stations designed to accommodate the limited battery capacity (and limited range) of electric vehicles, capitalizing on the cultural trend of centering women's labor in the home by developing home charging stations (General Motors, 1914, p. 186). This was more than smart marketing. It was the incorporation of technology into a home life that helped build permanence into the presence of the limited range electric vehicle and control of mobility it helped enforce. Together with the short distance of the electric car, technologies and their marketers

helped continue to center the mobility of women around the home, reinforcing the social order. Emerging technology, in this instance, was both guided by, and helped make firm, an ordering of society that privileged men's mobility over women's.

Cultural figures outside of the industry buttressed these industrial choices. Popular columnist Herbert H. Rice argued against the need for such developments. Speaking of the women that used the car and not the men that purchased it he commented, "not in one hundred users requires a service extending beyond thirty five miles, which in the majority of cases the odometer would record less and fifteen miles for the days errands" (Herbert Rice 1908 as cited in Scharff, 1992, p. 28). Importantly, neither Rice nor Claudy¹²⁸ nor advertisers were speaking directly to women; they were speaking about them. These stakeholders were communicating with the men in control of household finances. This was accompanied by a cultural and economic trend to cut women out of the purchasing process altogether. Scharff's examples demonstrated industry concern over women resisting or interfering with the car buying process. Examples included women's reluctance to spend money on cars because it cut into their frivolous shopping habits (p. 133), that the process was too complicated and they would be more comfortable doing simple tasks (p. 127), or that women were poor judges of quality (p. 127). But the impact was doubly problematic. Not only was it encouraging men to remove their wives from the decision-making processes that circumscribed the latter's mobility, it also encouraged women to participate in their

¹²⁸ Claudy remarked about women, and not to them directly. Two quotes used by Scharff, 1992, p. 41 illustrates this point. "what a delight to have a machine she can run herself", "ever been an invention of more solid comfort to the feminine half of humanity than the electric carriage?". In each example, he talks about women but not to them, even going so far, as Scharff also noted, to infantilize them.

exclusion. The multidimensional approach to exclusion was a form of denial by limitation built into the process and practices of consumer relations, automotive development, and burgeoning automotive culture. These venues of communication for a time complemented each other in encouraging the limited mobility of women. They represent some contours of structural denial that were built into the use of emergent automobiles from privately owned vehicles to taxis.

However, beneath the veneer of concern for the women lay a concern that encouraging mobility was a threat to men and the existing order of society. In the first instance, it would have taken women away from the home. Not only would this lead to greater societal participation by women, a prospect McShane (1994) noted was feared by many affluent men at the time, but would also force some men to transition to caring for the home instead. Such a task would be a usurpation of not only gendered priorities but the ordering of society itself. In a similar conclusion, Marvin (1990) reflected on the emergence of electric-powered technology being incorporated into the current order of society. She argues that “new electrical inventions and ways of thinking about electricity were given shape and meaning by being grafted into existing rules and expectations about the structure of social relations” (p. 233). In Marvin's (1990) example, the deployment of electricity-powered communication technology also helped re-center female labor in the home in late 19th and early 20th century American society (p. 23). She observed that telephones as material technology, and their culturally advertised use of maintaining a woman's social life, were positioned as a home accessory to locate the woman's means of communication with the outside world back into the home. In doing so, telephone use and the home technology of the

phone reaffirmed the social norms that centered female labor and participation in society within, and in service of, the household. Like the electric car, the emergence and integration of electricity-powered technology into society reflected stakeholders' investment in the current structure of society. Emergent technology, Marvin argued, becomes incorporated in ways that reflect “concerns to preserve a familiar social order whose advantages to themselves [men in positions of power and authority] were enhanced by technology” (p. 233). Jain (2005) calls this phenomenon a vicious guarding of the provinces of masculinity (p. 195) of which access and use of the automobile was one.¹²⁹

The works of McShane, Scharff, Jain, and Marvin indicate an important nuance to the cultural labor of positioning the electric vehicle for women. One of those ways discouraged women from using the combustion car while another encouraged them to use the electric alternative. Though both designed to confine the mobility of women the former approached framing mobility limitations through the mitigation of risk to self, the public, propriety, and society, while also conveniently allowing men the agency to commute risk acceptably in areas where women could not. The latter was framed in terms of affordance, what is allowed. Strategically, what it allowed was the more efficient undertaking of existing place in society, localizing women's identity, geography, and participation to the home. Yet, there is an additional dimension to this

¹²⁹ Jain (2005) recounts physical, and emotional violence enacted on women seeking to invade men's dominance of automobile use. One example describes Joan Cuneo's removal from early 1900s auto racing through deliberate policy changes in who was allowed to drive and violent acts of assault including other drivers pouring hot coffee on her.

labor, a recapturing of the cultural terror that men perceived they were losing due to increased female mobility.

The built environment around automobile use culturally, materially, and financially limited the mobility of women at a time when national concerns over suffrage were gaining in popularity. Women's suffrage was a response to limited mobility in society, particularly about political participation. The resurgence of 'separate spheres' sought to recapture divisions of labor in society and maintain the status quo. McShane (1994) noted that men responded in numerous ways to lay a masculine claim over various aspects of society, from the maintenance and manufacture of cars to other forms of technical employment in math and science. To do so they justified divisions of labor based on sexual difference, reasoning that sex was a genetic marker that predisposed men to be more productive in occupations and tasks outside the home. He states that "men argued that they were steadier and more efficient; women more nervous and excitable. They also claimed that women's reproductive responsibilities would interfere with professional careers" (p. 153) and sought to eliminate both women's driving and their broader interaction with society through increased employment opportunities. It was a countercultural response to what Jain (2005) noted was an increased demand for women workers in assembly lines and White-collar office work due to industrialization (p. 195). Though these claims lacked scientific substance, according to McShane (1994) they provided a cultural impetus to justify the continued dominance of men in middle-class occupations which included driving and car maintenance, and in agreement Jain (2005) also remarked that it placed men physically in the driver's seat and symbolically at the head of the family

thus reasserting men's control by captaining geographic destination as well familial and societal trajectory.

The slow cultural shift away from a separate spheres ideology, in part, precipitated by the financial appeal to industry investments, dovetailed with increased demand for women in the workforce, and increased societal participation shaped a pushback against separate spheres ideology. Early 1900s counterculture vying for the increased mobility of women took form in movements like the campaign for women's suffrage and coincided with increased opportunity for employment outside the home due to demands of World War I. Scharff (1992) noted that the war presented an opportunity for women to take on the task of driving. For wealthy women, it afforded the chance to "shrug off the Victorian constraints of femininity" (p. 101), and middle class and poor women a chance to learn the skill of driving not previously within practical reach. This demand was accompanied by a shift in advertising tone that signaled some industry support from women as accessories to driving (Clymer, 1953; McShane, 1994; Scharff, 1992), to women drivers. Leading into the 1920s, GM led a manufacturing push to market cars to women (Scharff, 1992) and advertisers began to embrace the woman's role in car buying (p. 118-119). Articles appeared in *Motor* magazine such as "Would Women Buy This Car" (1924, p. 29), "More or less feminine" (*Motor*, 1921, p. 44), "Dainty Accessories for Women Motorists" (*Motor*, 1922, p. 28), "The Women Decide" (*Motor*, 1923, p. 96), and "Appealing particularly to women motorists" (*Motor*, 1923, p. 50).

The campaign for women's suffrage became a popular venue for showcasing the cars use in pursuit of such a progressive idea as suffrage (Clymer, 1953, p. 24).

This sent an important signal. On the one hand, suffrage was an achievement allowing women to participate more broadly in society, but a closer look reveals that the success of the suffrage campaign, echoed by the practices of the suffrage taxi, in part depended on reinforcing a social order that benefitted White men. In other words, cultural access to the automobile and use of the taxi was dependent on a subscription to, and not the usurpation of, the White male dominant status quo.

In effect, this was structuring and restructuring of denial built it into the fabric of the environment around the emerging automobile. Denial here was a mechanism of control, a prohibition against the reordering of society. Automobile use reflects and helps strengthen the permanence of social order. In agreement with Marvin's view of the telephone (p. 233), the material technology of the car was incorporated into the pre-existing structure of society, not a rearrangement of it. Although social order is not solely dependent on car use, the emergence of the car use culture became part of its maintenance.

4.7 Industry and Segregated Society:

This gendered position on the material was similarly buttressed by industrialists. As a successful industrialist, Henry Ford had a strong influence on popular culture, particularly around automobile practices and use, and his practicality, productivity, and ambition saw him labeled by his contemporaries as an 'Ideal American' and model citizen (Miller, 1922). Thus, Ford's position mattered not only in how he ran his company or in being the major supplier of early automobiles; his views on automobile use, transportation access, and the structure of society echoed and reinforced popular dominant cultural beliefs. Charles Sorensen, a close friend and

manager of Henry Ford's empire, emphasized the gendered preference for male car ownership in the building and market position of his cars. "The Ford Model T was built so that every man could run it," and every working man could afford it (Sorensen & Williamson, 1956, p. 136, 142). This sentiment was not Ford's alone, as Rose (1953), Packer (2008), and Seiler (2008) argued that the industry and the gendered stratification of driving promoted a car culture that was widely shared among the middle and upper echelons of society.

As both a cultural and industrial force Henry Ford's opinions on mobility and access position both helped reinforce certain perspectives and influence the emerging automotive market to reflect them. Ford saw the stratification of gendered car use as a practical business apparatus regarding the Model T (and later the Model A as seen in Henry, 1959). In an interview, Ford remarked that "wages should always be sufficient for the worker [i.e., the man] to support the family without requiring the homemaker also to go out and work" (Ford & Crowther, 1936, p. 11).

Embedded in this sentiment were two important and related social distinctions: one between men and women, and the other between productive men and nonproductive men. Predictably, Ford's view was that men and not women, being productive partners, should be the ones to purchase and use Ford's cars. The other important emphasis of this statement was its emphasis on productivity. That productivity deserved mobility and, conversely, lack of productivity did not. If to be a man was to be productive, and the productive man should own or use a car, then conversely the unproductive man was both less deserving of mobility and less of a middle-class White man. What this facilitated was an ordering where the produce man

was placed above the woman in the social hierarchy, but the non-productive man was deservingly below them both. According to Ford, if a nonproductive person could not be made productive then they should not be granted mobility and the opportunity to negatively influence others. Miller (1922), quoting Ford, said “only self-reliant people can self-governing” (p. 312).

In these statements, Sorensen and Ford emphasized another important condition for vehicle access: productivity correlated with masculinity. It was the division between productive men and unproductive men. Men who worked were men also deserving of car use. Conversely, men that did not work were not men, and thus not deserving of car use. Ford believed that charity undermined a person's sense of worth, was humiliating (Greenleaf, 1964, p. 120), and went hand in glove with his sentiment that the need for charity was a European—immigrant— ideology that threatened the American values of self-reliance.¹³⁰ In his mind, even unemployment benefits were the province of a lazy man. Ford had the opinion that “in the end, unless they obtain enough mental and moral hardiness to lift them out of their soft reliance on ‘feeling,’ they are failures” (p. 171) to society, their gender, and themselves.

Furthering the category of not-men was its translation to non-White and disabled men. Though Martin (1922) is quick to extol Ford for his policies of equal pay between men and women;, others noted that up until the 1920s Ford only hired Black men for menial tasks that paid less (Greenleaf, 1964, p. 116), and gave disabled

¹³⁰ According to Greenleaf (1964), Ford argued publicly that proposals for unemployment insurance extending into the years of the Great Depression of the 1920s and 1930s were “really schemes to substitute ‘European ideas’ for the principle that every man should take care of himself and be responsible to himself” (p. 120).

people work he considered unfit for, or wasted effort, for an able-bodied man. Ford remarked that “it is a waste to put an able-bodied man in a job that might be just as well cared for by a cripple” (Burlingame, 1955, p. 173). Ford saw disability as something comprising less than a complete man. The value of a disabled person was not in their productive capacity, which was less than others, but in their ability to boost the company’s public image by putting disabled people in the front of his Rouge plant in Dearborn, Michigan, for the publicity of demonstrating his ability to remake disabled people into productive members of society. Through productivity, Ford helped reform what he called the “dark world of the defective” (p. 173) into contributors to society.

In the nebulous association of masculinity through productivity, Ford found tension in encouraging the economic, social, and geographic mobility of Black men. On one hand, he recognized their productive potential, yet on the other hand, they represented a danger to the productivity of others. His solution was to encourage the control and regulation of Black people’s access to and interaction with White society. Though he hired Black men, notes Greenleaf (1964), Ford firmly believed in segregation as a means of safely ordering society. According to Ford, White and Black men could work together, “but they should live, worship, and be educated apart from each other” (p. 115). Meanwhile, Black men were excluded from more profitable jobs and higher technical positions due to Ford’s agreements with White-exclusive unions (p. 116). To manage the dangers provoked by the inevitable intermingling of White and Black workers on the manufacturing floor, Cogdell (2004) found that Ford had workers inspect the homes of poor, immigrant, and Black employees for cleanliness.

His reasoning was not an act was not charity, noted Cogdell, but an echoing of the pervasive belief that Black Americans exerted a “downward pull that is contagious like a disease” (Carl Jung as cited in Cogdell, 2004, p. 167) on the White people who shared their proximity. Such downward pull was believed to spring from a genetic predisposition toward laziness, disease, and disability (Van Wagenen, 1912, p. 462). Not only was the belief that these qualities had a negative impact on a person’s productive potential, but they also threatened the productivity of others.

Cleanliness inspections had another implication in its association with culture and civilization. By promoting cleanliness, Ford could civilize his Black and disabled workforce and ensure their place beneath White workers in the social order. For Cogdell (2004) it was a means to control who received the benefits of civilization as cleanliness correlation to civilized society. What this means on the manufacturing floor for White workers was higher pay salaries, positions of authority, and the ability to afford and use a car. She argues that the system was designed so its benefits “largely remained the sole prerogative of [W]hites” (p. 167). According to Harley Shaiken (Cwiek, 2014), what this meant for White working men was the ability to afford the cars that they made. For Black working men, who by the 1940s still only comprised 3% of the automobile workforce (Sugrue, 2008), it was a window into the privilege of Whiteness they could not attain. For Black workers to pay less for the car they helped build would cost more of their annual salary and thus be proportionally more expensive than their White counterparts. This represents a building of the material, economic, and cultural environment that shaped a dimension of early car

access and use unequally in favor of the White middle and upper class, and the image of Ford's predilections about the order of society.

4.8 Structuring Distribution

Henry Ford was not unique in his discrimination nor in the way discrimination trickled down from manufacturing plant to dealerships. Tedlow (1988) observed that Ford was intent on micromanaging all aspects of his business from factory to dealer. Though this led to some predictable problems of disorganization and inefficiency, it allowed Ford precise control over his car distributors and dealerships. In this way, Ford's ideas, echoing the segregationist ideology of the time, were mirrored not only in Ford dealerships but by competitors who saw Ford's success as the gold standard. Sorin's (2020) work detailed that in the 1940s many car dealerships were still segregated, and if not outright denied service, White salesmen grudgingly sold cars to Black car buyers. Furthermore, when Black people were serviced, they found that disproportionately they had more unfavorable loan repayment terms than White buyers, making the cars cost more for Black buyers.¹³¹

Black communities turned instead to Black dealers or buying cars second-hand. Accounts of the first Black car dealers Homer Roberts (Restuccia et al., 2001), Dan Gaines (Thompson, 2003), and Ed Davis (Davis, 1979) help illustrate the complexity. Collectively the men had extensive industry experience as employees for large companies like Ford, Dodge, GM, Chrysler-Plymouth, and small companies

¹³¹ This practice still continues. In January 2018, Rice and Schwartz of the National Fair Housing Alliance (NFHA) issued an extensive report titled "Discrimination while buying a car" which revealed that non-White buyers receive less favorable loan terms, worse pricing options for cars, and pay more over the average life of the loan.

such as Hupmobile and Studebaker among others. These accounts noted that from the early 1900s to World War II, there was a popular belief in the auto industry that salesmen should best sell only to those of similar race. Ed Davis (1979) remarked on his earlier years working as a salesman. “I could not work on the showroom floor with White salesmen. I was told that if I worked on the floor, I would be seen by prospective White buyers, and that would be bad for business” (p. 19).

Challenging segregation to buy a car could prove dangerous for both salesman and customer. Davis, as well as Roberts and Gaines, had to go into Black communities to sell cars. Eventually, many started their own firms. Sorin (2020) and Thompson (2003) both argued that these Black-owned dealerships were essential in providing a safe environment, while also being a major conduit for obtaining transportation for the Black community. Both Roberts’ and Gains’ newspaper advertisements emphasized that as a feature. Gains advertised his dealership as “America’s only authorized Race Ford Dealer” (Thompson, 2003, p. 109). Here the word “race” had nothing to do with fast-paced cars, according to Seiler (2008) and Sugrue (2008) among others, it was a signal to the Black community that it was a safe place to shop.

Problems of discrimination in the workplace including poor treatment and lower pay caused Davis to shift to selling used cars (1979, 1985). That he could never broker a deal with the ‘big three’ companies (Ford, Chrysler, and GM) to resell their cars as a certified dealer reveals some extent to their prejudice given that Davis, following Gains, were some of the only safe local Black car dealers. To deny him the legitimacy of making him ‘authorized’ was to convey support of the institutions that limited the ability for Black communities to access reliable transportation. With

authorization came increased security for the buyer and an increased burden of coverage on the manufacturer. As a common financial practice at the time being Black was assessed to be a higher financial risk than what insurers were willing to take on (Sorin, 2020, pp. 71-74). Thus, not authorizing and insuring vehicles for the Black community placed the burden and risk of malfunction on the buyers, coupled with a large number of used cars, increased the Black community's financial risk of car ownership and use.

This discrimination was more than individual acts of deviance perpetrated by salesman or manager. The manufacture and sale of cars coupled with loan practices that historically gave Black drivers worse terms represented an institutionalization of increased barriers to access for Black drivers. This prejudice dovetailed with lower incomes, less employment opportunity, and increased geographic barriers built an environment where the number of resources a Black person had to spend acquiring a car, including time, travel, service, having to invest proportionally more of their income, made cars cost more.

4.9 The Suffrage Taxi

During the campaign for women's suffrage, the suffrage taxi was both a response to one form of denial and a re-articulation of another. As we have seen, in the early 1900s combustion engines were still largely viewed as masculine. As interest in electric cars dwindled, so did mobility for women except for the social elite. Having been culturally deterred from accessing the taxiing ritual by popular culture taxi drivers, as well as limited by access to economic resources, women who were

protesting the right to vote, also known as suffragettes, started their taxi service to provide protestors with mobility.

On October 2, 1913, Olive Schultz began a taxi business aimed exclusively at transporting suffragettes, though it was open to public use when not in service of the suffrage movement.¹³² Scharff (1992) aptly summarized the implications of the suffrage taxi's emergence: "at once domestic and theatrical, the suffrage taxi represented the merging of female and male spheres, and announced women's arrival on the public stage" (p. 82). Popular discourse and news coverage at the time convey some of the work the taxi performed for the suffrage movement. As a machine and in its role, the suffrage taxi (and taxis in general) provided mobility, but it was also an icon and one of the symbols of the moment. When necessary, the 5-seater cab converted into a podium for oration ("Suffrage Taxi Ruined," 1913, p. 7), one of the primary modes of communication and persuasion for suffragettes (Joliffe, 1994). The material of the cab allowed mobility and elevation. In this way, it built visibility, not only ideologically with words but physically to allow the speakers to be seen and heard. Its mobility allowed suffragettes to be carried and to navigate streets that were not built to accommodate mass transportation, allowing for greater flexibility and reach of audiences. The cab was a tool for the suffrage movement, and without it tasks from running errands to garnering support would have been more difficult, costly, and time-consuming. But it also helped to make the people and their cause more visible to the world. Often decorated in the colors and slogans of the movement ("Suffrage Taxi

¹³² Several articles indicate the multiple uses of the cab, including normal taxi fares in her hours off. See the *New York Times* "Suffragette now runs a taxicab" (1913, p. 3) and "Fares for Fair" (1913, p. 7).

Ruined,” 1913, p. 7), the taxi visually communicated the cause of suffrage to the public amongst a sea of undecorated cars, saying something of suffrage even if a suffragette was not there to speak for herself.

But this movement was not without resistance. Popular culture, noted Walsh (2008, p. 381), discouraged women from driving, owning a vehicle, and the general mobility that took them from the home. News descriptions of Schultz (“Suffragette Now Runs,” 1913) referred to her in masculine terms, noting her strength, determination, and work ethic. Such descriptions were congruent with the gendering of the taxiing role as masculine, and in doing so sought to re-gender Schultz as masculine to make her act of inhabiting the role of taxi driver acceptable, and thus not a threat, to the social order. Here Schultz took advantage of a gap in the built environment that socially but not legally regulated a person's ability to inhabit the role, responsibilities, demands, and risks of a taxi driver. Scharff (1992, pp. 82-83) noted the way discourse around the taxi was used by the suffrage campaign to help build correlations with women's independence and empowerment. Olive Schultz, along with the car's sponsor Harriot Stanton Blanch and other leaders of the women's suffrage campaign, were able to use the taxi to demonstrate women's abilities as productive members of society outside of the household and advocate that they were able to accomplish the same tasks as their male counterparts that occupied the majority of positions of prominence in society.

The suffrage taxi represented a built environment in conflict. Social demands for broader female mobility in society were both facilitated and made firm by the materiality and mobility of the suffrage taxi. These new ideas conflicted with the

'separate spheres' organization of society which had previously used the car also materially to build, bolstered by custom and financial control, limits around women's geographic, social, political, and economic mobility. Importantly the presence of the early taxi divisions of masculine and feminine, and the gradual reduction of access in step with waning support for the electric car, reflected an ordering of society. But it was this order that was challenged by the appropriation of the combustion-engine car, in defiance of societal norms around place and labor, to re-order society, echoing, structuring, and magnifying the intentions of the suffragettes that skillfully navigated its use. This tension illustrates important flexibility of taxiing as an industrial ritual. As a ritual for the maintenance of society, it bolstered different, even competing, visions of the social order. In doing so, the taxi can be seen as a locus of some cultural work undertaken at the time in ways that ultimately helped reconfigure women's participation in the political environment. The work of who should be allowed mobility was seeking a cultural change in the built environment whose advocates sought to depart from the 'separate spheres' idea of daily life. The use of the taxi and participation in the ritual toward the larger goal of women's suffrage communicates the ritual's utility in articulating and helping to achieve certain interests at a structural level.

That is not to say the suffrage taxi single-handedly made the suffrage campaign succeed. The industrial ritual takes on meaning when it reinforces institutional interests, otherwise, it is merely a ride that moves people from one place to another. It helped suffragettes and their supporters achieve their goals by facilitating greater access to society than would have otherwise been granted through private car

availability, public transportation, limited access to financial resources, and popular culture that discouraged women's independence, or uncontrolled, societal mobility. In this way, the taxi's ancillary role in supporting the suffrage campaign does not overshadow the effort and labor of the people vying for political participation and visibility in society. Like many other moments before, the taxi's role was muted. Schultz as a taxi driver participated in helping to restructure an environment that encouraged greater political visibility for women. That it was a suffrage taxi added meaning, a symbol overlaid atop the routinized role of taxiing, one that linked its participation to the suffrage movement and the taxiing amalgam to the symbols of political emancipation. Yet, its presence was far from unimportant. The women that were transported were slowly having to deal with being increasingly denied access to transportation, as practices of control were seeking to re-center their visibility and labor back inside the home as the decline of the electric cab denied them one of the few culturally acceptable forms of travel at the time.

For many, the campaign for suffrage was a success. Passed June 4, 1919, and ratified August 18, 1920, the Nineteenth Amendment to the United States Constitution prohibited denying the right to vote based on sexual identification (U.S. Const. amend. XIX). However, some, particularly Black suffragettes did not see success in such resounding terms. For activists like Ida B. Wells and Mary Church Terrell, the resolution found in the ratification of the Nineteenth Amendment was a compromise that demanded the denial of Black suffragettes by their White counterparts. Part of the cost of this compromise was to build in, limit, or deny Black women's visibility and place in the reordering of society that suffrage seemed designed to provoke. This

particular compromise was important because not only did it allow women the right to vote, but it also shifted the campaign for suffrage so that it could be built into the legal environment in ways that did not challenge the existing order of society.

4.10 Compromise and Denial

The placement, patronage, use of the taxi, and, of course, denial, echoed the ideals of the White-dominated suffrage movement. Ginzberg (2010), Brown (1997), and Dudden (2011) noted that many White 20th century leaders of the suffrage movement believed that political emancipation for White middle- and upper-class women were only possible when the image of women voting would not challenge the existing order of society. Like with the rise of middle-class male participation in the 18th century, for-hire access was allowed to furnish visibility for women, but only under the condition that both the taxi and the visibility it enabled maintained, and not challenged, the existing social structure. Contemporary suffragist leaders like Anna Howard Shaw, Elizabeth Stanton, Alice Paul, Alice Stone Blackwell, and Carrie Chapman Catt were concerned that the suffrage movement would fail if they could not secure the support of conservative White men (Brown, 1997; Dudden, 2011; Ginzberg, 2010). The price of inclusion came in the form of reifying the established social order through discrimination, actively seeking, and promising, to limit the visibility of Black suffragettes.

Moreover, politically mobile White women voted for the continued segregation and poor treatment of Black men and women (Terborg-Penn, 1998). In a written appeal to staunch conservative resistance to women's suffrage, Catt wrote that “White Supremacy will be strengthened, not weakened, by women’s suffrage” (Catt,

1917, p. 76). She calculated that White women outnumbered Black women in the south. This factor, in addition to poll taxes, literacy requirements, and other forms of voter suppression, meant that White women could buffer any growing discontent in the Black community “in the 15 states south of the Mason and Dixon line” (pp. 76-77). In terms of maintaining the social order, Catt assured the conservative electorate of the support of newly emancipated White women. “Women’s suffrage in the South would so vastly increase the White vote that it would guarantee White Supremacy if it otherwise stood in danger of overthrow” (p. 77), and strategically guaranteed the same cohort that women would not challenge the existing order of society that privileged men over them. She wrote,

If a sly dread of female supremacy is troubling the doubter he may find comfort in the rather astonishing fact that white males over 21 are considerably in excess of [W]hite females over 21 ... [and] ... restrictions in these states of property ownership represented by tax receipts, education and various other tests, would fall more heavily upon women than men, and thus admit fewer women than men to the vote. If the south really wants [W]hite supremacy, it will urge the enfranchisement of women. (Catt, 1917, p. 77)

The values that Catt espoused as president and on behalf of NAWSA, the political body that represented the suffrage movement, were given permanence in Catt’s writing and built into the amendment that granted political mobility for women. Scholars sympathetic to the tensions Catt was under as the president of the party argue that the voracity of Catt’s statements were necessary acts of political appeasement (McArthur, 1995, p. 315; Roberts, 2017, p. 26; Wheeler, 1995, p. 13) or omit the

White supremacist context all together (Clift, 2003; Irwin, 1921). Yet, the problem of discrimination within the movement preceded Catt's second term as NAWSA president. Letters between Catt's predecessor, Anna Howard Shaw, a protégé of Susan B. Anthony, and the organizational committee for the 1913 Women's March in Washington DC, Alice Paul, and Alice Stone Blackwell, articulated the tensions as a 'race problem.' Shaw advised Paul and Blackwell to discourage Black women from participation in the march (Shaw, 2018), which was coordinated to maximize the turnout of White participants. Paul wrote, "I believe a large part of our [W]hite marchers will refuse to participate if [Black people] in any number formed a part of the parade," and regarding the crowd of onlookers she argued that "the participation of [Black people] would have a most disastrous effect, as far as our cause is concerned, upon the host of spectators gathered here." Clearly, the participation of Black suffragettes was secondary to the comfort of both White participants and observers. Even in the language of consideration the interests, comfort, effort, and risks of Black men and women were marginalized in the context of White participation and comfort. Blackwell agreed with Paul (Blackwell, 1913) in the hope that Black women would self-segregate from the parade and choose not to participate. Furthermore, Blackwell suggested keeping the problem of discrimination out of public discourse. As the sole editor of the women's rights periodical *Woman's Journal*, Blackwell assured Paul that she had "no intention of raising the [race] question in the *Woman's Journal*. This is a significant action as the *Women's Journal*, purchased by Catt in 1917, had an influential role in society, operating as an organizational organ of the moment (Lumsden, 2019), popularizing suffrage for public consumption, and providing the

impetus for the movement's shift from public speeches to mass communication (Joliffe, 1994).

This interconnects a web of denial built into the environment around transportation and mobility, which extends from one event to the ideologies of an organization, to the discourse that the organization presents as a trusted source of suffrage information. It was the activity of constructing denial, to efface the discrimination that was shaping not only activity but policy directives in NAWSA. To do so was to vie for total erasure not only of Black participation in, and support for, the suffrage effort, but of Black women as partners in the fight for political mobility who were deserving of their societal mobility as well. Not only is discrimination itself an act of erasure and denial of opportunity, to orchestrate limiting the knowledge of discrimination is doubly damaging to its targets. As such it represents a coordinated effort to translate the denial practiced by the NAWSA leadership to built-in invisibility structured into the broader public understanding, and support, of suffrage issues.

Importantly this indicates that these actions were ingrained into the suffrage of the campaign-built environment and not the sole province of individual action, though it is easy to overburden an analysis of agency with all the deterministic qualities of a single leader's decision-making. But Catt's words and the organizational actions of Paul and Blackwell are more than rogue decisions made by deviant actors. They were not deviant at all, but representative of a chain of institutional priorities whose ideologies were built around maintaining the order of society while still vying for the greater mobility of women. In this sense denial was an articulation of these interests. The prospect of Black inclusion into the suffrage campaign was not only about access

to the right to vote or participate in the 1913 march in Washington but a decades-old concern that Black inclusion was a threat to the existing order of society. Catt's messages refer to the suffrage movement bolstering White supremacy as a means for maintaining the structure of social order. But more than political pandering, leadership of the suffrage movement from the time of its transition into the 20th century made efforts to reify a social order that for years had placed access to society and its resources for White men above White women, and White women above Black women and men. For example, after Anna Howard Shaw and Susan B. Anthony attended the funeral of Frederick Douglas in 1895, they were accused of aligning the interest of women's suffrage with that of the Black community. Shaw wrote following Douglass's funeral that "the event had an aftermath in Atlanta, for it led our clerical enemy to repeat his charges against us and to offer the funeral of Frederick Douglas as proof that we were hand in glove with the [Black] race" (Shaw, 2018).

Shaw made a point, both later in her autobiography and her public speeches at the time, of dissuading the public of any such link. Eight years later, at a New Orleans Convention in 1903, Shaw finally publicly addressed the accusation that the goals of women's suffrage and Black emancipation were connected. She said,

You did not wait for women's suffrage, but disfranchised both your [B]lack and your [W]hite women, thus making them politically equal. But you have done more than that. You have put the ballot into the hands of your [B]lack men, thus making them political superiors of your [W]hite women. Never before in the history of the world have men made former slaves the political masters of their former mistresses. (Shaw, 2018, p. 6144)

Framing this as a problem of the ordering of society provides context to Shaw's outrage. First, her comment—“[you have] disfranchised both your [B]lack and your [W]hite women, thus making them politically equal”—is a commentary on the position of Black and White women in the social order of society. Shaw's argument here is that, by not allowing women to vote, both Black and White women were equal in their powerlessness to enact political change and limited in their political mobility. Her outrage was not at the absence of voting but the presence of equality. It put into context the justifications made by Catt (1917) who argued that White women's participation was more politically powerful than Black women's, both because White women outnumbered Black women and because barriers to accessing voting (e.g., poll taxes associated with education, land ownership) more severely hampered Black women's ability to vote compared to their White counterparts. According to this argument, allowing both Black and White women to vote would not make them equal, but would reestablish the proper order of society by repositioning the power of White women above Black women. In this way, Shaw's ideas did not counteract Catt's, they agreed with them despite the 14-year gap. The second telling part of this statement of Shaw's opposition to a new social order articulated that giving Black men the right to vote changed the order of society in ways both unacceptable and humiliating for White women. She prefaced the statement arguing for the ubiquity, nationally and globally, of this humiliation.

The women of the South are not alone ... in their humiliation. All the women of America share it with them. There is no other nation in the world in which

women hold the position of political degradation our American women hold today. (Shaw, 2018, pp. 6144-6145)

It is a strong sentiment and broad claim, emphasizing that White women being beneath the station of Black men was a humiliating ordering of society. Her choice of the word ‘humiliation’ here is particularly telling. This was, again, not due to suffrage itself but the ingrained belief that White women were the natural betters of Black men, and any other arrangement was a shameful abrogation of the right social order.

4.11 Taxi: A Symbol and Communication

Given the suffrage leadership’s longstanding position on the appropriate order of society, it should be no surprise that when prominent Black suffragettes Ida B. Wells-Barnett and Mary Church Terrell, and other Black women from Howard University attempted to join the Women's March in 1913, they were asked by the leadership to self-segregate (Terrell, 2005, p. 212). This was not a universally accepted idea, notes Terrell, as some suffragists like Inez Milholland were vocal in their opposition to the idea of segregating Black women. Still, the organizing committee requested they not join in the march itself but instead go to the back of the procession and march both behind and separate from it. Most, but not all, ignored the request and marched with their state cohorts, such as Wells-Barnett and her group from Illinois (Wells, 1970), yet the demand was telling. It was a deliberate attempt to render Wells-Barnett and other Black suffragettes invisible to society and further dismantle the link between White suffrage and Black emancipation. In asking Wells-Barnett and Terrell not to participate in the march they were being denied access to the symbols of the suffrage movement, and the public association between the movement,

its symbols, and the Black suffrage community. It was a communication that the goals of NAWSA as an institutional body were those of White women. To include Black suffragettes would undermine the prioritization of White women over their Black counterparts which its leadership sought. These kinds of actions, wrote Wells-Barnett, “confirmed [W]hite women in their attitude of segregation” (Wells, 1970, p. 230).

Limiting Black women's participation in the march as a form of denial was not only evident in the order of marchers and the preferences of the organization's committee, but was built into the presentation of those symbols. Many of the participants in the parade were part of the tableau, a performance of historical figures, moments, and icons designed to communicate women's worthiness for greater participation in society. Inez Milholland, for example, portraying Joan of Arc, in white clothing with a white cape, mounted on a white horse (see Boissevain, 1913), and wearing a hairstyle invoking the fallen women of Victorian England (Lumsden, 2016, p. 87), led the procession. Others followed, such as the actress Hedwig Reicher costumed as Columbia (Reicher, 1913), and Lady Liberty and her attendants (“Liberty and Her Attendants,” 1913). It was a statement of a recurring theme, not a coincidence, that the tableau of participants were exclusively white, both in skin color and attire. Lumsden (2016) noted that the strategic manipulation of the female form, costume, and performance was designed to shape the male gaze, a symbol of both oppression and authority, into a political tool (p. 88).¹³³ Just as the women present were designed to provoke certain responses, so too was the absence of Black

¹³³Not everyone agreed to use objectification as a means of manipulation. Milholland was outspoken in the use of her solely for her attractiveness, and commented that she wished the leadership valued her mind instead of her looks (Lumsden, 2016, pp. 82-84).

participation designed to temper that response. Yet this, in its labor to manipulate, was not only the work of regulating access but also work designed to produce erasure.

This exclusivity by design was not limited to the performance day of the event. In the news and photographic records of Schultz's Suffrage Taxi, Black women were also conspicuous by their absence. During the 1913 march, the taxi was positioned at the foremost position in the parade, in advance of the front of the marching column, a position that signaled both prestige and authority. The taxi frequently acted in this capacity and was often referred to as the 'scout' of the suffrage campaign.¹³⁴ As such it also carried suffrage leadership¹³⁵ when carrying out duties for the cause, from the time of its founding a year prior. But in news coverage and photographs of suffrage events, there were never any Black passengers on or near the taxi.¹³⁶ The reason for this could be attributed to segregation laws that gave taxi drivers the ability to deny Black passengers entry. Proponents already argued that the strict observance of these laws was what provoked the planning committee to ask Black women not to participate in the parade. Yet, when viewed in the broader context of the parade's use

¹³⁴ The *New York Tribune's* article "Fares for Fair Sex in Suffrage Taxicab" (1913, October 3, p. 7) refers to Schultz's taxi as the "Scout of 'General' Rosalie Jones Challenges Right of Men to Monopolize the Hack Business", and scrutiny of the photo of Schultz's car in *Olive Schultz Suffrage Hike* (1913) shows a side image of letters painted on the car that spell "Official Scout." As the image was taken in route from New York to the Washington, D.C. parade in 1913, the title was likely to designate the car as the scout for the parade, and likely for the 20-day trip from New York to Washington, D.C.

¹³⁵ Note the picture in "Fares for Fair" (1913, October 3, p. 7) where Schultz is driving one of the movement's leaders, Harriot Stanton Blatch.

¹³⁶ Three examples help illustrate this point. One is from the news article "Fares for Fair Sex in Suffrage Taxicab" (1913, October 3, p. 7) which shows Schultz with Blatch in the Suffrage Taxi, the other from the 200-mile drive to Washington from the march in *Olive Schultz Suffrage Hike* (1913), which shows Schultz in her taxi surrounded by a retinue of passengers and helpers, all of whom are White, and third in *Fitzgerald, Bugby, Murphy, and Blatch in Suffrage Taxi* (1913) which, coupled with the July 30 date indicates that the taxi serviced more people than just Blatch, and that it was used before and after the parade, and was still in use to promote the ideas of women's suffrage.

of symbols, the lack of Black participation in the taxi mirrors the absence of Black participation among any of the cultural icons, performances, or displays planned and enacted by the march itself. As a conspicuous symbol of the movement, it would not have been meant for the suffrage taxi to be used contrary to the wishes of NAWSA's leaders.

The denial of Black women from participation in the symbols communicated the tenets of NAWSA's vision for the suffrage movement as much as the all-White parade cast did. In other words, exclusion from the event as well as the *Women's Journal* meant that the built environment of the march was designed as if Black suffragists did not exist. The built environment and those that built it also performed the cultural work of erasure administratively, materially, and logistically, designing objects and activities intent upon their absence. This kind of erasure is further problematized not only for the event's momentary act of erasure but building in its permanence within historical memory through textual and photographic documentation.¹³⁷ The presence and persistence of the taxi and its lack of Black patronage communicate something more: a longstanding exclusion of Black women from the elite NAWSA activities and visibility in the suffrage campaign. The work of denial then was not only suggested, but it also had to be performed. This was not only by the NWNSA but in how the leadership encouraged Black women to exclude themselves. In these ways, the taxi's participation helped build the White dominant social order which NAWSA was trying to enact into being. What that suggests is that

¹³⁷ Though, importantly, pushbacks against these efforts have occurred in both recent scholarship such as Terborg-Penn (1998), and personal letters and autobiographical accounts of those denied participation, such as Wells-Barnett (Wells, 1970) and Terrell (2005).

instead of a dramatic communication of resistance to the structure of powers in society, taxis were folded into the maintenance of society built for White supremacy.

While the use of the taxi helped suffragists challenge the political representation of some women in society, other groups were denied access to the taxi altogether. Where the taxi was a resource that aided in building a different environment for suffragists, for others denial of taxi use was emblematic of broader systemic denial of mobility and visibility in society. But the implications were more than the limiting of mobility for a few people over a few years. Mechanisms for limiting mobility that were built into the environment found permanence in ways that reinforced those limitations for decades; reenacted during World War II (Chapters 6, 7, 8) and again through the emergence of for-hire systems like Uber (Chapter 9).

For women to navigate the pressures of the built environment required not only resilience but strategic compromises. For many of NWNWSA's leadership, a move from denial to access necessitated prioritizing access of White middle and upper-class women over that of Black women. While some argue that the strategic appeal to male conservative lawmakers made by the women's suffrage movement was symbolic, such an interpretation ignores the persistent and continued structuring of the combustion automobiles emergence and of taxi access exclusively to promote the mobility of White middle and upper-class men. The use of the taxi in the suffrage movement was not a means to usurp the order of society, but a means for White women to reclaim their place in a social structure. The structure of the built environment was powerful in its ability to constrain the kinds of access people could have especially if that access threatened the existing structure of society and the re-ordering of society. This

moment also demonstrates that though the pressures of the built environment are indeed powerful, they can be navigated. Yet, to do so requires tradeoffs that perpetuate unequal access which then become normalized as it is accepted into the built environment as part of the status quo.

The relations between taxi access and the women's suffrage movement were more than the act of transportation; they can be understood as communication between society and the built environment in the interest of fostering productivity. In the next chapter, I explore the development of the modern cityscape and its incorporation of the industrial ritual into a transportation landscape that further reproduced unequal tensions around access to city resources and social order. The taxiing ritual emphasized its industrial necessity by facilitating the mobility of people whose productivity reinforced the dominant social order and excluding those who challenged it.

The suffrage movement was not the only cultural phenomenon to have a formative relationship with taxi access in the early 20th century. Elements of the built environment in the early 1900s were shaped to address concerns of Eugenists and in doing so created the conditions for taxi denial. Here the built environment communicated the dominant cultural norms of Eugenics programs by helping shape the isolation of people who Eugenics proponents considered socially, genetically, or physically unfit from participation in society. Undergirding these decisions was a *productivity logic* that calculated a person's value to a society based on how much they could be expected to contribute minus the burden they were expected to impose. The logic was a strategic communication of White middle- and upper-class society

that believed in the stratification of people based on a genetic order that situated the pure in a place of social, economic, and political privilege. Based on pseudoscientific linkages between productivity and genetic purity, differences in race, ethnicity, and disability were conceptualized as deviance and thus threats to the future of a productive American society.

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CHAPTER 5

5 BUILDING URBAN DENIAL

5.1 Introduction

In the late 19th and early 20th centuries, the absence of widespread mass transit meant cities like Boston struggled to meet the mobility needs of a growing metropolis (Gilbert and & Samuels, 1985). The growing city's need for flexible transit more durable than the horse-drawn hackney was answered by the combustion engine taxi. With assistance from investors, industrialists, and advocates the combustion taxi stabilized in the role of the taxi, easing the tension between mobility and urban expansion for some people, but not for others. The emergence work of stabilizing the taxi as a necessary mode of transit moved in mutually constituting directions. One was encouraged by the industrial and political environment around taxi and automobile use which I discussed in the previous chapter. The second was the construction of the urban landscape.¹³⁸ Here the urban landscape plays a crucial role in defining the taxi's place in society. Where the material components of the car determined things like who could get in, how far, how fast, and for how long a taxi was capable of going, the material, political, and economic structures of the urban landscape refined these qualifications by regulating where it could go, how fast, at what cost, and who could go there. Together the taxi not only was an emerging means of safer or more efficient, albeit more expensive, transportation it was a tool of enforcing and augmenting an

¹³⁸ For a longitudinal approach to understanding the taxi's semiotic place in the society, see Chapter 1.

urban landscape that was built to encourage unequal access to society as a means of maintaining the White male dominant status quo.

In this chapter, I further explore emergence work through denial by focusing on the taxi's relations to the urban landscape. Using historical records, news archives, and auto/biographical accounts, I show how barriers to accessing the taxi were folded into discriminatory practices of early 20th century urban expansion. I examine the urban design movement in Chicago with an emphasis on productivity, beginning with the development of the World's Fair in 1893, and the complementary strategic planning of the taxi system (as a component of the city's larger transportation system) as a mechanism to grant or deny access to society based on perceptions of productive contribution. Chicago's approach to urban development legitimized the unequal regulation of urban access under the auspices of building the most productive society. This framework of correlating productivity and access was used as the rubric for Boston's urban expansion in the early 20th century. I consider the way the denial of taxi use, as indicated by absence and inaccessibility, was strategically incorporated into Boston's growing urban landscape as a communication of and mechanism for maintaining a White-dominant social order. I suggest that the taxi's participation in building unequal access to society not only occurred at an interpersonal level of driver-passenger relations but also at the level of societal structure to show that inequality occurred not only in the taxi's presence through individual acts of denial but also in its carefully structured absence. I first map a link between Boston's urban planning and Eugenics movements whose shared vision of progress involved limiting specific groups' access to society through isolation and urban design. Second, I show

how the taxi's strategic absence (due to geographic, economic, and physical limitations) helped make more effective discriminatory urban planning practices in public housing, real estate, and institutionalization. Third, I show how the development of Boston's mass transit system dovetailed with discriminatory residential developments to structure an environment of isolation where taxi use was both essential for participation in society and largely unattainable. I conclude with a discussion of the formative impact of the taxi's participation in fostering an environment of structural discrimination. Returning to Gyn's experience in the earlier chapter, I argue that the effects of structural discrimination have not been resolved. On the contrary, as this built environment becomes the framework upon which other emerging transportation systems are built, it further obfuscates both the role of the urban environment in continuing to produce the opportunity for discrimination, but institutions' exploitation of those conditions while discursively positioning themselves as blameless in the perpetuation of unequal access.

5.2 Literature

For people wealthy, physically capable, and close enough to access it, Boston's taxi service has been a mass transit alternative since the early 20th century. In a time of major urban expansion, it provided access to areas where mass transit infrastructure had limited or nonexistent expansion. But it was not alone in its development; in the early 1900s, the combustion taxi's emergence dovetailed with the combined ferment of two social movements: urban planning's City Beautiful (Wilson, 1994) and Eugenics' (Lopez-Duran, 2018) progress through controlled breeding. Architects of this movement such as Daniel Burnham, Frederick Law Olmstead Sr. and Olmsted Jr.,

and James Milford Robinson used urban planning as a means of controlling and containing dangerous city and social growth and helped shape cities across the United States into the modern metropolitan hubs they are today (Anderson, 2019; Miller, 1997; Mumford, 1961). Wilson (1994) wrote that their “comprehensive planning considered the city as a whole [and] sought to direct its often almost violent growth” (p. 2). They did this by using urban design to help execute preconceived determinations about the kinds of people that would be best for city growth and social progress. As Boston’s urban footprint expanded dramatically, architects and urban planning commissions shaped both the political and material contours of residential districts and the mass transit routes that moved through or around them. In the absence of mass transit and the dearth of personal vehicle ownership, the automotive alternative to navigating urban sprawls was the taxi.

Despite the taxi’s continued presence as a fixture of urban transportation and a necessary form of access for urban expansion (Gilbert & Samuels, 1985), investigations of the for-hire industry¹³⁹ have been limited to the activity of the vehicle itself and not its relationship to the surrounding urban environment. These have focused on for-hire using coaches and carriages (Borg, 1999; Hogarth, 2014), taxis (Ayres et al., 2004; Davis, 1959; Gambetta & Hamill, 2005; Gilbert, 2011; Schwer et al., 2010), and increasingly ridehail platforms (Brown, 2018, 2019). This research frequently presents problems of discrimination as discrete moments of interpersonal, organizational, and computer-mediated communication. While this focus has fostered

¹³⁹ Since its emergence as the “UberTaxi” in 2008, the company has placed itself in opposition to the taxi industry. Since that time Uber along with Lyft and other for-hire transit solutions have gained popularity diversifying the industry previously dominated by taxis.

a better understanding of taxi-passenger relations (Davis, 1959), industry culture (Berry, 1998), violence (Gilbert, 2011; Raper, 1933; Schwer et al., 2010), and instances of unequal service¹⁴⁰ (Brown, 2019) authors have largely overlooked what it meant to fold existing taxi practices, and their incumbent problems of discrimination or unequal access, into a developing urban environment.

Only recently have taxi and ridehail drivers, as well as their sponsoring institutions, come under scrutiny for the ways they appear to discriminate against certain customers through unequal treatment. Though discrimination has been noted based on gender, ethnicity, ability, and race (Chapter 2) more expansive research alongside news coverage and nonprofit studies have reported that in the for-hire service industry Black, disabled, and LGBTQIA customers have consistently experienced longer wait times, inaccessible cars, more expensive rides, and/or driver cancellations compared to their White and non-disabled counterparts (Ge et al. 2016; Brown, 2018, 2019; Pandey and Caliskan, 2021; Mejia and Parker, 2019; NYLPI, 2018, 2019). Meanwhile, drivers who frequently take the brunt of the criticism, skepticism, and displeasure, have limited personal and financial job security, and experience violence regularly (Gilbert, 2011).

Any unfairness or abuses produced in that set of relations are bound both to the participants alone and isolated to that moment in time. For example, Uber's safety report focused almost exclusively on physical, sexual, and emotional violence perpetrated by passengers against drivers, and drivers against passengers and other

¹⁴⁰ This concerns in particular the direction of driver to passenger, for examples of inequality from the passenger directed at the driver, see Ayres et al. (2004).

more academic inquiries have held to the dyadic exclusions as well.¹⁴¹ Broader evaluations of the for-hire industry's trajectory (Gilbert & Samuels, 1985), social relations (Davis, 1959), cab culture (Luedke, 2010), and the effect of environmental conditions (Devaraj & Patel, 2017) focus on ways in which the activity of taxiing is accomplished.

This exclusive attention to the interpersonal taxi-driver relations can lead to some predictable potholes. For instance, focusing only on the experience of participants unmoors the activity of taxiing from its broader structural role in helping to maintain society. Additionally, it sutures the mutually constituting relations between the for-hire industry and the structures that maintain social order beneath a veneer of immediate driver-side relations. By focusing only on the material of the taxi and ritual of taxiing, studies capturing these relations position them as unencumbered by pressures outside the immediate unit of analysis. In this way, investigations of the for-hire industry have largely evaded questions of structural inequality by localizing conversations of interconnectedness between immediate actors and binding almost exclusively to the activity of taxiing, and the individual mobility it affords.

5.3 Inequality Feeds Structural Inequality

My approach to considering the structural role of taxis echoes a shift in broader studies of structural inequality. Royce (2015) proposed that studying structure is not about the individual, but the conditions outside of the individual's control that

¹⁴¹ For example Gilbert (2011) considered violence against drivers by passengers, Gambetta and Hamill (2005) considered trust and mistrust between drivers and passengers. Davis (1959) centered on fleetingness of relations between passengers and drivers, Brown (2019) on the way drivers discriminate against passengers within companies, Ayres et al. (2004) tipping patterns and prejudices,

influence their economic situations, of which limited access to transportation plays a large part (p. 217). Borrowing from Royce (2015, p. 20), I ascribe the term structural inequality to indicate an assortment of economic, political, cultural, and social forces that create persistent unequal access to society. Where this work deviates from Royce's investigation of structural inequality is in the taxi's role as both mediator and participant. I suggest taxis not only participate in regulating access unequally, but that stakeholders shaping Boston's urban expansion relied on the taxi's inaccessibility to help isolate certain targeted groups of people.

Although taxis' participation in facilitating structural inequality may have escaped close academic scrutiny, other objects, opportunities, and processes in urban development have not. Some scholarship has focused on the ways urban design and policy implementation reproduce inequality such as the denial of essential services (McDonald, 2016), the perpetuation of racial and social inequality (Lin & Mele, 2005), the relation between unequal systems and unequal access to opportunity (O'Connor et al., 2001), the political economy of producing inequality (LeGates & Stout, 2000), urban case studies of inequality flashpoints (Gooding-Williams, 1993), and how social inequalities manifest in the city's use of space (Angotti, 2017). Others have explored the ways inequality becomes built into organizational and institutional decision making including school systems (Ewing, 2018; Kozol, 2012), legal frameworks and housing communities (Rothstein, 2017), justice and carceral systems (Parsons, 2018), and their relations to race (Braman, 2007; Hinton, 2016). Still others focus on the targets of inequality including disability (Black, 2012; Dear & Wolch, 2016), gender (Parker, 2012), race (Kirby & Miller, 1983), and the way limited

economic opportunity plays into its reproduction (Baradaran, 2017; Desmond, 2017; Royce, 2015). Several authors observe transportation's key role in mediating urban opportunity by regulating access (Royce, 2015; Sorin, 2020) where the absence or inaccessibility of transportation participated in building an urban landscape which regulated access unequally. Others have attributed sweeping citywide changes in urban design to the material enactment of early 20th century social movements such as the City Beautiful movement which correlated physical beauty with productivity and progress (Wilson, 1994), and the global Eugenics movement where proponents argued that social progress could best be achieved through genetic discrimination and selective breeding (Appleman, 2018; Lopez-Duran, 2018; Voigt, 1989).

Academic, personal accounts, and public discourse, when viewed together, suggest that the taxi has had a much larger role in structuring inequality than previously thought. In addition to what has been presented in Chapter 3, anecdotes in Braman (2007) and Alexander (2020) suggest moments similar to Gyn's where Black communities have to regularly contend with taxi denial and spend more time and resources going the same distance. Braman (2007) noted of his respondent's account, "Ruth wonders how could her supervisor possibly understand her brothers' incarceration when he cannot even understand her difficulty with catching a cab" (p. 185). Braman noted that for Ruth it was not just incarceration or catching a cab, but the environment around which her access to and relations with society was structured. Alexander (2020, p. 259-275) helps place the cab in context with more widespread experience in Black communities, indicating that denial of cab service was representative of pervasive unequal societal relations with Black communities.

Newspaper articles dating back to the 1970s note problematic discrimination in the taxi industry (Lupo, 1968, p. 2). Donahue and Gomez-Ibanez (1982) cataloged several accounts of taxi denial influencing access to essential services by Black communities in Boston including limited access to groceries and medical attention. Before the passing of the Civil Rights Act of 1942, discrimination in a time of segregation was not only legal (Myrdal, 1996; Raper, 1933), but perfunctory. The absence of concern in otherwise explicit taxi accounts like Hazard's (1930) and Betts' (1930) turn-of-the-century autobiographies indicate that it was a nonexistent issue. Here taxi service was as much a moment of transportation as it was an exemplar indicating the pulse of cultural mores.

Kirby and Miller (1983) noted this was not only a problem for Black communities but disabled and older communities as well, where taxiing had long been the preferred form of public transit for both recreation and essential services. The problem has not dispersed, as recent work notes that people with mobility impairments rely heavily on the physical accommodations made by a taxi driver and the geographic flexibility of the taxi car to navigate an urban environment that was not built to promote their access (Jette & Field, 2007). The taxi was sometimes the only solution to a mass transit system not designed to encourage access by disabled people, neither was it designed to encourage access by women (Royce, 2015) particularly in American society whose automotive culture had sought to limit their mobility (Walsh, 2008), and sought to do so through both social and industrial means (Chapter 3).

5.4 Part 1: Urban Planning for Inequality: Chicago

As the previous chapter demonstrated, social movements were deeply entwined in the combustion taxi's emergence as a mode of transportation, as part of city infrastructure, and as a communication of social priorities. Industrial practices framed car access, employment, and economic opportunity around segregation. Advertisers, cultural commentators, and car battery developers both catered to and reinforced a separate spheres ideology whose gendered division of labor limited women's literal and figurative societal mobility around the home. The suffrage movement deployed the taxi as iconography emblematic of their commitment to reclaiming and reinforcing a White-dominated society. Present in each of these examples is a combination of material and discursive arrangements that help constitute the built environment's multifaceted landscape that contributed to negotiations around who could use the taxi and embedded within the arrangements qualifications for the permissible denial including race, gender, and capability.¹⁴²

Of course, combustion taxis did not emerge in a vacuum free from any material suggestions and social expectations. Yet, emergence frequently overlooks the cultural activity that helps define how technology like the taxi fits into society. The growing cultural power of car industrialists and the song of industrialization sang new American social progress to the tune of efficiency, market dominance, and public

¹⁴² Often emergence work like the taxi is talked about in positive tones around what it can do better, what it can enable, or what it can allow for. A less savory part of that work is decision making on who gets left out, excluded, or is determined not to be a qualified or worthwhile recipient of its benefits as well as who has the power to make that decision. Industrialists, politicians, cultural commentators and heads of household, all of whom were White men, sought to limit the combustion taxi's emergence to their benefit and to the maintenance of White male dominated society.

availability. As supply increased and costs tumbled, the new combustion taxi found its footing on the streets of growing cities like Boston, Chicago, New York, and Washington D.C., where its call was patronized by a ready populace of masculine, hard-working, and otherwise well-heeled users. As taxis entered the public transportation domain with promises of better, faster, safer, farther¹⁴³ service they became discursively available to the general public as a symbol of sociotechnical advancement.¹⁴⁴

The taxi and its for-hire ancestors were more than the material of the car or the social, political, and financial requirements around its use. The taxi's emergence was shaped in expectation of the urban environment into which it was designed to inhabit.¹⁴⁵ The effect was recursive: the taxi was built to fit into the existing urban climate; simultaneously, and similar to what Marvin (1990) observed, the stakeholders with influence in the urban environment strategically incorporated taxi use into existing social and material structures.

As a fledgling addition to the for-hire industry, the combustion taxi struggled against considerable market competition (Chapter 4). To establish a foothold in the public sphere taxi stakeholders needed the political and infrastructural support of

¹⁴³ When compared with horse drawn power, electric vehicles, and steam powered cars.

¹⁴⁴ In the previous chapter I demonstrate that advertisements and socialites leveraged the taxi and combustion car as a means of transportation and a communication of status, race, privilege, and allegiance.

¹⁴⁵ This is not a new phenomenon, as we saw in Chapter 3 even in the 17th century, as London's streets became smaller due to expansion, the hackney carriage made a number of technical adjustments including changing driver placement to the top of the vehicle and narrowing the body of the vehicle. Here the interrelatedness of design and social order continues. A small battery life for electric cars matters to taxis in the context of developing urban sprawl, where the battery serves a driver or owner poorly for extended trips. Likewise, distance travelled and fuel efficiency mattered more in the context of increasing value of mobility throughout city streets.

regulating and supply institutions.¹⁴⁶ Their precarious position in the market¹⁴⁷ made those invested in the new taxi (e.g., owners, investors, manufacturers) particularly vulnerable¹⁴⁸ to the needs or requirements of the industrial, cultural, and political elites. Thus, the taxi's emergent momentum around unequal access was incorporated into the urban landscape by way of like-minded social movements. Meanwhile, support for the twin social movements of Eugenics and City Beautification was growing amidst an influential cohort of social, political, and scientific elites.

The significance of these social movements on the work of taxi emergence was not in their ability to shape the taxi directly like the industrial forces of the time. Rather these social movements together guided the development of Chicago and later Boston's urban environment toward a strategic limiting of access for minority groups under the guise of social progress. In doing so they created an urban context where the

¹⁴⁶ Manufacturers partnered with federal officials to reduce the cost of gas by offering suppliers subsidies (see "The cause of cheaper gas", 1894, p. 4), established industrial supply chains that could simultaneously supply and promote their use ("Firestone supply taxicabs in large taxi fleets" 1908, p. 36), and large labor groups of drivers received support from others like teamsters union ("Say Board is unfair" 1903, p. 1). In Boston, the city government knowingly gave large companies monopolies on taxi stands options ("Favoritism by Police", 1924, p. 12) and successfully encourage the dismissal of complaints of favoritism ("Wilson opposes review", 1928, p. 3). Other examples demonstrate how stakeholders encourage the payment of hotels for private stands so they could be taxed, penalized independent owners ("Police to Hold Taxicabs" 1908, p. 6) and use of public stands in lieu of private stands ("Two Changes Made", 1931, p. 24). For examples of mutually beneficial arrangements to promote certain kinds of car use between federal government, oil and automotive companies see Chapters 6 and 7.

¹⁴⁷ For the reference to emerging market position of the taxi industry see Chapter 4.

¹⁴⁸ In the competitive marketplace for-hire drivers needed strategic partnerships and public interest to survive. For example, the electric cars strategic partnership saw limited battery innovation in part because cultural campaigns argued that the utility of the vehicle meant largely for women to use did not need expanded travel capabilities. Meanwhile automobile proponents like Henry Ford continued to develop cheaper vehicles in step with greater expansion of gasoline availability and infrastructure (Yergin, 2008). And after the 1920s expanded the cultural appeal of its ridership to include women coupled with cheaper vehicles significantly broadened the market for combustion cars (Chapter 4).

taxi not only participated in the denial of individual riders but reinforced structural citywide limitations on access.

City beautification efforts and Eugenics interests shared similar developmental priorities in ways that mutually reinforced one another, presenting first a reason why certain minority groups should be excluded from society followed by urban development projects that sought to enact that exclusion. This framework was legitimized in Chicago's urban development and served as the foundation of Boston's urban expansion. The work of the taxi's emergence in both cities was nested within an expanding urban landscape predisposed to producing inequality. The pernicious nature of this multi-layered reinforcement of inequality meant that the unequal regulation of access was not confined to the early 1900s. Rather together they helped cities where access inequality would be perpetuated for the next century.

5.4.1 Early City Beautiful

Four years before the world's first purpose-built combustion cab rolled off Daimler's factory line in 1897, the Worlds' Fair in Chicago was underway. Formerly, The World's Columbian Exposition,¹⁴⁹ the fair was built from 1890 to 1893 by a team of urban developers led by the architect Daniel Burnham and reshaped Chicago's Jackson Park area into a model future city (Robinson, 1901, p. 420). The design of the fair heralded a new comprehensive approach to urban planning called 'City Beautiful.' Here 'beautiful' not only referred to the aesthetic appeal of the urban cityscape's material environment but also in the coordinated efficiency with which the

¹⁴⁹ It was named this in celebration of the 400th anniversary of Christopher Columbus landing in the Bahamas.

cooperation of cityscape and human activity could foster social, scientific, and economic progress. Wilson (1994) noted that designers thought it would be where both “social benefit and economic efficiency would be beautiful” (p. 287) and movement theorist Robinson wrote (1901) “no city is practical be it not veined by smooth, clean pavements. A statue in a sea of mud is as ill-chosen an ornament as were diamonds on a beggar” (p. 49).

The City Beautiful movement's origins stemmed from a convergence of civic art and grassroots city improvements (Robinson, 1901) revolving around the formation of local and national organizations invested in city improvement and efficiency such as the national American Civic Association. Originating in Massachusetts in the mid-1800s and extending to other parts of the country from Illinois to California (Wilson, 1994, p. 16, 43, 313), the idea of urban improvement had found limited use outside of individual design traditions. The more formal comprehensive planning approach guided by city beautification strategies was introduced to urban and academic environments¹⁵⁰ by Frederick Law Olmstead and his tradition of architectural landscape design. Since its founding first in New York in 1857, and Boston from 1882 until 1979, the Olmsted firm was associated with productive and attractive urban redesign including Boston's urban transit networks.¹⁵¹ Alongside architectural

¹⁵⁰ Kermit Parsons (1963) catalogues many of Frederick Law Olmstead's designs and reputation. Olmsted's designs to direct the flow of civic activity and participation were exemplified in projects like New York City's Central park, and Boston's Emerald Necklace. By the late 1860s, he had applied these ideas to directing the flow of academic life by designing and consulting on campus layouts for Harvard, Yale, and Amherst Universities as well as California College at Berkeley (now the University of California, Berkley), and the University of Massachusetts. In 1896, he consulted for the groundbreaking of Cornell University's first buildings and, in 1897, was brought on more formally by founder Ezra Cornell, and first president Andrew Dickson White (p. 212) who together designed Cornell's Arts Quad.

¹⁵¹ Robinson (1903, p. 209) credits Olmstead with integrating the first car tracks into Boston's cityscape.

heavyweights like Calvert Vaux, Charles Eliot, and protege-son Fredrick Olmsted Jr.,¹⁵² the firm shaped numerous projects in Boston and across the United States under a uniquely Olmstedian blend of utilitarian beautification and Parisian beaux-arts design.

The City Beautiful movement did not arise out of a vacuum. City Beautiful theorist Charles Mulford Robinson notes that urban transit arose in response to city growth and city growth made the utilization of transit valuable in ways it was not before (1899). Movement advocates created it in response to their belief in the best version of society and their subscription to a White male-dominated social order. The movement's emergence was set against the backdrop of an urban story heard around the nation. Cities were struggling to recover on the heels of an economic downturn that began in the 1870s, and were coping with dramatic urban expansion led by both immigration to the United States and movement from the country into the city in search of opportunity.

Leading architects like Daniel Burnham and cityscape planners like Charles Law Olmsted believed that the City Beautiful movement could curtail problems of unchecked urban growth and haphazard development by designing cities to provoke a more efficient and productive society (Wilson, 1994, p. 2). By coordinating the material environment with a vision of social progress antithetical to the presence of the poor, City Beautiful designers believed they could direct the flows of city life toward their most socially, scientifically, and economically fruitful possibility (Alofsin, 2002;

¹⁵² Although the stepson John Olmsted was successful, his work was largely overshadowed by that of his brother who is credited at shaping the modern urban planning movement of the 20th century.

Zueblin, 1905). The movement was not only a means of coordinating the dimensions of urban planning to increase effectiveness or planning for city growth, but it was also a way for leading architects, planners, and theorists to build a material landscape that would enact their vision of social progress both now and in the future. According to Robinson, the dream was to design a movement that could be molded into a deployable process, a ‘science of city-building’ (Robinson, 1901, p. 34) not only recognizable for its benefits to progress but easily reproducible in any urban environment. In part, this was the impetus for the design of the World's Fair, an early test case that could prove the viability of the movement's ethos by building a model city.

5.4.2 *The White City*

Although the landscape ancestors of the City Beautiful tradition had roots in early 1800s civic improvement, it was not until the unveiling of the Chicago World's Fair in 1893 that the peculiar blend of landscape, neoclassical, and baroque architectural traditions¹⁵³ came to define the City Beautiful movement's functional aesthetic appeal. What this meant for the taxi—then still the hackney carriage—was the building-in of an asymmetrical economic availability to propagate wealth and privilege, while subscribing to a beautification aesthetic that would eliminate one of the few remaining routes of lower-class access.

In 1890, renowned architect Daniel Burnham coordinated the breadth of the project as Chief of Construction, while Frederick Olmstead Sr., apprenticed by his son

¹⁵³ The architectural tradition which Burnham brought to the fair was known as Beaux-arts style that inspired by the architectural traditions of the École des Beaux-Arts in Paris known at the time for its open facades and neo-Romanesque architectural preferences.

Olmstead Jr., led the coordination and design of the landscape (Olmsted Papers, 1821a). Together they formed a Consulting Board that bound the discrete elements of the World's Fair into a cohesive approach to city planning and strategically directed flow of city life both within the White City and without. Burnham wrote of Olmstead in the final report to the committee: "to Messrs. F. L. Olmsted and Co. belongs the credit in a broad sense for the design of the whole work" (Olmsted Papers, 1821b, p. 11).

The Fair was an immense multi-year construction spanning "nearly seven hundred acres covered by more than four hundred structures" (p. 348). Nicknamed "the White City" for the near opalescent facade of the central buildings, the World's Fair construction from transportation to building symmetry was meticulously and strategically designed to communicate the power of American industrial presence on the world stage.¹⁵⁴ Though captured as a celebration of the 'world's progress', official accounts of the Fair (Johnson, 1897a, p. 2) were keen to demonstrate America's centrality in both convening and controlling that progress.

The central buildings of the Fair were painted a distinctive bright white color that gave the Fair its nickname. For many participants, it held symbolic value, a domain of White accomplishment within which was exclusively a celebration of and

¹⁵⁴ There were several reasons that the author chose American industrial presence rather than strictly Chicago's place as a world city, as referenced in Olmsted Papers (1821), as well as colloquial reference to the fair as the establishment of Chicago as the "second city" following the Great Fire of 1870. However, the majority of the literature presents the Fair in the context of America's contribution to art, industry, technology, innovation, and culture (See Johnson, R. 1897a, 1897b, 1898a, 1898b). Even critiques of the Fair made by Frederic Douglas and Ida B. Wells do so not as Chicago's problem but an American problem of omitting or trivializing Black culture in America in an effort for White northerners to rebuild relations with White southerners at the expense of their Black allies. See Reed (2002), Rudwick & Meier (1965), and Jones & Willingham (1970).

display of the White masculine social order. Although White women participated in the Fair, their interaction was limited. They were allowed a managing council though its oversight was limited to female-led exhibits grouped exclusively inside the Fair's 'Women's Building.' In this way, the structuring of the White City was reminiscent of Victorian separate spheres structure where women had command of the household where their duties were centered, and the rest of the city was the men's domain.

These same groups of designers, academics, popular media, politicians, foreign dignitaries, and corporate investors considered the Fair a success.¹⁵⁵ The benefits conferred by Fair attendance and participation proposed different contours to success. The architects and designers had generous compensation (Johnson, 1897a). For exhibitors' success was monetary gain (Johnson, 1897b, p. 339), though exhibitors did not get paid by the Exposition. Their attendance created an opportunity to sell to the public, advertise, and access partnerships and other opportunities. For workers and attendants, success was payment for labor, though that had to be balanced with the precarity of that labor. For visitors, the Fair was a place to demonstrate their wealth and make similar associations and partnerships. There was also a cultural and social currency to be had where presence communicated a commitment to the established social order which the Fair was designed to celebrate. For many of the designers, the Fair was an act of community building that strengthened the moral fabric of society. According to Robinson (1903, p. 35), the value of the White City as something

¹⁵⁵ Numerous accounts herald the Fair as the biggest, greatest, most successful World's Fair to date (Johnson, 1897a, 1897b, 1898a, 1898b). The Fair's success was in part what drove the City Beautiful movement popularity. European nobles like Sir Richard Webster publicly commented on the Fair's success ("Sir Richard Webster Pleased, Oct. 11, 1893, p. 3).

beautiful took form in its material, moral, political and intellectual, economic advantages, and the aesthetic and organizational beauty which provoked inspiration would magnify the benefits found there. Less accessible to the general public, however, were Burnham, Olmsted, and others' objectives of design that also served as a proof of concept that urban planning could foster a more productive society. It was amidst this success that the City Beautiful movement and its architects resolved into public focus and it was on the heels of this success that City Beautiful ideas were seen as viable solutions to urban issues.

Despite the Fair's immense size and considerable expense, critical examinations of its construction, coordination of exhibits, and portrayal of values call attention to its unequal treatment of workers, residents, visitors, and subjects. At the time of the Fair, activists Fredrick Douglas and Ida B. Wells protested the Exposition's treatment of Black Americans. Together with Ferdinand Lee Barnett, Irvine Garland Penn wrote, published, and distributed a critique (Wells, 1893) calling out the absence of any acknowledgment to Black achievements in the 25 years since emancipation, mistreatment of Black American as laborers, inequality in hiring practices, and the inability of Black Americans to position themselves or their communities to benefit from the vast wealth and opportunity generated by the Exposition (pp. 82-84). Wells argued, "Theoretically open to all Americans, the Exposition practically is, literally and figuratively, a 'White City' in the building of which the Colored American was allowed no helping hand, and in its glorious success, he has no share" (p. 79). Wells argued that the Fair and any opportunities generated therein were designed to be inimical to the success of Black people. Despite appeals to corporate, local, and

federal officials, no Black person was hired above the tasks of menial labor for the entirety of the residence of the Fair, save for two that were hired as low-level clerks.

Wells' insight into the correlation between the White City as a bastion for White civilization, knowledge, and progress was made more striking in the context of Black America's inability to participate in that space. This illustrated the architectural coordination with social values—just as City Beautiful movement proponents suggested was the path forward for society. Denial of Black Americans was not the exception, but rather the rule. The Fair participated in certifying the mainstream dominance of White culture in the national and global social order.

As the other major 'area' of the Fair, the Midway Plaisance, referred to as Midway, stood orthogonally connected at the western side of the White City by a T-junction containing living museums of human, animal, and plant attraction. The design communicated both purposeful strategic and symbolic intentions by the Fair's architects. Johnson (1897a) described the Midway in architectural and symbolic terms which were interwoven to provoke a specific user or visitor experience.

The narrow strip of land had the advantage of isolating these special features from the grand *ensemble* of the Exposition grounds, thus preventing jarring contrasts between the beautiful buildings and ground on one hand, and the amusing, distracting, ludicrous, and sometimes noisy attractions of the Midway. (p. 75)

The entertainment sectioned from the White City proper that Johnson refers to was a combination of "living ethnological material" (1897b, p. 340) comprised of individuals, families, animals, and plants. Scholars have criticized the role of the

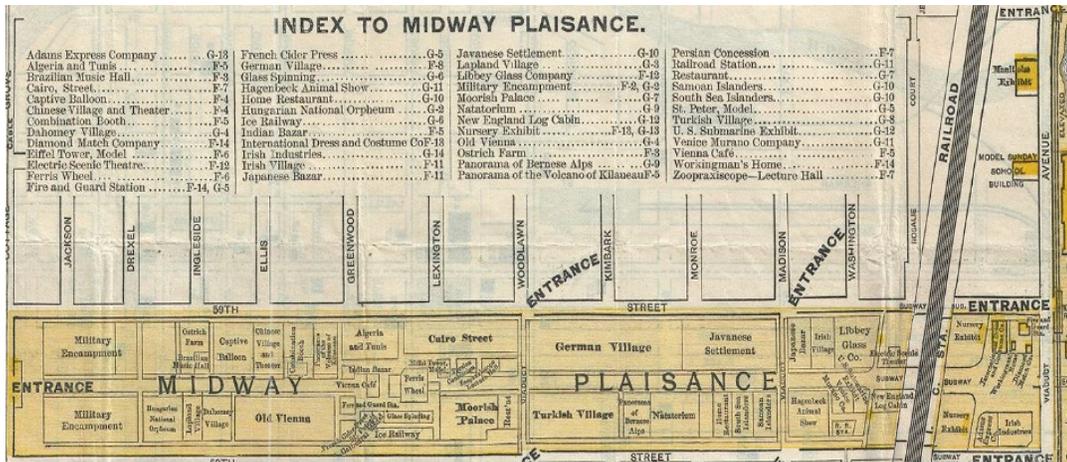
Midway for its caricature-like portrayal of Indigenous People from the African (Reed, 2002; Rudwick & Meier, 1965), Asian (Ooi, 2009), and American (Beck, 2019; LaPier & Beck, 2015) diasporas. Central to the Midway was a ferris wheel, and surrounding it was a living display of animals and humans fashioned amongst what planners believed were their natural habitats. The experience was designed to transport the viewer to the exotic location, a native habitat that communicated both the foreign and exotic worlds of these people. It was a fetishization of the other, amplified not only through interpersonal exposure but through landscape design.

The cultivating of the other was further bolstered by the content and order of exhibits in the Midway. Organized under the supervision of Harvard ethnology and archeology Professor Frederick Ward Putnam with the assistance of other preeminent academics,¹⁵⁶ this section was structured and populated in what they perceived were characteristic of the peoples of the area and as a replica of their surroundings. But the way it was populated, and the order of such populations, can also be read as communication of progress and social hierarchy (Figure 5-1).

¹⁵⁶Notable academics assisting with these special sections included Franz Boas, Joseph Jastrow, H. H. Donaldson, Stewart Culin, and G. A. Dorsey (Johnson, 1897b, pp. 316-318).

Figure 5-1

Index to Midway Plaisance



Note. This map does not include the entirety of the Fair. Source: Adapted from Map of 1893 Columbian Exposition, Rand McNally Co.

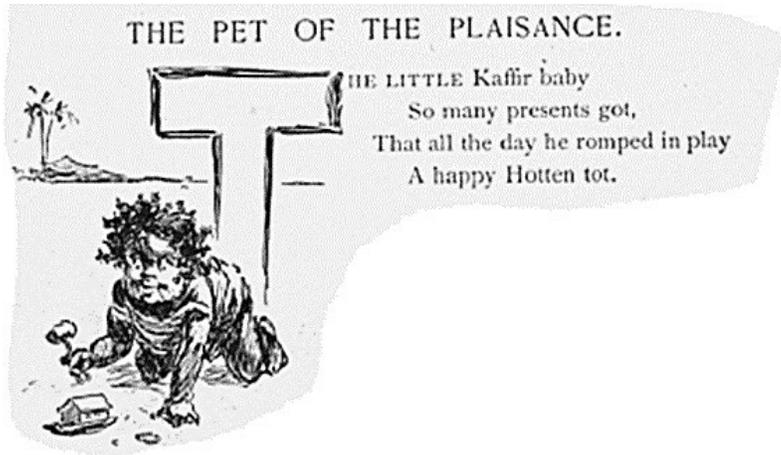
Ooi (2009) noted that cultures that appeared more savage, uncivilized, or strange, like Chinese, were staged further away from the exhibit while more civilized exhibits like the German Village were closer with the expectation that they would appear *less foreign* to the audience. In this sense, the proximal distance of the Midway exhibits to the walls of the White City correlated with the degree of perceived ‘otherness.’ In this vein, the closest installation stood as a testament to the parallel between Midway placements as social order. As closer partners to civilization the Japanese Bazaar and the Irish village were placed across from Hagenbeck’s animal show. Hagenbeck, a German merchant famous for his presentation of human and animal zoos (Purtschert, 2015), exhibited animals that performed acts of

anthropomorphism (Shepp & Shepp, 1893, p. 490) not native to their species.¹⁵⁷ Hagenbeck was not alone in this portrayal of the foreigner as an animal. Famous weekly comedic magazine *World's Fair Puck* (Keppler 1893), published within its exhibit in the White City, illustrated many of relations already widespread in the dominant popular discourse designed to 'other' people from the African diaspora as less than their White peers. These exhibits were also a demonstration and justification for the terms of their designed exclusion from society due to lack of productivity, simplicity, savagery and unintelligence. Figure 5-2 (p. 266) depicts a child from Africa as the 'pet' of visitors to the Midway Plaisance, using racial slurs in the description. These same terms were also used in Johnsons' (1897a, 1897b) official account of the Fair indicating its widespread acceptance amongst the organizers. Another comic depicted not only the otherness of the resident of the Dahomey Exhibit, but their similarity and inferiority to an Orangutan (Figure 5-3, p. 267).

¹⁵⁷ According to Shepp & Shepp (1893, p. 490) a lion rode a horse, tigers rode velocipedes, pigs and monkeys performed other tricks.

Figure 5-2

A Boy from Africa as the “Pet” of Visitors the Plaisance



Note. [Poem reads: The Pet of the Plaisance. The little Kaffir baby, So many presents got, That all the day he romped in play, A happy Hotten tot.”] Source: World’s Fair Puck, (Keppler, J., 1893, May 22, p. 37).¹⁵⁸

¹⁵⁸ There are several facets to the use of ‘Hotten tot’, illustrating the deliberate nature with which it was used and the discursive violence enmeshed within it that binds its perspective to the strategic isolation of the White City and its creation of the Black ghettos that evolved as a result of its presence. As a mechanical device use in the poem ‘Hotten tot’, derived from the word hottentot, was mechanically separated to fit the rhyme scheme of the poem while still adhering to the pejorative reference of indigenous peoples. The separation was also strategic as separating hotten from tot was a play on words of tot, short for toddler, to indicate that the othered subject in question was a Black child and not a physically small adult. In this way the separation of “hotten tot” also played into an infantilizing Indigenous Peoples. See Nanda (2019) for the term hottentot and its discursive sexualized confinement of Black women by a White patriarchal gaze, and Baderoon (2005) for the etymology and discursive violence promoted by the use of the word kaffir in apartheid South Africa.

Figure 5-3

Indigenous Dahomey People pictured as inferior to an Orangutang



Note. [Poem reads: Then forth from the cage, in a chatter of rage, the victorious simian sprang, while fast in his place, is the pride of his race, who ran foul of a red ‘Rang Outang’] Source: World’s Fair Puck, (Keppler, J., 1893, May 1, p. 85).

In the official photographic record of the Fair, Shepp and Shepp commented “it is wonderful to think that man can so thoroughly subdue and govern the animal kingdom” (1893, p. 490). Not only was considering people like animals supposedly amusing for the upper class, it was a celebrated facet of elitism that separated those visiting the Midway, and those a part of its exhibits.

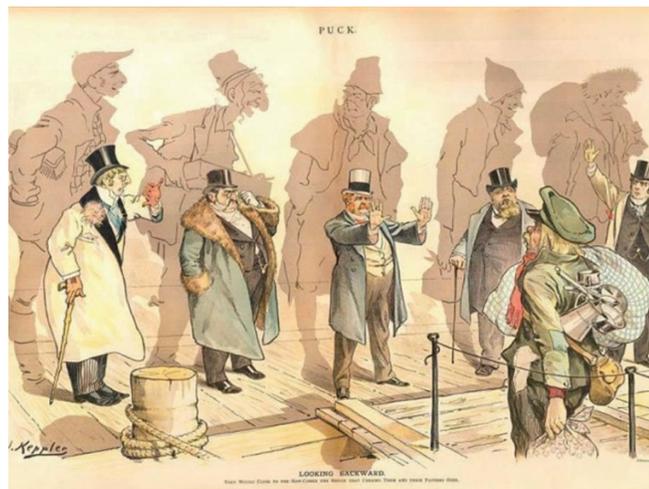
To liken people of Japanese and Irish heritage to animals that behave like humans, others even less than that, echoed popular anti-immigration rhetoric that classified immigrants as backward, diseased, or uncivilized people (Schrag, 2010, pp. 113-114). By the time of the Fair, the ideology rose alongside the anti-immigration laws of the 1880s, the opening of immigration stations like Ellis Island, and the

formation of the federal Immigration Bureau by 1891 (U.S. Citizenship and Immigration Services, 2020). The Bureau evolved to include the naturalization process and enlisted the help of prominent Eugenics advocates like Robert Yerkes to create the National Origins formula to control the mobility of immigrants and preserve the ethnic dominance of White protestant European descendants (Bennett, 1963).

Here the delineation between men and animals (or not men) seemed to be set amongst the boundaries of savagery and civilization. The categories of civilized and uncivilized peoples. Such a division echoed precisely the critiques Ida B. Wells and Fredrick Douglass levied at the Fair's administrative bodies where the White City's walls were material boundaries that prohibited access by less civilized people, as were the White City's symbolic nature stood for the structure of a society (Figure 5-4).

Figure 5-4

The Bridge That Carried Them and Their Fathers Over



Note. [Text reads- That they would close to the newcomer the bridge that carried them and their Fathers over]. Source: Puck, (Keppler, J., 1893, Jan. 11).

Lastly, situated within the Midway closest to the gates of the White City, but not a part of it was the representation of the City's laboring poor through the display of a "workingman's house." In it, the architects constructed as proof of concept the model of a tenement, accompanied by a display supposedly proving that a family of five could live comfortably on \$500 a year (Johnson, 1898a, p. 336). According to Painter (2008, p. XV) and Spahr (1896), \$500 a year would have placed them, like many families, at the poverty line. Meanwhile, building architects were testing out housing for the poor class they could help create.

The Midway, as with much of the Fair, was a communication from the City Beautiful movement's designers to the public about the order of society that foresaw and designed to enact the continued dominance of the White middle- and upper-class. In juxtaposing the Midway with the White City designers communicated through urban planning who was worthy to enter and participate in the benefits of civilized society. Yet, as Robinson noted, transportation was central in realizing the aims of those designs. He observed that "Transit is an absolutely essential product of the town's activity, so it is, in turn, a factor indispensable to the community's progress" (1916, p. 91).

5.4.3 Fare Transportation

If Burnham, Olmsted, and Putnam's (among others) strategic design of the White City and Midway Plaisance communicated the designers' enactment of a

White-dominated social order in tandem with similar themes in popular discourse, equally important though decidedly less noticeable, was the role transportation played in regulating access to the Fair. The curated design of the Fair would be for naught without getting the right people to witness it, appreciate it, benefit from it, and be inspired by it.¹⁵⁹ Robinson noted that “The debt which city beauty owes to rapid transit is large” (1899, p. 778). The debt to which Robinson refers here is multidimensional. Properly planned routes and means of transportation can help regulate access to city spaces and resources thereby helping achieve the movement's objective of using beauty to cultivate a more efficient and productive society. Further, there were recursive effects that the integration of transportation networks into urban planning practice had on each other. The need for flexible transit prompted the beautification of roads which in turn prompted applying those standards to for-hire vehicles. The tradeoff was making transportation safer for the wealthy and privileging their access to urban resources. This simultaneously eliminated a means of transit for the poor, furthering their immobility and limiting their access to resources. The role of the architects and architecture of the White City then were not as passive observers, but collaborators in strategically structuring an environment that regulated access to its resources unequally.

The complexity of the transportation issue was not lost on Burnham, Olmstead, and other designers who were keen to demonstrate the interconnectedness of urban

¹⁵⁹ Inspiration was a large part of the City's Beautiful agenda. The expectation was that inspiration led to discovery and contributed to efficiency. The source of inspiration could be experience with the material landscape. See Johnson (1898a, 1898b) on inspiration and its relations to moral and spiritual purity. For city layout, street design, and circulation of people for access to inspiration see Robinson (1899, 1901, 1903) and Haldeman (1914), and for architectural control of inspiration see Howard (1965).

cityscape, access, and progress. It was in the planning for the World's Fair that thinking about transportation strategically was folded into the City Beautiful movement's comprehensive approach to binding urban design to societal advancement. Although it would take several more years to systematically approach designing cityscapes including transportation for social progress, Robinson's (1899) observations (p. 771) cemented the Fair as an important proving ground where the regulation of transportation access could further the City Beautiful movement of social progress.¹⁶⁰

Of particular concern to the organization was transportation to the exposition. While Olmstead and others had the freedom to design transportation within the Fair from the ground up to include electric rail systems, gondolas, moving walkways, and hand-pushed wheeled chairs (Johnson, 1897a, pp. 384-385), planning for transportation to the Fair had to contend with the preexisting structure of Chicago's cityscape (Burnham, 1892, p. 3-4). Conditions of or additions to roadways, private railroad lines, adjustment of traffic patterns, and cost all factored into the decision to rely most heavily on the carriage as a means of flexible inter-city transportation.

At each stage of the enterprise some difficulties were pressing and seemed almost to doom the Exposition to disaster ... The year 1891 had the financial question and that of adequate transportation to Jackson Park. This extended

¹⁶⁰ Robinson (1899, pp. 171-174) is careful to make the distinction between the fair being a formative moment in the trajectory of the city's beautiful ideal, and the formation of the moment. He contends it was the former, as to the latter had preexisted the Exposition in both grassroots civil involvement and professionalization of urban (via Burnham) and landscape (via Olmsted) architectural design.

into 1892, when they were overcome but the financial question [of transportation] arose again 1893. (Johnson, 1897a, p. 92)

The Fair's subcommittee on transportation methods issued a report dated October 31, 1891, in which the committee suggested to Burnham and the other leadership a plan for transportation that could accommodate 39,000 people an hour to and from the Fair. The report (Johnson, 1897a, p. 94) estimated:

- Walking and carriages, 15,000;
- Chicago City Railway Company's lines, 12,000;
- Illinois Central Railroad, 6,000;
- watercraft, 5000; and
- other railroads, 1,000.

In making these estimates, the committee did not explicitly communicate for whom the transportation was intended, and by extension for whom the Fair was intended. Yet, that is precisely what it came to communicate. The financial barriers posed by the cost of transportation particularly of the taxi's precursor, the carriage, would have disproportionately weighed more heavily on the finances of the poor and middle class. This in turn would have either prohibited access to some or all of the Fair, and the resources, opportunities, or cultural currency it provided.

Exposition Historian Norman Bolotin (2017) commented "in 1893 disposable income was the purview of the wealthy and spending a dime or quarter for an attraction on the Midway or paying \$1-\$2 for a room per night in Chicago was absolutely NOT small change". Other research corroborates the sentiment that what seemed like a few dollars like the cost of a carriage was a substantial part of a living

wage. Nell Painter’s (2008) history of the progressive era and Spahr’s (1896) financial assessment and distribution of wealth in 1890 illustrate the severity of that point.

Painter (2008, p. XV-XVIII) explained that the wealthiest 1% of families owned 51% of real estate wealth, the bottom 44% owned 1.2% of the property, and real estate wealth. According to Spahr’s (1896) assessment of the economics of the time, real estate wealth could be used as a metric for accessible wealth when contextualized with salary distribution and cost of living. As Painter explained, the poorest 50% of families received 20% of wages and salaries, and the wealthiest 2% had over half the income (see Table 5-A).

Table 5-A

Distribution of Wealth and Income in 1890

Estates (By Annual Income)	Number of Families	Aggregate Wealth	Average Wealth Per Family
Wealthy Classes (\$50,000 and over)	125,000	\$33,000,000,000	\$264,000
Well-to-do Classes (\$5,000 to \$50,000)	1,375,000	\$23,000,000,000	\$16,000
Middle Classes \$500 to \$5,000	5,500,000	\$8,200,000,000	\$1,500
Poorer Classes (under \$500)	<u>5,500,00</u>	<u>\$800,000,000</u>	<u>\$150</u>
	12,500,000	\$65,000,000,000	\$5,200

Note: Chart included in Spahr’s (1896) financial assessment, p. 69.

As transportation became a fundamental concern for facilitating the Fair’s objective, financial constraints around transportation became the de facto means through which discrimination could be legitimized without the Fair’s administration

themselves performing the act. By designing for-hire carriage to be the main form of flexible public transportation to the Fair the designers could appear to provide equitable access irrespective of race, class, or ethnicity. Indeed, almost anyone could hail a carriage, but few, it would seem, could pay for it. In making this activity appear as a voluntary act of an individual (customer) agency, the administration shifted the locus of responsibility onto the public. The difference being the wealthy that could use the carriage could expend less time going to the Fair, and more time and in better condition to accessing its privileges, while those that could not afford one saved money but had to walk miles through Chicago arriving unsuitable for public interaction. Those who arrived sweaty and dirty (in the summer) or cold and wet (in the winter) would be denied physical entry. As an author in *Puck* presciently commented “Only the Brave deserve the fair; but money will count more than courage toward gaining entrance” (Keppler, 1893, p. 15). Scrutinizing transportation and the way it propagated the interests of City Beautiful proponents informed who the Fair’s designers considered as most deserving of access.

What this meant for the Fair’s transportation landscape was a qualifying of Fair access based on social order and wealth that fed back into the production of status and wealth. For those most deserving, Fair access ‘would prove a blessed privilege’ (Johnson, 1897a, p. 365) that reified social status by elevating their personal, moral, and social ‘tone.’ For-hire use of cabs and carriages were integrated alongside cheaper transportation options not only to ensure that all classes of people could access the Fair within their means in ways that also ensured that mechanisms of transportation reified wealth-based social order.

5.4.4 *Fair Guidebook*

By the time the Fair opened, advertising material and guidebooks issued by leadership (Flinn, 1893a, 1893b; Wade, 1893) included in the first initial pages a “Ten Suggestions for Visitors” (Flinn, 1893a, p. 6). Alongside text endorsing places to stay, travel advisories, and others, the list also included two suggestions, #5 and #9, that illustrate the ways for-hire carriage use, colloquially called a ‘hack’¹⁶¹, reinforced the Fair’s objectives by regulating access, and what it communicated by doing so.

Suggestion #5: One-Horse Hansom cabs will carry one or two passengers to any point for 50 cents a mile, or at the rate of 75 cents per hour, and 25 cents each additional quarter-hour. Additional passengers 50 cents each additional. “Hack” or two-horse carriage rates are \$1.00 for conveying one or two passengers any distance less than two miles, \$1.50 for each additional passenger; rate by the hour \$2.00; each additional hour or fraction thereof, \$1.00. Traveling baggage free. Rates named are fixed by city ordinance.

Suggestion #9: Jackson Park, the site of the Exposition, is about seven miles from the down-town railway depots and may be reached by streetcar or elevated railway for 5 cents; by Illinois Central railroad, round trip, 20 cents; or by steamboat from the foot of Van Buren Street, round trip, 25 cents.

These suggestions, coupled with the economic environment, Fair design, and delineation of vehicle use communicated ways that Fair planners bound the Fair's success to its dependency on transit. In doing so they created a mutually buttressing environment where the financial and proximal boundaries of transportation access

¹⁶¹ Hack is also frequently the colloquial term for a for-hire vehicle, whether two-wheeled or four.

were regulated in the image of City Beautiful principles like wealth, efficiency, and hygiene.

Wealth as a metric for productivity and social value presupposes that the wealthiest are the most valuable contributors to society and social progress. As an obvious criterion for admission both to the Fair and transportation, the cost of transportation use varied dramatically. The Fair, located in Jackson Park, was around seven miles from the city's main train depot through which most out-of-town guests would arrive in Chicago. Historian of carriages and busses, Moore (1902, pp. 280-281) noted that a horse drawn carriage would travel between four and six miles an hour depending on traffic and method of hiring¹⁶² and lower speed of two miles on city streets. For a seven mile distance, a hansom cab would cost between an estimated \$3.00 and \$3.50, while a carriage cost could sit between \$3.50 and \$4.50 if moving at the best speed and double that cost for a round trip. That is without factoring in additional passengers, handling of luggage, additional stops, and driver tips. Comparatively, per passenger, the elevated railway would cost 10 cents, Illinois Central 20 cents for a round trip, while a ferry round trip would be 25 cents per person. That would be doubled for a party of two and further increased by extra expenses such as luggage. Despite any additional costs for use of public transit, the

¹⁶² H. C. Moore (1902, pp. 280-281) illustrated the difference between hiring a driver by distance or by time. "A cabman hired by distance must, unless prevented by the traffic drive at a rate of six miles an hour; if hired by time, four miles an hour; should he be requested to drive above the latter speed, he may demand, in addition to the time fare, for every mile, or any part of one exceeding four miles." This was a common and important distinction as hiring by the hour would be more economical if a carriage could travel at speed and by distance in a city with considerable traffic, like Chicago at the time. See also Hines (2008).

round-trip cost of a carriage or cab between \$6 and \$9 would far exceeded the expense on public transit.

When placed into context with the annual income of \$500 a year, or under \$41 a month, a round trip in a carriage would cost almost one-quarter of the monthly income before factoring in additional expenses such as Fair tickets, train tickets, lodging, and food. It is unlikely that lower-income people could travel to Chicago explicitly to see the Fair, and those already in Chicago, especially for those under \$125 a year or \$10.50 a month, would have scarcely been able to afford tickets on the cheaper elevated rail line on top of the 50-cent charge for admission. While carriage use, or the less noble, less expensive, but expeditious hansom cabriolet, would have been more financially attainable by the middle class, the great expense was unlikely as it would have moved antithetical to middle-class spending ethos. At a time when middle-class frugality sharply contrasted pageantry of gilded age wealth (Witkowski, 2010, pp. 242-244), the near 9000% price difference between a 10-cent train ticket and a \$9 carriage ride would have discouraged use by the middle class for the same reason it would have encouraged use by the wealthy.

Additionally, Fair leadership conveyed the sense of class-based transit through their consistent use of carriages to transport members of wealth and station. This included diplomatic envoys, members of Congress, the offices of the President and Vice President of the United States, members of the Supreme Court, company owners, investors, and shareholders of the Fair totaling over 100,000 special invitations (Johnson, 1897a, p. 262), each good for “a gentleman and a lady.” Records of the opening day estimated upward of 70,000 of the guests were in attendance (p. 264)

with carriages assigned for their use (p. 263). The presence of carriages as a consistently viable travel option such that they warranted both estimates in planning, and space in the Fair's Guidebook indicates an expectation of their consistent use, further reinforcing that the use of cabs and carriages was largely relegated and sometimes even reserved for use by the elite. Both monetarily and through social precedent the Fair administration reinforced the idea that carriage use was the province of the upper class.

Efficiency as a central tenet of the City Beautiful movement lay not only in the expediency equation of time over distance but also in the relationship between transit and the achievement of a person's goals. In that sense, efficiency becomes a balance between the time/distance equation and the needs of a user. For example, when the priority is the time/distance metric then a middle-class visitor to the Fair may see the carriage's almost 9000% markup as an inefficient use of the resources of time and money. For a wealthy noble or member of the government, the value of privacy, comfort, and flexibility mediates the value of time-space when calculating efficiency.

However, efficiency is not so easily calculated between the fixed route and schedule of a train, and the flexibility of the carriage. Not only do the in-route tradeoffs need to be compared, but the pre-and post-travel trade-offs also need to be brought into the efficiency equation. On the surface, a train in transit time versus cost would have been far more economical. It would not have had to contend with traffic in route the same way a carriage would or be influenced by the disposition of horses. Yet trains would be far more crowded. Low cost and wide public appeal to middle-class mobility meant that many people would be on the train and many more move through

it daily. In Chicago, where concerns over a typhoid epidemic (Randoll, 2010) followed sharply on the heels of the previous year's influenza epidemic (Ingals, 1891), personal space and limiting engagement with crowds was a valuable commodity.¹⁶³ Other trade-offs included the ability to work or conduct business, have discussions or make an agreement in private, or accommodate injury, disability, illness, or anxiety. Although the carriage would have enabled opportunities by virtue of solitude, the frequently uncomfortable jarring ride and noise of the carriage would have made productivity less likely. For the train the opposite could be true; a relatively smooth ride was offset by the noise, smell, and proximity of other passengers. In a way, the carriage's isolation would have warded against illnesses, ensuring the health of the wealthy, feeding back into their ability to remain so at the cost of a bumpier ride, slower arrival, and greater expense. As it had been in Victorian London, people with a disability would have found a much harder time accessing and coping with the demands of public transit and only those who were disabled and wealthy could afford viable opportunities at mobility.

However, the activity of being transported is only part of the requirements for either form of travel. For-hire vehicles were flexible both in pick-up and drop-off locations. They provided personal attention by the driver, privacy, cleanliness, and expeditious delivery that adapted to the patron's personal, logistical, and geographic needs. Hotels where affluent people could stay (Flinn, 1893a, p. 6) housed their own

¹⁶³ Randoll (2010) notes that many of the coordinators and investors worried that fear over the epidemic would prevent people from attending the Fair. Johnson (1897a, 1897b) notes the building of sanitary stations and other technical solutions to address concerns over clean drinking water, in addition to offering clean water for sale.

for-hire stands (Thrupp, 1877) making seeking out transit convenient and accessible. This flexibility extended to how fast the cab or carriage would go, and by what metric—distance or time—patrons wanted to navigate the cost. The train, on the other hand, had to keep to specific schedules, operated along inflexible routes and made frequent stops to address the transit needs of other passengers.

The tradeoff was the cab's exorbitant cost compared to the train's marginal one. Not uncommonly for-hire vehicle prices were set by *city ordinance* to quell fears of overcharging and regulate the calculator of fares as much as possible (Chapter 3). Standardizing costs via city regulation was normal industry practice for cities like New York, London, and Boston.¹⁶⁴ The high cost of cabs and carriages that factored into city ordinance was a fiscal balancing act that frequently incorporated several concerns both on the part of the city and on the part of the driver. According to turn-of-the-century drivers Hazard (1930) and Betts (1930), vehicle-related calculations included owner, maintenance, license, rental, hotel stand rental, and other less scrupulous fees. Relating to vehicle type like horse-drawn vehicles, this included stabling and upkeep of the horses, garage for the carriage, and a standard fee for the driver, although that itself was marginal as most places expected the driver could supplement nonliving wages with tips. On the city side, considerations included infrastructure maintenance of roadways, supply chains, cost of oversight, and regulatory bodies. All of these factors to determine fair cost would be conditioned by the immediate economic and material environment such as depression and inflation,

¹⁶⁴ Gilbert and Samuels (1985) have several examples along the East and West Coast of the United States.

town or city citizen affluence, and market cost of necessary resources for fuel and repairs of both vehicles and roadways. Johnson notes that due to extreme traffic the roadways to and through the Fair underwent frequent repair (Johnson, 1897a, p. 317, 390). As the cost of roadway infrastructure increased (Robinson, 1916, pp. 29, 71), so too did the cost of cabs (Thrupp, 1877, p. 138) in a recursive set of relations between for-hire transit and material cityscapes dating back to the 1700s.¹⁶⁵ For City Beautiful architects and planners, efficiency was also in part the responsibility of the material landscape (Johnson, 1897a, p. 93-95). Irrespective of a cab or train's potential, it could never achieve whatever vision of efficiency it promised with poorly designed city crossings (Johnson, 1897a, p. 93) and poorly kept and indirect city routes (Smith, 2009, p. 36, 46). Although this was a frustration during the Fair for Burnham and others, it emphasized to beautification proponents the importance of external infrastructure's involvement in progress. Over the next two decades, this recognition grew to become a prominent factor in a new city planning movement led by the Fair's architectural apprentice, Fredrick Olmsted, Jr.

Roadways were not the only infrastructural appendages that impacted transportation options. Railroads saw significant extension due to Fair needs and the contexts and logics for why and how they were shaped re-communicated the social

¹⁶⁵ Several authors illustrate the recursive interaction between material city practices and the evolution of cabs including the change in cab size specific for European city streets and the position of the driver from the side of the cab to the top to avoid problems of narrow streets. With the City Beautiful movement what became more evident was the relationship between cab use and city streets. G. A. Thrupp (1877, p. 140) commented, "If carriages had always to move along perfectly smooth roads, such as tramway of wood, iron, or stone, the use of wheels in overcoming friction would be their sole utility, and the height of the wheels would be of small consequence. But as carriages are drawn along roads with loose stones and uneven surfaces wheels are further useful in mounting over these obstacles, and it is plain that a high wheel does this more easily than a low one."

hierarchy bound to fair transportation access. For example, the decision to elevate the railways embodied the tension between train transit efficiency, economic viability, and strategic preferencing of mobility. The decision to elevate the railway over the road, and not the road over the railway, evolved from several considerations. For one, the architects believed that neither the Illinois Central Railroad nor pedestrian and mobile street traffic (Johnson, 1897a, p. 93) could reach their full efficiency in the presence of the other. The architects and planners led by transportation manager William Holcomb proposed the raising of the train tracks (p. 95). Built into this proposal was a logic that used transportation to reinforce the dominance of a wealthy executive class. The decision to raise the railway instead of the walkway or road was communication and activity of maintaining social order through preferential access.

While a straight route would have made train movement more efficient (Johnson, 1897a, pp. 94-95), it would have increased the dangers and inconveniences for pedestrians and other traffic like carriages that needed to cross rail lines. It so happened that the traffic crossing that space would frequently be coming from the high-class hotels and wealthy estates of Hyde Park. By elevating the road, designers were concerned with making such people unnecessarily suffer the “Increased labor of walking” (Johnson, 1897a, p. 94). Choosing to facilitate the access by visitors of status was done at the expense of the middle class. Elevated stations would require more effort to traverse, and elevations would slightly increase transit time. Though the differences in efficiency were minimal, the administration's peerages were given deference. In remarking that the labor of walking as something which the wealthy need not be burdened, and the middle class was expected to make use of trains, there

was also a subtle commentary on the social status of those who had no choice but to walk. Whether coming from elsewhere in town or walking the seven miles from the train station, walking as a necessary form of transit marked someone as the lowest class.

Financially, the expensive burden of elevating the road would have fallen solely on the Fair, whereas the cost of elevating train track (Johnson, 1897a, p. 96) and building stations (p. 98) would be shared by the Fair and train companies (p. 94). In a fiscal sense, the choice was practical. The Chicago Railway's motivation for not wanting to pay for the elevations was they did not think patrons of the elevated stations would add enough value to the transportation arrangement so the company could recoup the costs of the elevation (p. 96). As a solution, the former railroad executive Holcomb helped orchestrate the building of the elevated railway at the expense of the Fair.¹⁶⁶ In essence, elevating was not about the people who the train would service, but about the wealthy whom they did not inconvenience. Despite this cost, the Fair's administration saw this not just as a success for the Fair but as an enduring legacy that harkened the entry of the City Beautiful movement into the mainstream public sphere. Johnson's (1897a) cataloging of this process noted that it "was a source of satisfaction to the management of the Exposition to be the means of conferring upon that portion of the city near Jackson Park the lasting benefits that accrued from the elevation of the tracks" (p. 96).

¹⁶⁶ To elevate its tracks the Chicago Railway agreed under the condition that others paid for it. The exposition paid \$200,000, and 100,000 tickets to the World's Fair, and the Chicago City Railway also contributed 100,000. (See Johnson, 1897a, pp. 95-97).

Hygiene was a steadfast route to beautification through the dual narratives of both the city and the body. Olmstead, Burnham, and others were careful to cultivate the model city ethic (p. 401) not only through the symmetry of buildings set against a cultivated landscape (p. 147) but through the clean and well-maintained organization of the cityscape itself from building facades and interiors to lights, streets, sanitation stations, and other elements of city infrastructure less obvious like electricity, water filtration, and sewage lines (p. 165). Both administrators and Fair-goers compared the clean thoroughfares of the White City to the “filthy” (Smith, 2009, p. XVI, 36, 46; Spear, 1967, p. 2) streets and areas of Chicago that lay outside the Fair’s walls. Here again, the metaphor of the White City plays out, a white-walled hygienic oasis amidst a sea of city filth. The boundaries between city and person are particularly porous and the discourse of filth and dirt was of particular concern to Fair administrators. As a bodily issue, it brought with it sickness like the influenza epidemic ongoing at the time of the Fair (Johnson, 1898a, pp. 339-340). Architecturally the solutions were built into to provide sanitation stations, sell filtered water, and treatment facilities for wastewater.

But Fair administrators were also concerned with moral and social filth that dovetailed neatly into personal notions of purity and filth.¹⁶⁷ In this sense transportation implications take on a different weight. The privacy the carriage allowed patrons would have limited exposure to streets as well as others, and the

¹⁶⁷ Numerous comments on the comparatively high moral standing (Johnson, 1897a, p. 205, 218, 223, 226; 1897b, p. 286; 1898a, p. 344, 360; 1898b, pp. 488-496) of the Fair administrators, participants, workers, and good working classes present a stark contrast to poor workers, sick, dependent, and others perceived as undeservingly drawing on society’s resources.

limitation on walking further mitigated exposure. Train users not only had to exert more effort to get to and from fixed transit hubs, but also were exposed to the presence of others and the various illnesses, smells, and interactions that public spaces endure. People too poor for public transit would have walked, exposing themselves to the literal and figurative dirt of the city. In doing so, they arrived at the Fair dirty from the dark streets that contrasted with the White City. They would have been out of place and bringing with them the moral sicknesses of alcohol addiction, drug use, prostitution, atheism, or laziness, and physical sickness as well. Positive relations between class status and perceived cleanliness meant the poor would have been the antithesis of the inspirational, clean, efficient city beautiful aesthetic, especially at a time when poverty was attributed to the sin of laziness, and so doubly burdening society unfairly with their presence.

Transportation not only communicated how someone could participate in society but also communicated their worthiness for that participation. Carriages were used by the wealthy, walking was the alternative for the poor, and the middle class could use public transit. All had their tradeoffs and the position of transportation, especially with regards to Fair access, reinforced a dominant social order that used carriages to the privileged and the wealthy with greater access and safer conditions. The practical and symbolic value of the White City and the transport mechanisms used to join it to society, instantiated the idea of economic segregation as a practical approach to achieve beautiful model city efficiency. This approach would be taken up more dramatically in later years.

5.4.5 Legacy of the Taxi and Elevated Railway

One of the goals of the City Beautiful designers was to create an enduring legacy both through the emergence of the beautification-efficiency aesthetic but also through the planned construction of transportation networks. Johnson (1897a, p. 93) notes that the Fair's architects and designers elevated Chicago's railway network with this goal in mind. As the previous section indicates, the elevation of the railway was not necessarily the emancipatory move for the city that some proponents made it out to be, though it did have an enduring legacy. Burnham's use of transportation for the White City helped test the economic model of appropriate segregation in the interest of achieving a certain vision of social progress (Burnham & Bennett, 2009, p. 143). According to Miller (1997), what followed in the decades leading up to World War II was "an explosive mixture of romanticism, racialism, religious zealotry, nationalism, and economic cupidity that powered French and Anglo-American expansion" (p. 36).

One of the Fair executive board members and financier Charles Tyson Yerkes (Johnson, 1897a, p. 259) continued the elevation project started and financed by the Fair's transportation committee (p. 96). Initially, the Loop, as it is known today, was proposed and rejected as impractical by Fair leadership (Johnson, 1897a, p. 93). By 1897, Yerkes, following Burnham's suggestions, began financing the strategic linking of Chicago's rail lines (Smith, 2009, p. 40). The idea for a more integrated expansion of the Loop was reincorporated into Daniel Burnham's plan (Burnham & Bennett, 2009, p. 66, 73) for reinvigorating Chicago to circulate the working, largely White, middle class through the city center in the name of progress (p. 32, 143). As Chicago grew, the city's continued success became bound to the continuation of upper- and

middle-class access. On the dependency of urban sprawl and the city expansion on transportation Miller (1997) commented that “No matter how far suburban families moved from the loop, double lines of steel linked them to it” (p. 294). Importantly, the Loop was and is more than a circle of connected rail lines, it was the boundary of city resources. Access to the Loop was very nearly a condition for access to Chicago's political and economic activity.

Yet, that access continued to be unequal, propagated first by the Fair’s presence and then by its absence. The economic and service void left by the Fair was most keenly felt by the most economically insecure and largely Black population that resided in the Fair’s hastily and poorly maintained living quarters for laborers. Black communities, of which Ida B. Wells (1893) and Fredrick Douglass (1893) both criticized the Fair’s treatment, were not only made more vulnerable by the inconsistent and menial low paying labor of the Fair but what minor economic opportunities that the Fair offered departed when the Fair closed. Low infrastructure, high occupancy, and very limited economic opportunity created what scholars (Bracey & Meier, 1971; Philpott, 1978; Spear, 1967) have referred to as Chicago’s first Black ghetto.

City Beautiful proponents abhorred the presence of what they saw as the voluntarily poor. Olmsted and Burnham shared the anti-welfare ideological perspective with their peerage like the manufacturing titans Ford and Wright (1895, pp. 303-304). Arguing a commonly held opinion among the upper class that the poor were only poor because they chose it and thus deserved to be poor. The first U.S. Commissioner of Labor, Carroll D. Wright’s report “The Slums” argued that Chicago, Baltimore, and Philadelphia did not have a poverty problem, they had a resident

problem (1894a). According to Wright, the poor's financial encumbrance were a product not of racial, ethnic, or ability prejudices, the denial of opportunity (1895), or material, political, economic, or environmental constraints forced upon them (1894b), but of their own moral, intellectual, and behavioral dysfunction (1894a). By inscribing poverty as a personal failing, a perspective common at the time, such analysis strategically obfuscates the political and material conditions that continually produce and reproduce the conditions for inequality such as unequal access to transportation. In doing so he overlooked inequality as a failure of a society whose unequal structure encouraged the elevation of Wright and others to their positions of elitism. The poor shantytowns left in the Fair's wake were representative of all things the movement opposed; filth (moral, biological, and environment), inefficiency, and voluntary poverty.

Transportation was not responsible for the unequal regulation of access on its own, but rather in concert with conditions that built unequal access. Exclusionary zoning practices (Shertzer et al., 2016) modeled from City Beautiful recommendations¹⁶⁸ dovetailed with civic improvement groups (Rothstein, 2017)¹⁶⁹ that sought to limit the intermixing of non-White communities with the White middle class. This was not just a denial of safe housing but better infrastructure, school systems, social support, the opportunity for cultural exchange, political and job

¹⁶⁸ See Haldeman (1912) for proposal on municipal zoning system as guidelines for development.

¹⁶⁹ Rothstein provides a good example following the Fair. In 1907, the Hyde Park Improvement Protective Club, a grassroots civic improvement group similar to those that founded the City Beautiful movement, opposed the presence of Black people in their and other neighborhoods (p. 103). They boycotted merchants that sold to Black customers and sought to evict, buy out, or chase away Black homeowners that lived in those neighborhoods.

opportunities, as well as the accrual of wealth in real estate. Banking systems denied Black families credit (Baradaran, 2017), and real estate practices limited ways for Black communities to hold and grow wealth (Satter, 2010). Together these would have made access to public transit more geographically difficult and the ability to afford a carriage or cab virtually impossible. Satter (2010) showed that Black families had to spend longer amounts of time and more money to access the same city resources as White communities. Denial of jobs and relegation to menial labor led to proportionally lower-income making the cost of mobility proportionally even higher.

Some of these housing practices were combated with the 1917 case *Buchanan v. Warley* (Rothstein, 2017, p. 45) where the U.S. Supreme Court repealed racial zoning laws that prohibited Black people from moving into White-majority neighborhoods. Yet, by 1932, Chicago had adopted new comprehensive zoning laws in the name of public health concerns, which as Rothstein (2017, p. 27, pp. 30-31) notes produced boundaries that were virtually the same as those which had been racially motivated and helped along by the rail lines that extended into with middle-class enclaves.¹⁷⁰ Instead of race, economic productivity became the acceptable metric for societal participation by which people could be legitimately excluded from society.¹⁷¹ Because poverty was culturally accepted as a problem of an individual, the inability to afford available transportation to access society, irrespective of

¹⁷⁰ Rothstein (2017, pp. 101-103) notes White property owners staged often violent protests and eviction of Black residents that lived in or near the border of White neighborhoods between 1906 and 1907. The behavior was emboldened by a lack of police interest in investigating these occasions of violence against persons or property.

¹⁷¹ The prevalence is still apparent today. For example, Brown (2018) utilized a version of economic discrimination as categorical form of legitimate discrimination as means for denying service to people in contemporary forms of for-hire transportation like taxis, Uber, and Lyft.

unreasonable time in transit or outrageous cost, was considered the product of some personal failing. In this way transportation then became built into a system that unequally discouraged productivity. As urban sprawl increased the geographic dimensions of both residential opportunity and city resources transportation became more fundamental to accessing society and the opportunities available therein. The denial of access to areas where transportation was readily accessible, better funded, and safer was a denial produced by the built environment and reproduced by transportation's role in it. Despite being flexible transit for-hire service was never built to be an option for the middle class. Yet the mass transit that was curated to grant cheap transportation was built to the benefit of the expanding White suburbs. Coupled with divestments in resources and economic zoning, the city of Chicago created the context where mass transit was less accessible and taxi service was unaffordable, thus denying access to both and further propagating the inequalities the systems were designed to create.

5.5 Why Now Why This

That for-hire literature has thus far devoted little attention to the intersection of inequality and urban expansion is unsurprising given that most analysis is conducted through the lens of personal mobility, which itself is treated as distinct from the immobile structures of urban landscapes or the immaterial scaffoldings of public discourses and social movements. Meanwhile literature around events like the White City prototype in Chicago or its later enactment in Boston's urban development, treat the taxi amalgam as only tangential to the larger concerns of urban development and criticisms of inequality in institutionalization, housing, and employment.

In this the taxi amalgam and the ritual exist liminal, if noticed at all though both are a fixture of city transportation for the elite and preeminently mobile. On the surface, this may seem reasonable as taxis appear to be physically mobile things, logistical transients by both definition and job description. However, symbolically the taxi's role has remained remarkably stable since the 17th century. In other words, the taxi's role in society has stabilized into a relatively symbolically fixed and geographically flexible source of transportation for the social elite.

One way to think about how this stability was achieved and its implications are to deviate from treating the taxi industry as a collection of individual riders, and instead, look at the urban environment's social and material structures. Doing so affords the opportunities to explore mutually constituting ways the taxi's strategic deployment buttressed dominant ideologies built into the urban landscape, as well as how those material and political urban structures fed back into the taxi's unequal regulation of access.

This is a significant moment from which to explore urban relations with the for-hire industry¹⁷² for several reasons. First, linking the shaping of the car with the environment into which it emerged and was deployed considers the taxi amalgam's role in shaping social, material, and political urban inequalities as mutually reinforcing with the structures themselves. Second, early literature suggests that this was a

¹⁷²Other examples include the narrow alleyways of 17th century London produced the hackney's absence by virtue of being too narrow for carriages to travel through as much as the wide streets and wealthy districts of Westminster produced the hackney's presence. The authors argue that both production and participation are relational. As the taxi is produced by the social and material urban landscape, so too does it help produce it. As cities expand away from mass transit solutions for-hire services, taxis are necessary for navigating the cityscape, which in turn enables cities to expand further.

formative moment in the making of an unequal urban environment. And with these works and additional archival research I argue that the taxi amalgam's role, though overlooked as mundane background to the activity of society, was fundamental in empowering the goals of the urban planning movement, which focused on urban design as a mean of influencing the efficiency of society by facilitating access for people deemed productive and isolating those who would jeopardize or threaten this new vision of urban productivity.

5.6 Part 2: Urban Planning for Progress

While the Fair provided an important launching of the City Beautiful movement's comprehensive city design paradigm, it also awoke a more formal integration of transportation's integral role in directing social progress in expanding cityscapes. Led by Fredrick Olmsted, Jr. in 1912, a reforming City Beautiful movement elided neatly with then-popular American Eugenics' ideas into a more accessible City Planning movement. A strategy for achieving a vision of progress was the twin goals of privileging the White middle- and upper-class through easier access to city resources and institutionalizing disadvantaged access for those deemed undesirable. By designing Boston and other cities landscapes in this way, the relations that advantaged those with access were made more potent by building in disadvantages in the opposite direction.

5.6.1 Evolution Beautiful

The City Beautiful movement, lauded as a pinnacle of design following Chicago's 1893 World's Fair by those in the Eugenics movement, was later rebranded by Olmstead's architectural firm as modern urban planning in its rollout in Boston,

communicating the relationship between urban development priorities and unequal social progress. At an urban and civic design convention, J. Horace McFarland (1912; 1913), the president of the American Civic Association, and one of the revised City Beautiful movement's staunchest supporters reminisced on the example set by the Fair.

America has yet her eyes filled with the memory of that glorious "White City" which the great Burnham gave to us in 1893, and which properly excited our admiration and provoked emulation. This is well. But we must come back to the considerations which Burnham fully took into account in making His World's Fair both convenient and beautiful, both sanitary and slightly, and therefore truly adorable. (McFarland, 1913, p. 10)

The City Beautiful approach was not stagnant in its initial development in the 1850s. Part of its potency was its flexible adaptation to new ideas about urban design practices. Following the 1893 Fair, the movement underwent a formative change that more seriously considered the co-production of city and community development (Wilson, 1981) and more strategic use of transportation and transit networks, suggested by City Beautiful proponents like Robinson (1901), Zueblin (1905), and Olmsted (1910).

Leading up to 1910, mounting criticism against beautification techniques (McFarland, 1913; Wilson, 1994) used purely for aesthetic and not functional purposes helped solidify the City Beautiful movement and collaboration with infrastructure like transportation networks. In the inaugural address to the 8th annual meeting of the American Civic Association, McFarland appealed for an interpretation

of beautification to extend beyond the cosmetic. Conjuring an imaginary onlooker supportive of the beautification movement, McFarland (1913) describes the issue: “His eyes are filled with the orderly beauty of Berlin... He fails to note the administrative efficiency of Frankfort because he is impressed with its picturesque quality” (p. 4).

This new turn in city planning moved away from a preoccupation with the beautification aesthetic to incorporate practices that encouraged order, efficiency, and productivity. Wilson (1994) described this as a seminal moment for urban planning where the City Beautiful merged with “the city practical, the city scientific, and the city functional” (p. 3). This more expansive interpretation of beautification found almost universal adoption among City Beautiful proponents.

For McFarland, Robinson, and others the problem was not the only beautification without infrastructural support. There were concerns that aesthetic beautification in the absence of civic improvement was not social progress, rather a useless mirage. Despite claims of civic improvement, it was clear that did not extend to groups he deemed undeserving of the city’s benefits. Conjuring another image of the population undeserving of access to society, McFarland compared the uselessness of surface beautification to unclean poor, or as he termed it the “unwashed body politic!” (p. 5). He posited this scenario at the planning conference in 1913:

If a man came into his office habited in the filthy attire of a tramp¹⁷³, the fact that he had recently bathed and donned clean underwear would hardly stand in

¹⁷³ The use of tramp refers to an impolite or derogatory, though colloquially recognized, catchall word for poor, homeless, itinerant, vagrant, beggar, or otherwise very low class person. The poor treatment of tramps was justified through the prevailing belief that the poor were only poor because they were lazy,

the way of the ejection to which his outward appearance entitled him! (1913, p. 5)

In this scenario, he argued two points commensurate with the new City Beautiful focus. Clothes do not remedy whatever quality and personal failing a ‘tramp’ or homeless person had that so entitled him to be poor. Secondly, such a position was irredeemable such that a tramp working to get out of poverty by cleaning up and applying for a job would be denied based on what McFarland suggested was his nature. For McFarland and other advocates of beautification reform, this scenario also described the dysfunction of the old City Beautiful focus where clean walls did not matter if the plumbing did not work. Taken a step further if city productivity was held back by a select group of individuals who were willfully and irredeemably poor they should be placed somewhere where they could not be a threat. They would not only have been seen as threatening the productivity of society but threatened the personal and spiritual health of good productive workers as well with sicknesses of the body, mind, or soul.

This was neither the first time nor in the first profession that cleanliness and wealth were metrics by which a person was judged as entitled to access society, or in this case the opposite, entitled to be cast out of society. The treatment echoes the Victorian tendency to associate cleanliness with social status, rank with entitlement,

and thus undeserving of kindness. See Anderson (1923) for greater details. Importantly this vision of the tramp in early 20th century public imagination correlated strongly with the vision of ‘itinerant laborers’ referred to in chapter 3. Particularly around the homeless or travelling nature of this economically precarious class of people seen as disposable. The Chicago World’s Fair depended heavily on low wage laborers who had limited status and were seen as disposable. These laborers were stranded in Chicago once the Fair departed, lacking the resources to depart and the security of continued living arrangements and paying work.

and social value (via productivity, or status) with access (Chapter 3), uncleanness with immigration, poverty, danger to society, and the absence of civilization (Chapter 4), as well as the legal shift to economic zoning practices mentioned throughout this chapter.

McFarland's sentiment about the deserving physical ejection and sociological rejection of the 'tramp' was hardly unique. Poverty and slum-like conditions were developing hand-in-hand with drastic city growth and Chicago stood as a prime example. Though having employed some of the most preeminent city designers of the time, none of them planned for the financial crater left by the Fair's departure. Roadways cultivated for Fair use, train lines specially adapted, and housing units built for World's Fair construction laborers and working attendants all fell into disrepair. The infrastructure and essential services that came with the World's Fair dissipated, transforming large swaths of the area into poor infrastructure slum-like sectors of the city. Despite being equipped with a new awareness around city planning, Fair designers neglected to publicly interrogate the tension between the city development they were suggesting and the development and reproduction of economic inequality.

As their logic went at the time, they did not need to force themselves to reconcile with that uncomfortable thought. Transit systems from train to cab were perpetuating the continued progress of society's productive members. If the poor fell behind and given that the poor deserved their status, they only had themselves to blame.

According to those that benefited from progress and already had access to society's resources (e.g., Haldeman, McFarland, Robinson, Burnham, and Olmsted),

the needs of the few undeserving should not stand in the way of progress. If one doubted that, argued Antirim Haldeman, an example demonstrating the viability of that position could be found in Europe.

Thus we find that within the span of about a quarter of a century the industrial classes of Germany have been translated from hovels and dens reeking with disease, degeneracy, and vice, to pleasant homes, surrounded with all the comforts, conveniences, and privileges that make for health, happiness, and good citizenship; and this has been accomplished mainly by breaching the one-time sacred wall of vested rights and establishing the principle that the economic progress of the nation and the integrity of its social fabric transcend the prerogative of the individual. (Haldeman, 1912, p. 178)

5.6.2 *Progress and the Garden City*

It should be no surprise that McFarland (1913) held up England's organizational prosperity, France's urban redesign for cultural and economic cohesion, and Berlin's cultural and administrative structure as exemplars of cooperative and co-productive urban and social design. Garden cities in England, Germany, and France were sold to the public as emblematic of all that advanced civilization offers a working populace: sustainable population to resource ratios, clean sanitary working conditions, and equally clean working bodies, with a shared goal of ensuring the most efficient route to the social, scientific, and economic progress made possible through new methods of coordinated design. These comparisons echoed the work of European institutions where the vision of coordinated socio-urban design was made popular by communicating the dangers of uncontrolled societal evolution. Lopez-Duran (2018)

noted that this was achieved in part by juxtaposing the “insalubrious city (Ville-Taudis), where all forms of contagion, of misery and death are developed, to the garden city (Cite Jardin), where the race gets fortified, where and sun guarantees health and life” (p. 57).

Advocates for this shift included British urban planner and pioneer of the Garden City idea Ebenezer Howard (1965), architect Hubert Agache, and social engineer Gorges Benoit-Levy. They envisioned the Garden City as the answer to urban problems of sustainable expansion and growth. Where Agache saw architectural promise in the propagation of physical and moral hygiene, Benoit-Levy saw “social hygiene city par excellence” (Lopez-Duran, 2018, pp. 53-54). They, along with urban designers and architects like Le Corbusier, Seiler, Risler, Strauss, and Wright (Fishman, 1982) and political advocates of urban design like McFarland and Burnet, envisioned Garden City housing as both a means to simultaneously eradicate slums and placate the lower class worker (Benton, 1984, pp. 55-56). The plan for Garden Cities was of containment and control: “Immense garden city where the worker would find air, light, health, and a garden in which, at the days end, where he can rest after the hardship of factory labor” (Brunet as cited in Benton, 1984, p. 56). This idea dovetailed with the control and strategic hygienic cultivation of moral, personal, and genetic attributes into a working man’s utopia for the insurance of progress and the maintenance of a Eugenic vision of society.¹⁷⁴

¹⁷⁴ For critical investigations see López-Durán (2018), Currell (2010), Currell & Cogdell (2006). For examples of this ideology as applied to city planning see Goethe (1946) and Richardson (1876).

The incorporation of Garden City ideals into the beautification movement by Johnson was structured to foster the progress of the industrial revolution and secure the beneficiaries of it. Garden Cities were a vehicle of the commons whereby social progress could be efficiently pursued while also maintaining the distribution of wealth and social order at its upper echelons. They were what Fishman (1982, 1989) described as “Bourgeois Utopias” for their beneficial nature of the ruling class, and what Voigt (1989) described as “eugenic utopias” for the cultivation of selective breeding present in Howard's city plans, the Third Reich’s implementation of race hygiene policies in Garden Cities, and the representation of it in German housing policies of the 1950s.

Some scholars like Fishman (1982), Mumford (1961), Anderson (2019), and Miller (1997) have argued that one of Howard’s most significant contributions to the Garden City idea, and its impact on the development of the modern urban landscape, was the decentralization of cities. Modern histories of urban design and city planning have depended on this decentralized idea as the impetus for urban sprawl and the co-dependent and co-productive connection between city and suburb. It allowed designers to plan for more expansive cityscapes and decentralize the location of essential services, opportunities, and societal progress.

In decentralization, there is a bright line linking the ideas espoused by Garden City proponents to the architects of the City Beautiful movement. Not only did city beautification efforts adopt much of the Beaux-Arts design tradition of garden cities designed to use aesthetic beauty to provoke feelings of contentment and drive

efficiency, they also adopted architecture's promise of blending urban and social planning to control unchecked urban and genetic expansion to guide social progress.

Robinson (1903) argued that transportation was an answer to the tension between too crowded of a city landscape that prevented benefits of beauty from being enjoyed, and the sheer distance of urban sprawl that limited access to opportunity by the time-consuming act of travel. In describing the problems of distance and travel he wrote, “Much more relentless than embattlements of masonry are those gateless walls that time and space throw round about the city” (Robinson, 1903, p. 9). The barriers he refers to here are spatial and geographic; conspicuously absent from this understanding of design was the urban landscape's role in fostering barriers to participation in the social structure of the city, including social, racial, and particular economic barriers. Although the necessity of robust transportation systems was recognized by urban planners as essential for access (Barrett, 1983, p. 174), the answer to the question is *access for whom?* was still being decided.

5.6.3 Streets and Transportation: A Path Forward

Over the next few years, a renewed focus on the strategic use of transportation garnered attention as a means for solving the problems of a fast-growing society. Haldeman (1914) and Robinson (1916) believed that the solution to city expansion lay in roadway infrastructure. Robinson published a series of well-regarded works within which were strategic activities by which city administrators could use transportation coupled with isolation to improve the city by solving for the presence of the problematically itinerant, the poor, and the unintelligent (1916, p. 300). Embedded within this idea was the promise that banishing the slum—and those in it—created the

opportunity to redeem the tenement (1903, p. 9). In doing so valuable city space that was otherwise being wasted on the unproductive could be reallocated for better social value. As Robinson (1901) said of infrastructure, it is better to add “beauty to the present and future city than to benefit its poor” (p. 153). Not only did this apply to the access of famous Olmsted parks created in Chicago, New York, and Boston, but to the benefits of those parks and through them benefits of direct access to society.

These suggestions included:

- Road conditions: “No city is practical be it not veined by smooth, clean pavements. A statue in a sea of mud is as ill-chosen an ornament as were diamonds on a beggar” (Robinson, 1901, p. 49).
- Increasing the cost of public transportation, specifically carriages, and taxis: “Thus, with better pavements there is a needed a keener vigilance regarding the appearance of carriages which are driven upon them” (Robinson, 1901, p. 67).
- Removing people in tenements (Robinson, 1903, p. 251), so as not to burden them with costs outside their wealth (Robinson, 1916, p. 459), is a blessing (Robinson, 1903, p. 252) that provides freedom from overcrowding (Robinson, 1903, p. 249, 251) and alleviation of hygienic public health concerns including problems of physical and moral sickness, disabilities, illness, immorality, prostitution, and poverty itself (Robinson, 1901, p. 41).

- Repositioning Eugenics as a kindness, echoing Galton’s declaration “what Nature does blindly, slowly, and ruthlessly, man may do providently, quickly, and kindly” (Galton, 1904).
- Moving infrastructure needed for tenements to ensure the residents move too (Robinson, 1903, p. 251).
- Limiting infrastructure investment in new tenement areas commensurate with residents’ expected level of productivity (Robinson, 1916, p. 29).
- The notion that poor cost more than they contribute to the production and maintenance of the city infrastructure (e.g., homes and streets) necessary for their survival (Robinson, 1916, p. 36).
- Relocating secluded constructed areas similar to that of the British Garden Cities (Robinson, 1903, p. 251) and model tenements (p. 256) where residents’ productivity can reach the desired potential without endangering the productivity or health of other, more productive people.

The role of transportation in this listing of how to contain and control access by the poor demonstrates a multifaceted approach and strategic awareness of the implications of denying access to transportation. One is the limiting of mobility via for-hire transit. By design, the improvement of roads would demand better standards for for-hire vehicles. Robinson noted the inverse connection between good pavement and ramshackle vehicles (1901, p. 67). As the costs to maintain roads rises so too does the charge for vehicles to use that road. There is an important tradeoff to consider. Ramshackle carriages get the name not only from their lower quality or less gaudy

appearance but for the amount of noise they make on the roads due to the size of their wheels. G. A. Thrupp (1877) commented:

If carriage had always to move along perfectly smooth roads, such as tramway of wood, iron, or stone, the use of wheels in overcoming friction would be their sole utility, and the height of the wheels would be of small consequence. But as carriages are drawn along roads with loose stones and uneven surfaces wheels are further useful in mounting over these obstacles, and it is plain that a high wheel does this more easily than a low one. (p. 138)

Lower quality roads and lower quality or ‘ramshackle’ carriages presented the poor with an opportunity for mobility. To improve road quality and the quality and therefore cost of the ride was to further limit their mobility.

Another strategic implication for these ideas was the forcible relocation of both people and their necessary services. Moving the location of limited infrastructure needed for city survival and force residents to move out of tenement housing was considered acceptable coercion so long as the city, owner, developers put the land to better, more productive use. Conditioning the forcible removal as a blessing meant for their good effaces any difficulties they might encounter. Moving the transportation infrastructure to become less available, especially inexpensive options like mass transit, further restricted mobility and was compounded by the simultaneous strategic increase in the price of for-hire transit alternatives. Moving groups of people to isolate them from society, then limiting their ability to access the opportunities in city centers that they left propagated a cycle of unequal access where divestment in infrastructure

dovetailed with the inability to improve or find other opportunities, reinforcing the perception of the poor that made Robinson's suggestions appear beneficent.

Lastly, setting the proposition of sequestering these removed communities into a Garden City-like residential location invokes a Eugenics paradigm commensurate with other Eugenics ideals are productivity, efficiency, and compliance in the name of social progress. Notable these ideas not only set the stage for the inclusion of Eugenics ideals but were deployed to great effect in Boston over the early 1900s.

Many of these ideas, before their formal cataloging by Johnson, were already being implemented by Olmsted and associates in the design of Boston's cityscape and transportation networks. In 1895, the Boston Transit Commission (1895) hired the talents of the architectural firm Olmsted, Olmsted, and Eliot to implement changes to the Boston Common and Garden Park for both "sanitary and aesthetic reasons". Common use of the park, argued the Commission, had become a haven for "street filth" which had become "offensive and malodorous, if not injurious to the health of citizens" (p. 19). The redesign would reclaim the area as a valuable public domain for the benefit of Boston's citizens. The effect was twofold. A clear preference of who they considered as rightful citizens of the area deserving access to a park, and the strategic cleaning and moving of 'filth' which comprised both garbage and the impoverished residents who jeopardized the hygienic quality of the area.

The implications are several and overlapping in a way that illustrates that the decisions to isolate and limit access by poor communities were strategic. Robinson as a theorist and Olmsted and Eliot as operators demonstrated awareness about the implications of these designs, and their effects or costs in the name of progress.

Robinson (1901) argued that the poor should make do with squalor “to cultivate waste places” (p. 175) leftover by society and make it more beautiful for their children, the children of their community, and their children's children. Multigenerational poverty was a product of design that marched in tandem with the planned elevation of the upper- and middle-class through increased production.

5.7 Part 3: Progress by Exclusion

As the previous sections showed, the urban planning environment into which for-hire transportation was incorporated into urban transit offerings was a part of a burgeoning urban renewal effort to prioritize city resource access through streets, city layouts, and infrastructure. Chicago showed those options could include mass transit for the middle class, walking for the poor, and carriages for the wealthy. The taxi amalgam’s role in unequally regulating access to the ritual was not only about the enactment of individual driver decisions but about the way those behaviors were buttressed by an urban environment designed to help structure access to transportation unequally.

Chicago’s transportation redevelopment in the 1890s under beautification was subtle. Carriage were too expensive for the poor and middle class and trains provided a cheap alternative but bypassed low-income areas in favor of developing middle class city sectors. Chicago also provided the framework for what would be Boston’s redevelopment in the next decade. However, in Boston the activity of structuring access unequally was more pronounced. The City Beautiful movement was rebranded *city planning* and took on greater prominence with the expanding influence of the Olmsted planning firm, its association with Harvard (Alofsin, 2002; Builder, 1911),

and capitalization of efficiency logic to reshape the city and model its future into a more productive society. Meanwhile efficiency planning developed a new mass transit system that expanded into middle class suburbs while forcing low-income populations into low infrastructure areas of the city or remanding them to the care of carceral institutions. Like in Chicago, the carriage and later the taxi could facilitate access for people the new mass transit lines could not reach.

In this section I demonstrate how the taxi became built into to Boston's urban development. Unlike Chicago, the presence of the Eugenics social movement as cultural scaffold for decision making was more pronounced. I show how the categorization of moral, social, and genetic *defectives* was the strategic discursive targeting that identified minority groups and threats to Olmsted and others' vision of urban progress and efficiency. This categorization was accompanied by suggestions for solutions solution spanning relocation to euthanasia of defectives. Using relocation as the viable strategy, communities defined as defectives were moved to low infrastructure areas of the city or incarcerated. Deepening this isolation, discriminatory practices around employment, residency, and wealth accrual limited the ability for these groups to economically, physically, and socially participate in society. The isolation was furthered by the development of mass transit around these areas, making taxi use essential to the mobility of the so-labeled defective classes. But again like in Chicago and elsewhere around the United States,¹⁷⁵ taxi access was physically,

¹⁷⁵ For example, Tulsa, Oklahoma (Johnson, 1998), Baton Rouge, Louisiana & Birmingham Alabama (Sandefur, 2004).

financially, and geographically unavailable to many people who were strategically isolated, deepening their isolation.

I suggest that transportation's role in this unequal sectoring of society was integral to the lasting presence of unequal access. The process described above specifically reshaped the communities of Roxbury and Dorchester. As I will show, urban transportation development was deepened as mass transit networks expanded around them and into emerging wealthy upper- and middle-class suburbs. For-hire options, now a combination of carriage remnants and combustion taxis, were essential for societal participation in the absence of these transit systems and yet financially inaccessible due to the strategic unequal economic structuring of the city environment. Geographic isolation promoted financial limitations which impaired transportation which in turn fed back into limiting people's access to society. The network of exclusion enabled and precipitated by transportation that became Boston's built environment was so devastatingly comprehensive that its effects are still part of the city's environment today. Previously regarded as among the category of defectives, in 2015, the median net worth of Black Bostonians was \$8 (Munoz et al., 2015), and in 2017, disabled people in Boston were found to make considerably less than non-disabled people, were employed at half the rate, and 25.5% of disabled people lived below the poverty line, more than three times the state average (at 8.2%) of non-disabled people (Massachusetts Rehabilitation Commission, 2018).

5.7.1 Defining Defectives

While Robinson was laying out a process by which perceived threat to the order, health, and prosperity of society could be contained, Frederick Law Olmsted Jr.

and his architectural firm partner Charles William Eliot were articulating the boundaries of to whom that isolation should apply. Echoing the work of Harvard colleague Robert Yerkes, Olmstead (1910, p. 5) spoke avidly against the dangers of genetic, biological, religious, and moral contagions in the form of immigrants from Europe whom he codedly called “Gypsy Moths”, an unmistakable link between problems of European immigrants and the invasive insect brought from Europe in the 1800s. Eliot (1911), a noted Eugenicist, opposed not immigration but the mixing of races, classes, and ethnicities. “Each nation should keep its stock pure” (Cohen, 2016), argued Eliot, referring to a racial and ethnic purity that went hand-in-glove with the discourse of racial hygiene. In his work on “The Suppression of Moral Defectives” (2011), he argued for the geographic and oftentimes biological isolation of defectives, including forced sterilization of the criminal, disabled, and insane. Far from outliers, these calls for the strategic exclusion of immigrant, criminal, and disabled people were set against a growing chorus of support in elite academic and philanthropic institutions (Black, 2012; Cohen, 2016) that was staged across disciplines crossing through the new field of architecture seamlessly. Professor of zoology and research associate at the Carnegie Institute, W. E. Castle wrote, “From the viewpoint of a superior race there is nothing to be gained by crossing with an inferior race” (1921, p. 267), which in no small way echoed Robinsons’ early social beautification work (1901) where he argued “You can’t put a beautiful book beside one of poor workmanship and thereby improve the first, or even be able to speak of the two volumes as one fine work” (p. 166).

Growing since the late 1800s, Eugenics programs in the United States were focused on achieving the most efficient and productive society using control,

segregation, and elimination. Undergirding that movement percolated the belief in the superiority of the White race of Nordic descent. Political and scientific proponents¹⁷⁶ of Eugenics programs believed that Caucasians of Nordic descent and (largely) Protestant roots were genetically predisposed to be the most productive and best-suited leaders of society. They also reasoned that diluting the genetic purity of the racial elite would staunch society's productivity, making the threat of dilution a driving force in the building of political, social, and material aspects of society. Douglas Baynton, among others, discussed ways that popular Eugenics culture justified this assumption by pseudo-scientifically proving¹⁷⁷ the causative relationship between the inferior genetics of non-Nordic races, ethnicities, and different physical and mental characteristics made them predisposed to. People with disabilities, labeled genetically defective or simply 'defectives,' were a burden on society's genetic pool and productive potential. Defectiveness could be communicable and races and ethnicities were particularly vulnerable to contracting defects. In this way, White dominant culture was able to encapsulate political, social, cultural, ethnic, and biological differences as a deviance that posed a threat to society and from that to the productivity and order of society. Who counted as 'defective' became synonymous with anyone who was not genetically 'pure', unproductive, or challenged the place, status, or moral position of the established social order. Under the sponsorship of the Carnegie Institution (Black, 2012), research that headlined the First International

¹⁷⁶ See Bleeker's (1912) report at the first Eugenics conference and participants in the Eugenics committee and their corporate and academic affiliation. This was the early committee and as Black (2012) demonstrated the popularity of the program among corporate, federal, and academic sectors grew from there.

¹⁷⁷ See Davenport (1923) for a collection of scientific papers purportedly proving the value of Eugenics.

Eugenics Congress, of which Eliot was the Vice President (Cohen, 2016), laid the groundwork in the built environment by defining social, political, and genetic undesirables as defectives:

Whether wholly of defective inheritance, or mostly of good inheritance, but suffering from an insurmountable hereditary handicap, members of the following classes must be considered as socially unfit, and their supply should, if possible, be eliminated from the human stock: (1) the feebleminded; (2) the pauper class; (3) the criminal class; (4) the epileptics; (5) the insane; (6) the constitutionally weak, or the asthenic class; (7) those predisposed to specific diseases, or the diathetic class; (8) the deformed ; and (9) those having defective sense organs, as the blind and the deaf, or the kakaiesthetic class. (Van Wagenen, 1912, p. 462)

This moment empowered the burgeoning culture of Eugenics discrimination with a more legitimate scientific justification. The definitional work did more than make it appear like science. This newfound legitimacy laid the groundwork for political, legal, and material action that justified limited the mobility and access to the society of the genetically impure. It was a formal ordering of society that built an environment to propagate the access of the pure and limit the access and mobility of anyone that might threaten that order.¹⁷⁸ Parsons (2018) showed that these ideas went

¹⁷⁸ Part of the significance of this definition work was its structuring effect. It gave the green light to those in philanthropy, politics, and culture that were ready to reshape the city landscape in the image of Eugenics through segregation. The conference's goal was to promote ideas about how to best deny access to these groups to society, including the twin approaches of segregation and incarceration. These appeared more viable for strategic reasons as they were more easily digestible to the general public and easier to implement politically. See Wagenen (1912, p. 467, 475) and Davenport (1923, pp 20-28).

on to find purchase in the shaping of geographic and carceral landscape across the country. For the taxi, it helped formalize who the taxi did not, could not, or would not service in ways that lasted through World War II, Johnson's War on crime, and shaped policies and practices today (Chapters 7 & 8).

5.7.2 Structuring Transportation

Strategies that socially and geographically isolated defectives figured prominently in building transportation denial into 20th century city landscape. Real estate practices like steering, redlining, blackballing, and White-only homeowners associations helped build segregated communities under the auspices of Eugenics reasoning of efficiency segregate the targets of Eugenics policies. Limited legal oversight and discriminatory housing practices centralized the distribution of wealth in cities like Boston. This helped White Puritan communities consolidate wealth in areas like Beacon Hill, and shepherd Eugenic *undesirables*, such as Irish, Italian, Jewish, and Black communities which city labeled as 'slums' around the areas of Roxbury and Dorchester. City investment followed wealth and built-up transportation and other infrastructure around Beacon Hill and Boston's slums were left with poor access to resources (Rothstein, 2017). Even as popular interests in the formal label of 'Eugenics' died down nearer to World War II (Black, 2012), the effects of housing segregation and discrimination persisted (Rothstein, 2017). More White people were welcome into the middle-class fold but residents of Boston's slums where concentrations of poverty (Massey & Kanaiaupuni, 1993) persisted, particularly for African Americans who were shepherded into public housing projects (Rothstein,

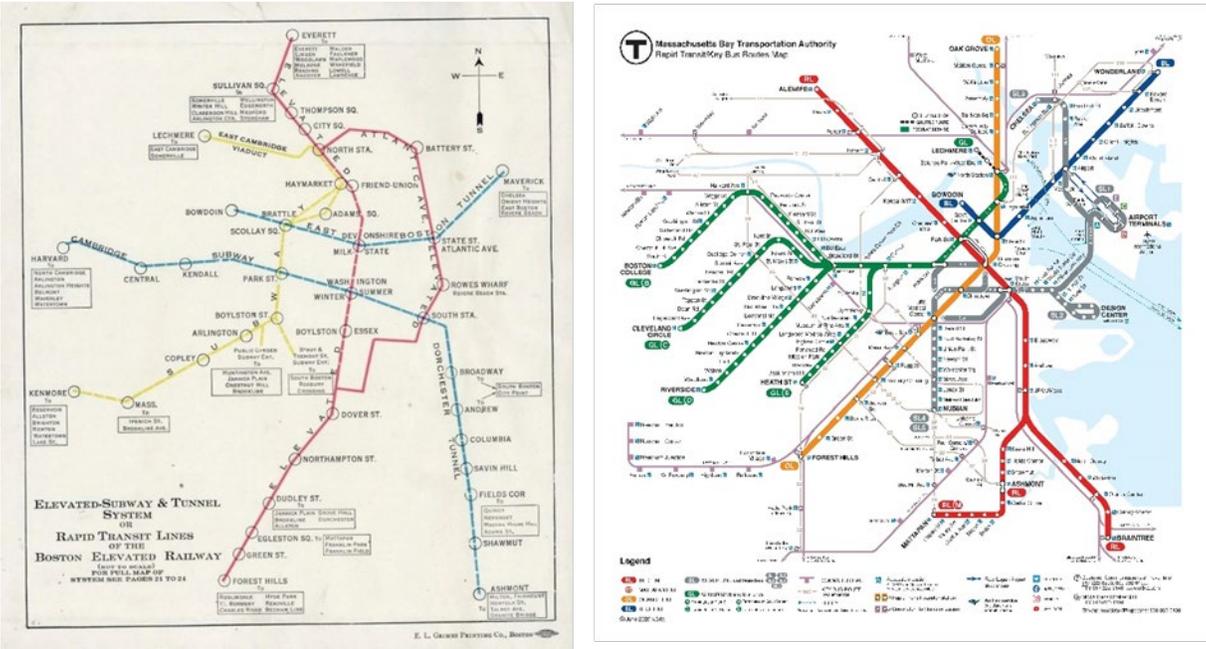
2017, p. 27) that continued to be fraught with low investment and poor access to resources (Colins & Shester, 2013).

Discriminatory loan practices, insurance coverage, and other policies had a negative impact on minority communities' economic resources for opportunities like investment and the building of businesses. This meant, for example, that fewer resources were located within Black and minority communities and residents had to travel outside their communities for services, food, or mainstream culture. Housing practice made transportation fundamental to community survival. Yet, the lack of resources and services within the community made it so residents had to travel to other parts of the city. Conversely, the limited number of activities meant little tourist activity and taxis were less inclined to frequent areas with no chance of fares. For a taxi to stay in business, let alone profit, they need to follow the circulation of people in need of rides. Situations where patronage was an uncertain prospect would be avoided by drivers if at all possible (Betts, 1930).

As costs of inner-city property, insurance, and services in Boston became too high, minority communities were pushed into areas of Roxbury and Dorchester or left for more rural parts of the state (Hayden, 2019; Taggart & Smith, 1981; Schill & Wachter, 1993). Yet, the situation with community building and housing made the demand for transportation move vital to community survival. As material, political, and legal practices continued to segregate populations of Boston's mass transit developed in reflection of that. Figure 5.5 compares the mass transit maps in 1920 and 2020; some of the largest expansion of mass transit in Boston was to wealthy urban and suburban areas.

Figure 5-5

Side By Side Map of Boston Mass Transit 1930 / 2020



Note. Two maps side-by-side in single graphic. Left: map of Boston's Elevated rail line circa 1930, source Boston In Transit Maps. Right: map of Boston Mass transit circa 2020, author's collection.

The areas of Roxbury and Dorchester are located in the southern and eastern space between the red lines and blue lines. Public transportation went to the fringe of the low-income areas. Mass transportation was harder to access and did not frequent the interior areas of those cities. The changes have persisted even with the rail expansions in 2020. Some of the line colors have changed. What was red in 1930 is orange in 2020, and what was blue in 1930 is red in 2020. As Boston's mass transit lines grew their services did not extend fully to the Roxbury and Dorchester areas

where low-income communities had moved, instead expanding around those areas into wealthier suburbs and not to their interior. With trains more costly in transit time and resources, alternative modes of transportation were essential. This included busses (which were not yet widely available and ran inconsistently), above-ground streetcars, and taxis an essential source of accessing society (Gilbert & Samuels, 1985).

Despite the geographic need for taxi service, lower-income communities in Boston found taxi use to be cost prohibitive. The going taxi rate set by the local government was a maximum of 45 cents for the first mile and 30 cents thereafter, and the minimum was 30 cents for the first mile and 20 cents every mile after (Rules and Regulations Hackney Carriage Industry, 1931). Comparatively, mass transit, which had expanded around poor areas and into middle-class districts, began at 5 cents a trip and increased to 7 and 8 cents before finally settling at 10 cents a trip in July 1919, where it remained until 1959 (Lurie, 1960, p. 121).

The issue of the built environment's impact on access does not come fully into focus until juxtaposed with income disparities at the time. According to a report by the U.S. Department of Commerce (U.S. Dept. of Labor, 1963 p. 275) wages for White and "nonwhite" persons leading into World War II was unequal. The average wage for a White male was \$1,112 a year compared to a \$460 for a non-White male; non-White men were paid about 41% of their White counterparts. Women showed a similar disparity. White women were paid \$676 a year compared to non-White women who were paid \$246 a year; non-White women were paid 36% of their White contemporaries' incomes. Of course, these labor statistics do not account for education, access, existing wealth, and other conditions, yet the distinction is an

important one that demonstrates how much one could earn heavily favored White people over non-White people and men over women. While the focus of this chapter is not on the income, it is a social ordering echoed by earlier passages of this time, relegating White women of privilege lesser to their male counterparts, and non-White or immigrant White less than them both.

Proportional to income, taxis were extremely expensive for the people that needed them the most. A trip from Roxbury center to Boston City Hall is between four and five miles, and from Dorchester to City Hall between five and six miles. If taking the lowest per-mile cost of 30 cents for the first mile and 20 cents thereafter, and assuming the Roxbury and Dorchester resident travel five miles, a trip would have cost \$1.10 each way, not including tip, delays, luggage, or tolls. A daily commute into the working areas of the city would have cost \$2.2, which over 261 days (weekdays in a year) would have cost \$574, exceeding many people's yearly salary.

The built transportation system within Boston shaped how people were able to access transportation and society, and obstacles to this access were compounded by some residents needing to expend more resources. The structure had a longitudinal effect shaping other aspects of transportation denial in Boston's future as will be demonstrated in subsequent chapters.

5.7.3 Disability and Taxi Denial

Another way that lack of taxi access structured the visibility of Eugenics targets was through an incarceration system comprised of prisons, treatment facilities, and asylums. These often profitable facilities welcomed anyone with a preponderance of difference or deviance distinct from the Eugenic ideal. A group particularly targeted

for incarceration were those with physical or mental differences classified as genetic defectives. The immobility of those incarcerated was structured to not only make them ineligible for taxi use, but invisible to its designers. Put differently, taxis were not accessible by people with disabilities because they were not designed with disabled people in mind as allowing for a disabled person's physical, economic, political, and especially genetic mobility was a threat to the Eugenic ideal of a racially pure and efficient society. These effects are felt in present-day society in which mobility in the taxi's built environment continues to elude people with disabilities, minorities, and others not predetermined to not valuably contribute to society. It is a logic of prioritization that equates a person's value to a society based on their prospective productivity; the higher the value the more deserving of access. This kind of logic has roots in prioritizations built into the culture of a pro-Eugenics American in the early 20th century.

The isolationist rationale and productivity logic that guided industry practice (Chapter 4), and urban development (Chapter 5) and shaped use of the taxi in World War II (Chapter 6, 7, and 8) measured a person's value to society and deserving of its services based speculation about genetic predisposition for productivity. The amount of work-value relations expected of society's 'undesirables' made taxi use financially unattainable. For people with disabilities, mobility and taxi use were not only monetarily out of reach, but also physically unreachable. The physical mobility of people with diagnosed disabilities was constrained to the facilities to which they were committed. According to Baynton (2016), the policies and practices governing under what circumstance confinement happened and what constituted disabled were often

conveniently opaque undefined. Such ambiguity made them particularly susceptible to exploitative use.

5.7.4 *Feeble-mindedness, Incarceration, and Limiting Mobility*

The link between disability and defectives may have once been exclusive to people with mobility or cognitive differences, but that net was broadened as public discourse took a strategic turn. The ‘delinquent and defective classes’, as determined by Davenport (1923) and Van Wagenen (1912), was expanded to capture outspoken women, poor, racial and ethnic minorities, and those with disabilities. Not only were defectives a threat to the racial purity of society (sometimes a hard sell with the broader public), they could pose a threat to themselves. Under this new logic, it was easy to justify incarcerating and limiting the mobility of any person deemed feeble-minded. Now in a position of caretaker, politicians, scientists, and administrators determined the mobility of the incarcerated should be limited for everyone’s benefit.

The qualifications for what made someone feeble-minded required very little proof by the state and could be made at the discretion of administrators of facilities that profited from their very limited care. Incarceration of people deemed disabled in its various forms became about containment and not treatment (Appleman, 2018). DenHoed (2016) described some qualifications for feeble-mindedness as “moral degeneracy, an overactive sex drive, and other traits liberally ascribed to poor people (especially poor women) who were seen as having stepped out of line.” Other descriptions referred to genetic laziness, promiscuity, and hereditary weaknesses from infidelity to alcohol consumption (Lombardo, 2008; Turner et al., 2017).

It became easy for such amorphous theories about genetic predisposition to translate prejudice into the pseudoscientific diagnoses of the condition of ‘feble-mindedness.’ The linking of prejudices (anti-immigration, racism, ableism, sexism) as disability is well established for this time. For example, suffragist Alice Paul was incarcerated in January 1917, for participating in protests. Her views on women's suffrage were diagnosed as “persecution mania” (Zahniser & Fry, 2014, p. 287). After refusing the opportunity to recant her criticisms she was threatened with and eventually sent to St. Elizabeth’s Psychiatric Hospital for the Criminally Insane in Washington, D.C. When her sentence was lengthened from days to seven months, Woodrow Wilson commented that her treatment was commensurate with her criminal offenses (Trecker, 1972).

Sending Alice Paul to the asylum was not only about immobilizing her person but undermining her ideas of suffrage in the public eye. It was a limiting of political mobility. Yet her presence as suffragist leader allowed both for public outcry around her arrest and the high-profile way in which her incarceration was covered. For many, including people who were Jewish, Irish, Italian, people of color and people with disabilities, incarceration was widespread and deliberately of less interest and less visible to the general public. It remained this way up until the 1950s when autobiographies like *The Snake Pit* (1946) and a network of Conscientious Objectors (Parsons, 2018) wrestled the carceral state of mental hospitals from fringe focus to mainstream public discourse. At this point, noted Parsons, programs, support, and sometimes the buildings of mental institutions were converted into incarceration facilities for prisoners, which, as Hinton (2016) noted, lead into the civil rights

protests of the 1960s and thereafter would come to be disproportionately dominated by African American inmates as a means for extending control over Black bodies.

The built environment of political and cultural thought confined people because of a prioritization grounded in a Eugenics ordering. Asylums were constructed not only as material installations of that ordering and to immobilize those ordered, but were also strategically used to reinforce the conditions that bolstered the ideas of genetic purity and limit the mobility and participation in society of those who opposed this ordering. Frequent targets for incarceration were people with physical or mental disabilities, many of whom were from poor or impoverished families. The state had an easier time making a stewardship case for incarceration when simultaneously making the case that such people could not participate or contribute to society through labor. They were burdens on the state and the state should oversee that. Conspicuously absent from this conversation was the acknowledgment that the environment was being built to limit their participation in society.

5.7.5 Institutions and Taxi Absence as Denial

Similarly, the culture of incarceration that directed the building of carceral institutions and the social philosophies that it undergirded deployed taxi use and its absence as a mechanism for maintaining the dominant social order and propagating a mutually reinforcing cycle of denial. Taxi mobility fed into personal and political representation, the extension and exchange of ideas, and access to social, cultural, political, and economic opportunity. Conversely, the strategic absence of mobility limited exchange, access, and participation in society. The denial of ritual participation for people deemed feeble-minded, problematic, otherwise defective, or prone to defect

was a communication of the priorities of dominant society. Echoing Becker, it not only communicated who was seen as defective, but the interests, investments of the people creating the contours of defective. The carceral system elided neatly with other programs that made the taxi both essential for minority groups to access and realistically unattainable. As public transit networks in Boston were built around low-income communities of undesirables (Section 5.7.2), urban development from Chicago to Boston (Section 5.4) and the building of the car itself (Chapter 4) created a context where the categorization of defectives and their planned isolation was effective in rendering defectives powerless to challenge the status quo, and also created an overlapping system where such disadvantages reinforced each other thus building toward a multigenerational resonance of effect.

Geographically, institutions were purposefully built so as to be removed from society when possible (Barringer, 2016; Grob, 1966; Rothman, 2002). Many facilities were difficult to access by design. The pioneer of isolated asylum design, Thomas Kirkbride (1880, p. 26), asserted that treatment of the mentally and morally ill or otherwise unfit for proper society first involved removing them from the pressures of homelife and modern society and placing them in secluded rural setting. Access to public transportation tended to be unavailable for the incarcerated and their families as public transit networks excluded low-income communities (Section 5.7.2). Taxi access, therefore, became essential and yet remained out of reach for incarcerated people, serving as an important mechanism for the isolation and containment of defectives.

Access to transportation was a significant factor in the act of getting an incarcerated individual to and from these geographically isolated institutions. Whether intake or discharge (Wright, 1997; Beveridge, 1995), transportation was largely absent from accounts. Patients were written about as if they appeared and disappeared, exiting and reentering communities with little information regarding how they got there. As Wright (1997) and Baur (2013) noted, limited access to transportation factored into administrators' and caretakers' decision making as to whether or not to release an inmate from custody. Grob (1994) noted that despite the promise of these facilities' curative nature, what they turned into was a human "dumping ground" (p. 245) for all manner of people whom authorities deemed troublesome, inconvenient, or operating outside Victorian social norms.

For the incarcerated remaining within the institutions, there was a need for family to access the facility to check on their loved ones, but the financial barriers to transportation persisted. As established in Section 5.5.5, the taxi was an expensive form of flexible transportation made necessary due to the environmental isolation from public transit experience by the poor. Access was further hampered by limited access to low-paying jobs and comparably high cost of care which kept families with disabilities in perpetual, multigenerational cycles of poverty (Groce et al., 2011; Trani & Loeb, 2012). Incarcerated adults with children were sometimes forced to hire their children out as "apprenticed labor" (Appleman, 2018, p. 427) whose wages went to the institution, not the family; the same was true for adults whose treatment included labor as therapy. Even with the possibility of financial resources, money afforded to residents and families were overseen by facility administrators. Limited oversight and

questionable record-keeping meant funds could regularly disappear or be appropriated. Complaints were often met with the accusation that the defective's (person) account was not credible (Reaume, 1997, pp. 93-94, 68) and would then disappear. Even when people were released from institutions, they did so with the additional burden of trauma, physical impairments, or other damage resulting from abusive techniques, experimentation, and mistreatment while incarcerated. This would have not only not only limited their job prospects post-release, but also enhanced their dependence on personal networks or social programs for survival.

These practices and policies around isolation and the limiting of economic, political, and cultural participation reduced the viability of targets of Eugenic-informed urban policies, and had the least effect on the landscape that became incorporated into the activities and judgment during World War II. At a time when access to and the practice of for-hire transportation became integral to urban mobility and visibility, these policies served as the grounding to further isolate people deemed undesirable for their limited contribution to the wartime effort grounded in their limited economic participation in society, and once again through exclusionary policies, propagated the same contours of access limitations for more years to come, as will be discussed in subsequent chapters.

5.7.6 Institutional Residents Not Included

The structural inequities that were built into the housing, income, and healthcare systems described above were also intentionally build into taxi access that had reverberations for decades to come. In 1938, a report by the National Resources Committee (1938), led by Harold Ickes, focused on consumer incomes and the

economic environment in the United States from 1935 to 1936. The report articulated that groups included in the survey were important to the American economy, and thus important to the maintenance of American society. A passage on page 5 outlined an exception to the otherwise productive image of the participating American citizen. Titled “Institutional Residents Not Included”, the paragraph explained that people in the care of institutions were not included in the survey because they did not directly contribute to society. Access to and inclusion in society was predicated on productivity as the metric for determining value. The statement read: “This summary must omit the small group of the population living in institutions of various types and military and naval posts, labor camps and other quasi-institutional groups.” This also included people not ‘institutionalized’ but in the care of others like family or communities. According to the report, those considered “institutional residents” not included in the report only represented about two million people, and those in the care of others were at least twice that, an estimated four million. Their exclusion from the study was emblematic of a widely held social belief that people who were institutionalized were not able to, could not, or were incapable of contributing to society and economic progress.

The report both produced invisibility and was, itself, a product of the work of invisibility. It was a continuation of the national effort to deny mobility to institutionalized people (Section 5.6.4). The labor of erasure that marked its creation was on the administrators that decided to exclude people in institutional care. The report was a material manifestation of contemporary thought that had been structured into the environment even after formal calls for Eugenics faded from popular

discourse. It is no surprise then, as Jennings (2016) observed, that policies governing public access to jobs and resources were constructed without disabled people in mind (pp. 14-17). The inability of people requiring incarceration to access the taxi equates to an inability to participate in society both realistically and symbolically.

The report was intended to inform policymakers of the economic status of the country and shape the policies of the United States moving into World War II. Through the report's rendering of people in institutions as invisible, the surveyors called for imagining the past without defectives and participated in the structure of a future that would not see them. The architect of the study, Harold Ickes, went on to shape transportation policies for taxis in World War II, and those policies were structured to enact similar invisibility and produced a wartime American society that continued to not see them. In the next chapter, I will explore how this ordering was re-articulated in Ickes' later policies by prioritizing taxis to not service low-income geographies which had experienced mobility restrictions and economic and cultural participation confined by the actions decades earlier.

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CHAPTER 6

6 PREWAR POLITICS

During World War II, relations between the taxi industry and the public were recast through a conservationist lens of wartime austerity. I used archival documents, personal accounts, official reports, and academic research to argue that this was more than a temporary appropriation of a transportation resource, but rather a formative moment of emergence work that shaped taxi-society relations in ways that still resonate throughout the for-hire industry today. I demonstrate that legislative leaders like Harold Ickes, federal offices such as the Office of Defense Transportation (ODT), supporting academics, and private gas and automobile institutions created an environment that reshaped the taxi industry in ways purported to reflect the resource conservation needs of wartime society. The effort was strategic and multifaceted, shifting the regulatory landscape governing taxi use away from a more flexible model of transit to a narrower resource conservationist mobility paradigm. For instance, in Boston, taxis were centralized to large urban populated areas, travel to poorer and less populated suburbs or rural parts of the state would have cost drivers their licenses and livelihood. These changes were administratively buttressed through media artifacts that dually served as a reminder of the change, and the penalties of infraction should the changes not be upheld. I show how this legislative shift dovetailed with the coordinated work of agencies like the Office of War Information (OWI) who devised and implemented a public conservationist messaging campaign through film and print media that reframed public relationship with the taxi, and the automobile more

broadly. I suggest that the dual approach addressing both driver/industry and public behavior created a persuasive cocktail that reshaped not only how drivers and passengers used taxis, but also how they imagined the taxi to fit into their daily lives. I then suggest that these changes can be read as the communication of a society's priorities, of who administrative and corporate stakeholders saw as more valuable, and to what end.

However, I also argue that in re-casting taxi industry relations in this way, stakeholders bounded the qualifications for accessing and using the taxi and in doing so created barriers to access as well. The effect was building a system that regulated taxi access unequally based on wartime judgments that equated a person's productivity to the extent to which they deserved mobility. I suggest this not only rebuilt the legislative and ritual contours of taxiing in the image of wartime necessity but also was a formative moment for the for-hire industry's future. I argue that the political and cultural partnership to reshape taxi use had a lasting effect on the for-hire industry, carrying forward not only the changes to taxi use and legislative scaffolding, but bringing with it the impact of unequal access. I argue that there is a pernicious danger of compounding unequal access unique to the position of flexible mobility occupied by the for-hire industry. Taxi use facilitates access to society, which in turn creates opportunity; conversely, limiting access to society limits people's opportunity for social, political, and financial participation. Structuring a taxi industry that legally could not service low-income, geographically distant communities during the war denied those communities financial, social, and political opportunities to thrive in the wartime environment and limited their ability to recover postwar. Here the taxi's

absence had a compounding recursive effect where limited access and limited opportunity fed back into the conditions that produced the other.

Therefore, I suggest that the work of the taxi's emergence was not only a new taxi culture or new legislative guidelines but also the creation of a self-reinforcing cycle that persisted beyond World War II. Lastly, I discuss the implications of this finding moving forward. As preexisting for-hire systems like the taxi have been used as the roadmap for emerging for-hire systems like Uber, so too are these systems used as the guideposts upon which future systems like the autonomous taxi are laid. Both the benefits and inequalities of the for-hire framework are not only present in the for-hire systems of today, from taxi-to ridehail, but are being rebuilt into systems of the near future and becoming part of the work of the autonomous car's emergence.

Through regulation, propaganda, supply chains, and driver agency, taxi services became an articulating arm of wartime government and corporate interests. Parts and resource rationing made taxi drivers' livelihood dependent on following local and federal ordinances that had a lasting impact on where taxis circulated. For example, by consolidating taxi use only to central urban areas like Boston and making service to rural areas illegal, while also being tasked with asking potential passengers the reason for travel, taxis in Massachusetts enacted bureaucratic valuations on who and in what context people were valuable enough to warrant transport's use of limited resources. Regulating driver practice and car maintenance in the near image of automation through new policies molded out of wartime necessity dramatically changed how taxis as a role and service were able to interact with the public.

Meanwhile, similar though fewer comprehensive restrictions also stretched out to the general public limiting driving options. Combined with well-known “Don’t Travel” and “Car Share” propaganda campaigns, these limitations reshaped public expectations around taxi use. As taxis were limited in the kinds of services and interactions they offered, the public eventually ceased to look to the taxi to provide diverse for-hire services. Political and cultural work set the conditions of emergence for this new vision of the taxi. A far cry from its more expansive prewar form, the short-trip, business-related for-hire vehicle of the modern taxi is a product of the needs and practices, interests, resources, and expectations of a World War II society.

Communication of policy and propaganda were reinforced through artifacts of bureaucracy. Forms, schedules, certifications, and licenses not only communicated adherence to the new political ideas, but they also communicated through the practice of adherence. New policies limited taking taxis for non-business-related purposes. The legal operation of the taxi demanded strict robotic adherence to cataloging resource use in exchange for supplies like replacement parts, fuel, and rubber. At the height of conservation, taxi drivers were asked to question passengers as to their travel intent. Taxis sat uncomfortably in three spaces at once. They provided a service with the distance and intent confines that regulation mandated. Adherence to those regulations supported their continued practice and acknowledging them granted the power to the rules and the institution that made them. Taxis also became an enforcer of those policies, an arm of the institution that regulation both sides (driver and passenger) of the transaction. Third, the passenger’s willingness to use a taxi and to be questioned further recognized and by doing so communicated endorsement of those policies. Yet,

references to the taxi are elusive in accounts of emerging car culture and its relationship with politics and propaganda in the 1940s.

The policies, artifacts, actions, and relations of four wartime offices including the Petroleum Administration for War, the ODT, the Office of Price Administration, and the OWI produced the conditions from which this new form of taxi emerged. They did so by confining taxis by driving distance, limiting services offered, setting maintenance schedules, and limiting supplies of parts, oil, and rubber. These limitations set the stage for a shift in taxi driver techniques and practices. This shift was given permanence through changes in public expectation of the services taxis provided. Considerable research has documented the involvement of political institutions in shaping public driving culture, and thoroughly investigated propaganda's role in shaping public perception of driving and the war effort more broadly. Yet, the relation between these known changes and their influence on the shaping of the taxi's place in society remains unexplored. The second angle demonstrates that changes in public driving culture and propaganda also shifted public expectations of what the taxi could be.

Political changes (local and global) dramatically shaped relations between society and taxis. Taxis had not only transitioned to offer only narrow services in the form of intra-city short distance public transit, but they also became an arm of the institution that governed them.¹⁷⁹ Drivers were expected to check on passengers'

¹⁷⁹ When taxis follow driving regulations they adhere to the guidance and laws of the governing bodies. But in the World War II political environment there was more to it. The difference here was between condoning the regulatory environment and enforcing it. In this moment taxis went from bystanders, subject to the conservation demands of World War II, to participants in the active enforcement of the

business intent, refuse contraband, prevent passengers' engagement with illicit opportunities, and limited travel distances reinforcing who the government deemed essential to the war effort and, in doing so, often bypassed communities with low population and income and job rates as non-essential. Meanwhile, propaganda and policies implemented in public discourse not only shifted driving practices around private vehicles but the public imagination toward the taxi as well. Tire and gas rationing and a ban on driving became conservation in the name of patriotism, car-sharing activities, and messages that encouraged driving as a socially valuable activity simultaneously built a culture of driving and rendered single passenger transportation for anything but work-related activities taboo. Taxis were stuck in an invisible limbo, with conditions for successful operation imposed on them from both government and public spaces. From the government's position, taxis and drivers were a necessary logistical service that was unreliable and wasteful, and as such needed to be regulated mechanically. Gas use, tire wear, trip distance, length, cost, and cleanliness were all judged regularly to the same militaristic standard. From the government and public's point of view taxi drivers, now standardized in look and behavior, faded into the service they provided. Out of the chaos, the role of the short trip taxi for business purposes endured. It is that role of the taxi that has persisted to this day, and around which society still frames the for-hire industry of today.

government policies. The duality that taxi's inhabited, and the implications to taxi, driver, public, government relations are discussed later in the chapter.

6.1 Prefacing Emergence Work

The ride-for-hire industry was dramatically reshaped at the turn of the 20th century. Since the 1600s, horses had been dominant in for-hire transit,¹⁸⁰ yet the emergence of new technology—and the cultural, political, and practical work that followed—not only changed practices and social relations in the industry, but also did so with the general public.

In the early 1900s, part of the work of the taxi's emergence was a struggle¹⁸¹ for industry dominance¹⁸² between the combustion engine taximeter-equipped cab¹⁸³ and the horse-drawn,¹⁸⁴ electric,¹⁸⁵ and steam-powered¹⁸⁶ for-hire alternatives.¹⁸⁷

¹⁸⁰ Gilbert and Samuels (1985, pp. 9-24).

¹⁸¹ Hansom cabs, the popular horse-drawn for-hire available at the time, adopted taximeters in 1908 to stay competitive (The Hansom Cabs, 1908, p. 6). Taxi drivers offered to adopt the new technology in favor of stricter industry entry requirements (The Cab drivers want fewer Hack Licenses, 1906, p. 12). These articles also indicate a movement of emergence work, a tension and figuring out of who should be able to use the taximeter and what it means for taxi-society relations to use one.

¹⁸² For detailed information about the automobile industry's competition see Heitmann (2018). For concerns specific to the taxi industry see Warren and Linskey's (1976) section 'Transition' p. 13; and Gilbert and Samuels (1985, pp. 25-37). This also occurred between member of exclusive owners-only associations and independent inclusive driver organizations (Cab Driver Say Law Is Unjustly Enforced 1906, p. 7).

¹⁸³ 'Taximeter equipped-cab' (also sometimes spelled taxameter) was how the taxicab was often referred to, with some variation, prior to 1907, when the first mention of taxicab (or taxi-cab) appeared in national news coverage (Self Starting Device, 1906, p. 9; Automobile notes of interest, 1906, p. 38).

¹⁸⁴ For information on horse-drawn cabs in the 1800s see Gilbert and Samuels (1985, pp. 19-24), and Moore (1902). For horse drawn activity more broadly see Edgeworth (1816, 1817) for construction and use, Philip (1858) for evolution on roadways, Frith (1895) for accounts of taxi use, and Thrupp (1877) for a history of coaches.

¹⁸⁵ See Mom (2004), Kirsch (2000), Whyte (1911) for detailed information on early electric car industry, production, and design.

¹⁸⁶ For information particular to steam powered automobiles and the industry see Foster (2002). See Clymer (1945) for challenges, reputation, movements, and design.

¹⁸⁷ While this largely involved different variants of taxicabs the competition between taxi-types was not the only relations to generate tension. Tensions between cabs and other forms of public transit were also high. There were frequent wars between taxicabs and trains as cabs were accused of poaching potential train passengers who were in line (Railroad Wars, 1922). Taxis also struggled against a newer convention, tour busses, whom they frequently blamed for taking designated spots at cab stands (The Hackman complain of sight-seeing autos, 1906, p. 2) Other competition arose between insurgent companies wanting to hire more drivers in the unregulated taxiing market. In August 1906, the independent taxi drivers association petitioned the Merchants Association for a system to limit taxi licenses (The Cab Drivers Want, 1906, p. 12). In doing so they were able to trade the installation of taximeters for a series of regulations that became the medallion system still in effect today.

Combustion engine alternatives assumed power through the consolidation of taxis into large fleets owned by a select group of men (Gilbert & Samuels, 1985, p. 39), but it took much longer to snuff out the competition of their more established horse-drawn counterparts.¹⁸⁸ Though introduced to the United States at the turn of the 20th century, it was not until after World War I that the for-hire automobile grew in popularity as a means of conveyance. Beginning around 1915, the newness of the taxi market settled, and prices decreased. Gilbert and Samuels noted this as an important moment when taxis “became a service for the non-rich as well as the rich” (1985, p. 41). However, as the previous chapters demonstrate, the democratization of for-hire service was not so straightforward and service continued to be limited predominantly to White male working and upper-class members of society. This moment is also an example of work common to the process of emergence. It is an example of a specific kind of work, the settling in of new technology both in the offering of the cabs to a broader middle class, and in denying access to, or the strategic absence of, the taxi is also part of the emergence work. This settling in was neither idyllic nor equitable, but a negotiation of how the combustion car’s emergence could reinforce the established White-dominated order of society.

By the 1930s, gasoline-powered automobiles had mostly succeeded over the competition in becoming the dominant means of automotive transit (Gilbert &

¹⁸⁸ Horse drawn cabs remained in service and as a competitor to the gas-powered cab up until the Great Depression, though its use declined substantially after World War I. The last Herdic, a multi passenger for-hire car, was on Boston’s streets in 1910 (Boston’s Surviving Herdic, 1910, p. 4), and in 1911 the virtues of the horse drawn cab was still discussed in public discourse (“Horse still has a job” 1911, p. 53). By 1929 “the automobile had run the horse out of business” (The automobile may, 1929, p. 18).

*What is perhaps just as interesting is that the development of automotive taxi’s necessitated the creation of garage space and headquarters of the new companies. These were located in Back Bay where new car companies like Lyft and Uber have facilities.

Samuels, 1985). There was also a near-simultaneous emergence of an automated fare-calculating technology—the taxameter or taximeter—which helped reshape the for-hire industry relations with the public by (re)building trust in the calculation of fares.¹⁸⁹ Even the emergence of the taxameter was a demonstration and product of emergence work. On one hand the work was in the taximeter’s design and production, which was built to address widespread public mistrust in drivers’ fare calculations. On the other hand, it was an example of emergence work as it recalibrated relations while helping the public adjust to new automotive taxis and legitimize certain driver’s services over others.¹⁹⁰ The recounting of technical, industrial, and financial work is common to contemporary accounts of early automobiles’ entrance into American culture, though it is more often cataloged strictly as technological development¹⁹¹

¹⁸⁹ Gilbert and Samuels (1985) credit the invention of the taximeter to Friedrich Wilhelm Gustav Bruhn, whose initial patent called the technology a “fare registering apparatus for vehicles” (USPTO NO. 4895529, 1892). Over the next 20 years, the terms “taxometer,” “taximeter,” and “taxameter” floated through public discourse. The impetus for the meter to quickly become industry standard was the expected effect of helping industry relations with the public. See “Taxameter Idea Good Say Public Cab Owners” (1906, p. 7) and *The Triumphant Taximeter* (1909, p. 6).

¹⁹⁰ Work in this moment took the form of a public conversation around the use of taximeters. Concerns were over whether fares they counted were legitimate (*The Dishonest Taximeter*, 1909, p. 8) or could be tampered with (“Says Taxi Owners Fleece the Public,” 1916, p. 13, and *The Taximeter “Hacks.”* 1910, p. 12). Yet taximeter use was not a foregone conclusion and demonstrated a different dimension of this work as well, as taxi owners lobbied that their requirement was unconstitutional (*Grants More Delay in Cab Law Muddle*, 1913). In the late 1930s this work was still going on as municipal and federal governments were hearing cases for taximeter use. Work also took more nuanced forms, such as the transmission taximeter, which made tampering more difficult, and visible front-wheel taximeters that made consumers feel more in control but were more easily tampered with (*Ends Taximeter Hearing*, 1929, p. 7). This work continues today; in the 1990s taxis had to start reminding the public to take all their things (*The New Yorkers Voice in the Back Seat of the Taxi*, 1996, p. 1).

¹⁹¹ Accounts vary, but industry examples tend to separate market forces from the people that are invested in them. For example, Sperling writes “Early electric cars ultimately failed because of poor performance and high battery costs” (2018, p. 46). Absent from this information is the particularly volatile and violent market of the early 1900s. Gilbert and Samuels (1985) note that a fire took 300 of the 750 cabs owned by the electric Carriage and Wagon Company (p. 34). The accounting of ‘emergence’ here is rendered invisible in the retelling of the transition from horse powered to horsepower as a near instantaneous phenomena.

rather than mutual coproduction of sociotechnical labor.¹⁹² The focus on technological development as a driving mechanism of emergence fosters a kind of technological determinism¹⁹³ that communicates emergence not as work but as value-free, neutral, unbiased, and unencumbered by the pressures of the society that made it. Such a focus is problematic for its reductive nature.¹⁹⁴ Green (2002) notes that for those invested in the technology it makes sense to treat progress by technology as an inevitability (p. 3, 152) though the practice can range from strategically deceptive to woefully unaware. For the taxi, presenting its emergence as value-free, whether initially as a new technology in the early 1900s or the 1940s, obfuscates both the presence of work and obscures the societal tensions around which that work must negotiate and navigate. The effect that would result in overlooking the importance of both how the taxi during World War II was reshaped into the role we know today, and how it participated in reinforcing the judgments of a wartime government.

The first step here then would be to locate this emergence work as a moment significant for its ability to bring about a change in the taxi industry. That is not to say there was not work leading up to World War II that was essential in positioning the taxi to be reshaped in the way that it did that was also necessary for the work to happen. For example, society had to adopt the combustion taxi before figuring out how it fit in. This meant changing how the public not only used horse-powered transit,

¹⁹² Murphie and Potts (2003) described the recursive interaction of technology and society where they operate and are operated upon in a complex social field (p. 12)

¹⁹³ Considerable work has been done in the space of technological determinism. For additional reading see Mackenzie and Wajcman (1999), Mackenzie (1998), Feenberg (2017),

¹⁹⁴ Wyatt (2008) offers an argument for a less severe reading of determinism. Rather than the all or nothing zero sum game, or the measureless ubiquity of sociotechnical forces as ‘mutually constituting’, Wyatt argues that not all technology is equally influential and suggests a scale that establishes the magnitude or pressure exerted by technology on social processes.

but also how they discursively thought about it as a comparative metric for speed, using horses not as a thing to aspire to, but which to position cars against (Filey & Russell, 1996). Automotive stakeholders were also responsible for positioning the automobile as the public's solution to the perceived problems of the former.¹⁹⁵ Even inventing the cab as a taxi was as much material and social discursive work. News coverage indicates that from 1907 to 1908 the taxi-equipped cab, car, or automobile left as the "taximeter-equipped car" and reentered public discourse as the "taxicab" through a combination of corporate bureaucracy and meetings from national automobile associations.¹⁹⁶ It was only after those meetings that the term "taxicab" emerged in public discourse as a strategic portmanteau that merged taximeter with the cabriolet. Such action made the cab seem more purpose-built for taxiing at a time when horse-drawn counterparts and taximeter-equipped vehicles competed for market space.¹⁹⁷

Once in the hands of the public, work continued, just differently. The work of settling in shifted from changing technology to changing practices. During the post-World War I years of economic uncertainty, the cultural and regulatory environment of Prohibition, and the austerity years of the Great Depression, the social expectations and cultural procedures of the for-hire role were in flux. Taxi use was incorporated into the flows of everyday life, scheduled into the transportation routines of workers,

¹⁹⁵ See "Horseless City" (1912, p. 60), for a consolidated understanding of what cars offer the city over horses, from the perspective of a stakeholder that is an automobile distributor.

¹⁹⁶ See *The New York Times* articles; Automobile Notes of Interest (1906, p. 38) and Self Starting Device (1906, p. 9).

¹⁹⁷ Gilbert and Samuels (1985) note one of the first uses blending of taximeter equipped cab as the portmanteau "taxicab" was a marketing tactic Harry Allen used to distinguish his fledgling company (p. 34-35).

like produce and meat deliveries and last-mile courier services for mail and packages. Other taxis performed almost any task, including acting as hearses and running illegal jobs for alcohol and organized crime.¹⁹⁸ It was from this position that taxis were situated for a more fundamental change not only to what they were, but how the public thought about them.

6.2 Fare Wars

Colloquially called the *fare wars*, the 1920s were a time when large dominant taxicab fleets such as Yellow Cab, Checker,¹⁹⁹ and Paramount²⁰⁰ clashed frequently with each other and independent taxis (Gilbert & Samuels, 1985; Hazard, 1930). Due to the high ratio of cabs and a relatively low ratio of personal vehicle ownership when taxis conflicted, they dominated city streets, and when in protest the streets were vacant.²⁰¹ This not only played out in the streets and news but in the burgeoning film industry as well. The romance film *Taxi!* (Lord & Ruth, 1931) deployed the casual violence of the fare wars as the setting for the main narrative. But these so-called wars were more than just the viciousness of taxi drivers and institutional behavior, they were provoked by increasing regulation across the globe²⁰² that limited the taxi's

¹⁹⁸ Taxis engaged in a wide array of illicit and legitimate activity, including smuggling, involvement with organized crime, fighting, and intimidation. For a detailed account, see Hazard's *Hacking New York* (Year). Accounts in *The New York Times* indicate tactics such as intentional ramming (Cabbies After The taxicabs, 1907) and placing bombs in cabs (Just Took the Taxicab, 1908; Street Cars Bombed, 1907, p. 3). This does notably include violence during strikes and in engagement with strikebreakers, or the public protesting taxi fare costs.

¹⁹⁹ For an example of Checker Cab Co. see Cheap Taxi Rate May Be Increased (1924, p. 4).

²⁰⁰ For an example of Paramount Cab Co. see 10-Cent Taxi Hinted if Rate War Begins (1930, p. 19)

²⁰¹ Few Taxis' Running (1910, p. 18); In Carless Boston (1919, p. 35); Taxi strike Opens (1929, p. 52).

²⁰² This regulatory backlash was felt in cities in the United States and around the world; see Taxi Pursues Pedestrian World Over (1925, p. 16). For Boston, see In Carless Boston (1919, p. 35), for New York City see New York's Taxi Tangle (1930, p. 142), for Washington, D.C., see Taxi War in Washington Cuts Fare to Dime (1931, p. 1), for Newark, Chicago, and Philadelphia, see Taxi Men Protest on Meter Ruling (1924, p. 11). Internationally, see Lower Taxi Fares Demanded in London

ability to provide varied services—and the economic viability that went along with it—while also reducing taxi fares. To keep afloat driver accounts like Hazard (1930) and Betts (1930) noted that fleet owners would cut costs by not paying drivers as much and limiting repairs and maintenance. Gilbert and Samuels (1985) painted a nobler picture of owners trying to hem in the illegal activity, brawls, and the general disregard drivers had for the public (p. 66-67). Drivers and owners frequently undercut each other's prices, and the competition for patronage brought about a chaotic period of vandalism, destruction of property, and personal violence in the increasingly aggressive tactics to acquire fares.²⁰³ Public opinion of taxis plummeted and public safety in cabs became a political issue with national oversight of the cab industry handed over to police departments in the 1930s.²⁰⁴ Boston, among other cities, printed its first set of rules and regulations in 1931 in the newspaper (Rules and Regulations, 1931, p. 29)—the first inkling of what would become a heavy-handed governing of the taxi industry, first by local city regulation. By World War II, that regulation reached the federal level. This regulation set some initial confines on the ways they could interact with the public and was the beginning of the policy's hand in shaping the taxi's new role.

As the economic hardships of the Great Depression struck the general public, the taxi industry too was affected. Taxi fleets worked with government offices in

(1925, p. 5), Paris Taxi Men Strike as Tax is Increased (1930, p. 6), Berlin Uses Bayonets to Keep Taxi Fares Up (1927, p. 6).

²⁰³ For example, on June 28, 1938, *The New York Times* reported two independent cab drivers beaten and dumped on the steps of a local hospital. One was already dead when staff found him and the other was in critical condition. The cause was determined to be the ongoing labor war between independent owners and dominant cab companies; see *Taxi Driver's Death* (1938, p. 20) and *Railroad Wars* (1922).

²⁰⁴ This was done by both political and public demand (Gilbert & Samuels, 1985).

municipalities toward a mutually beneficial arrangement, gaining exclusive rights in the for-hire industry to serve the public (Gilbert & Samuels, 1985; Hodges, 2007).²⁰⁵ The Great Depression also meant fewer people were able to pay for transportation services. Still reeling from the Great Depression and the fare wars,²⁰⁶ the taxi industry was on unsteady ground at the outset of World War II. Conflict, market competition, and unscrupulous behavior severely cut into their standing in the court of public opinion.²⁰⁷ The use of public transportation was dwindling, with trust in the fairness and safety²⁰⁸ of public transportation systems eroded substantially and increasing private ownership. Increased regulatory oversight and accountability had also winnowed the street power of taxi fleets and unions, opening up the opportunity for the gang-like street tactics of owner-magnates like Frank Sawyers' brutal monopoly of the cab industry. As a result, the taxicab industry in Boston and around the United States was shrinking.²⁰⁹ It was amidst the chaos of economic and personal vulnerability that, when the industry was consolidated for the coming war effort, there were few drivers who could oppose them, echoing a sentiment repeatedly conveyed by Gilbert and Samuels (1985) that the taxi industry survived change by enduring it.

²⁰⁵ Gilbert and Samuels' (1985) historical account gives a very high-level overview of the industry at the time.

²⁰⁶ Taxi fare, or customer, wars have origins in the early 1900s as competition for was stretched across the industry. Horses, electric, gas, and steam-powered taxis all were competing for limited space and resources. In the years following World War I, taxis grew in prominence and competing companies sought to undercut costs of their service resulting in brutal competition that was brought under a semblance of control by local police departments. The difficulties of the fare wars and some of the violent tactics involved in competition were depicted in the 1932 film "Taxi" directed by Roy Del Ruth.

²⁰⁷ See Gilbert and Samuels' section on depression and regulation (1985, pp. 65-73) for examples of public opinion and critique of the pre-World War II taxi industry, by general public, newspapers, and political actors.

²⁰⁸ See Gilbert and Samuels (1985, p. 68) for accounts of increased accidents and skyrocketing insurance rates.

²⁰⁹ Gilbert and Samuels (1985, p. 75) note that the number of taxicabs dropped 13% nationally between 1939 and 1940.

6.3 Creating the Taxi's New Operating Environment

The dramatic change both in public expectations of taxi use and the contours of taxi service was provoked by the onset of World War II and the needs of the allied forces. On December 8, 1941, the day after Japan executed a surprise attack against American forces in Pearl Harbor, the United States Congress formally issued a declaration of war against Japan (Gilbert, 2004, pp. 272-276). That same day, Japanese forces cut across the Pacific, executing a series of strikes on supply lines with two dramatic effects on America's resource landscape—confining the channels through which the United States could safely receive oil and severing the United States from more than 90% of its imported rubber supply lines.²¹⁰ Key resources were needed both for the war effort and to drive industrial culture in the United States. On December 11, Germany declared war on the United States and immediately began operating U-boats along U.S. coasts (Yergin, 2008, p. 356). The effect further cut the United States off from oil, gas, and rubber. Now the limited American stockpile had to cover the automotive, industrial, and household use, and had to be used to resupply the war.²¹¹ This shortage was keenly felt in east coast cities like Boston which relied heavily on these resupply lanes for oil, gasoline, and rubber.²¹² It was this environment that provoked the new regulations around taxi use to conserve oil, rubber, and gas to support the war effort.

²¹⁰ For assaults on rubber resources see Yergin (2008, p. 380). For a more detailed explanation of figures see Lingeman (1970, p. 235).

²¹¹ Lingeman (1970) estimated that at the time America drivers used between 600,000 and 700,000 metric tons of rubber annually, whereas the stockpile held in reserve was only around 660,000.

²¹² For information of U-Boat attacks, effects, and responses see Yergin (2008, p. 355-359).

As a solution to the tension of insufficient resources, the Roosevelt Administration proposed conservation efforts for both industry and the general public (Flamm, 2006, p. 72). While these efforts spanned food, plastics, and other resources, it was the conservation initiative around oil, gas, and rubber that most significantly impacted the taxi industry. This effort by the federal, state, and municipal government was the beginning of a significant effort to reshape both public expectation and practical application of taxi use as one dimension of a larger conservation effort. The work took the form of organization and industry partnerships, heavy-handed propaganda campaigns, and a host of media artifacts to not only reshape the practice of driving but also how to change public expectation around automobile use.

The loss of rubber and oil supplies provoked the political administration into further action, implementing conservation efforts through new offices (Flamm, 2006). The policies and restrictions by the offices reshaped the U.S. Government's relations with its citizens, economy, and available technology. One impact of these political moves was the reshaping of the taxi into the narrow role that we know today. New federal policies quickly consolidated taxi legislation at a national level (Gilbert & Samuels, 1985), aiming to conserve rubber and fuel by limiting inefficiencies and overlapping the circulation of people and goods. This move wrapped the taxi into the category of public transit, alongside rental cars, long-haul trucks, and busses (OPA, 1942). As resource scarcity continued, this management was extended to the civilian sector for limited periods. The ODT, alongside several other governing offices and widespread media campaigns, was able to stretch, consolidate, conserve, and recycle enough to help keep the nation and the war effort running. The federal government

declared the program a success owing to the number of essential resources they were able to divert overseas (ODT, 1948).

These policies, propaganda and resulting changes in driving practices did more than just manage taxi use. Propaganda and brief policies meant to regulate driving in consumer culture reverberated outward, with a tremendous impact on public expectation for what the taxi could offer. The practices involving the communication of the taxi's emergence occurred through policy, propaganda, artifacts, and changes in driving practices, producing a taxi that was specific to the needs of a conservation-conscious society of the 1940s. The environment of World War II and the years that followed were instrumental in defining a new vision for the taxi that set its present and future role in society. New policies shaped practice as taxis were pulled into cities—where essential work took place—narrowed taxis' services, limited travel range, set maintenance and upkeep schedules, and issued “Don't Travel” campaigns to reinforce essential uses of public transit.

Policy changes that directly regulated taxi practice were buttressed by political propaganda that scholars identify as having already substantially shaped consumer driving practice.²¹³ Combined, these changes cemented a new role for the taxi, first by shaping how taxis could interact and then by shaping public expectation for that interaction. The taxi's operational role in society was substantially narrowed and the contours of that narrowing shaped the taxi into a symbol of the wartime environment and built-in policy guidelines through the artifacts that controlled the taxi's role and its

²¹³ For example, Simpson (1996) catalogues the origin of communication research beginning in the 1940s. Other notable works in this area include Lippman (1922, 1925, 1955) and Lasswell (1927, 1935, 1941) among others.

travel boundaries as a means by which the government assigned a productivity value to citizens. During that period, the taxi became both a representative and an enforcer of government policy around conservation, transportation use, and social value.

Boston, in particular, saw the militarization of cabs for civil defense, reinforcing the role of the taxi as city-specific transport and the taxi's relations to the wartime administration.

Despite the taxi's obvious presence, World War II has not figured prominently in taxi accounts, nor does research into car culture, legislation, or propaganda during the war highlight the taxi's role or relations with society. Taxi accounts by Hazard (1930) and Betts (1930) related the economic and physical precariousness of being a driver before World War II. Other accounts after the war focused on cab community traditions, skills, and industry language (Vidich, 1976), collected experiences (Salomon, 2013), industry history, both oral and archival (Hodges, 2007), and rarefied knowledge of cities like Boston (Kelley, 1993), New York (Mathew, 2005), Chicago (Samarov, 2011), London (Bobbit, 1998), and Cairo (Al Khamissi, 2008). While Gilbert and Samuels' (1985) industry overview considered the limited impact of the war on the trajectory of taxi history (p. 74-79), they along with Berry (1998) and Honey (1981) acknowledged that taxi driver became particularly transitory during World War II as men were drafted for military service, and women took up temporary²¹⁴ employment as cab drivers.

Even with limited references to World War II or the period (1940-1945), these authors demonstrated that taxi relations were rich sources of information regarding

²¹⁴ With the expectation that the cab was returned to the serviceman when they returned home.

cultural attitudes, practices, public expectation, relations with both institutions and the public, and knowledge of flows of information, people, and resources. Collectively, they exposed the taxi's unique position as an arbiter of relations between both institutions and the public, and both parties and themselves. In essence, the taxi was at a nexus of relations and by the act of taxiing mediated communication between all parties. Firmly anchored in the middle, owing to both and in command of neither, taxis were responsible for finding ways to address the public needs while managing institutional priorities. Because of the taxi's unique position, I treat taxi relations as a window into the communication of social and institutional priorities. They communicated the demands, interests, and investments through the contours of their service to the public, and they navigated public expectation, imagination, and relations between the public and regulating institutions. These activities are communication as they revealed both institutional priorities and socio-cultural motivation. This moment of profound change in taxi relations was more significant than merely the adjustment of service contracts, but also indicative of a reshaping the priorities of American World War II society communicated through taxi relations.

Scholarship around automobiles has contested the significance of this moment for the fledgling car industry. Flink (1976, 1990) and Steinberg (2012) suggested the wartime years were an interruption in the building of American car culture, and the interruption of production was an interruption of the evolution of driving culture more specifically.²¹⁵ Foster (2002) and Shaheen (2018) equated vehicular production with cultural production, arguing that American car culture emerged only with the

²¹⁵ See Flink (1976, 1990), Foster (2002), Lewis and Goldstein (1983)

manufacturing boom in the years following the war implying that American culture stagnated with the shift to wartime conservation.

Yet others have suggested the opposite. Heitman (2018) and Frohardt-Lane (2012) contend that a halting of automotive production during the wartime years was a moment rich in social and organizational innovation. Heitman's exploration of car culture at the time demonstrates not stagnation but cultural reinvention within and around the new vehicular confines of the ODT's and other conservation laws. Frohardt-Lane (2012) suggested that car scarcity instilled new value in driving as a cultural commodity before the postwar automotive production boom where ridership innovation came in the form of expanded rideshare and for-hire services.²¹⁶ Frohardt-Lane links the growing valuation of car use to strategic messaging and propaganda campaigns conducted by the OWI. While Flamm (2006) explored the impact of ODT legislation defining the boundaries between essential and non-essential travel. Flamm argued that "never in US History has travel behavior changed so rapidly as during the year of American participation in World War II" (p. 71). When viewed together Flamm, Frohardt-Lane, and others²¹⁷ reveal that the reshaping of the automotive industry was a strategic collaboration of institutional and corporate partnerships articulated through messaging campaigns that relied on the use of propaganda to influence the driving culture of the American public.

²¹⁶ Others have talked about this in context of the rise of rideshare, including Chan and Shaheen (2012) and Hahn and Metcalfe, (2017) *The Ridesharing Revolution: Economic Survey and Synthesis*, though their classification system follows informal or casual rideshare in the descriptive sense as the sharing of rides, and does not travel well when including the corporatization of rideshare as a business system like that seen in TNC like Lyft and Uber.

²¹⁷ See also Horten (2002), Duranti (2006), and Young (2005) for explorations of public car culture.

Central to this change was a web of media content and instructional activity that buttressed the conservation agenda of the federal government. A rich history of communication scholarship investigating this network was born out of the World War II media landscape. Lippman's (1922) influential piece, *Public Opinion*, served as the scaffolding for communications foundational work where he suggested that if propaganda is to achieve its persuasive intent it must be partnered with censorship or moderation (p. 41), and that propaganda as both an act and institutional assemblage is a machine (p. 44) made up of many constituting parts. His view of audiences as passive receptacles for information argued that persuasive messaging could have a dramatic effect on people giving rise to the magic bullet or hypodermic needle theories of media effects research. However, emerging work argued differently. Lazarsfeld et al.'s (1948) two-step flow model, and Katz and Lazarsfeld's (1955) finding of 'opinion leaders' established a limited effects paradigm (Katz, 1987) whereby messages are mediated by a few and distributed to the masses. Lazarsfeld along with Hadry Cantry and Herta Herzog founded the association with the Office of Radio Research (ORR), later renamed the Bureau of Applied Social Research (BASR), and worked in collaboration with Robert Merton on research for OWI (Jeřábek, 2012).²¹⁸ Largely focusing on audience studies of radio broadcasts, given that was the direction of their work supported by the Rockefeller Foundation, their initial research laid the groundwork for a more formal pathway to persuasion studies.²¹⁹ During that time,

²¹⁸ For a more in depth discussion of the various projects and collaborations between Lazarsfeld and Merton see Jeřábek (1996, 2011, 2019)

²¹⁹ This included a collaborative work titled *Persuasion Studies* (1943) that deployed Merton's mixed methods strategy of Focused Interview that evaluated the influence propaganda messaging had on

government and government adjacent funding from the Rockefeller Foundation mobilized a cohort of scholars (Gary, 1996) into what Trudel (2017) and Pooley (2008) referred to as the propaganda and psychological warfare network of agencies. According to Pooley (2018), John Marshall organized Rockefeller Foundation beneficiaries' pivot to propaganda research. Here Merton also partnered with Hovland on the famous "American Solider" project (Hovland et al., 1949). Although propaganda analysis as a whole appears in earlier research (Beyle, 1935; Merton, 1968; Merton & Lazarsfeld, 1943; Thurstone, 1912), Marton and Hovland helped codify its formal analysis with the serrations of content and impact. The intent of the propaganda piece, message, or campaign could be investigated through the tool of *content analysis*, and audience impact through the tool of *response analysis* (Merton, 1968, p. 566).

What emerged was a set of intellectual traditions that navigated what kind of research content analysis could produce. Some of the work was expanded on by Waples (1942) followed by a more formal methodological accounting led by Lazarsfeld et al. (1968), Berelson (1952), and Lasswell and Leites (1949) and further expanded upon especially in qualitative terms by Kracauer (1952) and George (1959) whose analysis was specifically geared toward propaganda.²²⁰ One of the notes he made helps configure the link between the message and the impact of propaganda, arguing that the presence or absence of something can be treated as an indicator of

audience impression of the War Bond Drive. This research was continued more in depth through the "Firehouse Projects".

²²⁰ George's (1959) contributions have been recognized as formative in the evolution of propaganda analysis in Pool (1959), as well as the evolution of the field noted both in Krippendorf (2018) and Schreier (2012).

content. In other words, there can be just as much significance in what is displayed or written as there is in the absence of something.

For this work, I treat the propaganda that influenced the taxi as “any and all sets of symbols which influence opinion, belief or action, on issues regarded by the community as controversial. These symbols may be written, printed, spoken, pictorial or musical” (Merton, 1968, p. 563). But what is valuable about propaganda may extend. Brewer (2011) suggests that comparing the content of media analysis to what is known about government objectives can be one way of teasing apart that relationship between government objective and message. She argued “the question to consider about official propaganda is how closely what people are told aligns with the government’s objectives” (p. 7). In this way propaganda can also be used to study institutions, institutional agenda, or institutional intent.

For interpreting the change in taxi service and expectations I read propaganda as a message with two channels, one that communicates through content to the audience, and another that is a communication of institutional intent and investments, exposing what the institution was trying to get out of the message. For example, a frequent message of the fuel conservation campaign in addition to do not travel was necessary travel should be done in groups. For example: “When you ride alone, you ride with Hitler” (see Figure 6-1, p. 365).

Figure 6-1

When You Ride Alone Poster



Note. When You Ride Alone Poster by Weimer Pursell (1943). National Archives.

On the surface, the sentiment was deliberately hyperbolic to evoke an emotional, not rational response. People did not expect that Hitler would suddenly appear in their car. But the provocations of the message suggested that without the sacrifice of personal freedom like driving, you (the audience) were helping the enemy. The agenda behind the message, however, can be set against the backdrop of a presidency that did not want to mandate resource austerity for the public because of the cost of public support then and in the future, yet also needed the public to willingly give up driving because oil and rubber (and other supplies) were the route to winning the war.

Although a considerable amount of research in propaganda, persuasion, and coercion have been modeled after and advanced upon Lazarsfeld and Merton's modes of analysis, only a few have addressed propaganda's intersection with the automotive industry. Pertinent to the car's emergence are media campaigns by the OWI (Winkler, 1978), racial and gendered implications (Frohardt-Lane, 2012), design of messaging (Weinberg, 1968), posters (Bird, 1998), radio (Horten, 2002), and film (Koppes & Black, 1987). These scholars identify that propaganda and conservation politics used media as means to control consumption by convincing the public their participation in conservation programs was integral to winning the war. It was popular for media to invoke emotions that led to action, increased security (by watching your neighbor), and encouraging giving. Messaging commonly invoked obligation, patriotism, guilt, fear, resentment, and envy, not to mention leaning liberally on racial and gendered expectations to more effectively target some audiences and ignore others, particularly those deemed non-essential to the war effort.

A good example can be found in Frohardt-Lane's work that links propaganda from the World War II 'Don't Drive' initiative to an inverse relationship between automobile use and automobile value. Frohardt-Lane suggests that the discourse of *saving resources by not driving* built the idea that driving was something the public had to sacrifice to support the war effort, thereby creating value for the general public where there was previously none. Frohardt-Lane wrote, "it became patriotic to deny consumption during the war, at the same time as Americans' identities as consumers [of the car] solidified" (2012, p. 341). The influence she credits to the propaganda industry's impact on car culture was more in the public imagination; in the idea of

what the car could or should provide, instead of what it did. This is particularly interesting since vehicle ownership was not widespread until the manufacturing boom in the postwar years (Shaheen, 2018). Others have noted the link between sacrifice and commodification;²²¹ advertisers often contextualized austerity now with the promise of surplus later, effectively shaping a future market based around a lack of supply in the present. As a product, driving was couched as an entitled right, and giving it up was a sacrifice. This ideology took hold despite a low number of automobiles produced before the war and low interest in individually owned vehicles.

Packer (2008) showed that to support this designed need, a new system of consumer loans on credit sprung up, enabling Americans to purchase private vehicles in mass. As automobile ownership, now portrayed as the earned right of every citizen, rose, so did individual debt (Heitman, 2018, p. 141). If followed to its logical conclusion then the propaganda campaigns by the ODT and OWI not only helped build public interest in driving but provided the foreground upon which modern credit institutions were built.

According to the ODT's records (1948) and Gilbert and Samuels (1985), use of alternative transportation like the taxi increased. The influx of money from labor for the middle class and no permissible places to spend it effectively made the taxi seem less expensive, coupled with the fact that mass transit systems were not fully

²²¹ Numerous scholars have explored the interaction of wartime sacrifice, value, and the production of daily life. These include sacrifice and consumption (Cohen, 2003), food, domesticity, and gender (Bentley, 1998), female empowerment as political strategy (Yesil, 2004; Honey, 1981), media images civic responsibility, and sacrifice (Leff, 1991), consumption (Young, 2005), and fiscal citizenship (Sparrow, 2008).

developed and were often overloaded. This fostered an environment in which more people than ever turned to taxis for necessary transportation.

But the taxi they found was not the taxi that emerged in the early 20th century. During World War II, taxis were regulated much sooner and for a longer period than consumption by the general public. Where taxis had mandatory conservation regulations and printed media for accountability via General Orders, the public had mostly voluntary conservation efforts directed at them. It was these efforts that largely failed in the absence of persuasive messaging directed by the OWI and organizations, as Harold Ickes came to find out. As a result, I suggest that the media landscape, in particular, public propaganda and regulations pushed the public away from personal vehicle use which had the effect of pushing them toward increased taxi use.

The strict regulation that remade taxi use in the image of government interests transmuted taxis and the activity of taxiing into both a transportation solution and a media object of propaganda. In one sense the taxi performed its new tasks of short-range transit and questioned patrons if their desire for transportation contributed to the war effort, meanwhile, the public began to look to the taxi for short-range, work-only use. The taxi had the authority to vet its customer's transportation reasons and made them an arm of the institutions which regulated them, and by reinforcing resource conservation objectives effectively became an object of propaganda media. Taxi produced by the environment was not only a media object through which propaganda goals of the United States were achieved but also a media effect as taxi relations were reshaped in part by the absence of alternative transportation.

6.4 World War II and the Taxi

Before World War II, most taxis were typically regulated locally by the state or town where large taxi fleets or fleets or individually owned cabs were moored. In these spaces, taxis and taxi fleets were organized, relatively well-maintained, and culturally powerful. The power was derived from bargaining power, cultural expectation, and market diversity. Taxi owners and taxi operations had strong unions or other associations that not only granted them collective bargaining for fair wages, hours, and benefits, with and about other taxi organizations, but allowed them to collectively leverage that power against the regulations of the city, which were often responsible for capping fare rates. Part of the power of the taxi was its versatility. This consisted of work like courier services for shipping packages, long and short distance leisure travel, and business services from commuting to delivery runs. Taxi use was not a one-off; it was scheduled into the daily operation of people's routines. These regular services and/or customers provided much of the taxi's consistent income. It enabled drivers to work regular hours shift hours. Last was the power of public expectation. Taxis were not only permitted to do various jobs, but the public looked to taxis to perform them. It was a kind of weight and counter-weight arrangement that kept taxi work regular, predictable, and sustainable if not overly profitable. Regular customers could find relatively inexpensive taxi service when they needed on and taxis would be guaranteed work.

When the United States entered World War II on December 8, 1941, the regulatory and cultural environments that had long harbored certain expectations around taxi use shifted. This was not a natural shift or a gradual evolution around the

preferred culture of calling a taxi or sharing a car. The events of the war provoked new regulations that dovetailed with conservation initiatives to change the political, cultural, and material landscapes that governed the practices of getting a ride. For many drivers, this offered an opportunity for increased profits—at the cost of limiting drivers’ agency, greater governmental oversight, and uncertain supply conditions. Distance limitations and quotas that restricted the use of fuel and rubber narrowed the areas where cabs could be used, cementing the short, brutally efficient trips that would become a defining characteristic of the industry. Meanwhile, government-incentivized rideshare campaigns offered alternatives to the single-passenger taxicab by promoting the use of personal vehicles as a preferred method of group private transportation, giving rise to rideshare or “car share” programs.

As the war progressed, resources dwindled, supply lines were threatened, and restrictions were extended to the general public for a short time in 1943. Federal and local governments called on the public to cut down on wasteful elective driving, participation in the black market, and firm support of the war efforts. Temporary policies were put in place to enact these new conservation conditions. Policy maneuvers were accompanied by “Don’t Drive” campaigns rideshare clubs, and other pro-war campaigns pushed through radio and television and in print. In general, these maneuvers were considered a success (ODT, 1948, pp 47, 90). This combination of policy and advertisement provoked people to cut down on overall leisure activities involving or including the car. Vacations, leisurely drives, and other previously frequent recreational uses for the taxi were limited. These campaigns were in effect across the nation, but Boston provides a complex example of how the circumstances

of the war changed the political and cultural landscapes in which the taxi interacted with society and contributed to Boston's and the taxi's deep-link to European history.

In Boston, intra-city taxi services were temporarily expanded under the guidance of the military, serving as supplemental civil and emergency personnel. Taxis were consolidated into a fleet that partnered with services deemed essential for the continued public support of the war effort. These programs were designed by retired Brigadier General John H. Sherburne, who had participated in a World War I battle outside Paris that had drawn heavily on taxis to ferry troops.²²² These policies changed the regulatory landscape for the taxis, the taxis relations across the United States—and in a very particular way in Boston—and reshaped certain relations between the taxi industry and society, both in the role of taxiing and interpersonally

At first glance, the impact of World War II driving culture on the ride-for-hire industry appears straightforward; public transportation restrictions extended to private driving meant more work; after the war, private car use climbed and demand for taxis faltered. Historical documents support this interaction between taxi availability and personal driving capability. Until the beginning of the war, the United States had been experiencing a growth in personally owned vehicles as cars became more affordable and people more interested in driving them.²²³ In the next chapter, I examine how the wartime environment led to a formative reshaping of both taxi operation and public expectation, narrowing the role taxis would fill.

²²² See Benwell's *History of the Yankee Division* (1919, p. 20) for details.

²²³ See Gilbert and Samuels for affordability and Federal Highway Administration records (1995) to see vehicle ownership numbers spanning 1900 to 1995
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CHAPTER 7

7 CONFIGURING AGENCIES

Several regulations and regulatory bodies were essential in configuring society's relation with the for-hire industry during World War II. Their participation was provoked by events surrounding the war and their expectation of possible outcomes. In this way, taxis, taxi fleets, and the emergence of ridesharing came about through a network of actions, expectations, and reactions, many of which were completely out of the taxi industry's control. In December 1941, when the Japanese throttled rubber supply routes and the Germans began operating U-boats along the coasts, American consumers were using an average of 600,000 to 700,000 metric tons of rubber annually, compared to a stockpile of around 660,000, which would now have to cover both consumer use and expected wartime use. The East Coast especially relied on shipping for more than 90 percent of its gasoline (Yergin, 2008, p. 238, 362). Because of internal political squabbles and the gasoline company's hesitance to give up profits from shipping petroleum, even with tanker losses, it took almost a year to put rationing into effect. On December 1, 1942, President Roosevelt issued a ban on pleasure driving, a 35-mile-per-hour speed limit, and gas rationing for civilians (Yergin, 2008, p. 238). The loss of rubber and oil had provoked the American public and political administration into a conservation frame of mind. It was no longer enough to implement public appeals suggesting austerity; they were laid down in the form of policy. Complemented by cultural campaigns and material distribution, these limitations reshaped American citizens' relations to the automobile. In this chapter, I

demonstrate how both operational changes and cultural shifts were necessary to reconfigure the taxi's expected place in society.

7.1 PAW, Oil, and Configuring the Administrative Landscape

Like most in the automotive industry, oil, gas, and rubber were essential to the taxi operator and the careful federal regulation of it represented an undeniable control over the taxi industry and drivers' livelihoods. In preparation for the United States' entrance into the war, President Roosevelt established the Office of Petroleum Coordination (OPC) on May 28, 1941,²²⁴ and on May 31, appointed Secretary of the Interior Harold Ickes to the new post of petroleum coordinator in charge of the office.²²⁵ According to the presidential letter, the agency was responsible for:

The development and utilization with maximum efficiency of our petroleum resources and our facilities, present and future, for making petroleum and petroleum products available, adequately and continuously, in the proper forms, at the proper places, and at reasonable prices to meet military and civilian needs. (Frey & Ide, 1946, p. 3)

On December 2, 1942, the name was changed to Petroleum Administration for War (PAW) under Executive Order 9276 (1942). This was an important moment as PAW, through Ickes, was given broader authority over national and international oil supply, transportation, and allocation (Lawrence, 1942, p. 1, 30). This allowed Ickes,

²²⁴ This became the Office of the Petroleum Coordinator for National Defense and then the Office of the Petroleum Coordinator for War (Frey, & Ide, 1946, p. 6).

²²⁵ See Roosevelt Letter to Ickes published in the New York Times (1941, p.27).

PAW, and its partners to negotiate, sponsor, and enact policies for the acquisition and supply of necessities, including and related to petroleum.²²⁶

Taxicabs now fell under the purview of PAW for their fuel and oil, and the transportation of much-needed repair and replacement parts. Regulations that fundamentally shaped decisions in the taxi industry were for the most part out of the for-hire industry's control. Stakeholders in the oil industry, largely executives or their representatives, created the Petroleum Industry War Council (PIWC)²²⁷ to advise the PAW (Frey & Ide, 1946, p. 3).

Yet the taxi was about to be subject to regulations from an industry whose legacy was inter-institutional tensions that came to shape the demands for taxi resource limitations. In the 1930s, Ickes was appointed as an administrator of the National Industrial Recovery Administration, just as the governors of oil states were calling on Congress to bail out the oil industry, which had been hit by the recession in the form of declining prices and surplus supply (Frey & Ide, 1946, p. 12). Ickes' suggestion was to stop production and lobby for an oil conservation bill. Earlier attempts at conservation policy were stonewalled by oil lobbyists in 1934, 1935, and again in 1939. Oil stakeholders were concerned that a nationwide, cross-sector ban on oil that traversed both industry and civil society would be disastrous for their public image and cut too much into profits (Yergin, 2008). Even with the support of

²²⁶ An example of this partnership was when the largest oil consortium at the time, Standard Oil, lent support for the conservation effort by running an advertisement calling consumers to decrease their automobile usage (To promote auto conservation, 1942, p. 36). This was not a small undertaking, as the article notes the advertisement ran in 1,816 newspapers (including a combination of 1276 Weekly, 540 Daily) with a circulation reach of 12,625,139 customers.

²²⁷ This group considered the business interests of the oil industry, while working with the government to ensure supply and advice on petroleum-related programs.

President Roosevelt, oil barons, their company counterparts, and Capitol Hill supporters were able to muster enough resistance to prevent any new legislation from passing. Soon after, oil investments demanded Ickes' resignation (Ickes, 1943). Instead, a mollified Ickes reconciled with the industry by offering guarantees and exclusive contracts. Ickes' power now back in check, PIWC members reshaped the conservation campaign with the expectation that ether supply lines would reopen or they would be able to leverage the crisis for federal funding to find new sources of oil.²²⁸ In the absence of any kind of conservation program to grow early oil reserves, there was very little on hand when German U-boats started sinking oil tankers off the East Coast of the United States in 1942.

This action prompted the immediate regulation of oil, but only for public transportation. Given PIWC's political influence and stranglehold on the remaining supply, coupled with Ickes and the Roosevelt Administration's belief that public sanctions would be disastrous for Roosevelt's political image, they decided to only regulate oil for industries like the taxi, and seek voluntary conservation support by the public.²²⁹

For an industry that had experienced a steady loss of representational power leading up to World War II (Gilbert & Samuels, 1985), taxis were not in a position to quarrel. When shortages of oil and rubber came to public attention, Roosevelt's administration took pains to limit the public exposure, including restricting who could

²²⁸ Oil companies were successful on both fronts; 1942 saw the development of a federally aided pipeline project, named the Little Itch and Big Itch that stretched from Texas to New Jersey (Yergin, 2008, p. 357). Yergin also notes that oil companies received U.S. Government permission to negotiate for oil mined by Middle Eastern countries in anticipation of the war's end (p. 373).

²²⁹ See Ickes Asks 16 Atlantic States (1941, p.1), and Ickes Renews Plea (1941, p. 27).

talk to journalists (Carmical, 1941, p. F5 [118]). Flamm (2006, p. 76) notes that new media was rife with ‘unofficial’ coverage such as sightings of U-boats off the East Coast. According to PAW and PIWC, West Coast oil production was high enough that the United States could have been supplied more comfortably than austerity measures suggested. But instead of diverting supplies to the East Coast, the majority went overseas to British allies (Frey & Ide, 1946, p. 33). Frey and Ide recount the crucial effect of these decisions: Geoffrey Lloyd of the United Kingdom’s Oil Control Board spoke at a PAW-PIWC meeting when he voiced thanks for American oil and noted: “I think that without 100-octane we should not have won the Battle of Britain. But we *had* 100-octane” (p. 3), illustrating the international nature of the oil arrangement that existed outside of the urban transit industry. The reverberations of consistently diverting supplies of oil to the war were felt at home by the transit industry and came to reshape drivers’ practical operation and the public expectation of taxi use.

To combat the public growing concern that conservation would be forced upon the American public (as noted by Goodwin, 2014), Ickes and other elected officials issued more public campaigns for voluntary fuel conservation. In one of the first efforts to conserve gas for the war, PAW and PWIC jointly advertised a voluntary conservation program. With a \$250,000 budget for newspaper advertising the industry-government partnership outlined a few practices in an attempt to elicit voluntarily conserve oil, commissioning articles and advertisements.^{230,231}

²³⁰ On general advertising action, see Frey & Ide, (1946, p. 137).

²³¹ Carmical (1941, July 20). pp. 1, 29.

The taxi industry saw no such public appeal for support. Here the absence of an appeal is itself communication, expressing that public interest was more important than taxi driver interest, and that regulation was enough to change how the taxi operated. It also communicated the degree of control the administration had over the industry, and that taxi consent was not elective, but rather required for them to keep their job. This set the stage for a shift as policies intended to automate taxi operation elided neatly with public expectation around taxi use.

Carmichael (1941) notes that the voluntary campaign was very poorly received by the American public (Carmical, 1941). On the heels of an automotive industry push to equate car use with personal freedom (Packer, 2008), the campaign for elective regulation was unsuccessful due to lack of participation (Heitman, 2018, p. 129). Incidentally, Ickes was blamed for his lack of foresight in increasing storage before the war. Little did the public know that he had attempted such things several times but with the new and essential cooperation from oil stakeholders on the line, Ickes shouldered the blame both for the lack of foresight and the public relations fallout. The interdependency between oil stakeholders and the war effort shaped how and when the U.S. administration targeted public transport and driving culture with a multichannel information campaign of conservation, and the policies that went along with it. Ickes remarked, “If I were asked to name the most important intangible contribution to the success of our wartime petroleum problem, I would unhesitatingly point to the cooperation that has existed between the Government and the Oil Industry from the outset” (Ickes, 1943, p. 69).

It would be a little deterministic to claim that oil companies and a complicit government brought the hammer of austerity and regulation down on the taxi industry for the sake of shaping it and remolding it into what we see today. The effect on the taxi industry was not so direct, but rather was produced by the supply and regulatory environment that itself was positioned for the business and benefit of oil-government relations. Oil companies that advantaged the situation while still fulfilling their duties to the government and the war effort facilitated a sort of passive, though nonetheless influential, interaction with driving culture and the for-hire industry. Yet, the environment of the war, as well as the position, interests, and relations between oil companies and the U.S. government built the conditions in which stateside automobile operators had to navigate.²³² This initial appeal by the PAW-PIWC group asked citizens to voluntarily take on a different way of using automobiles and thinking about ownership. That the public at large failed to respond to the request for voluntary conservation is not an indictment of a few, but more representative of the entitled American consumerism culture of the time.²³³ What this denial communicated was not only that people refused to reduce oil consumption but also competing for prioritization between the individual and institutional self.

In response to the public's lackluster approach to voluntary conservation, Administrator Ickes issued a public warning regarding conservation. This was another strategic act of communication that utilized newspapers' reach as a dominant medium

²³² For example, see the springing up of the black market as a condition of operation outside the legal boundaries of the new environment in Heitmann (2018, pp. 130-131).

²³³ Yergin notes that oil companies the interests in driving culture as a symbol of American freedom and a cure to the restlessness of war in the years prior to World War 2 (2008, pp. 191-194).

of the time to caution the general public about the possibility of upcoming conservation regulation. On July 19, 1941, *The New York Times* printed a press release from Ickes (Figure 7-1, p. 392), warning that “the rationing of petroleum products may become necessary unless the consumption of motor fuel be voluntarily reduced by 33.3% in the Atlantic coast area.” In that short statement, Ickes laid out the political response to conservation apathy with the threat of regulation. But regulation was only a small part of the environment that shaped the taxi. Ickes and others learned from the failure of the voluntary conservation plan that more was required to spark actionable change around driving culture and use of resources. From here on, the taxi industry, along with driving culture, was remolded to fit the resources conservative agenda. Importantly, however, it was not the culture that was missing resources, but rather political externalities separate from the growing transit industry, tensions and resources exchanged between allies in a time of war that drove the dramatic reshaping of taxi and for hire transit use.

Figure 7-1

PAW Voluntary Conservation

Ickes Asks 16 Atlantic States To Cut Motor Fuel Use a Third

Special to THE NEW YORK TIMES.

WASHINGTON, July 19—Rationing of motor fuel will be necessary before Winter in sixteen Atlantic Coast States unless there is an immediate voluntary reduction of consumption, said Secretary Ickes, petroleum coordinator, in a statement today.

The recommendations were sent to the Governors of the sixteen States to whom Mr. Ickes had previously appealed for aid in reducing gasoline consumption, and the hope was expressed that they would renew their efforts now that the danger of rationing was apparent. The recommendations also went to the commissioners of the District of Columbia, to all the oil companies operating in the Atlantic States and to other agencies.

In addition to his statement, in which he recommended a voluntary reduction of 33 1-3 per cent of fuel consumption in the States named, Mr. Ickes made the following comment:

"It has become the patriotic duty of every one in the States affected by the impending shortage of petroleum products to reduce their consumption of such products. Loyal Americans, in view of the seriousness of the situation, will cooperate. A substantial part of the necessary reduction can be achieved by the adoption of conservation methods such as correcting faulty motors, driving at reasonable rates of speed, the use of but one automobile instead of several by those who drive to and from work when they live and work in the same general areas and the elimination of wasteful practices generally."

The text of the recommendation follows:

"Whereas, the President of the United States on May 28, 1941 (6 F. R. 2760) designated me Petroleum Coordinator for National Defense and made it my respon-

Continued on Page Twenty-nine

ICKES RENEWS PLEA TO MOTOR DRIVERS

Continued From Page One

sibility and duty, as his representative:

"1. To obtain currently from the States and their agencies, from the petroleum and allied industries, from the officers and agencies of your department and from other appropriate Federal departments and agencies information as to (a) the military and civilian needs for petroleum and petroleum products, (b) the factors affecting the continuous, ready availability of petroleum and petroleum products for these needs and (c) any action proposed which will affect such availability of petroleum and petroleum products;

"2. To make specific recommendations * * * to insure the maintenance of a ready and adequate supply of petroleum and petroleum products, and,

"Whereas, I find on the basis of information obtained from the appropriate government agencies and from the petroleum industry that

"1. The daily average shipment of petroleum and petroleum products from the Gulf Coast to the Atlantic Seaboard has declined substantially and that further declines are anticipated;

"2. Existing supplementary transportation facilities can make up only a part of the deficiency and certain contemplated new transportation facilities will not be ready until 1942;

"3. The trend of consumption of petroleum products in this area is upward;

"4. As a result of these factors, the usual seasonal increase in stocks of petroleum products to meet the heavy Winter demand is well below the normal rate, and the stocks of industrial fuel oils, domestic heating oils, motor fuel and crude petroleum will not be adequate to

meet essential demands this Winter unless there is an immediate and drastic reduction in current consumption, and

"Whereas, I find that, as a result of the foregoing, the rationing of petroleum products may become necessary unless the consumption of motor fuel be voluntarily reduced by 33 1-3 per cent in the Atlantic Coast area:

"Now, therefore, I do hereby recommend that the use and consumption of motor fuel in the States of Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, Pennsylvania, New Jersey, Maryland, Delaware, Virginia, North Carolina, South Carolina, Georgia and Florida and the District of Columbia, immediately and until further notice be voluntarily curtailed by a 33 1-3 per cent by all except those engaged in national defense activities or services essential to health and safety."

The New York Times

Published: July 20, 1941
Copyright © The New York Times

Note. Articles demonstrating the strategic communication employed by Ickes in major media outlets like the New York Times. Articles include Ickes Asks 16 Atlantic States (1941, p.1), and Ickes Renews Plea (1941, p. 27) and continue throughout the war (To Promote Auto Conservation, 1942, p. 36).

Before moving on to the other departments that, together, set much of the taxi's regulatory landscape, I want to emphasize that the trickle-down effect necessitating the conservation policies of the wartime environment sprung from encounters between the federal government and the oil stakeholders. The political complications between PAW's earlier iterations and the oil industry existed before

other World War II offices. Its impact was more tangential than others directly involved in regulating the taxi, but it is an important starting point for the work that was going on to navigate how oil, as an essential component for taxi operation, was or was not available in society. In cascading fashion, the situation produced by those two groups created the cultural event that needed voluntary conservation. In the wake of its failure, other possibilities arose in the form of other offices to shape the relations of taxis and car culture. These included the ODT, Office of Price Administration (OPA), and the OWI, in particular, which managed the activity and culture around transportation during the war. The political alliances and cultural changes not only built an environment that fundamentally altered the role of the taxi, it communicated a strategic cohesion between operating agencies in an effort to do so (Figure 7-2, p. 394).

Figure 7-2

OPM Echoes PAW's Conservation Message

USE CARS LESS, SAVE RUBBER, OPM URGES

Motorists Asked to Use Public Transit When Possible

WASHINGTON, Dec. 15 (AP)—The Office of Production Management asked the country's 27,000,000 motorists today to save rubber by using street cars and buses when possible and to hold pleasure driving to a minimum.

It suggested that neighbors pool their automobiles, using only one to go to work, instead of several, and urged housewives to carry home small packages instead of asking the merchant to deliver them.

Where cars must be used, OPM asked observance of ten rules to make tires last longer:

1. Have worn tires retreaded instead of buying new ones: the cost is usually about half that of a new tire and will give about 80 per cent as much wear.
2. Cut out high speeds: Tires will last twice as long at 40 miles an hour as at 60.
3. Inflate tires weekly to recommended levels. Never let pressure fall more than three pounds below recommended minimums.
4. Do not stop short or make jackrabbit starts.
5. Avoid striking curbs, road holes and rocks.
6. Check wheel alignment twice a year. A tire one-half inch out of line will be dragged sideways 87 feet out of every mile.
7. Repair all cuts, leaks and breaks promptly; delay may cause damage that cannot be repaired.
8. Change wheel positions every 5,000 miles.
9. Always get the tire made to fit the rim of your car; check with your garage if you are not sure what size tire you require.
10. Do not speed around curves.

The New York Times
Published: December 16, 1941
Copyright © The New York Times

Note. Use Cars Less (1941, December 16, The New York Times p. 39).

7.2 Office of Price Administration

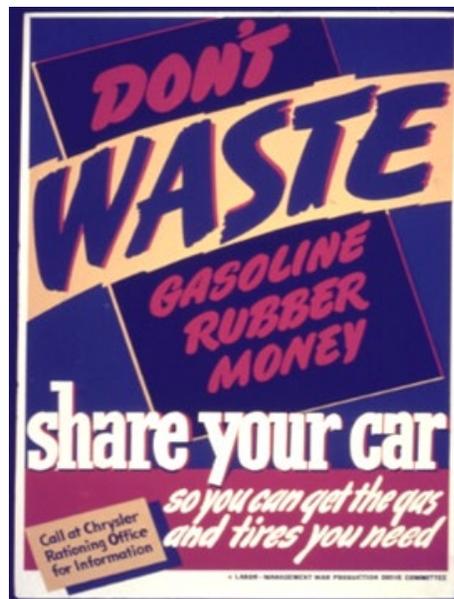
The significance of the OPA was not only in its distribution of resources for the heavily regulated transport industry, but it was also in charge of broader resource efforts by the general public, as well as its very close partnerships with car companies. On May 4, 1941, the President established and granted the OPA sweeping authority to administer the rationing of parts and supplies like oil, gasoline, tires, and other parts necessary for keeping approved vehicles in proper working order. The OPA experienced similar work with the automobile industry as PAW did with the oil industry. It is common in World War II history, and indeed public discourse, to discuss car culture to recount the nobility of the car manufacturer that helped win the war. As the story goes, car companies like Ford, GM, and Chrysler, stepping in time with the sacrifice-is-patriotism mantra evident in propaganda, stopped manufacturing private automobiles and converted factories for war use. But there was more to it. According to economist John Kenneth Galbraith (1981), then assistant to the OPA director Leon Henderson, automobile manufacturers were resistant to stopping production of private cars. Galbraith describes a similar situation to when oil investments took Ickes to the task. Concerned with future profits it took negotiation and a closed-door deal to finally get car companies to start helping with the war. Frohardt-Lane (2012) noted that for their participation, car manufacturers also demanded conditions. Manufacturers would convert their facilities if (1) the public did not catch wind of their lack of initial participation, (2) they were paid for conversion and production during the war, and (3) they would receive additional considerations at the

war's end.²³⁴ Needing the factories and having longstanding partnerships with car manufacturers, the OPA agreed.

The OPA's partnership with these companies was communicated in the collaborative propaganda that pervaded the World War II landscape. In partnership with other offices, the OPA created cross-office and industry infrastructure to mutually support the messages, policies, and practices that built a culture of conservation (Frohardt-Lane, 2012). Consider the conservation propaganda poster in Figure 7-3. Its message and casual design are both firmly linked to the Chrysler brand, both by its presence on the conservation poster and its association as a point of contact for more information on rationing, the explicit purview of the OPA.

Figure 7-3

World War II Conservation Propaganda with Chrysler Brand



²³⁴ By the end of the war, additional benefits included federal subsidies and support to help companies recover what would have been their production had factories not been converted. The result helped further the automobile boom in the postwar environment.

Note. Office for Emergency Management Conservation Poster (1942). Don't Waste Gasoline, Rubber, Money. Share Your Car!

Allowing car companies to brand propaganda had a positive effect on their reputation (Frohardt-Lane, 2012; Heitmann, 2018). Frohardt-Lane makes the case that that car companies' endorsement through propaganda helped consumers link cars to patriotism. As branded objects, the propaganda reinforced a company's support for the war and, recursively, the government's support of that company as one helping with the war effort. This allowed the public to reinforce their perceived patriotism with both the company and the ability to drive a car. Being a "Chrysler man" or a "Ford man" became currency in car culture (Frohardt-Lane, 2012), a scale with which to judge oneself and others' degree of patriotism.²³⁵ In an environment that was newly bursting with a value and interest in personal car ownership, such endorsement encouraged the symbolic value of the personal vehicle. Protection of society, car patriotism, and sacrifice all build a campaign that spoke to the new value of personal transportation. The symbolic value of the personal vehicle (both owning and driving) was constructed concurrently with the value of giving up that vehicle. In other words, sacrifice was nothing if you did not care about what you were sacrificing. Before the government could sell the vision of sacrifice upon which the conservation campaign

²³⁵ The gendered 'man' in association with car ownership and patriotism used here is only meant to be reflective of the considerations of the time. But it is an important consideration. Frohardt-Lane (2012) identifies the implications of such gendered use of car ownership, culture, and patriotism in relation to the war effort. For additional discussion, see Walsh (2008), Matthews (1994), Scharff (1992), and Chapters 3 and 4 of this dissertation.

was predicated, it first had to establish the value of the things being sacrificed, such as personal vehicle ownership and use.

7.3 Propaganda

OPA's relations illustrate only part of the political machine used to sway public opinion. It was an expansive and coordinated effort between departments and industries including OWI and ODT. Resource conservation campaigns were particularly widespread across many sectors of urban life but not all were relevant to sharing car and taxi use. These included food rationing, limited use of household resources, recycling, salvaging, working, and even volunteer time. Two campaigns stand out as impacting taxi use; a campaign aimed at not traveling and another at traveling together.

The campaign for not traveling had messages designed to inspire the general public to electively limit their travel plans as part of the nationwide conservation agenda designed to limit resource use of oil, gas, and rubber (Yergin, 2008). Hidden behind the veil of simplistic messaging was the sentiment that travel was detrimental to the war effort. The *why* was less important as the messaging strategy was designed to evoke emotional sentiments like patriotism, loyalty, or fear (Brewer, 2011).

In Chapter 6, I argued that propaganda can be read as communication of institutional agendas and that there were two channels to read, one of the content directly and another of its relations to known information about the institution and institutional relations performing the communication. Here a measure of content analysis can prove useful. To link the message of propaganda to the formative change in taxi relations the content needs to be considered in concert with larger institutional

objectives and the ways these objectives are being achieved through taxi regulation. Already taxi legislation was being reshaped to provide limited services, short trips, and question passengers if their travel was necessary. In doing so, taxis became semi-autonomous extensions of the federal government agenda and campaign for conservation. This positioning between propaganda and taxi relations also creates an opportunity to check on the assumption of institutional agendas, allowing research to ask if two different readings of the institutional agenda, in this case, conservation propaganda and taxi regulation, convey the same message about regulating institutions.

First, consider some examples of poster propaganda. Among the domestic media propaganda produced during World War II, posters were some of the most common means of communication with the public and had the most variety with nearly 200,000 different posters made throughout the war (Heide & Gilman, 1995, p. 36). Compared with other media channels posters represented one of the most prolific arms of the propaganda campaign with the longest reach.²³⁶ While this sample is not meant to be representative, posters connected to the “Don’t travel” initiative conveyed the same message – do not travel, with the same effect that people were pushed away from individual travel and personally-owned vehicles to join public transportation

²³⁶ Other channels of propaganda included radio and film but due to their limited reach I chose posters for an example of analysis. Horten (2002) shows that “radio propaganda had only a limited reach and lifetime in the United states and why it failed to define radio’s overall participation in the war propaganda effort on the home front.” (6). Despite a prolific alliance with Hollywood film attendance was limited. Advertisers found they had to appeal to women more than men to get couples to go to the movies. While men would go alone, women would not, and few cities except for major hubs could survive off of predominantly single male attendance (Doherty, 1999; Koppes and Black, 1990).

(Frohardt-Lane, 2012; ODT, 1948). At the same time taxi use increased (Gilbert & Samuels, 1985; ODT, 1948).

Figure 7-4

Don't Travel Poster - Could this be you?



Note. Government & Geographic Information Collection, Northwestern University Libraries. (1945). "Could this be you? : don't travel--unless your trip helps win the war", World War II Poster Collection.

Figure 7-4 is divided into four quadrants of pictures sandwiched between two sets of the text of larger white text set against a blue field. The italics and rounded letters on the top indicate a casual tone to the question: "Could this be you?" In keeping with the more casual theme, the text is not accusatory. Underneath that text

are four images geared toward White upper- and middle-class society indicating this question is intended for them. In the top left quadrant, a well-dressed woman is pictured saying: “It’s impossible to find anything in the local stores.” It was a message to appealed to privileged shoppers who would use their time and resources to search extensively for the items they wished to buy. The top right is an older White couple wanting to visit their grandchildren. The bottom left picture is a rotund man with golf clubs, another sign of wealth, with the caption: “But this contract is vital” indicating he perceives his business interests to be critical, even if, in the context of the war effort, they may not be. The bottom right picture shows siblings with the caption: “But grandma misses us” implying that the elderly couple pictured above them are their grandparents who do want to see them. All of these pictures are pinned to an imaginary board as a display of the possible categories of people with time, means, and opportunity to travel, but are being asked to sacrifice that privilege for the greater good of the war. These are framed in the bottom set of words that say: “Don’t Travel – unless your trip helps win the war.” Different than the casual tone of the top letters, the bottom phrase is bold and rigid with harsh straight lines and sharp corners as if giving a command or order.

Other posters strike a similar tone. Figures 7-5 (p. 402) and 7-6 follow a similar format. A question in casual, rounded letters at the top; a declarative statement in rigid letters at the bottom. Between the question and commands are pictures.

Figure 7-5

Don't Travel Poster – A Chance to Come Home

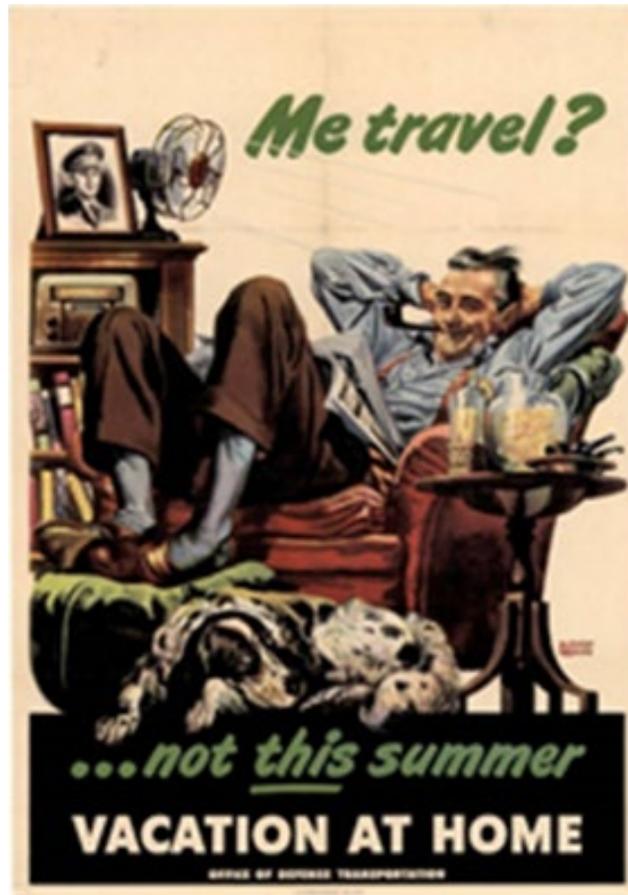


Note. Government & Geographic Information Collection, Northwestern University Libraries. (1944). Won't you give my boy a chance to get home? : don't travel-- unless your trip helps win the war.

Where Figure 7-5 is a picture of a woman asking about her son, which the audience can assume is fighting in the war, Figure 7-6 (p. 403) is of a leisurely well-off man relaxing with his dog. His ability to go on a vacation is a testament to his affluence, and the choice not to go is both selfless and patriotic.

Figure 7-6

Don't Travel Poster - Me travel?



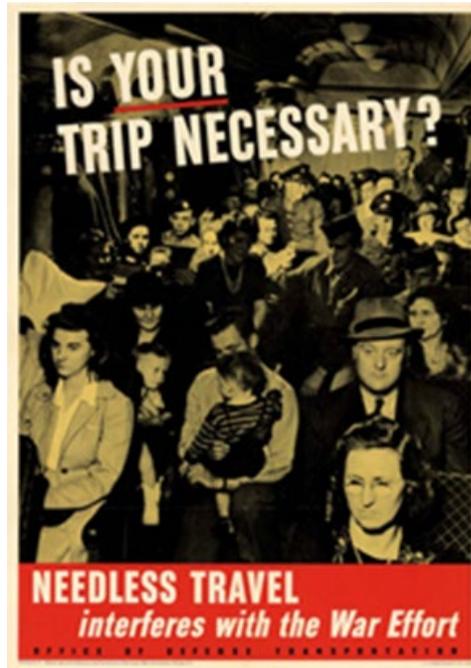
Note. Government & Geographic Information Collection, Northwestern University Libraries. (1945). Me travel?-- not this summer : vacation at home.

Each of these posters targeted audiences in different ways, from identification, to guilt, to self-reflection. Of course, there are additional or different interpretations of what these posters depict; those described above align with the way others have assessed similar content. They all set different conditions for the same instructional message: choose not to travel.

Figure 7-7 differs slightly; it echoes the task given to the taxi driver—to ask potential travelers if their travel is legitimate. This one forgoes the casualness of the earlier posters, making the question much stricter. Instead of a smiling man as in Figure 7-6, everyone is somber appearing to travel through a tunnel, illustrating the kind of legitimate travel deemed necessary. The shift in tone and presentation is important. Figure 7-7 was created in 1943 by the ODT and OWI, coinciding with the period in which regulation limiting fuel use ceased to be voluntary for the general public, though it had been involuntary for taxis throughout.

Figure 7-7

Is Your Trip Necessary?



Note. Government & Geographic Information Collection, Northwestern University Libraries. (1943). *Is your trip necessary?* : needless travel interferes with the war effort.

Juxtaposing the intent of the message with the context of the moment sheds some light on the goals of the message that extend beyond “Don’t travel” and into taxi regulations in which drivers were tasked with vetting passenger travel intent.

7.4 Reclamation Programs for Household Rubber

The ODT helped pursue other campaigns that were run with the intent to manage and stretch limited food and supplies as far as they could go. In addition to food, tin recycling programs and metal scrapping were nationalized, but perhaps the most prominent of these programs were those set to conserve oil and rubber. Where

the ODT made policies, the OPA implemented them, organizing the holding of supplies and rationing their use (ODT, 1942, p. 3). The OPA's other key responsibilities were to participate in conservation programs and manage inflation. All three agencies (PAW, ODT, and OPA) were heavily involved in configuring the relationship of the taxicab during the war. In discussing the oversight of these organizations, Flamm (2006) noted that the duties of these offices regularly overlapped and coordinated efforts toward the same or similar goal. An example of this can be seen in the similarities between Figures 7-3 and 7-4 though they were produced by different offices. This kind of collaboration was necessary and common between offices. While more formal policies like General Orders 20 and 21 managed the public sector transportation, the continued efforts to convince the public to optionally conserve had a significant effect in shaping car culture, and in doing so solidified the taxi's new role in society, and how people thought about that role going forward. Just as sacrificing one's option to use a personal car was seen as patriotic, so too was using a vision of the taxi that policy and propaganda had encouraged in its stead.

7.5 Office of War Information (OWI)

Most propaganda, including the figures above, came through the OWI, created in June 1942, and responsible for controlling the flow of information to the American public. Public criticism over heavy-handed propaganda campaigns in World War I,²³⁷ led by journalist George Creel, demanded more subtle tactics entering World War II. At its core, the OWI was charged with creating a culture that supported the war effort

²³⁷ For an accounting of the persuasive sale of the war to the American public, see Axelrod (2009).

at home. Tasks included selectively disseminating information to the public about the war, keeping public support of the war high, and facilitating conservation initiatives at home in support of the needs of the front. With the backing of the ODT, the OWI deployed media campaigns to convince the American public they were not only invested but involved in winning the war. The logic, parroting that of other offices, was that by reducing unnecessary travel and limiting both public and private transit to efficient and essential trips, the public could directly contribute to the war effort.²³⁸

The influence of the OWI's directive on the taxi was significant and readily complemented existing policies that reshaped how taxis could operate. It did so by persuading the American public to prioritize different driving habits and in conjunction with the new policies altered the culture of driving and expectation around the role of the taxi. The OWI had multiple campaigns running at the same time, all of which operated in some way toward the war effort and toward contributing to the war effort, but some more than others contributed to reshaping public expectation around taxiing. Other initiatives, such as asking people to conserve, and the multichannel nature of the campaigns can be seen not only in the presence of these messages in advertising but in radio, television, and film as well while varying who the message appeals to and who is doing the appealing. In addition to Ickes or another office, President Roosevelt made appeals over the news in messages such as:

²³⁸ Yet the boundaries of what was defined as 'unnecessary' and 'essential' were problematic for gendered and racial connotations. As Frohardt-Lane (2012) notes these practices often encouraged and reified gender and racial division in society. Prohibitions against non-essential travel were often directed at women who were expected not be working and making the majority of superfluous travel. The majority of other advertisements ignored the presence and contributions of people of color.

With every day that passes, our need for this rubber conservation measure grows more acute. It is the Army's need and the Navy's need. They must have rubber. We, as civilians, must conserve our tires (Full Gas, 1942, p. 1).²³⁹

Roosevelt also issued appeals to the public during one of his fireside chats, asking the public to conserve and find scrap rubber for the war effort.²⁴⁰ As a propaganda message, hearing the authority of the presidential appeal over the newsreel held a lot of sway.

Meanwhile, offices like the ODT, PAW, and OWI suggested one way conserving resources was to ride public transportation a message which also held considerable sway. No longer were people giving up resources, they were fighting back against the Axis. This idea used what Jowett and O'Donnell (2011) call an *anchor* (p. 34), a recognized person, in this case the President, to ground the persuasive request with which the audience already agrees. By using their influence, the anchor asks the audience (the American public) to make a behavior change, like from driving to not driving or from driving to using a taxi. The impetus behind the change, like the love of one's country or desire to be considered a patriot, helped change a generally reluctant public's behavior by implying that engaging in conservation, an act generally not associated with patriotism, made someone patriotic. This tactic was readily used by politicians during that time in other ways:

In 1943, during World War II, the illustrator Norman Rockwell used the anchors of the four freedoms declared by President Franklin D. Roosevelt

²³⁹ See Barkley, 1942, p. 20.

²⁴⁰ For the speech, see Roosevelt, 1942. *Scrap Rubber Needed*. Universal Newsreels.

(freedom from want, freedom from fear, freedom to worship, and freedom of speech) in posters to get people to buy savings bonds. (Jowett and O'Donnell, 2011, p. 34)

The use of the President as a force of convincing was extended either by a person like the speech, or proxy like the poster, to persuade people to support the war.

The fireside chat newsreel also significantly contributed to the shift in culture by integrating propaganda into movies. OWI was as interested in developing a “context of interpretation” (Koppes & Black, 1990, p. 60) as it was conveying a message. This context operated as a container conveying a broader structure of conservation for the far-reaching message campaign. The Office’s job was to shape not just the message but the context around which the message was delivered. By linking patriotism to austerity and conservation to fighting on the front lines, the OWI was able to shape cultural acceptability around alternative transportation. It was not enough to simply say do not drive—that had failed dramatically. By giving Americans the choice and leaning on that choice through its streams of propaganda, the OWI was telling people that leisure driving was equivalent to fighting for the enemy and using public transport—like taxis for business reasons only—was the equivalent of fighting on a battlefield. Conservation and taxi use went hand in hand during the war, when the taxi, train, bus, and shared car became the tool of the patriot.

The major function of shaping taxi relations was not the direct shaping of the taxi role but how the public began to think about the taxi role. By pulling away from but still valuing driving and vehicle ownership, the public engaged more with taxis. However, the campaigns that inoculated the public against vacation or leisure driving

still applied to taxi use. As taxis were being issued their stipulations around travel, discussed in the next section, the public expectation of the taxi was being shaped into one of exclusive use, a sharp change from what the public had typically turned to the taxi for in the prewar years. With the aid of the conservation campaigns and propaganda, the expectation of the taxi shifted from a versatile boutique carrier for goods, vacation, work, and other activities into short business-related trips.

7.6 ODT and the Transportation Industry

The office that had, perhaps the most direct effect on the future shaping of taxi relations was the ODT. Established on December 18, 1941, 11 days after the declaration of war, its charge was to direct national transportation coordination, conservation, and facilities necessary to furnish the war effort. The ODT was created to find enough fuel to slake the demands of war without becoming a problem for the everyday running of the country. On January 14, 1942 (ODT, 1948, p. 149), upon realizing the scale of the task to manage public, private, commercial, interstate transport, ODT Director Joseph B. Eastman established one of its many subdivisions, the Division of Local Transport to control taxicab (and other) regulation.²⁴¹ By May 2, 1942, Executive Order 9156 expanded the providence of the ODT by giving it regulatory power over the conservation of parts and supplies as well as control over the operation of any vehicle that used tires, or what they called “rubber-born traffic movements” so that ‘existing facilities could carry their share of the war load’ (ODT, 1948, p. 3). The concern was that in asking the public not to drive, drive more

²⁴¹ Organization chart available in *Civilian War Transport: a record of the control of domestic traffic operations* (ODT, 1948, p.6).

conservatively, or seek transportation, the load on transportation industries would have been overwhelming.

Working closely with other departments, the ODT developed several techniques designed to accomplish the breadth of the new charge. ODT's influence largely centered on the creation of regulatory policies in the form of General Orders. Some of the first General Orders were set up to manage taxicabs, busses, trucks, passenger cars, and a deliberately vague "certain other classes of motor vehicle" (ODT, 1942, p. 2), which equated to an 'as needed basis' to provide the rule with the flexibility of the application for the requirement of the permit. As conservation efforts extended out of the industry to the general public, policies merged with propaganda to change American driving practices and how Americans approached thinking about driving.

According to the ODT, new plans were needed to cut the wasteful use of resources (ODT, 1942, p. 1). The demand for oil and rubber far outpaced the now limited supply, and the transportation infrastructure solutions that were not dependent on rubber and oil were not expansive enough to meet the essential transportation needs of the country and the war (ODT, 1948, p. 167). The ODT was in a difficult situation. It was charged with making public transportation efficient to afford more resources to the war effort, yet some travel within the United States was necessary for the continued functioning of the economy. ODT Director Joseph Eastman believed that public and private transportation options were essential, but overlapped in ways that wasted precious resources. His office had to cut the use of petroleum and rubber without cutting so much that it damaged the economy, in a way that did not attract

unfavorable attention in the court of public opinion or giving the public cause to oppose the war and Roosevelt's administration. It was a juggling task to be sure, and an unenviable one at least equal to that of organizing petroleum for the war, just without the self-aggrandizing and high salaries common of the oil companies and their executives.²⁴²

Within that tension, the taxi provided an opportunity to reshape the circulation of people in the image government officials considered efficient, practical, and best suited to help the war effort. But to do so would require a cessation of wasteful operations and the restructuring of taxi behavior to furnish the necessary changes. To create this new structure the ODT issued General Orders that changed how taxis could legally operate and what was required of them in the course of that operation. Though the changes were believed to change how taxis traveled little concern was expressed for the drastic reshaping of relations between taxis and society. In addition to following the new laws, the newly regulated taxis were expected to become enforcers for government policy. At times, following these new laws reified ideas about who the government considered valuable and essential to the war effort. The effect on taxi relations was substantial, juxtaposing the taxi's traditional roles with new ones, the taxi now had to question passengers on their intent and travel, refuse service, and

²⁴² Numerous times in both Frey and Ide (1946) *The History of the PAW*, and Harold Ickes' *Fightin' Oil* (1943) the oil industry congratulated themselves on a job well done. Ickes acknowledged that many PAW experts and executives came from the oil industry which it was purported to regulate. There is a certain appeal to that efficiency as it facilitates a smoothing over of previously contentious relations between Ickes and the industry in the 1930s. But it does not recognize or even position adjacent the understanding that their many audits came from an office which many oil employees sat, and which the industry would retrieve after the war.

report on any citizen committing infractions. Predictably this undermined any goodwill and trust between taxis and the citizen of the cities in which they operated.

In the early years of the war, taxicab operation was seen as an issue of inefficiency. Cruising for passengers, deadhead (the amount of time a cab spent traveling between locations without a passenger), and lengthy trips were seen as a problem. The taxi industry, in particular, was seen as a place for saving resources before having to extend conservation to other groups or the general public. “In view of the scarcity of materials, the highly personalized cab service of peace time could no longer be maintained” (ODT, 1948, p. 167). The results of the political decisions leading up to this set in place the plans to drastically reshape the taxicab environment. To that end the ODT prepared two new orders that specifically regulated the national taxicab industry, and one that regulated New York because of the overwhelming size of its taxi fleet. As a preface to the formal placement of the new policy Director Eastman issued a public statement in April of 1941:

With the entire American civilian economy being stripped of nonessentials, rubber and other replacement parts cannot be allotted to taxicabs until the operators and local regulatory authorities prove that present equipment is not being wasted in the performance of nonessential service. (ODT, 1948, p. 167)

This message came at a most opportune time. While it was directed at the national taxi industry it also served another purpose. As the government faced mounting criticism over a lack of preparation and prewar energy storage, this statement served as a public demonstration that the government was doing something about controlling what it considered wasteful use of rubber and petroleum in public

transportation spaces. This would become especially important as conservation methods were extended to the general public a short time later with the introduction of fuel ration cards in May 1942 (Frey & Ide, 1946, p. 3). Though the national regulation of the cab industry was being positioned to reshape the very nature of their profession, it was never solely directed at the cab industry. It was also a tool to play on the government and the peoples' relations with the taxicab. This was one of the many moments when the cab industry became a conduit for government policy affecting the public. In anticipation of fallout from the cab industry, Eastman created a unique group, the Taxicab Section under the Division of Local Transport, a main subdivision of the ODT. The section's task was specifically to deal with the nuances of the cab industry, particularly where the biggest taxi fleets resided in New York and Chicago.²⁴³

7.7 General Order ODT 20 – Reshaping Taxi Relations

Enacted on a national scale on September 1, 1942, General Order ODT 20 prohibited seven practices that would cement not only the foundation of the taxi's wartime operating environment but also the taxi's future role and relations:

1. Driving of a taxicab for any purpose personal to the driver;
2. Pick-up and delivery of merchandise other than medical supplies;
3. Cruising to pick up passengers;
4. Operating farther than 10 miles beyond the limit of a municipality that has a population of 10,000 or more;

²⁴³ New York had the largest number, but it was extended to Chicago at a later point (Gilbert & Samuels, 1985; ODT, 1948).

5. Transporting a passenger on a trip exceeding 25 miles, or to a community that does not permit him to pick up fares for the return trip, or delivering him to another taxicab which will relay him to a point beyond the 25-mile limit.
6. These prohibitions apply to passengers as well as operators of such vehicles.
7. Taxicab operators were required to participate in group riding which might be authorized by communities.

These provisions would also signal a much broader cultural change reinforced through public changes in driving practices.

The new guidelines shattered the general operating procedures that formerly bound relations between taxis and society, taxis and the government, as well as drivers and their cars. By and large, these provisions were laid down to combat, change, or nullify practices that existed as common before the war. Using data collected by Gilbert and Samuels (1985)²⁴⁴ on taxi history and industry practices, I explore the ways the seven provisions to prohibit relatively common driving practices reshaped relations through services the taxi could provide the public.

With regards to the first provision, taxis were limited only to business operations and could no longer be used as personal vehicles. Before the war taxis could be used for both personal use and as an important source of supplemental income. Drivers who had purchased their cars before the issuance of ODT 20 could no

²⁴⁴ Gilbert and Samuels (1985) acknowledge the presence of General Order ODT 20 on pp. 77-78, but treated as a hurdle for the cab industry, a thing to be survived, and do not explore its more granular impact on shaping the industry.

longer use their cars for any non-taxiing-related activities, even if purchased for that express intent. While the order discouraged taxis against operating outside the taxi role in the pursuit of income, it also prohibited drivers from using their vehicles to take children to school, church, non-emergency medical appointments, groceries, community service, family visits, or any other non-taxi related driving.²⁴⁵ Drivers who were owners then would be out of money and out of a transportation option for services necessary for the maintenance of daily life.

This decision also marked a significant turn for the role of the taxi, a merging of taxi drivers as people and the taxi role as a means of conveyance. Since taxicabs could not be used for any means other than in pursuit of the role of taxiing then ownership of the vehicle and any rights thereof became consolidated into the purpose of the vehicle. One could argue that regulation almost always does that in a way. But the prohibitive nature of this new provision took the personal needs of the driver as non-essential, or superfluous, and focused on the needs of the state and its use of the taxi as a media object and articulation of the state's conservation agenda. The value of the driver was consumed by the value of the performance of the role as the state envisioned it. Additionally, while not truly automated in the contemporary sense of the word, this provision wanted the taxi to operate as if it were. It remade drivers' participation in the driver-taxi arrangement into a far more rigid structure, almost a programmatic routinization of the taxi's transportation function and its operation in society.

²⁴⁵ See Hodges (2007, p. 30) for a story about a window Edith Baker and her schoolchildren.

The second provision was created to combat the broad practices taxis had adopted as a means of survival in the depression and post-depression era.²⁴⁶ Before the war when competition was high and fares were low taxi drivers commonly doubled as package delivery drivers, couriers, assisted in the mail and package delivery as well as other tasks like as a delivery vehicle for butchers, florists, fishmongers, restaurants, and even as hearses.²⁴⁷ Taxis also engaged in illicit activities involving drugs, money, alcohol, prostitution, and organized crime.²⁴⁸ This allowed taxi drivers not only navigational duties, but positioned them as historians, confidants, secret-keeper of the city and its people.²⁴⁹ This second provision put all of those variations on the taxi's role²⁵⁰ outside the law. The certificate of war necessity and its logs acted as a means to verify that taxis were not making superfluous trips.

There is a tension here between the public expectation of a taxi's technical expertise and the political expectation of the taxi's logistical participation in the flow of society. The technical expertise includes and extends far beyond the operation of the cab into the navigation of city streets, circulation of traffic patterns, and safe operation of the vehicle. The learned expertise about navigating the city is still in the

²⁴⁶ Gilbert and Samuels (1984) note these practices and the resulting conflict over their necessity (p. 60-73). Also see Hodges (2007, pp. 12-13).

²⁴⁷ Legislation in the 1920s and 1930s changed the build of taxis so they could no longer carry bodies in their trunk, or rather so it was harder to fit bodies in the trunk. The practice petered out in 1931.

²⁴⁸ See Hodges (2007, pp. 20-30) for more details about crime and prostitution specifically, and Hazard (1930) for numerous accounts of interaction with organized crime and other illegal activities. See Gilbert and Samuels (1985) pp. 66- 68 for more widespread public sentiment.

²⁴⁹ For example, taxis were known as a "reliable sources for contacts with prostitutes" (Hodges, 2007, p. 21) and "after dark cab drivers guided and transported willing New Yorkers into Forbidden Worlds" (p. 16), referencing drinking, drugs, prostitution, other comforts or necessities.

²⁵⁰ See the cabbies story about the true birthplace of Edgar Allen Poe (Kelley, 1993, p. 96-98). This information caused a change of street name in Boston to Edgar Allen Poe Way. Many stories, including less romantic ones, can be found such as the city underbelly (see note 29). But to describe intimate knowledge is to describe the experience of the cab driver or hack.

performance of the logistical part of the role as a means of conveyance. By the 1920s, cabbies were beginning to be regarded as “expert guides to the city” (Hodges, 2007, p. 31). But there is another dimension of the taxi’s role that involves more than logistical efficiency. Insights like the best hotels to use, best places to eat, and even how to report a crime are tacit knowledge communicated by virtues of professional experience and expected of drivers by the general public. The task of taxiing was more than operating the vehicle. The taxi driver accumulated a rarified knowledge about the city unique to the experiences of the driver. This also illustrates another important key facet that taxi drivers served as transitional elements that move people through physical boundaries and facilitate entry into a city’s social, physical, and political landscape.²⁵¹

They is also a cultural power in this recordkeeping that allows drivers’ accumulated knowledge to contribute to the history of the people and places they frequent. As taxis were discouraged from the tasks that helped them gather their stories, they stood to lose the opportunity to accumulate the history of the city and its people. Betts (1930) recounted his usual patronage and conversations with the legendary banker by J.P. Morgan about childhood. Robert Hazard (1930) accounted navigating organized crime, bootlegging, and the federal government during Prohibition. Graham Hodges (2007, p. 113) tells of driver Stanley Berman’s encounters, autographs, and pictures with Joseph, Ted, Robert, and Jacqueline Kennedy, and Vice President Lyndon Johnson in the 1960s. Such experiences tell

²⁵¹ See *In Carless Boston* (1919, p. 35).

stories about cities and people, allowing taxis to act as social historians, keeping track of city legacies and changes even as society moves past them.

Regulators deemed the third provision to be a waste of resources. Cruising typically meant drivers would circle between points looking for passengers. By limiting taxis' ability to circulate they limited the circulation of people. This was likely by design, as the extracurricular circulation of people, especially for recreational use like clubs and bars, was discouraged. The taxi enforced this change in its practices, agendas of the government, and its priorities. While on its own may not initially appear significant, the premise of 'waste' upon which it is grounded influences how taxi drivers were or were not able to find fares.

What did this mean for the taxi? Through the government's actions, this new provision had decided the meaning not only of the drivers' work but the drivers themselves and their value to society. This was decided through a premise of inefficacy and waste. Cruising was an inefficient tactic because it relied on driver skill, luck, tenacity, and intimate city knowledge, all too variable. The new policy removed some autonomy from the driver's decision making process, giving it an almost algorithmic quality by trying to get human behavior close to automation through intense regulation. By assigning the waste category to the taxi's social role, taxis became defined by efficiency and wasteful practices, a value previously reserved for the expertise and driver technique. In effect, the taxi became emblematic of the mechanization of valuable contributions to society. This practice is not alone, as taxis extended that new valuation system to the broader public through provisions 5 and 7.

Secondly, cruising eliminated the need for honed expertise from drivers' skillset. The evaluation of passenger needs as well as knowledge of the circulation of those people as they move about the city was rendered unnecessary. This was a fundamental change in taxi behavior and public expectation. Being able to cruise for passengers, to seek out and evaluate those that needed a ride, was part of the versatility of the taxi's role. By eliminating that possibility and eliminating the need for that skill, changed the nature of the taxi. Drivers were expected to drive their cab to and from points dictated by the system; once done they returned to space where they awaited their next assignment. To make taxis more efficient, the elimination of cruising turned drivers and their cabs into processing vehicles for the production of the war. As such the personhood of the drivers was no longer necessary to achieve this goal, they were only needed for the navigation of traffic as people were conveyed from point A to point B.

Cruising was determined to be more wasteful than sitting at a taxi stand to be allocated their next fare because it relied on uncertain variables like traffic flow, city knowledge, driving speeds, driver preference, passenger-driver co-location, and, according to Hazard (1930), no small amount of luck. Aside from being wasteful, there is a predatory component of cruising. Taxis prowled the streets in an attempt to get people into cabs, sometimes through bullying passengers or cutting off other cabs to claim the fare. But cruising also is a valuable tool. People that are infirm, ill, inebriated or on drugs can benefit from being picked up outside of a traditional taxi stand. Though technically cruising, skillfully moving taxies between stands can ease congestion, reallocating taxis to other areas of the city based on the movement of

people, culture, and need, rather than a predicted expectation of where traffic will be. But by determining where cabs have to return, legislators were controlling the flow of people by controlling the flow of cabs. Taxis cannot pick up anyone except at a stand, and people cannot find a taxi except at a stand. This also centralized the presence of the stand in the circulation of people through parts of the city thus fixing the circulation of people. While this can be productive during wartime when the government was worried about the efficiency of working hours, fixing city circulation in such a way enforces problems linked to transportation like access to resources and opportunity. Fixing the circulation of people also fixed the circulation of culture, wealth, and services.

The fourth provision limited taxis' ability to travel outside a municipality with a population of 10,000 or more. Here the term municipality indicated a town which has been incorporated and is usually governed by a single administrative body. The goal of this provision was twofold, both working toward the same objectives of conservation and productivity. Limiting the distance a taxi could travel anchored and consolidated taxis to large towns and city hubs where the work of supporting the war effort happened. In doing so, the taxi would be available to people who worked toward the maintenance and running of society or to furnish the war effort. Limiting distance, taxi travel also limited the expenditure of strictly regulated resources like oil, gas, and rubber buttressing other regulations that prohibited the superfluous use of resources.

This provision also communicated the priorities of the regulating government's position on who was worth transporting and what the conditions of 'worth' were. A town must be incorporated for the government to assign it enough value for taxis to

service; large unincorporated towns were determined not to contribute enough to warrant service on their own.²⁵² Embedded within this population limit was a valuation of the community by population. Low population communities more than 10 miles away from a central hub could not be served by a taxi. The logic was that those communities would expend more resources in transit than they would contribute to the war effort, making their mobility inefficient.

At the time most taxis in Massachusetts were centered on the Boston metropolitan area. According to census data (United States Department of Commerce, 1951) in 1940, Boston alone had a population of 770,816 out of Massachusetts total population of 4,316,721, more than a fifth of the state's population. In terms of numerical efficiency and resource conservation, the choice to consolidate taxis in Boston and other major areas was seen by the ODT as a practical option for increasing efficiency in support of the war effort (ODT, 1948). Limiting taxis to a 10-mile radius could have a taxi easily cross from one of the 40 permitted areas to the less valuable townships. The taxi that behaved legally, and ODT 21 made it possible to check if they were, articulated the agendas of the government's valuation of people's lives in Massachusetts based on predictions about how helpful they would be to the war effort. By enacting these policies taxis were reinforcing this divide of who was valuable and who was not. Should a fare ask to be driven out of the 10-mile boundary drivers had the obligation to refuse because new ODT regulations say that taxis cannot operate

²⁵²Massachusetts did not collect population information on unincorporated townships in the 1940s, irrespective of how large they were, but did collect that information by 1950. The author calculated the difference in population, and based on an average increase in population side could estimate the size of the population in the years before it was incorporated.

outside those boundaries. This also meant that if they found themselves out of bounds with a fare, it would be illegal to pick up another fare and minimize wasted fuel and recoup time and resources otherwise spent "deadheading" (slang for on-duty driving without a passenger).

Out of the 153 townships in Massachusetts registered by the census in 1940, only 40 of them would have been served by taxis, leaving 110 townships and any populations therein disconnected and detached from not only cities but centralized government support because their value-added was not enough to, alone, warrant taxi service. But, if you consider trends in population increase from 1940 to 1950 in incorporated townships some light is shed on which townships' valuation had been missed unfairly due to the federal government valuation metrics for taxi service. According to census records in 1950 Adams-Eefrew's population was 11,633, Greenfield's population of 15,075, and Milford's population was 14,396. Given that every Massachusetts town save the major cities²⁵³ had a change of population within 5,000 residents, with most far below that, then it is unlikely that Greenfield and Milford would have been under 10,000 inhabitants. Because of the limited survey system of the time, such unincorporated towns would have been passed over as a waste of resources.

These costs to war efficiency were not acknowledged by ODT. Limiting travel distance limited the taxi's ability to connect rural communities with centralized locations. Access to essential services, economic opportunity, or participation in the social and regulatory structure was denied to them. Furthermore, it was a

²⁵³ Including Boston, Cambridge, Springfield, Quincy, Waltham, and Worcester

communication of how the federal and state government were not only allocating resources but deciding who was worth those resources. Embedded within this new regulation was an implicit assumption that the value of resources expended need to positively correlate with the expected contributions of those who use the resources made and vice versa.

Another implication is that this structure perpetuated a cycle of inequality. Those that had access to the taxi were afforded opportunities in the city for participation. Yet, isolated areas already vulnerable were made more so by the neglect regulated into mile limits; impacting not only how they could access society now, but the ability to recover in the postwar environment. Three charts provide useful triangulation into the degree of impact this kind of decision contributed to the population by the township in Massachusetts both incorporated and unincorporated, demographics of Massachusetts in the 1940s, and wealth accumulation between 1940 and today. An increase in material infant mortality in rural communities indicates lack of infrastructure, limited income indicates lack of opportunity, unincorporated, indicates limited political participation.

This also put the unreasonable onus on the taxi's network to know which areas they could and could not serve. Typically, operators of taxis are expected to know the boundaries of their profession. The ODT placed that upon the taxicab to regulate themselves or fear penalty such as revocation of license or removal of certificate of war necessity. As an industry, all the boundaries for all the permissible locations in Massachusetts would be a complex map but it seems as individually it was up to them, and the local coordinating office to make that known.

The fifth provision builds on the previous ones and should be taken in three parts. The first limits the total taxi's trip to 25 miles. While 25 miles could be counted one way or half and back the latter would leave the driver unpaid for the second leg of the trip and a waste of resources as it would fall into the deadhead category. This also has a secondary reason. It was in the interest of the government to know where its cabs were at all times because of a provision in the guidelines for General Order ODT 21 that allowed taxis to be commandeered in emergencies. As such, taxis needed to be in good standing and accounted for in order to be deemed a potential resource by the military and civilian defense. The second part of this provision disallowed transportation to areas that did not allow taxi pickups, to again prevent a waste of resources. The last part is to cover the possible exploitation of the system. The concern was that taxis would form a sort of relay system to allow people to travel farther than they otherwise could. But the concern here is that in such a case one or both cabs might have significant time using fuel and tires without a fare in the car, with the second cab possibly even doing so for twice the distance. This also made it impossible to move cabs between areas they were assigned. As you cannot use a taxi for personal transportation, taxis that were placed in a town found themselves stuck there, trapped, unless they had another means of transportation until the war ended or a special situation arose.

The sixth provision impacted taxi relations with the public. By extending these restrictions to passengers of the taxi, the government made it the cab drivers' responsibility to police their potential and existing fares regarding where they were

going and their purpose. One driver commented on the unreasonableness of needing to question passengers if they were planning on riding for pleasure.

‘Suppose a man comes out of a night club with a dame and stops me’ said a driver. ‘Am I to know where he came from or where he is going? Pretty soon they’ll be asking us to ask for the marriage license before we drive them home I gotta make a living, haven’t I? And how can I prevent anybody getting into my cab if I haven’t got a fare? There’s a law against refusing them.’ (Owen, 1943)

There are a few important points to glean from the impact of this provision. The first is the frustration with having to police passengers for where they were going. The problem with this action, as the driver notes, was not only about the authority to do so, but the active participation in the act. This driver realized, or at least speculated, that in doing so he was taking on the mantle of what the institution that governed his taxi (i.e., the government) thought people should and should not do, feeding back into what that determination said about their worth and if they were permitted service. As he questioned what was next he sought a not-too-distant parallel between them judging their intent to whether or not their relationship is permissible. The second is the tension between refusing a fare and needing to work. While this point in time was seen as a time when cab drivers were making more money than usual, it was still only near the average wage of their inner-city peers.²⁵⁴

The last point this quote emphasizes is the tensions between the prevention of people getting in a cab and the most recently enacted active law. Several times

²⁵⁴ See Gilbert and Samuels for statistics about moderate increase in driver wage.

throughout World War II campaigns, laws governing taxi behavior about picking people up changed. Despite the technology to make such changes immediately known, taxis were expected to be aware of their most up-to-date regulations. The most important of these was the ODT's General Orders and later during the war when mandatory conservation was extended to the general public.

Understandably confusions arose when people are not informed of what to expect. The provisions issued by the ODT through General Orders typically superseded local regulations. For example, under non-war circumstances, taxicab regulations dictated that it was illegal for a taxi to refuse a fare. But during this period (ODT 1948, and the ODT Certificate of War Necessity), it was the driver's duty to question and refuse service if people sought to use taxis for leisure purposes. The uncertainty of the changing conditions left customers and drivers confused as to which was applicable. While the onus for knowing the state of this changing regulation was placed on the driver, the more these shift in favor of tighter restrictions, the more the public began looking elsewhere for transportation of the nonwork variety. The same driver mentioned in the article that other taxis have stopped taking people out of nightclubs entirely. Meanwhile, Gilbert and Samuels note during 1942 and after attendance at busses and trains increased for long-range travel, indicating the public began looking elsewhere for long-distance travel.

Local ODT offices, of which there were 142 (ODT, 1942, p. 4; Rose, 1953), were responsible for setting up taxi stands, locations where taxis would legally gather to wait for a fare. When appropriate, these would have been already set by the city, and others would be set in locations that would maximize efficiency and minimize

waste in whatever form that took. Stands were set up near populous hubs and not rural locations. Not only could drivers not go out of their way to pick up passengers, but rural passengers had to travel farther, without any means to do so, to find a taxi.

7.8 General Order ODT 21: Certificate of War Necessity

Like the propaganda media campaigns, the ODT realized it would take more than policies to enact the changes. With the inconsistent component regulated in ways resembling more mechanical automation than a human agent, what was left to regulate was the maintenance of the machine. This also served the purpose of proving material checks on the behavioral changes to the taxi's role as issued through General Order ODT 20. Issued September 8, 1942, and effective November 15, 1942, the Certificate of War Necessity was the material instantiation of General Order ODT 21's new objectives. Throughout the war, around 5,000,000 certificates were issued (ODT 1942). The vehicles that fell under the purview of Order 21 were taxicabs, jitneys, automobiles for rent, busses, and trucks.

The reason for the Certificate of Wartime Necessity was to have greater control over the use of rubber and gasoline by industries that use vehicles as the means of business. Instructions for the application for the certificate stated that "commercial vehicles and their tires must be given the best possible care: they must be driven with equal care, and *every mile of unnecessary operation must cease*" (ODT, 1942, p. 2). Eastman had little faith in the public's ability to restrain themselves without regulation. The failure of Ickes' previous voluntary austerity programs to conserve gas and rubber was shown to be an ineffective and publicly damaging reminder. Not only was very little conserved, but the public response to the Roosevelt Administration had

been extremely poor. Ickes figured that if people were going to dislike the administration any way they might as well make the conservation program mandatory. For Ickes being lambasted for not implementing a program soon enough was better than suggesting prophylactic conservation in case of emergency, as he had in 1941.

The result, as mentioned before, was an environment that had very few stores of both petroleum and rubber, and very high demand for both. The key goal of General Order 21 and the certificate was that it specifically sought to govern the ways for-hire automobiles were. It pursued this by setting a timeframe around how often they needed maintenance, evaluation of wear and tear, and to serve as checks and balances against the less predictable human element, the driver. Other programs dealt specifically with material allotment, but this was a consolidated materialization of political decisions in paper form. Director Eastman wrote: “the necessity and desirability of correlation of this program with that of governmental allocation of gasoline, tires, and tubes” (ODT, 1942, p. 2) was considered essential to its functioning. This certificate came to embody the government policies and the taxi's newfound uncomfortable role as prosecutor of those policies. These regulations that now governed taxi use would now also govern taxis *in use*, that is, in the process of being a taxi. The significance of these with a particular focus on eroding driver agency in favor of consistent predictable mechanical use in the performance of the role of the taxi.

The ODT's issuance of General Order ODT 21 Certificate of War Necessity (Figure 7-8) could be found in the book that doubled as an application for the Certificate of War Necessity (US ODT, 1942). It stated:

§ 501.93 Issuance of Certificate of War Necessity, (a) A Certificate of War Necessity will be issued by the Office of Defense Transportation to any qualified applicant therefor, certifying, with respect to the operations covered by the application, limitations of mileage or of motor fuel or requirements as to loads, or any one or more of such limitations or requirements, in order that such operations (1) shall be confined to those which are necessary to the war effort or to the maintenance of essential civilian economy, (2) shall be so conducted as to assure maximum utilization in such service of the commercial motor vehicle or vehicles of the applicant, and (3) shall conserve and providently utilize rubber or rubber substitutes and other critical materials used in the manufacture, maintenance, and operation of such vehicles.

Figure 7-8

Certificate of War Necessity Permit

CERTIFICATE NUMBER: 9-05-01 252412 A CLASS: 808P

Ray F. Burg
Route 7, Box 5405
Sacramento California

MAKE	BODY TYPE	YEAR	TYPE
Chev.	Pickup	'36	Truck

RATED OR SEATING CAPACITY	STATE	REGISTRATION NO. (1942)	REGISTRATION NO. (1941)
1/2 ton	Calif	67A989	

OPERATIONS CERTIFIED

2540 Maximum miles per year
660 Maximum miles per calendar quarter
Unit of Traffic
Minimum average units per (round) trip per year
Minimum average units per (round) trip per calendar quarter
Maximum gallons motor fuel quarterly—all operations (34)

1st. 29 } Specific quarters, when different from above
2nd. 29 }
3rd. 29 }
4th. 29 }

Maximum gallons motor fuel quarterly—rationed areas
1st. _____
2nd. _____
3rd. _____
4th. _____

Form SU-B

UNITED STATES OF AMERICA
OFFICE OF DEFENSE TRANSPORTATION
CERTIFICATE OF WAR NECESSITY
Commercial Vehicle
SINGLE UNIT
SUPPLEMENT
THIS CERTIFICATE NOT TRANSFERABLE

THIS IS TO CERTIFY that, subject to general or special regulations of this Office, and applicable regulations of Federal, State and Local authorities, operations of the vehicle herein described which are incidental to or in furtherance of the business of

Occupational Transportation
are necessary to the war effort or to the maintenance of essential civilian economy to the extent certified herein.
This Certificate shall remain in effect until cancelled, recalled, suspended or revoked.

COUNTERSIGNED: Joseph S. Eastman, Director of Defense Transportation.

REASONABLE District Manager Date Issued: MAR 3 1943

BOARD NO.	DATE	BOOK OR CERTIFICATE NO.	ISSUED BY

REPRODUCTION OR ALTERATION OF THIS DOCUMENT IS SUBJECT TO PENALTY

Note. Office of Defense Transportation Certificate of War Necessity (1943).

Sacramento Ephemera Collection. p. 001, EC-GOV-b06f08i01

This new certificate structured the efficient, reliable, and regular use of taxis. The reason for this was twofold. First, the most straightforward involvement was in the necessary mobility of civilians who in turn provided valuable support to the war effort. Again: who was valuable was being jointly determined both by the government's evaluation of usefulness and value as well as supported by the travel boundaries ODT policies placed around taxi service through General Order 20. By applying for the certificate, the user agreed to the terms laid out therein. For this section, those terms included necessary use and maintenance of the taxicab to both make sure the cab as a machine was in working order and the utilization of that machine was solely directed toward aiding the war effort. The second term speaks to the efficient use of taxis. "To assure" efficient use was directed toward the use of the machine by the taxi driver as a means of conveyance, in other words, that the role of the taxi was executed efficiently. It allowed this certificate to work as a check against the possible misuse or wasteful of the resources of the cab in a way directed by the driver. This also speaks to the change from the taxi's previous role and its wasteful behavior (such as cruising) and the artifact of this certificate reinforces the changes to the taxi's role as set by General Order 20 by establishing a penalty of denial or revocation of the certificate. The third is concerned with the conservation of rubber or other resources in the pursuit of driving. This used the degradation of rubber and other resources as both a means and means of critique and control of the driving technique²⁵⁵ (such as speeding off of red

²⁵⁵ The New York Times article "Conserving Motor Fuel" July 7th, 1941, details a number of tactics that exact unnecessary wear and tear, one of which PAW Administrator Ickes called "jack rabbit starts" which involve racing between lights. Other techniques like shutting of the engine while waiting are also detailed.

lights, taking turns too quickly, running the engine at a taxi stand, and accordion driving²⁵⁶ on highways). The technique of taxi driver is typically unique and accumulated over experience, but also varied based on the preference of the taxi driver. This sought to regulate the taxi's behavior to eliminate habits or practices deemed wasteful. The result was an attempt to standardize the way cars were driven, but to do so there had to be an elimination of the thing that enables different taxis to drive differently, the driver. The value of the driver was their ability to drive which was now being deemed not only unnecessary but problematic. The certificate served as a means of controlling the technical application of driving, eliminating again the need for individuality amongst the drivers in favor of maximizing efficiency in the execution of the taxiing role and the consistent use of space and materials. In effect, the personhood of the driver was being regulatorily consumed into the efficient and reliable performance of the role of the taxi as a means of conveyance as illustrated in a government-issued book on rationing tires given to local boards which defined taxis by their use: "Vehicles designed as passenger automobiles are commercial vehicles because of the *use* to which they are put. Thus, any taxicab, jitney, or any motor vehicle available for public rental ... must establish its eligibility" (OPA, 1942, p. 2).²⁵⁷

Additionally, for a driver to keep their eligibility to drive a taxicab, they were required to fill out a weekly log (Figure 7-9, p. 432) accompanied by an inspection.

²⁵⁶ Accordion driving refers to the general driving practice of speeding up consistently then having to slow down quickly, effectively making cars pile up, only to repeat the process over and over. The visual resembles that of an accordion being expanded and compressed as it is played.

²⁵⁷ See also United States Office of Price Administration. (1942). Local board mileage rationing letter

According to the ODT, this certificate was subject to inspection by any public official or officer. It was a system ripe for exploitation. But more than that it was a system that continually put drivers at the mercy of government inspection, and if necessary, acquisition.

Figure 7-9

Certificate of War Necessity Log

OFFICE OF DEFENSE TRANSPORTATION WEEKLY RECORD OF COMMERCIAL VEHICLE TRANSPORTATION								
Week Ending Sat- Today	No. of Trips	Miles Operated	Units Out Bound	Units In Bound	Gallons of Fuel Used	Number of Tires Mounted		Tires Inspected and Found By Authorized Inspector
						New	Recap and Retreaded	
1942								
NOV. 7								
14								
21								
28								
DEC. 5								
12								
19								
26								
TOTAL								AVERAGE PER TRIP
1943								
JAN. 2								
9								
16								
23								
30								
FEB. 6								
13								
20								
27								
MAR. 6								
13								
20								
27								
TOTAL 1ST QTR								AVERAGE PER TRIP
APR. 3								
10								
17								
24								
MAY 7								
14								
21								
28								
JUNE 5								
12								
19								
26								
TOTAL 2ND QTR								AVERAGE PER TRIP

Note. Office of Defense Transportation Certificate of War Necessity (1943). Sacramento Ephemera Collection. p. 002, EC-GOV-b06f08i01

The more apparent dimension of this certificate is predicated on the expectation that managing the use of taxis as a machine can dually manage the

efficient use of resources while also managing the inefficient or undesirable practices of the wasteful driver's technique. There is an important secondary implication, one less obvious. It is the application of these new provisions for wartime use, not in the civilian sense as the circulation of workers indicates, but the military one that focuses instead on the circulation of troops or other use in civilian defense. The application of these new regulations in the efficient keeping of taxis as a reliable machine in the case where the need arises for military application.

Obscured amongst the pages for the application was another section that, crucially, put many of the new policies into focus explaining taxis alternative application for military use or civilian defense. The section read:

§ 501.101 Control of vehicles, (a) Whenever the Office of Defense Transportation shall deem it to be advisable, any person having possession or control of any commercial motor vehicle shall, notwithstanding any contract, lease, or other commitment, express or implied, with respect to the use or operation of such commercial motor vehicle, cause such vehicle (1) to be operated in such manner, for such purpose, and between such points, as the Office of Defense Transportation shall from time to time direct, and (2) to be leased or rented by any such person to such person or persons, except by a person engaged in transporting property in a commercial motor vehicle for compensation to a person not engaged in such transportation, as the Office of Defense Transportation shall from time to time direct. Unless the interested parties agree upon the amount of compensation payable for the use. (ODT, 1942, p. 18)

Both General Orders ODT 20, and 21 opened up the opportunity for taxis to be commissioned in times of need. The first way it does this was through centralization. Most taxis were consolidated within larger city limits. Not only did this better circulate public engagement in work to support the war effort, but having a central location where taxis were gathered would be more easily accessible. As local divisions of the ODT set these locations (ODT, 1948), the location information was more readily available if needed.

Other measures supported this as well, including fuel allotment, distance restrictions, and regular maintenance. Every day, taxis rationed enough fuel to drive about 100 miles, restraining how far they could travel before they needed to circle back to the locations that supply their fuel. The routine of getting fuel in the morning made it easy to access large groups of taxis without having to travel extensively. If taxis were needed for such an occasion, then they could likely be found at the centralized taxi stands or in ration and inspection lines, further containing taxis to predictable areas were the boundaries set on travel distances. By doing so the ODT ensured that even if a taxi was not at an expected location, they would not have traveled far. As it was illegal for taxis to cruise and travel out a past certain distance, they would typically be traveling to and from known locations. Lastly, the conditions for regular checkups and maintenance served this provision well. As knowing the taxis were regularly maintained, maintenance ensured functioning if needed for military

use. This provision acted very much like a selective service²⁵⁸ condition for taxicabs. This section enabled taxicab to be commandeered for emergency or military use.

In this chapter, I demonstrated the intentional strategic structuring of the political, material, and consumer landscape to reshape taxi access in a way that paralleled wartime priorities, recommunicating the relationship between taxi use and the continuance of modern American society. Examining this relationship in the Boston landscape in the war and post-war periods, the next chapter discusses the militarization of the taxi to ensure the transport of the city's valuable citizens and how taxi use became cemented as a vehicle of post-war recovery only available to some.

²⁵⁸ The Selective Training and Service Act of 1940, 50a U.S.C. §§ 302-315 (Suppl. 1 1940) whereby every available male from the ages 18 to 65 must register with the selective service system so as to be available to be conscripted into military service.

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CHAPTER 8

8 MILITIRIZING BOSTON'S TAXICABS

The reach of new policies like General Orders ODT 21 (Chapter 7) did more than consolidate taxis to city centers, it centralized the location of taxis to known areas and city routes in case they needed to be commandeered for military use. In Boston, this heralded a familiar militarization of taxicabs. In this chapter, I show how the militarization of Boston's taxi services helped instantiate for-hire transportation service parameters as a communication of a wartime government's priorities in three ways: through the appointment of a military official to oversee Boston's civil defense forces who brought with them experience in taxi militarization during World War I; through consolidation of all taxi services into a service fleet to facilitate military transportation, non-emergency transportation, and evacuation transportation for those privileged enough to be working and residing certain areas of the city; and through the forced adoption of the new hazardous operating procedures for the Dimout that traded individual and driver safety for protecting the city's productivity and contributions to the war effort.

While the militarization of taxi may sound foreign, it is not without wartime precedent. During World War I, a fleet of taxis and other vehicles were requisitioned in defense of Paris (Sigal, 2014). During the First Battle of Marne, fought from September 6-12, 1914, a taxi fleet of Renault AG1s was requisitioned away from normal operations to carry troops to the front line. Isselin (1966) described the situation: "In every street in the capital, police had stopped taxis during working

hours, turned out the passengers, and directed the vehicles towards the Military College, where they were assembled” (p. 179).

Over the next few days between 500 and 600 taxis would transport nearly 5,000 troops to the front line (Herwig, 2011; Sumner, 2010) to bolster the flank of Paris’ defenses. Jean Louis’ account as a taxi driver who participated in the event (Williamson, 1926, p. 197) contextualized the taxi’s role as a logistical and infrastructural resource. Williamson wrote,

It is perhaps too much to claim that Jean Louis and other taxicabs saved Paris.

It would be too much like asserting that the tail wags the dog. But Jean Louis brought reinforcements to the army of General Maunoury.

Contrary to most historical accounts taxis did more than just transport troops, though that itself was a notable act. Louis recounted that afterward the taxicabs carried German prisoners as part of the Germans conditions for surrender, returned to the front to transport wounded soldiers, and returned to transport the fallen.

The Renault AG1 was celebrated and colloquially renamed the Taxi de la Marne, or Marne Taxi, in honor of the taxis’ collective service to their country (Figure 8-1, p. 444).²⁵⁹ The AG1 is still celebrated today as the taxi that saved Paris as continued news coverage celebrates the taxi as a cultural symbol that communicates French resilience.²⁶⁰ Stéphane Jonard, Médiateur Culturel au Musée de la Grande

²⁵⁹ British Broadcasting Company (BBC). (2014). Battle of the Marne.

²⁶⁰ Though the taxi’s necessity in the war might be disputed (e.g., Hanc, 2014), Sumner (2010) noted that taxied troops were for reinforcing a flank (specifically the 6e armée) so French forces could not be put at a disadvantage which was essential for their defenses. Either way, the taxi evolved into an important cultural symbol, a part of French history, a story people gather around, and a vehicle through which to pass on French history.

Guerre (Cultural liaison at the Museum of the Great War), speaks about the role of the taxi:

When we welcome school children to the museum, they don't know anything about the First World War, but they know the Taxis of the Marne ... What's important is that at the moment we tell them about the real impact of the taxis, we also explain to them what a symbol is. (Hanc, 2014)

Figure 8-1

Taxis Line Up to Carry Troops in Paris



Note. Keaton, J. (September 7, 2014). Paris hails taxi drivers to commemorate World War I. *The Boston Globe*. P. A4.

This celebration of the taxi presents a significant moment for the relatively new machine. The taxi was celebrated for its actions and because that action lay outside of the typical expected role of the taxi. It was celebrated for the extraordinary

ways taxis adapted to operate outside of their typical boundaries of circulating people through a city. Taxis came to represent the everyman. The taxi's actions helped people to retreat then turned around to help defend the city, linked those fleeing with those defending as if to say that day every person in Paris aided in its defense. The celebration of the taxi was a celebration of the people of Paris. Soldiers were applauded for doing well in a battle, but their participation was expected as a function of their training and position as combatants. The innovation was taxis participation in the first place, that taxis were no more or less saviors of the city than all the other soldiers of varying backgrounds that sacrificed during the war. Bravery is often talked about in terms, not of lack of fear but doing something despite being afraid. We typically (and unfairly) expect that soldiers are conditioned beyond that and nobler, more heroic, are the ones that despite the fear, and lacking in training, find moments to be brave.²⁶¹

Despite its celebration of the moment, military commanding of taxis was not an isolated incident²⁶² nor was it a desperate strategy. As only a short time before the first Battle of the Marne, the French government used taxis and other motor vehicles to transport troops and goods from Paris to Bordeaux, allowing French officials to temporarily relocate in anticipation of the German forces advancing on Paris. A breakdown of the kind of vehicles drove in what numbers the article stated, “The thousand motor cars varying from taxi to limousine have arrived from Paris and

²⁶¹ Over the years, bloggers, history sleuths, and interested parties have taken issue with the accuracy of the statement that taxis saved Paris. But whether or not taxis were in fact crucial to the winning of the battle (which both news and the French people argue for) the accuracy of the claim is indifferent to why the taxi is celebrated.

²⁶² On November 18, 1914, the British used taxis to ferry messages (Lights Lowered, 1914, p. 9).

discharged heavy loads” (Calls 1915 Recruits, September 7, 1914). In addition to acting as a clarion for the French people, it was a mark of resolve that was shared with their allies. A September 11, 1916 *New York Times* article wrote of the ceremony held in Paris honoring the fallen during the war, in which taxis themselves were also honored.

In Paris the anniversary was observed generally. A feature of the celebration was the beflagging of 1,000 taxicabs commandeered by General Gallieni and the critical moment when the battle was beginning, by means of which 15,000 men were thrown into the scale of victory.²⁶³

And in 1917, Boston hosted a day of fanfare for the surviving French marshal of the battle, Joseph Joffre.

Thereafter taxis continued to be used in strategic ways to assist war efforts, whatever their shape. During London’s Second Great Fire spanning December 29-30, 1940, black cabs were deployed as impromptu auxiliary fire brigades, commandeered by the state and providing both the vehicles and the manpower. “The London Fire Brigade ... formed the city’s regular fire service. They were backed up by the Auxiliary Fire Service, the mechanical end which consisted of three thousand small pumpers that had to be towed behind another vehicle, often a black London taxi” (Manchester & Reid, 2013, p. 174). Even before the United States formally entered World War II, taxis in its closest ally were already being deployed strategically in defense of the city.

²⁶³ See *Fighters of Marne join pilgrimage*. (1916, p. 5).

By 1942, Boston had also followed suit (Hennessy, 1917). German U-boats were operating heavily in the waters along the East Coast. There was persistent concern from officials in charge of civil defense that if the United States were to witness an assault by the sea of either bombardment or invasion it would be there. Boston and the surrounding area were a particularly enticing target. Regional Director for Civilian Defense Joseph M. Loughlin noted that Boston was in “Imminent danger of shelling of important installations in or near civilian communities by enemy seacraft” (Taxicabs Serve Vital, 1942, p. 32). More accessible by sea than New York City, Boston as a major city was a source of morale, economic coordination, and martial development. It housed a massive naval yard encompassing almost all of Boston Harbor and more. This naval yard was known during the war for its ability to produce (among other things) a destroyer that specialized in shipping escort capable of defending against U-boat attacks. As U-boats had been one of the largest dangers to allied shipments, they were also the reason for the conservation initiative along the east coast in particular.

In Boston, many taxis had been consolidated into a great civil service fleet by then retired Brigadier General John H. Sherburne. As a colonel, General Sherburne had commanded the 101st Field Artillery Division within the 51st Field Artillery Brigade. During World War I, the 51st participated in the Second Battle of the Marne, after French Taxi fleets ferried soldiers to the front. It is possible that General Sherburne was aware of taxis’ strategic use when he coordinated Boston’s fleets. Yet even in the absence of his awareness of the Marne Taxis legacy, taxi use as an infrastructural resource was very much in the air at the time, first in World War I in

London and Paris, then in the 1930s in the United States for para-police activities (“85 Taxicab heroes decorated by City,” August 12, 1936, p. 17; “95 Taxi Drivers Honored By Mayor,” July 29, 1937 p. 42) and emergency vehicles (“30 Dead, 20 Missing in Pittsburgh Fire at home for aged,” 1931, p. 1), and later as auxiliary firemen during the bombing of London in 1941 (Thompson, 1941, p. 3). What these articles communicate is widespread knowledge of the multifaceted use of taxis. The taxi was used for maintaining and support the existing structure of society, and taxis and ridership acted as extensions of a government authority. In this sense, taxi use can be read as communication of priorities who to service, where, and for what purpose.

Legally emboldened by General Order ODT 21, Sherburne organized major taxi fleets into an emergency transportation force spread across the city (Figure 8-2, p. 448).

Figure 8-2

Taxicab Minuteman



*Your TAXI MAN
The Minute Man of 1942*

TAXICABS

Serve Vital Needs in War Time . .

Taxicabs have a thousand-and-one varieties of calls for their services. Innumerable people on innumerable errands—professional and official errands, industrial and commercial business, personal calls, emergency calls that only a taxicab can answer—all combining into a tremendous traffic flow that is an indispensable part of Boston's public transportation system.

Since Friday, May 15th, this transportation by Boston's taxicabs has increased 30%, directly due to gas rationing and the consequent reduction of private car use.

Emergency Calls

Accident cases, fire signal service calls, hospital cases, police, telephone and newspaper emergencies are handled each day in increasing numbers by the city's twelve hundred cabs. The exact number of these calls is undetermined but they are increasing daily due to gas rationing and tire conservation.

Hospital Calls

Hundreds of trips are made daily to and from Boston's City Hospital, The Massachusetts General, The Carey Hospital, The Boston Lying-in and Children's Hospitals and many others. All hospitals have direct line telephones or other regular arrangements with cab companies for daily service. Hospital calls are usually for convalescent cases, where people are not in real need of ambulance service but still not in condition for travel by buses or rapid transit lines.

Doctor's offices and Clinics place daily demands for cab service amounting to several hundreds of calls a day, other hospital or clinic calls are for people undergoing long courses of treatment which require frequent, regular visits, and whose health does not permit other forms of travel except expensive ambulance service.

Defense Workers

Daily there is an increasing demand for transportation of workers in groups to and from plants and projects. Waterfront workers are being transported between piers in groups to speed shiploading vital to the United Nations supply lines.

Railroad Transportation

Boston's twelve hundred cabs are making four thousand trips per day to and from railroad stations, carrying travelers who, in many cases, are laden with baggage and unable to use street carways. There are eight hundred

trips daily between the North and South Stations, with no other adequate transportation that will insure making train connections. In many cases, heavy baggage is a problem that can be solved only by use of cabs. Many of these terminal transfers are group movements of military or other persons engaged in war effort.

Taxis are an indispensable transportation facility at Boston and suburban railroad, subway and street car terminals. They act as feeders for the Rapid Transit System and provide the only Public Service for sections located beyond or away from existing lines.

Airline Transportation

Boston cabs have been making three hundred trips per day to and from East Boston Airport. Although civilian air travel may be curtailed, taxicabs will continue to make trips to the airport, for army and defense transportation. Taxicabs are the most adequate means of transportation to and from the airport.

Telephone Personnel Transportation

During the rush periods or emergency overtime work, the New England Telephone & Telegraph Company makes frequent use of Boston's taxicabs. This is especially true in late night and early morning hours to afford SAFE conduct for the women operators to and from their work.

**Banks—Newspapers
Government Employees**

Well over one hundred calls a day for cabs come from banks for use of payroll carriers, messengers and mail deliveries . . . all Boston newspapers use cabs at frequent intervals for emergency assignments at all hours of the day and night . . . City, County, State and Federal governmental departments use cabs for transportation, which cannot be satisfactorily handled in any other way.

Assurance of Emergency Transportation

Although many other forms of transportation are taxed to the limit, although gas rationing may become even more rigid—and with tire conservation compulsory—you still may have a sense of security in knowing that a taxicab will respond to your telephone call; if we KEEP THEM READY. Expectant mothers, convalescents, any person who has need of emergency service may have this sense of security just so long as taxicabs are on the road.

—We'll handle the situation for Civilian Evacuation—

Statement regarding the handling of important installations in all war civilian evacuations by means of specially equipped taxicabs, prepared by the Boston Police Department and the Boston Police Officers' Association, in cooperation with the Boston Police Department, Boston, May 22, 1942.

Boston's Twelve Hundred Taxicabs Are Mobilized For Wartime Evacuation

DO YOU KNOW that all independent and company owned taxicabs have been coordinated into a great service fleet by Brigadier General John H. Shurtown, of the Evacuation Division of the Massachusetts Department of Public Safety, and that many taxicab drivers have been trained in the fundamentals of first aid, fire fighting, and civilian defense?

A MILLION PEOPLE COULD NEVER WALK TO SAFETY!

Taxicab Service—An Indispensable Part of the Public Transportation System

The Men and Managements of the Taxicab Industry of Boston

INDEPENDENT TAXI OPERATORS ASSN. MEMBERS 3000	CHECKER TAXI COMPANY MEMBERS 2000	TOWN TAXI INCORPORATED MEMBERS 2000	SAFETY CAB COMPANY MEMBERS 2000
BOSTON CAB COMPANY MEMBERS 2000	FENWAY TAXI ASSN. MEMBERS 2000	FRANK MURPHY CORPORATION MEMBERS 2000	YELLOW CAB CO. & ASSN. MEMBERS 2000
CENTRAL CAB COMPANY, Inc. MEMBERS 2000	KENMORE TAXI CO. MEMBERS 2000	CITY CAB COMPANY MEMBERS 2000	

★ TAXIS CAN HELP DEFEAT THE AXIS ★

Note. Source: Your Taxi Man, the Minute Man of 1942. (1942, May 27). The Boston Globe, p. 3.

As the General Order confined most of the cabs to the city, finding them in emergencies and in good condition because of the mandated maintenance was much easier than corralling civilian cars in unknown conditions, with unknown amounts of fuel, in unknown locations.

Additionally, Boston's new service fleet operations expanded beyond normal activities. As depicted in Figure 8-2, taxicabs were used for hospital calls, defense and military personnel, telephone personnel, banks, newspapers, and government employees, as well as transit to rail and airline hubs. But it was not only that the role of the taxi was altered, it was also the infrastructure to support that role. As media campaigns, ODT regulations, and certificates partly formed an infrastructure supporting the change in the taxi's new role so too did that pattern temporarily shift the role of taxis in Boston. Hospitals and emergency services had direct lines to taxi companies, cabs were endorsed as the best mode of transit for military personnel and to other transportation hubs, and taxis were encouraged as a safety net especially for female workers and even trips.

Taxis were used as much of a symbol of reassurance as they were a vehicle for transport. The article (Figure 8-2) reads: "Expectant mothers, convalescents, any person who needs emergency service may have this sense of security just so long as taxicabs are on the road." Through expanded service, the taxi had been thoroughly coopted for government use and in doing so the government laid claim to the taxi as a vessel of government oversight, protection, and insurance. As much can be seen in

both the imagery and words at the top of the advertisement. The portrait at the top center is of the stereotypical cab driver, what the public imagines the cab driver to look like. Flanking him is a picture of an honored Massachusetts tradition, the recognition of the Minuteman. The Minuteman is a powerful symbol in Boston and Massachusetts at large representing the group of militiamen charged with protecting towns and their people. The Minuteman is a symbol of the American Revolution, of freedom of the country, and of the deeds that earned the freedoms enjoyed because of their services. The image of the Minuteman grounds people in Massachusetts to a history which they are, to a place, a time, and a country.

In these images, the advertisers implied taxi relations with the public are bound by the contours of role and duty. This suggestion was accompanied by the text: “Your Taxi Man [is] The Minute Man of 1942”, cementing the relations between the taxi man and the Minuteman. But it also cements relations between taxi, society, and the state. Not only does the image and word combination invoke sentiments like pride, duty, and patriotism implied by association with the Minuteman, it ties them to that of the government conservation environment. Notice on the periphery the advertisement also had three of the usual overtures of support. The typical push to buy war bonds and stamps, the converted gas, oil, and tires plug are evident in the top left and right corners, and in the bottom, in the text, it reminds the public that taxis have to be kept regularly maintained if they are to continue in their dutiful service as essential transportation to the patriots of Boston.

Late into 1945, even Boston’s taxis were free of the regulations that had initially defined them. But the taxi’s service area had been limited by their networks

and even more so by the expectations of the general public that taxis were confined to those limits still. The change to the taxi's fundamental place in society, wrought by policy and culture of war, remained. Consistent policy reshaped how taxi drivers navigated the practice of their role, how far they were willing to travel, their interaction with and policing of customers all changed how taxi drivers had practiced the operation of their cab. But that might not have stuck without the infrastructure to support it. Public perception of taxis as a government enforcer of their policies coupled with a change in driving culture encouraged people to turn away from taxis for business other than essential, usually short trips and business-related services. Alternatives like rideshare boosted the cultural value of driving both as a social activity and in building the value of individual ownership and as the lights of war faded and austerity policies reverted to allow for normal consumer behavior those changes remained. Without subsidies, car share programs faltered public transportation solutions, again declined rapidly. In the years that followed the United States would spring into emerging car culture, fully embracing car ownership as a value mantra. Meanwhile, taxis' new routines and public expectations in place never recovered the lost dimensions of their roles as recovery would have meant that the public accepted the re-expansion into these roles and that was not the case.

Innovations had sprung up as the taxi's previous market flexibility had left spaces for innovation in places like last-mile delivery. Boosted car manufacturing coupled with an overflow of automobile loans meant that car ownership climbed dramatically. With little need for regular services taken by the car and alternative service take by other innovations, the taxi kept to the major cities, struggling to eke out a living through

short trips with a city. That is where they remain to this day, their role having been defined in a lasting way by the political and cultural landscape of World War II.

Invoking the Minuteman as the taxicab man was an important case of signaling heavily steeped in public discourse a cultural experience with practical and symbolic implications. One, there was practical signaling. By aligning the taxi man with the Minuteman, the public could more easily correlate the performance of the taxi's recognized job of transport with a military authority of wartime evacuation and assistance. Next, was the location. Being local typically meant that a person could navigate a city, which is an expected component for taxi drivers; but being local as a serviceman was usually accompanied by cultural pride. As newly minted emergency personnel the taxi drivers needed the former and were bolstered by the latter and combining the two was designed to gain the public trust through the taxi's competence and authority through its military standing.

The second dimension of signaling was to encourage the public's trust, and that began with service. Addressing public service was essential because, in the years leading to that moment, taxis were not thought of favorably, and certainly not as civil servants. Yet, aligning the taxi's new emergency service role to that of the Minuteman was designed to help create public trust in this new endeavor. A World War I general consolidated the taxi fleets into a 'service fleet' helped legitimize the taxi's place as a form of local defense. Furthering the link was the continued overtures for men leaving the uniformed services to join the rank and file of the taxi service.

These links had other implications. They deepened the public's ties to the wartime government, which in turn further solidified the changes going on to the

taxi's role. The taxi also became engrained a means for reintroducing soldiers to society in the postwar environment. The only problem was that it lacked the benefits of its military auspices. While some of those connections remained intact, such as 'taxi' lines to hospitals, other less savory implications stuck as well, like avoiding certain services to communities not considered valuable. By positioning the taxi driver like the Minuteman, it recognized the unique positions of the driver's facelessness. As a veteran or Minuteman, the taxi man was ubiquitous but also person-less. They were individuals with individual experiences and specific ways of going about their task, some traveling farther for the ride, or being particularly good at navigating the city. New wartime policies ensured exactly the opposite. Instead of individuals, the taxi driver became a standardized operator to produce a standardized experience. Codes of conduct, dress codes, and performance mandates shaped taxi driver into automatons that looked, acted, and drove similarly, and with similar routes. If anything, the facelessness of the taxi driver was even more powerful than before. This ubiquity was an advantage in terms of an emergency evacuation. But it was also profoundly detrimental to the taxi man's representation of personhood. Not only were taxi men more aligned than ever to the agendas of the government, but they also held less personhood as their operations, features became more generic. The taxi driver's significance in the person, artifact, and social role amalgam that made up the essence of a taxi was on the decline.

People no longer had to negotiate with the personhood of the driver, individual, interests, chattiness, good, bad, or rowdy driving as they all looked and operated the same. Yet, the accumulated technique associated with the role is always

expected, but the personhood of the human behind the when became less invested in the idiosyncrasies that make up the person, and more in their necessary operation of the machine, in performance of the taxi role.

8.1 Tradeoffs

One of the most significant moments in the making of the modern taxicab was the emergence of its role into the form we recognize today. The short distance business-related use of for-hire transit was a byproduct of political relations which determined that limiting the role of the taxi was necessary for the task of conservation that fit into the political agenda of the moment. Movement, oil interests, and automakers alike did not specifically target the taxi uniquely, but rather the taxi as a for-hire transit and other public modes of transportation were targeted instead of the public. This was as much of a public relations move as a conservation one, especially after the cacophonous reception of voluntary austerity programs and the damage it did to Harold Ickes' public image and negotiating power on behalf of the Roosevelt Administration.

But its nature as a byproduct does not diminish its longstanding impact on the future of the for-hire industry. Like rideshare resurgence and interest in privatized vehicle ownership, the changes and tradeoffs produced by the shift in the taxi's role reverberated throughout the industry. Neither good nor bad, "tradeoffs" can be thought of as the difference between the taxi's relations with society pre-World War II, and those during and after the new regulations and cultural shifts that first provoked then instantiated that taxi's changing role.

Some of the more apparent tradeoffs were those to the taxi service itself. Before the war and conservation initiatives, taxis had relatively free reign on how many resources they used. They could drive for however long they want or deemed necessary. At the onset of the war things like ‘deadhead’ (driving without a fare) and ‘cruising’ (driving around areas in search of fares) became a political problem as the focus was strategically turned to uses and misuse of resources in a time of forced rationing. According to the ODT this created dramatically less wasted resources. But it also decreased the need, value, and use of certain driver techniques previously necessary for survival. Taxis had to develop strategies based on their rarefied knowledge of the city. Minimizing things like deadhead and cruising required knowing the flow of people in the city to best position the cab for pickups and minimizing downtime. Necessary to this was also knowing the city they were in which allowed drivers to judge how long certain fares would take. This internal calculus became necessary for drivers to plan to minimize the amount of time fare-less.

This assessment skillset has been and continues to be a constant source of tension as drivers are repeatedly criticized for refusing a fare that would position them too far out of the way of the flow of the city, lessen their ability to find another fare quickly, or take them to a more dangerous area of town. Yet refusing a fare has been illegal in most cities including Boston since the early 1900s, and many drivers have been caught doing it because of inefficient earning potential (Owen, 1943, p. 160-161). Hallinan (1966, p. 30) wrote that cabbies refused to help her change a flat tire because they were waiting on fares from an incoming airplane flight. Flights were often seen as guaranteed profitable ventures because of the long drive and the cost of

the trip back built into airport fares—thus, no deadhead and no passenger. Even after offering to pay for her fare home, three cab drivers turned her down, and only after offering to pay the fourth did she receive help changing her tire.

The elimination of long-distance fares and cruising removed some of the benefits and judgments necessary for this internal calculus. Though as Owen's account illustrated, the calculus for some became hyperactive, and exhaustingly so, with the introduction of a constant presence of profitable short trips, readily available at taxi stands. Cruising and long hauls also served as an essential mechanism of taxiing flexibility, both as a professional mechanism and check on personal health. Constantly pressed with an awareness of the clock's relation to their profits, drivers pushed themselves to the point of mental distress. Cruising and deadhead from long-haul drives served some drivers as an essential moment of respite. Yet, with the consolidation of taxis to city centers and the constantly on-expectation of drivers and owners, those moments of needed self-care became elusive.

While the opportunity for self-care was reduced, some aspects of public safety were increased. Wartime regulation mandated the consistent maintenance and upkeep of taxicabs so that they were in good and safe working order. In addition to keeping them available for emergency military use, this made taxicabs safer and more reliable on the road. Before the war dingy cabs were common either from an owner unwilling to pay to have them kept well or the driver unwilling to set part of his very meager earnings aside to keep the car clean and functioning well. The regulation that set regular maintenance schedules and the Certificate of War Necessity required regular checks make such upkeep mandatory, improving both cleanliness and public safety.

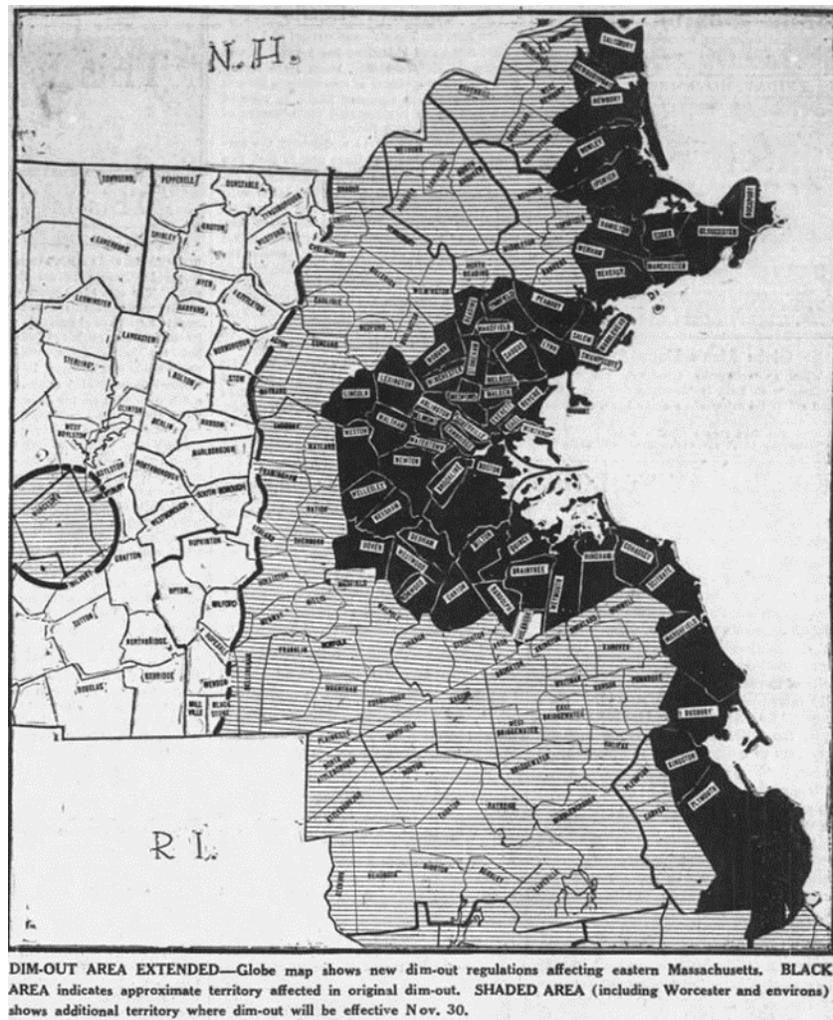
Interestingly, these regulations petered out at the end of the war, though other mechanisms have since risen to take their place such as hotline numbers to report a dirty cab, and evaluation systems to rate everything from cab cleanliness to driver friendliness to quality of driving.

8.2 The Dimout

Not all new regulations increased public safety. Many drivers complained of the hazards of the Dimout and developed specific techniques and skills to compensate for the change in environment. Many cities on the East Coast like Boston and New York experienced a 'dimout' period every evening during the war (Figure 8-3, p. 458). The dimout was a dimming or limiting of light from streetlights to home lights to headlights during the evening (Official Dimout Regulations, 1942, p. 21). The purpose of the dimout was to protect ships from attack. The concern was that U-boat periscopes could see the outline of ships when sent against the backdrop of a well-lit coastline. The parameters were relative to sunset and the protocol was to dim lights 30 minutes after sunset until 30 minutes before sunrise.

Figure 8-3

Dimout map, Official Regulations



Note. Dimout map, Official Regulations (1942, November 20), p. 21.

For taxis this meant the creation of new risks and with that came the creation of new techniques. Already the streets were packed with the consolidation of taxicabs to major city centers. These new regulations did not spare drivers, many of whom

were taximen. The new regulations read “all automobiles operating in the area must have their headlights permanently blackout across the upper half and motorists cannot drive with these dimmed out headlights and faster than 30 miles an hour” (Official Dimout Regulations, 1942, p. 21; Dimout map, Official Regulations, 1942, p. 21). Clearly, policymakers knew that such a task as blacking out the tops of all headlights would introduce problems of safety, but at the same time, they could not afford to stop traffic completely. The compromise was putting a speed limit of 30 miles an hour. Cab drivers whose reputation and expectation was based on the efficient, if at times reckless, use of streets, speed, and savvy to ferry people across town were especially vulnerable both to accidents and the mental strain and constant input from passengers. In an interview, one driver remarked,

The dimout bothers some drivers. Most of them take it in stride, but there are others who think it’s too dangerous to go over 20 miles an hour ... Then there was this man who had hit a drunk. The drunk stepped out from behind an elevated pillar and the driver hasn’t recovered from the shock.

But the driver also recognized how frequently it happened:

It’s a bad feeling when you hit anybody, you know? ... The first time I ever happened to me, it wasn’t my fault, but it made me feel funny inside. And it if hadn’t been for the dimout I wouldn’t have hit the poor guy. (Owen, 1943, p. 18-19)

Despite efforts, car-related accidents were frequent. By December 1942, Boston was experiencing up to 18 deaths a week, 13 of which were pedestrians. *The Boston Globe* reported the total car-related fatalities in Massachusetts reached 476 (13 Pedestrians

Killed, 1942, p. 11). Yet, despite the grizzly reality of driving with partial headlights, some of the techniques were insufficient to combat the hazards of the material environment. Though the number of civilian deaths was decreasing during the day they were increasing at night (Pedestrians Given Blame, 1943, p. 11).

Part of this 'work' being accomplished here for the taxi driver was a combination of becoming more aware of trouble spots and weather conditions that made the dimout more difficult to navigate. But driver awareness was not enough and soon this work was extended to the general public as pedestrians had to adapt and adjust expectations around urban navigation. Interestingly, however, neither the taxi amalgam nor regulating institution held blame (despite drivers suffering the mental repercussion). Rather the fault was determined to stem from the carelessness of pedestrian activity.

In a similar way that local and federal regulation sought to partially automate the taxi amalgam's task of driving by defining where and how far they could travel, the local administration turned its regulatory gaze on pedestrians in an effort to also automate their interaction with society. For their own safety of course. By 1943, other solutions were being tested. Those include making it illegal for pedestrians to cross streets other than at intersections, asking pedestrians to wear white when traveling at night, drivers needing to mark out special time to allow their eyes to adjust when coming on shift or from a more brightly lit area, and introducing extra cleaning protocols for windshields (Pedestrians Given Blame, 1943, p. 11).

This indicates that the work which was necessary for taxis to safely navigate city streets during this time could not rely on technique alone. An infrastructure of

protocols, laws, techniques, and support from drivers, fares, police, officials, and pedestrians was necessary to make it function, and even then, it was still a perilous undertaking and accidents happened frequently. And not all of the ‘work’ was the acts of people working together, rather it was against each other. One large hurdle was pedestrian cooperation. Despite the urging of public officials to cross at intersections and wear white at night, pedestrian jaywalking continued to be a problem (Non-Cooperative Dimout Walkers, 1942, p. 17). Other issues were the lackluster participation in the dimout by industrial factories with only 45 percent adherence, and small storefronts with 50 percent adherence (Dimout obedience spotty, 1943). But without a penalty mechanism in play, the ‘work’ of negotiating adherence was difficult to enforce and left to the individual and few dimout enforcement officers. The ‘work’ here was not limited to the streets and the navigation of driver perception, technique, and civil safety compliance. It was much broader, occurring across industry²⁶⁴ and legal networks, in everyday practice²⁶⁵ in political discourse.²⁶⁶

Work is messy, hard, and at times tragic. Even with these provisions and observations, the dimout presented an unsafe reality for the driver, passengers, and pedestrians alike. Yet, the taxi’s task was not accomplished alone. It needed an infrastructure, each with their work going on of which the taxi was only a part. They had to clean windows, travel in pairs, pay particular attention to dark spots, and give

²⁶⁴ In terms of industry it was not only adherence to dimout regulations that was part of the broader ‘work.’ Industrial organizations encountered similar tensions. Not only were they expected to work constantly at full capacity, but they were also expected to do so in the dark.

²⁶⁵ In this sense the everyday driving and hazards of navigating the streets under these conditions.

²⁶⁶ The Massachusetts Safety Council met over a two-day period in March 1943. Discussion included the dimout and possible solutions that could include motorists, pedestrians, and traffic officers (Pedestrians Given Blame, 1943, March 30). Other examples included districts conducting dimout tests with police assistance (Weston Conducts first Dimout Test, 1942, December 15, p. 35).

their eyes time to adjust when getting in the cab or coming on duty. But this was only part of the issue. There was an infrastructure of concern that included drivers, passengers, pedestrians, policy, engineers, politicians, and a host of artifacts, lights in particular, that participated in the relational arrangement to the taxi that contributed to the shaping of drivers' technique.

8.3 Politics

Where the early work of emergence made taxis' standing in society uncertain, World War II legislation made this a more certain object. The shift to uniform regulation that began in the 1930s was a product of that uncertainty. Fare gouging, bribery, violence, or other illegal activity was a problem that regulation sought to solve. But the problem persisted. The Great Depression was a desperate time for folks trying to make a living wage. And the fare wars brought renewed hostility and tensions within the taxi industry and their relations with the public. It was not until the dually occurring shifts in regulation and cultural practice cemented the change in an otherwise unruly industry did the regulatory change fully take. Before that moment, Boston taxis were certainly more attached to the police department like an unruly child in detention, but as long as the public kept seeking the taxi for certain services, there would be taxis to provide them. Regulation that changed the taxi and the regulation that encouraged shifts in cultural practice around taxi use helped calm that uncertainty.

But what were the tradeoffs for legislation? For the federal and municipal governments, the tradeoff was ultimately about greater control of driver agency, resources, and the public. At the cost of circulating people throughout the city and taking away the freedom of drivers to waste resource, the negatives were comparably

minimal. Fewer people were circulating through the city, driving and spending money which are acts typically seen as economy-boosting. But at that moment the government was focused on the continued survival of the economy, not affluence or the perception of it for the middle class. For the for-hire industry what the government gained was the near automation of taxi driver behavior, regularly maintained vehicles that promoted greater safety reliability (which in turn needed fewer replacements parts and fewer wasted resources), a potential fleet of the well-maintained cars in case of emergency, and overall more predictable for-hire public transit resource. In terms of the public, the tradeoffs were also favorable. Again, the cost was superfluous driving and a waste of resources doing tasks not essential for the war effort. And what they got in return was a greater public dedication to the war effort and the ability to cut large swaths of nonessential people from public support structures²⁶⁷ which in turn decreased the burden of resource output for the government and reduced overall demand resources for infrastructure repair as people were directed between home and work. The other benefit afforded by the commandeering of the taxi industry was that now taxicabs were amplifiers of the government's message to the public. By upholding new regulations about travel, where to travel, and how far the taxi extended the practice of regulation. By questioning the motivations and movements of their potential passengers (e.g., asking are you riding for leisure?) and reporting on civilians' and other drivers' misbehavior, the taxi industry was turned into a policing extension of these policies. Lastly, by segregating parts of areas deemed nonessential,

²⁶⁷ Not to mention being able to define certain segments as non-essential in the first place under the guise of military legitimacy and not by race or economic disparity, which this decision parallels, was also convenient for the conservation of resources

based on their contribution to the war effort, regulation could conveniently lay the blame for discriminatory policies at the feet of the drivers that performed the task of driving, but more so performed the task of not servicing low-income communities. No doubt as actors the taxi amalgam participated in the effacement of vulnerable communities, but unfortunately, as the articulating arm of for-hire policy, they unfairly shouldered that responsibility alone. The strategy allowed regulators to accomplish their goals of resource conservation, while simultaneously distancing themselves from the responsibility of making discriminatory policies that disadvantaged low income and low population income. The other implication of this was that these new arrangements built-in structural inequality to the performance of a for-hire as a public good and sutured that inequality beneath the surface of taxi service. It was easy to observe at the time that taxis neglected these areas, and the conclusion determined by the media coverage was that it was due to the greed of the drivers themselves.

From the public perception taxis, on the one hand, had been absorbed into the wartime political machine. On the other hand, they were afforded none of the protections and authority typically extended to employees of such a machine. The municipal government had control and freedom to use taxis to carry out a regulatory policy while easily also using them as scapegoats for public resentment and mistrust. Meanwhile, taxi drivers had little recourse. A large pool of jobless people willing to drive meant driver jobs were highly sought after and the individuality of drivers was unnecessary. Along with other modes of effacing the driver, the nearly endless supply of people willing to operate in the no-man's-land of taxi driving was another means by

which regulation distances the personhood of the driver from the performance of the taxiing role.

The tradeoffs for the public were different still from the tradeoffs experienced by those in the taxi industry or perceived by regulators. Interestingly the public never really lost the freedom to the driver because personal vehicle ownership by the middle class would not become marketed and available until after the war. The point was that the public was encouraged like that felt like they lost this privilege to create value in personal vehicle ownership, and a prospective market for customers who were flush with inflation cash, and a country afraid of falling back into depression in the postwar environment. Frohardt-Lane (2012) made this complicated argument well. She argues that the political campaign first created the problem of having to give up the right to own and drive a vehicle so that when the government took it away, the public felt like they were participating in the sacrifices necessary for war. She also noted that this was, of course, in line with strategies to make driving a valuable commodity as carmakers positioned. In this, at least for the public, there was not as much of a tradeoff here as there was a belief in a tradeoff.

Of course, there were other tradeoffs in place in terms of ‘sacrifice’ like food and resource austerity and other conservation programs. But concerning driving or the use of taxi’s the tradeoff was in transition from for-hire to private ownership with rideshare sitting somewhere, briefly, in the middle. Initially, the public looked to taxis to provide personal transportation services for short trips, vacations, regular deliveries, and other uses. During the war, the taxi was no longer allowed to provide these tasks because they were deemed a wasteful use of scarce resources. Meanwhile, the public,

through propaganda posters, film, and radio encouraged the electively give up those ‘wasteful’ activities and sacrifice for the war effort. So the general public stopped looking to taxis to provide those services. This left a void in the service area, a task society needed filling and had no one to fill it. The intimate partnership between regulatory bodies and car manufactures left these manufactures in perfect positions to leverage the public need in the interest of personal vehicles. Heitmann (2018) wrote, “For the automobile industry meeting the pent-up demand from consumer who had not been able to buy new cars since earl 1942 was an unprecedented opportunity” (p. 145). The tradeoff was from one form of transportation to another and bringing with that a sense of earned entitlement in the freedom to drive, facilitated by the perception of sacrifices made during the war.

For taxi drivers themselves, the tradeoffs shifted position, but not necessarily empowerment. There was a kind of assurance in the certainty provided by regulation. Taxis became articulating arms of the federal institution, but that was only a change of master. Before that, according to Hazard’s (1930) chronicle of work taxis, and their drivers were subject to the sometimes criminal and frequently exploitive agendas of their, often abusive, fleet owners. Gilbert and Samuels (1985) frequently refer to the taxicab as a *survivor* of the times and conditions to which it is subject. Yet, despite these conditions, the taxi perseveres, but it is rarely in control of its destiny. While that is not the most uplifting description, there is a hopeful tone that acknowledges some essential facet of the taxi’s role that perpetuates its survival. But given how the driver itself is automated and effaced by policy and artifacts, I am not convinced that drivers

will survive the next iteration of politically or technologically induced effacement, and if the prescriptions about autonomous taxis come true that will certainly be the case.

A large loss of revenue for taxi drivers in the 1930s and 1940s was the slow loss of regular fares. As war legislation limited taxis to business-related trips, people stopped using them for regular communities to places of leisure, deliveries, and transit from the suburbs. However, this loss shifted form and emergence anew as drivers and passengers adjusted to the new, if crowded, realities of wartime city life. New policies had centralized taxi drivers to city hubs. This centralization of drivers in a single place brought about a resurgence of the regular fare: for some any taxi would do, but for drivers willing to cultivate relationships that could mean the difference between a fare and no fare. While this was not essential, as taxis reportedly had more work than they could handle, it was indicative of the new changes in competition. This surplus of work was not always beneficial to a taxi industry coming off the high competition and low wages of the 1930s. Many cab drivers felt compelled to stay on the clock all the time. While during the fare wars and depression years taxi drivers had to work long hours to barely make a living, now many felt that they could not pass up opportunities in case the high competition market returned. Some drivers, wrote Russel Owen, developed the "wimpies," a constant feeling of on edge or jumpiness from working all the time. Some of these drivers would have to take a break deliberately getting in the back of a long line so they had to take a break from the overwhelming constant demand. Other drivers got 'hungry.' Opposite to the wimpies these drivers became aggressive and competitive over how much money they could make compared to the day before, or their fellow drivers (Own, 1943, p. 11).

Throughout the shift in public expectation in taxi use and the legislative shift in taxi operation during the 20th century, the scaffolding of taxi's place in American society remained unchanged until a new vision of for-hire transportation emerged in rideshare companies like Uber. The industrial for-hire ritual has remained largely the same across transportation options despite technological advancements and change in driver decision making. In the next chapter, I articulate how emerging for-hire companies like Uber have been unable to evade the formative influence of the built environment's involvement in the production of unequal access and the practical realities of company operations in a society that still holds productivity and efficiency as paramount.

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CHAPTER 9

9 A REFLECTION OF THE SOCIETY IT SERVES: UBER AND THE AUTONOMOUS TAXI

9.1 Introduction

Emerging in 2008 as UberCab, advocates for the ridehail company presented its emergence as a positive disruption of the taxi monopoly under whose poor services the public had languished for nearly a century. Yet emerging rideshare like Uber and future for-hire transit like the autonomous taxi seem unable to escape the shaping pull of a built environment's legacy of unequal access. In this chapter, I explore the still unfolding tensions between promises of equitable access and the realistic demands for profit in a modern capitalist society. Using popular discourse, personal interviews, and participant observations during weekly discussion group held over three months, I illustrate not only that emerging for-hire companies like Uber are mired in the continue structuring of unequal access, but that future, yet to emerge companies building the autonomous car are designed to work within the systems of inequality as they exist now, and not for some alternative emancipated future, thereby reproducing tensions around unequal access and its participation in fostering an unequal society.

I approach this exploration first temporally situated in the present and then within city and technological plans for the future. First, I illustrate the tension between Uber's public campaign against racism and its dynamic pricing algorithm's utilization of Boston's urban landscape designed to produce unequal access thereby reproducing it. Second, I explore the future of transportation in Boston from both a city

development perspective and ethnographic work around monetizing the autonomous taxi in ways that not only reproduce unequal access, but also consider capitalizing on it. I then discuss the implications on building equitable access in the future as it intersects with implications for the taxi amalgam, industrial ritual, and its place in the built environment.

9.1.1 *Uber*

Keen to profitably integrate new forms of for-hire transportation into society, contemporary companies like Uber and emerging autonomous taxi companies model the use of their own for-hire systems after the established elements of the taxiing ritual. Transportation network companies such as Uber and Lyft have built ridehailing application platforms that shift the interaction from a communication between passenger and driver to one between passenger and institution. These apps (a term applied to the companies as an extension of the front-end user interfaces through which potential riders interact with them) seemingly automate the ritual's elements of hailing, destination setting, and payment while also providing navigation, recommendations, and other augmenting services. Uber's dynamic pricing algorithm is one such example of this shift in both communication and labor, calculating the cost of the fare without the driver's involvement. A practice once dependent on driver-passenger communication, the driver is now relegated solely to the operation of the vehicle, and social interaction is no longer essential.

Uber designed dynamic pricing — a calculation of several values that determine ride cost — to reflect the activities, needs, and environment of the locality

where its app is used to hail a ride (Uber Blog, 2019; Chen and Sheldon, 2016). But it would be a mistake to characterize this process as purely algorithmic; to do so obscures the coordination of interfaces, databases, algorithms, and human decision making that are themselves compiled from and reflective of activities in the world. Dynamic pricing is the activity of calculation that results in a determination about the acceptable cost of a ride. This activity is not one process, but a coordinated effort involving Uber (and associates), drivers, riders, and the local cultural, legal, and material environment.²⁶⁸ Although the calculation of dynamic pricing is compiled and distributed by algorithms that render the cost of the ride visible to users through the Uber app's interface, it is also catalogued, sorted, and stored by Uber to keep a record and to help calculate further dynamic pricing.

In a 2018 talk, Dawn Woodard, Uber's senior director of data science for platform technologies, explained that dynamic pricing and rider–driver matching are intimately connected by key algorithmic inputs involving rider demand, driver supply, geographic distance, and navigation of im/material roadway networks. Using supply and demand graphs from an Ariana Grande concert, she described surge pricing — one dimension of dynamic pricing — as a proportional rise in the cost of rides when the expectation of supply goes up to encourage more drivers to accommodate the ride requests; as the need for rides falls, so does the cost and availability of drivers.

²⁶⁸ According to one employee of a ridehail company, the full scope (e.g., considerations, values, factors) of how these prices are determined is proprietary and not available to the public (personal interview, August 2018).

Pricing fluctuations are also linked to the flows of city life. People commuting to and from work during rush hour experience these price adjustments. The material infrastructures and social flows of daily life that condition interaction in the urban landscape are largely treated as stable categories around which Uber calculates the cost of demand and the value of supply.

9.1.2 Problems?

Yet, academic and public discourse is increasingly noticing occurrences of unequal service despite Uber's claims of algorithmic, programmatic, or institutional neutrality. As critiques of algorithmic neutrality Mager (2012) and van Couvering (2010) both propose algorithms embed the priorities of capitalism into their functioning. For example, news coverage of Uber's unwillingness to pay their drivers living wage, denying drivers insurance (Mishel, 2018), and refusing to supply protective gear during COVID-19²⁶⁹ are not new problems, but newly interesting problems.

Gillespie (2014) further suggests that algorithmic logic balances the wisdom of the crowds with individual expertise by echoing knowledge, and the voices of knowledge producers, that the public has already ratified. But, he argues, this does not mean algorithms are objective relayers of information: "though algorithms may appear

²⁶⁹ This includes Proposition 22 passed in California in November 2020. Rideshare, Uber, Lyft, and Doordash collectively spent more than \$200 million in 2020 lobbying and advertising for its passage, which allows them to classify drivers as contractors and pay only for the activity of driving (Menezes et al., 2020; Bond, 2020).

to be automatic and untarnished by the interventions of their providers, this is a carefully crafted fiction” (Gillespie, 2014, p. 179–180).

Public perception of algorithmic objectivity is discursively cultivated in a way that portrays algorithms as impartial arbiters of information. Meanwhile, the interests of algorithmic providers play out in the algorithms’ role in business practices. Google is not alone in doing this; Uber and other rideshare companies insert algorithms into the for-hire built environment to replace human decision making that would otherwise regulate ritual admittance.

Alternatives to the taxi, including Uber, enter the public discourse as solutions to problems that people experience with the taxi industry — poor service, inefficiency, mistrust, and discrimination. Uber representatives promise that through the neutrality of its algorithms, for-hire service will be more efficient, reduce costs, increase safety, and above all provide more equitable access to transportation because of the intervention of technological activity into previously socially coordinated practices.

But that does not always seem to be the case. Uber’s landmark safety report demonstrates pervasive abuse directed toward both drivers and passengers (Uber, 2019). The report and other studies find that people of color wait up to 35 percent longer to be matched with a driver (Ge et al. 2016; Brown, 2018; 2019), people of color and LGBTQIA supporters²⁷⁰ are more likely to have a ride canceled on them (Mejia and Parker, 2019), and disabled people experience both cancellation and longer

²⁷⁰ In Mejia & Parker’s (2019) study, support was indicated by users displaying visual characteristics in their Uber profile such as rainbows, flags or other LGBTQIA symbols.

wait times, at higher rates, than non-disabled people (NYLPI, 2018; 2019). Ge et al. (2020) found that minorities faced identity discrimination and additional travel time to and from non-White neighborhoods. Studies like those of Pandey and Caliskan (2021) and the NYLPI (2019) note that disabled people faced higher costs and long waits, irrespective of where they travel in major cities like Boston, Chicago, and Seattle.

As many of these studies suggest (e.g. Ge et al. 2020; Brown 2019), in step with Uber's own report (Uber, 2019), discrimination within the for-hire ritual primarily comprises individual acts of deviance perpetrated by drivers and occurs against institutional norms (see also Lunsford, 2020). Meanwhile, ridehail company representatives respond to discussions of algorithmic bias or discrimination through publication (Pandey and Caliskan, 2021) and in popular news (e.g. Lu, 2020; Marcos, 2020; Cowen, 2020) with claims of malfunction, mistake, or programmatic error, also citing variables not made public in the calculation of dynamic pricing. Two comments by ridehail company spokespeople help illustrate this point (Lu, 2020):

Uber does not condone discrimination on our platform in any form, whether through algorithms or decisions made by our users ... We commend studies that try to better understand the impact of dynamic pricing so as to better serve communities more equitably.

We [Lyft] recognize that systemic biases are deeply rooted in society, and appreciate studies like this that look to understand where technology can unintentionally discriminate.

Careful consideration of the language used here recalls Gillespie's (2014) notion that public cultivation of institutional and algorithmic neutrality is a fiction. There is a strategic distancing of relations by the spokespeople from both the performance of the technology and the activity of discrimination. Lyft comments on the activity as a product of an unequal society, with the algorithm — and, notably, not the institution which built and maintains it — unintentionally performing acts of discrimination as if it were capable of decision making outside of its programming. Uber first maintains the separation between the location and the activity of discrimination, while calling into question the perpetrator of that discrimination as human instead of algorithmic. This strategic phrasing similarly conditions the algorithm as a free agent, compared to a misbehaving user, also introducing the possibility that discrimination was not algorithmically incited at all and thus shifting the responsibility for the act if not fully to the user, then at least away enough from the algorithm to consider it possibly blameless.

Commenting on dynamic pricing bias, Christopher Knittel, co-author of Ge et al (2020), stated: “A lot of this is a learning process, and you can't expect these companies to have everything perfect right out of the gate” (Newcomer, 2016). Before committing to the idea that ridehail institutions are a fully machinacious enterprise, any such determinations should be tempered with the knowledge that there have always been people willing to force systems to do, say, or perform something other than intended. Examples include when a user changes their handle to a racist slur, trying to get Uber's chatbot to broadcast it (Lifshutz, 2019), or to make something more

algorithmically recognizable (Gillespie, 2017) to shift the field of popular discourse in exploitation of computation decision-making.

However, ridehail companies' desire to shift the responsibility from institution to driver is not only about the strategic cultivation of a neutral public image. It is also about building public confidence in the institutional regulation of taxi access. Public mistrust as a strategic tool for technological advancement has converged neatly with the gradual automation of taxiing service and the erosion of social dependencies bound to for-hire service. For hundreds of years, the practice of for-hire transportation has been governed by a social process — however imperfect or problematic — with institutional influence quietly nested in the background. The transition Uber is asking the public to make is not only toward algorithmic (and through it, institutional) decision making, but also away from human decision making. Undermining public confidence in drivers as acceptable, reliable, or responsible regulators of for-hire access strategically motivate the public's use of for-hire transport toward ridehail companies.

As I have demonstrated throughout this dissertation Uber is certainly not the first to exert institutional control over for-hire service. Hackney horses in the early 1400s could be commandeered by the king at any time as a messaging service. In the 17th century, the for-hire hackney carriage and coach were regulated out of existence several times over concern around their literal and economic elevation of the middle class to higher standing, citing not that shift but rather drivers' recklessness and the wear on city streets as the impetus for political vehicular restraint. Longstanding

public mistrust over drivers' unequal regulation of access (of which even Charles Dickens wrote) was mitigated with the invention of the taximeter, whose automated fare calculation was promised as a public salve to the actions of unscrupulous driver, so much so that political authorities at the time mandated their use on public rides.

In the early 1900s the taximeter interceded in the human task of fare calculation. By the 1930s, rhetoric around drivers' physically or morally abusing the public confidence was deployed to further automate driver behavior through regulation. To "control" Boston's raucous taxi industry, the mayor seconded it under the hackney carriage bureau of the Boston Police Department, an act that, in turn, further automated the activity of taxiing through comprehensive regulations that dictated everything from drivers' appearance to how and where they were allowed to interact with the public. During World War II, as drivers were legislatively consolidated to city centers, popular newspaper coverage saw the moment as an exemplar of their greed and called for lower prices, while federal and local regulations had labeled the drivers as resource-wasteful and limited tire, gas, oil use, and travel distance. For the next 50 years, the industry and the complaints against its drivers remained the same. It was not until the emergence of Uber that the public interest in driver misbehavior was recaptured. It was upon that framework that Garrett Camp, an Uber founder, pitched its app as a "clean" replacement to the messy, unreliable, unsafe normality of the taxi industry (Camp, 2008).

The promise of more equitable access, reiterated by the Uber spokesperson, has long been a purported goal of transportation innovations. Historically, this promise

has not been about wholesale emancipation so much as about emerging for-hire services' ability to make do in the current environment and improve it through increased access for society. Captain Bailey (Chapter 3) commissioned carriages to give commoners access to expanding city terrain in the early 1600s; half a century later, the new merchant middle class used it to find a measure of parity with the British nobility. By the early 1900s, Henry Ford wanted to produce a car at such a low cost that every working man could afford one (Chapter 4), and early 20th century taxi magnates such as John Hertz of New York, Morris Markin of Chicago, and Frank Sawyer of Boston (Gilbert and Samuels, 1985, p. 39) sought taxi fleets financially accessible enough that the working public would adopt their use.

The promise was reiterated in the taxi's strategic consolidation for emergency use. During World War II, the activity of taxiing was redefined through both regulatory control and a change in public expectation around taxi use. The role that was reborn from the war promised efficient, reliable, uniform, and uniformed service for anyone busy enough to need it. Still bearing the regulatory baggage of the 1930s and 1940s — alongside a shift in public expectations of use — an outdated taxi service built to furnish a long-finished war limped into the 21st century. Here the promise changed bearers from taxi to ridehail. Just as it did at the turn of the 20th century, when the growing popularity of combustion automobiles first rode horse-drawn carriages from their position of market dominance, and then ate them once wartime austerity set in so, too, did the meteoric rise in popularity of ridehail consume first the taxi industry's customer base and then take many of its drivers. Uber's promise was the same: cleaner, cheaper, more efficient. Uber, followed quickly by Lyft, promised

solutions to the problems, awkwardness, and inequalities inured into taxi service by deviant drivers. The promise of emancipatory technology in an app, where the freedom was not from institutional oversight but the drivers themselves as misbehaving adjudicators of otherwise scrupulous institutional interests.

9.1.3 Problems by design

Despite adjustments to algorithmic calculations, corporate policies, and driver practices, reports of unequal access for Black people (Pandey & Caliskan, 2021; Ge et al., 2020) and disabled people (NYLPI, 2019) in contemporary cities remain firmly anchored to the for-hire industry. Here, Lyft's spokesperson made an important observation that the relations between the structure of society and for-hire service can still produce the conditions for unequal access. Although ridehail companies such as Uber and Lyft have managed to sidestep the regulatory baggage of the taxi service, they could not dispense with the fundamental, codetermining relationship the for-hire ritual has with the built environment. The introduction of apps may have shifted the activity of hailing, payment, and navigation from a social relationship with a driver to a set of institution relations bound by terms-of-service contracts, but it did not dispense with for-hire's anchoring of physical activity to an urban landscape — one that has been strategically designed to limit access to society by Black and disabled people.

The design of the urban landscape to regulate access to transportation, and through transportation to society was strategic. With the help of architects of the City Beautiful movement, Chicago's elevated train line was built with the promise of better access to the World's Fair's White City for upper- and middle-class fairgoers,

meanwhile denying access to Black and poor residents based on both lack of financial opportunity and limited physical access. The only alternative to walking, which was dangerous, was to hire a carriage, and that was economically unreachable. As Chicago grew, infrastructure continued to benefit upper-middle-class parts of the city, dovetailing with national legislation that Chicago could legitimately limit access to housing and loans based on people's perceived economic status. Denial of opportunity fed further denial of opportunity, perpetuated by limited infrastructural investment and discriminatory working and loan policies whose greatest proportional impact was on inhibiting the social and financial mobility of Chicago's Black citizens.

Over a century later, Pandey and Caliskan's (2021) study of 100 million rides in Chicago found that the relationship between Uber's distribution of ridehail services and the city's residents was still facilitating unequal access to society. They found that Uber's pricing algorithm charged Black and poor people more, especially if they lived in low-income and low-infrastructure areas; beyond being charged more, that charge took a proportionally higher percentage of their income, just as it had done in the late 1890s and early 1900s.

Chicago's White City (Chapter 5) was a proof of concept before more formative changes were undertaken. Olmsted and the influence of the City Beautiful movement helped design and advise on Boston's emerging transportation infrastructure and expanding urban landscape. Charles Zueblin, City Beautiful advocate, and prominent public urban design figure, commented on the successful transition to Boston:

The metropolitan park and transit systems [of Boston] represented the solution of problems more complicated in several respects than those solved by the World's Fair. They were applied not to one community but to many, were applied permanently instead of temporarily, and were but the extension of a movement for municipal cooperation that had already taken form (Zueblin, 1905, p. 82).

By the 1890s, the Massachusetts Transit Commission was designing mass transit for the city. At the same time, new housing policies and projects were being initiated. The City Beautiful movement, reshaped as City Planning, was again executing plans that shaped access to urban transit and housing based on expected productivity, which usually favored White upper- and middle-class Protestants. Similarly unequal policies limiting access to jobs and locations to live hemmed Black, disabled, and other minority communities into Roxbury, Dorchester, and other low-infrastructure areas of the city. The Transit Commission established mass-transit routes around these low-infrastructure areas and into wealthy areas of the city — and into upper- and middle-class suburbs as the city expanded — reinforcing the social order by facilitating access for those who already had it and limiting access for those without.

Once again, the taxi was made an essential avenue of transportation for people who could not use it. Redlining and job discrimination prohibited Black families from accruing wealth, Black communities from funding needed services, and Black businesses from operating profitably. Though essential for accessing opportunity in

the city, taxis would have been nearly impossible to fund. Meanwhile, disabled people, seen as social burdens, were locked away with family or institutionalized — joined by members of the Black community and the publicly outspoken — denied economic, physical, social, and political mobility (Chapter 5).

Harold Ickes' study of the potential economic viability of the United States, which informed the distribution of resources during World War II, included a section titled "Institutional resident not included." There, he justifies the writing out of institutionalized people as unable or unworthy to participate in the war effort. When Ickes became head of the ODT, he took national control of transportation fleets including taxis. It was Ickes' office that not only consolidated taxis to central city areas to best assist the people working toward the war effort, but also issued the order that made it illegal for them to service low-income-population areas, deeming them a waste of resources. People institutionalized and denied economic, political, and social access were not only limited in their participation; their communities were also unable to recover following the war.

The rise in pharmaceutical industries, particularly in Boston, helped ease the transition between punitive carceral systems (Parsons, 2018) as the nation pivoted from asylums to prisons. As home pharmaceuticals became treatment options, disabled, Black, and poor people were returned to the financial care of communities whose built environments had been designed to strategically efface them — eroding infrastructure, employment opportunities, social support systems, political participation, and economic recovery. Low-infrastructure "service-dependent ghettos"

(Dear & Wolch, 2016, p. 12) for the disabled and the planned isolation of Black communities (Hinton, 2016) grew in dependence on society's resources, but not in access to them. Even here, the taxi was a strategic participant in the designed isolation of burdensome, disabled, outspoken, and Black communities that had limited access to patients in mental facilities, and still a primary means of transit in poor neighborhoods without mass transit infrastructure.

Disabled people were again confined to residences as taxis, trains, and busses were not equipped to facilitate their access — and would not be until after the passage of the American with Disabilities Act in 1990. To further strengthen disabled people's immobility, access to funds from new disability benefits programs was jeopardized if someone found work, married, or inherited any amount of money, though that rarely covered the cost of medical expenses. The choice was thus: receive lifesaving care minimally funded by the government or seek personal, financial, and political independence at the serious risk of no longer receiving that lifesaving care.

By October 22, 1965, President Lyndon B. Johnson and First Lady Claudia Alta "Lady Bird" Johnson reinvigorated city beautiful efforts and initiatives with the Highway Beautification Act (Public Law 89-285, 1965). The following year, as part of the Great Society Initiative, President Johnson created the Model Cities program,²⁷¹ designed to curtail city crime through urban renewal programs and drew optimistically from the idea of a model city that had emerged from the 1893 Chicago World's Fair.

²⁷¹ The formal label of the program is the Demonstration Cities and Metropolitan Development Act of 1966.

Remote and difficult-to-access asylums had all but disappeared, with prisons taking their place. Disabled people (newly re-confined to their homes and communities), Black people, and impoverished people were offered housing and business opportunities through Model City initiatives and, with those, the apparent opportunity to finally accumulate wealth. Yet there were two caveats. One was that in the absence of savings, Black families had to take out predatory loans whose unfair prepayment options curtailed wealth accumulations and perpetuated cycles of poverty (Taylor, 2021). The other was the dovetailing of the requirement of no felony charges as a condition of home ownership and Black men being disproportionately targeted in the punitive carceral programs from Johnson's War on Crime (Hinton, 2016). This further hindered the economic recovery of Black communities, limited the purchasing of cars as well as homes; there was no question of people's being able to shoulder the tremendous expense of taxis.

By the late 1960s and early 1970s, Boston taxi services had stopped serving Black communities (Donahue & Gomez-Ibanez, 1982) and Black people (Lupo, 1968) due to fear of crime. This increased the isolation of Black communities in Boston, already limited by a strategic absence of public transit options, correspondingly increased their isolation and decreased their access to resources. Donahue & Gomez-Ibanez (1982) have letters to city officials detailing occasions when Black families were refused cab service and so had to walk to hospitals (Donahue & Gomez-Ibanez, 1982 Exhibit A), to work, and even recreational travel (Donahue & Gomez-Ibanez, 1982 Exhibit B); and refusal of service prevented customers from accessing Black-owned grocery stores (Donahue & Gomez-Ibanez, 1982, Exhibit C).

At the same time taxi networks were refusing service to Black communities in Boston, President Johnson's Crime Commission was applying taxi use as a metric for participation in society (Connolly, 1968). According to Connolly, the Commission reported that only 33 percent of people in Roxbury and 18 percent of people in Dorchester used taxi service at night. The Commission proposed a positive correlation between taxi use and participation in society. When taxi use is low, social participation is too:

When many persons stay at home, they are not availing themselves of the opportunities for pleasure and culture enrichment offered in their communities, and they are not visiting their friends frequently as they might (United States, 1967, p. 52).

The Commission also suggested an inverse relationship between social participation, as defined by taxi use, and crime. The mediating variable was fear of strangers:

As the level of sociability and mutual trust is reduced, streets and public places can indeed become more dangerous ... the most dangerous aspect of fear of strangers is its implication that the moral and social order of society are of doubtful trustworthiness and stability (United States, 1967, p. 52).

The reason the Commission proposed was that less fear — implicated in the willingness to travel, as defined by taxi use — fosters greater participation in society and thus a subscription to the social, political, and regulatory structures of social order. There is an important subtext to this report, and with it the Commission's decisions to

decision to label Roxbury and Dorchester as Boston's problem areas. The Commission was grounded in Johnson's Return to Law and Order political maneuver (Goodwin, 2015) following the civil rights protests of the mid-1960s (Hinton, 2016).

In the discursive migration from a war on poverty to a war on crime, the discussion of civil rights protests changed in popular discourse from a problem of social and structural inequality to a problem of personal property. In that context, the Commission was worried about the crime of property damage, caused by people who did not want to use taxis, support society, or follow the rule of law:

Everyone is dependent on this order to instill in all members of society a respect for the person and possession of others" (United States, 1967, p. 52).

Taxi use as a metric for willing social participation obscures the social, economic, and political structures of the built environment that have hampered or denied participation in taxi service and the economic structures necessary to enlist taxi service. By considering participation by taxi as a regular and realistic option for Black communities, the Commission ignored the structural consideration that confined Black mobility — not only of the moment but as a cumulative effect on a community — to then deny access to taxis while also limiting access to public transit, and then recategorizing the denial of access as a problem of crime. This communicates interest and investment in returning to a status quo in which such communities are continually limited in their access to and benefits from a society that values their existence.

There are serious implications beyond taxi use. Taxi use is not only a vehicle for transportation and access to society, but the denial of taxi use — captured as a

refusal of taxi use —continues to perpetuate a system where Black communities are limited to accessing resources of society. As Chapters 3 through 8 demonstrated taxi use has been both a communication and enactment of the priorities of a society that privileges the continued maintenance of White supremacy. Continually institutional stakeholders have molded taxi operation from the contours of urban design (Chapter 5) to the regulatory policies and social expectations that have come to define their use (Chapter 6, 7, 8) as an intentional effort to serve communities expected to be most productive in maintaining the status quo, the structures of an unequal society, which are maintained through the taxis unequal regulation of access.

Taxi access was structured as if it were equal, financially, and geographically accessible to everyone and Black communities of Boston just chose not to participate in it. What this presumption by the Commission communicates is a thorough understanding of the legacy of disadvantage that made taxi access for Black communities historically and persistently unequal, more costly in time and resources, more risk to personal wealth and wellbeing.

Instead the Commission strategically structured the taxi's absence as a function of poor prioritization rather than structural inequality, and in doing so the report repositioned the absence of taxi access and the isolation it fostered, as an individual failing willfully held by Black communities, and communicative of their unwillingness to participate in society. This twisted logic masquerading as well reasoned report served as the impetus for declaring Roxbury and Dorchester as problem areas of Boston. Reasoning that a lack of society participation by choice

rendered these communities as deserving of limited infrastructure (because they chose not to contribute to society) and greater police attention (because that alienation from society is the cause of civil disobedience).

Taxis continue to be an articulation of the dominant social priorities; for the politics of the moment, the priority was to help White Americans feel safe. By using taxis to regulate Black communities' unequal access and then using that service to justify that access as a demonstration of crime and resistance to social order further instantiated the idea that taxis and other for-hire use did not fill the promise of emancipation. In this situation, the value statement implied in the Commission's claims communicates an investment in maintain the status quo and an unequal structure of society, not at attempt to remedy it.²⁷²

Shifting the discourse from inequality to property damage communicated a shift in society's priorities and what the dominant society found valuable. In choosing property, popular political support transmuted the focus of civil rights protests from the inequalities that provoked them to the property damage that resulted from them. In effect, it assigned a comparative monetary value to the expansion of civil rights, which the President's office — by virtue of changing priorities to the war on crime — found to be less valuable than property damage. Taking that argument a step further, communicating that Black communities' civil rights and equitable treatment was worth less than damage to (predominantly White-owned) property communicates not

²⁷² This project does not focus fully on the intricacies and implications of its effect on Black communities, and rather than conjecture here the topic warrants critical investigation and analysis by Black voices.

only a tension between building a more equitable society and returning to the inequities of law and order, but also reinvoles the societal priorities of slavery, when Black lives were seen as cheaper and more disposable than the buildings that confined them.

The purported success of the Crime Commission, defined as such by Johnson's White voting constituents, called for a critique and redesign of policing forces. Now having identified the "problem areas" within cities such as Boston and Chicago, the Commission recommended resituating police forces in these communities, with the expectation of finding crime. The Commission then declared police forces as both "interpreter of the law" and "arbiter of social values" (United States, 1967, p. 10). The social values to which they refer were the same "restoration of law and order" (Hinton, 2016, pp. 62, 80) values that had consistently prioritized upper- and middle-class White access as the genetic beneficiaries and keepers of society and social order. As Hinton (2016; 2021), Alexander (2020), Garland (2001), and many others have observed, more police in Black communities and intent on making arrests found people to arrest, which meant more Black men in prison. This dovetailing with single-spouse families and restrictions on people convicted of a felony from owning property meant the cycle of unequal access would continue to be rebuilt (Braman, 2007; Satter, 2010) into the reformed system that held the promise of mobility, but a mobility contingent on taxi access they were never designed to afford.

The political, material, and social design of Boston's built environment in the image of a beautification-Eugenics blend of City Planning could be considered

successful in the designers' estimation. Formative changes to Boston in the early 20th century "were applied permanently instead of temporarily" (Zueblin, 1905), helping to build a city comprehensively and enduringly. Where access to transit and access to society's resources met urban development, housing policies were tempered by the ways beautification and Eugenics proponents prioritized people for access or isolation. This prioritization was based on a set of expectations toward productivity and social advancement and grounded in exclusionary qualification around genetics, race, and disability.

The continued success of an exclusionary built environment is still evident in Boston. A study by the Boston Federal Reserve found that the median wealth of Black families in 2015 was \$8, citing systemic problems of access to wealth, real estate, and work opportunities (Munoz, et al., 2015). Meanwhile, Boston's (and Massachusetts') political leadership communicated an interpretation similar to the Crime Commission's nearly 50 years prior, involving "respect for the person and possessions of others." In 2020, following protests in response to the murder of George Floyd, a Black man, former Boston Mayor and now Secretary of Labor Marty Walsh issued the tweet in Figure 9-1.

Figure 9-1

Tweet from former Boston Mayor Marty Walsh



Note: Tweet Dated May 31st, 2020 from former Boston Mayor Martin Walsh.

There is a practical tension here. Few are likely to condone the destruction of property, and laws are necessary to govern business. But to equate violent protests to normalized forms of urban crime effaces the very reason for the protests. Furthermore, the language of “the people that came into our city” invokes a sentiment of intrusion; whether permanent resident or visitor, those “people” are not part of Boston. This echoes the anti-immigrant, anti-different, anti-Black, and anti-poor rhetoric of the recent political sphere, as well as the very rhetoric that spawned the City Beautiful exclusionary parameters around who deserved access to society, cities, and their resources.

Given these persistent factors shaping access to society and in society, it should be no surprise that when Uber built a for-hire service using Boston’s built environment as scaffolding, researchers found that the service continues to produce unequal access by race, ethnicity (Ge, et al. 2016), geography, and wealth (Pandey &

Caliskan, 2021). By using neighborhood, financial status, and other metrics to regulate access to rides and calculate fares, Uber and similar companies have taken up a mantle that was not designed to promote equal access. That such companies regulate access unequally, by person or institution, is not a flaw in the programming or a fluke; the system, and the for-hire industry's role in that system, continues to be one that regulates access in such a way that perpetuates existing inequalities. The social order has, for centuries, endorsed those inequalities.

There is a conflict of message happening here. On one hand, Walsh is promoting exclusionary categories of what Boston is and who should have access to the city, commensurate with the taxis' strategic deployment within an urban system designed to regulate access unequally. On the other, Walsh's urban renewal plan, *Imagine Boston 2030*, promises that autonomous taxis will help provide "safer, less congested, and more equitable" (City of Boston, 2017, p. 375) access to for-hire transportation, and with that to the city.

This is the communication of Boston at a crossroads. One path to the autonomous taxi perpetuates a cycle of unequal access, where promise of safer, less congested, and more equitable access to the taxi and society is conditioned by the boundaries of who "belongs" to Boston and is therefore entitled to its resources. The other path breaks with the ways taxis have been used to strategically reinforce the power of the elite, challenging the social order to extend equitable access more robustly to those who could use the taxi to access society and its resources. For an industry that has historically chosen the first path — out of opportunity, design, or

necessity — and is empowered by the current material, cultural, financial, political structure of society, what would be the incentive to choose the path less taken?

The importance of this question is less about supporting a belief in equitable access writ large than about understanding that activity is already underway to shape Boston’s material and social environments in anticipation of the realization of this promise — in whatever form. Knowing what the promise communicates involves understanding the competing tensions that are modeling the autonomous taxis into a material witness of societal priorities. What remains to be seen is precisely what kind of executor of access it will be.

9.2 Boston’s Future City Plan: Go Boston 2030

Former Boston Mayor Marty Walsh, in conjunction with software development company nuTonomy, introduced the idea of autonomous taxis in 2016 as part of Walsh’s comprehensive urban renewal plan (nuTonomy, 2016). The plan, *Imagine Boston 2030*, and its accompanying transportation infrastructure plan, *Go Boston 2030*, deploy the autonomous taxi as a promise to help make the streets of Boston “safer, less congested, and more equitable” (City of Boston, 2017, p. 375). Since its inception, politicians, developers, and financiers continue to integrate this promise of more equitable access into current and future designs of the city.

The *Imagine Boston 2030* plan is an umbrella for an important assemblage of media artifacts. The central document houses 27 sections under five subheadings and is presented as a cohesive plan to facilitate the comprehensive and iterative renewal of Boston’s built environment. It also communicates the Walsh administration’s vision of

how the autonomous taxi fits in the city's future. In doing so, it provides a window into what the autonomous taxi is supposed to do (transit), the activities it is expected to enable (access), areas to improve to address the concerns of the past, and the taxi's role in regulating those concerns. In this way, the plan helps communicate what the autonomous taxi is expected to be for society and informs on the authors' expectation about the social order the taxi has historically reinforced.

9.2.1 The Plan

In documenting an interest in creating a more equitable society, *Imagine Boston 2030* makes many of the expected motions regarding transportation — identifying it as essential to access, networks as incomplete, and discussing distribution of use and spaces for improvement. For example, regarding the essential capacity of transit:

Boston's transportation network plays a critical role connecting residents to economic opportunity, fostering job growth, moving important goods, and creating vibrant neighborhoods (p. 367).

This is a crucial step in understanding transportation's role in regulating access to city resources. Just as importantly, it demonstrates an awareness by the creators that transportation infrastructure is essential to achieving the promise of equitable access. Although it recognizes the well-established link between transportation and access to opportunity, it does not touch on the connection between denial of access and corresponding limited opportunity for societal participation. Because transportation is often made to appear optional, the elusive feedback loop I have suggested in previous

chapters goes unnoticed in the future plans for the city. *Imagine Boston 2030* suggests that the goal of equitable access is furthered by incorporating autonomous for-hire technology. One example clarifies some of these promises, or at least for whom they were intended:

Who stands to benefit most from this technology if it's applied the right way? Many people, including: the aging population and those with visual impairments, those looking to reduce the burden of personal vehicle ownership, and those without access to rapid transit. (The Mayor's Office of New Urban Mechanics, 2021).

It is expected that some beneficiaries of autonomous technology are underserved populations, but it is also telling that the list refers to “the burden” of ownership. This could refer to any number of people or contexts — those who cannot afford to keep a car, those who no longer need one, those who want to get rid of their cars for environmental reasons. However, in grouping them as beneficiaries of the technology, the plan demonstrates a limited scope, relegating the promise of autonomous transportation to the act of being transported. In doing so, it obfuscates the very different structural barriers these varied groups can experience. This generalization to the task of taxiing overlooks the complex and reinforcing role taxis play in regulating access.

Other groupings are similarly problematic in ways that continue to relegate transportation's significance solely to the act of traveling. For example, the plan identifies that in Boston transportation is not equally distributed by car ownership:

34 percent of Boston households do not own a car by choice or necessity” (p. 368).

And length of time:

Some neighborhoods face disproportionately longer commute times (p. 369).

A graph on page 369 of the Imagine Boston 2030 plan indicates that time spent commuting to work is significantly longer for residents in low-income communities, such as Roxbury and Dorchester, than for residents of high-income areas of the city, such as Beacon Hill and Back Bay.

However, these sections exclude two key points that further demonstrate the limited contours of focus. Limiting the reasons for not owning a car to “by choice or necessity” obscures the difference between need and choice. For example, a resident of an upper-class community may not own a car because of ready access to public transit, whereas someone in Dorchester might not own a car for any number of reasons including inability to accrue wealth, ineligibility for insurance, or not knowing how to drive or get a license. Where the person in the first community likely could afford to take a taxi if they needed to, cost would likely prohibit the latter from doing so, especially for regular use like commuting to work.

Additional costs of transportation vary. Recalling Gyn’s experience from Chapter 3, her costs included having to plan to spend more time using transportation than a White person. She needed to factor in the probability of denial of for-hire access and the resulting need to wait for or walk to reach a bus; moreover, the area she was going to had limited transportation infrastructure and getting somewhere did not

necessarily have a straightforward route. The effect for Gyn was not only in more time spent in transit, and therefore less time spent on academic work, job hunting, or socializing; it was also in the emotional weight of living in a system that treated her differently because she was Black, thus opening the possibility that she would self-censor her exposure to society rather than deal with the frustration of transportation and all the temporal and emotional baggage that came with it.

Conversely, respondents like Victor could get a taxi and move quickly and flexibly from point A to B as expected. Not only did Victor not have to transfer from walking to bus to train to bus to walking again, as Gyn would have, he could choose to work or rest while in the taxi. That itself was a confluence of rights — his profession, which enabled on-the-go work, whereas retail or labor-intensive jobs might not, and the technology at his disposal.

The grouping is also problematic for its inability to differentiate between the travel variances of two people who do not own a car, and thus does not address them — or worse, is unaware of the problems that lead up to them. Of course, these groupings could be a result of economic thinking to make things short and crisp or for graphic visualization, but in any case the consolidation of values obscures the difference between unequal conditions for access and is antithetical to the autonomous taxi's promise of equity.

Nonetheless, this consolidated grouping in urban planning is not new. The Imagine Boston 2030 grouping, in particular, echoes the comprehensive city plan developed for the Columbian Exposition in Chicago in 1893. The plan architects

consolidated transit of walking or carriage use into a single value (Chapter 5) as a dominant mode of transportation for people outside the reach of mass transit lines and those local to the city of Chicago. Where historians of these events have noted that the wealthy and more valuable to society should not be burdened with the dangers or inconvenience of walking (Chapter 5) the architects facilitated it through design — raiding the tracks so carriage and pedestrian traffic could cross but doing nothing notable in support of walking routes from the city to the World's Fair.

These were two distinct class-based forms of transportation. Walking was distasteful, dangerous, and dirty at a time cleanliness and hygiene had become valuable commodities for advancing upper-class interests, whereas carriage use was clean, efficient, and safe. In Boston, evidence of these delineations persisted into the 1970s (as evidenced in Donahue & Gomez-Ibanez, 1982: Exhibit A). To do so again in the Imagine Boston 2030 courts with repetition.

9.2.2 Planning for Gaps

A defining role of the autonomous taxi in this planned future for Boston is to fill gaps in infrastructure. Some of these gaps are about geographic proximity, holdovers from inequalities in infrastructure, investment, and urban planning. The expectation is that autonomous taxis will give communities left out of transit expansion better access to mass-transport:

Boston's transportation system reinforces existing disparities. ...
Decades of underinvestment in some areas of the city have left many
communities of color with limited access to quality transportation. Gaps in

transit between Roxbury, Mattapan, and Downtown and the Longwood Medical Area reflect changes to the public transportation system as the current MBTA and bus lines replaced older networks of elevated trains and trolleys (p. 267).

Indeed, new city planning pioneered by Olmsted, Burnham, and others helped model Boston's elevated railway after Chicago's success during the World's Fair. That success had been defined, in part, by its ability to encourage greater productivity while limiting access to society by undesirables.

Problematically, this act of gap filling is divorced from the structural impacts of denial. Uber and other ridehail companies already service these areas inadequately, and inconsistently. The argument for autonomy removes some of the driver's ability to deny access, but the system is still flawed, being constructed from old boundaries and logics intended to limit access to society. Uber's version of autonomous taxis to do it would vary little from hailing a human-driven taxi, as the algorithmic logics of the platform have largely already shifted the regulation of access to Uber.

Another dimension of gap filling is oriented around disability service. In a 2019 interview, Kris Carter, co-chair of the Mayor's Office of New Urban Mechanics, remarked on autonomous vehicles' role in facilitating access to the "first and last mile" for older Bostonians that can augment existing transit networks: "The idea is to build a city that uses AVs [autonomous vehicles] to fill in those gaps" (as quoted in Kiger, 2019).

Although Imagine Boston 2030 does recognize gap filling as a needed characteristic for urban development, it is missing two key points. One is that for-hire transit already performs this function inadequately. The other is that the promise of autonomous taxis is absence the very thing that makes current versions somewhat accessibility friendly and not, as yet, specifically configured for disability use. In the 1970s, a series of gap filling legislation was designed to address inaccessibility by disabled people, culminating in the National Mass Transportation Assistance Act of 1977 (NMTAA, 1977). Even after a series of additional legislation was required, indicating that the patchwork of adaptive busses and taxis were clearly not meeting the promise of equitable access, legislation of the 1970s to promote equitable access was inadequate enough to provoke the need for the American with Disabilities Act in 1990 (Fleischer & Zames, 2011; Switzer, 2003).

Thirty years later, researchers are still arguing that the system provides inadequate access in ways that not only limit travel (Rosenbloom, 2007), but actually discourage it (NYLP, 2019). The more difficult it is to travel; the less people want to travel. The effect of such limiting is evident in employment loss and income disparity (Massachusetts Rehabilitation Commission, 2018) and denial of essential services (NYLP, 2019), and the resulting isolation produces a host of physical and mental medical issues (Aguillard, 2020). This does not produce city accessibility, and the culture of isolation that has fed carceral attitudes toward disabled people's use of transportation since the 17th century.

Since 2015 (Strochlic, 2017), Uber and other ridehail services have seen numerous cases of drivers denying service to disabled people and have been waging multiyear, multisided legal battles (Dickey, 2020), arguing that accessibility standards of the Americans with Disabilities Act do not apply to them. Further, the legacy of problematic “last mile” assistance has demanded driver’s flexibility in assisting with the activity. Imagine Boston 2030 is thus expecting to superimpose autonomous taxis on existing service areas without the ingredient that made them work even part of the time, the driver.

9.3 Building the Autonomous Taxi for Boston’s Future Plans

In Imagine Boston 2030, as media that communicates the interests of Boston’s political leadership, three things stand out. The first is that despite transportation’s use as a patch agent to address problems in existing (and apparently future) networks, it is not put into conversation with other structures of inequality. Rather, transportation is treated as an agenda-free agent upon which Bostonians’ intentions are set and met, not something that reproduces inequality access to society. If that is the case, how can it achieve the promise of equitable access, when the kinds of inequitable access it helps provoke are not recognized as such?

Second is the expectation of gaps in transit structure. Planning that assumes autonomous taxis can fill in gaps in service areas for low-income communities communicates the reality that these communities will not receive the transportation infrastructure changes that would make such a patchwork unnecessary. The areas that do get infrastructural changes to transportation are ones that can facilitate a more

productive and economically focused society. If communities with more economic potential have better infrastructure and other communities get no infrastructural, fixed emplacements, and instead get access to the same taxis everyone else can use, then this communicates that these communities are less valuable. This productivity logic that equates social value and participation to assumed productivity echoes the same policies and policymakers that have limited infrastructural investment in the past.

Third, there is a tension between the unknown costs of the autonomous taxi and its promise as it is built into existing structures. The problem with Imagine Boston 2030's route through this tension is that the autonomous taxi's presence is being integrated into the access of logistical, financial, and social structures *sans cost*. The problem with this kind of thinking is that it concedes to the development and costs of whatever the taxi service will be.

Historically, those costs have been prohibitively high for everyone but the well-heeled. If autonomous taxi use is being proposed specifically as a condition for low-income and disabled people to access society, but without a mechanism to defray the cost, then it will be unusably expensive. Again, this would bring forward the inequalities that have historically positioned taxi access and walking as equivalent modes of transit for two disparate groups. At least statistically, the communication Imagine Boston 2030 leans toward is taxi access for some — reflective of a social order that regulates access unequally for whomever is seen as more productive.

9.3.1 *Autonomous Cars*

Despite Imagine Boston 2030's absence of financial considerations, these concerns factor in heavily for the developers and supporters of Boston's autonomous taxis. The first autonomous taxi introduced to the city's streets was nuTonomy, a Massachusetts Institute of Technology (MIT) spinoff company that dreamt of providing the "world's first safe reliable autonomous vehicle ride" (personal communication, 2017).

In 2013, around the same time MIT researchers were developing nuTonomy, Carnegie Mellon University was working on Ottomatika. Ottomatika made its first cross-country trip in 2014 and was acquired by Aptiv — its partner on the trip — the next year. Meanwhile, nuTonomy partnered with the Singapore Economic Development Board and Uber rival, Grab,²⁷³ to begin testing its first autonomous taxi in Boston in 2015. By November 2016, nuTonomy had found approval with the Mayor Walsh's office to begin limited testing in Raymond Flynn Marine Industrial Park.²⁷⁴ A year later, Aptiv had acquired nuTonomy,²⁷⁵ and by 2018 had approval to test on any of Boston's roads even during busy times.²⁷⁶

Excitement about autonomous vehicles was very much the tech currency of the time. In 2017, Wired covered the top 263 companies working on various dimension of the autonomous market,²⁷⁷ and by 2020, nearly all major car manufactures had

²⁷³ See Russell (2016a).

²⁷⁴ See Russell (2016b).

²⁷⁵ See Delphi Automotive PLC (2017).

²⁷⁶ See Graham (2018).

²⁷⁷ See Stewart (2017).

investments in their own or other companies' autonomous programs. In Boston, Optimus Ride received approval to begin testing in June 2017,²⁷⁸ with Uber testing autonomous taxi service in Pittsburgh starting in 2016,²⁷⁹ although it later sold to Aurora in exchange for a large company stake.²⁸⁰ Google spinoff Waymo began testing in Arizona in 2017 and has expanded to San Francisco.

Suffice it to say, there is a degree a fluidity in ownership of which technology. The range of the industry is also broad — freight, drones, cars, boats, last-mile delivery, food shopping, vaccine carrying; the list goes on. What makes the autonomous taxi — also sometimes called a robo taxi or driverless taxi — unique is that it sits at the convergence of what the for-hire institutions has been built to do and the promise of new technology.

As I write this, no autonomous taxi has permits to operate fully unhindered by testing parameters in Boston. In 2014, the Society for Automotive Engineers created a six-level taxonomy of car driver/driverless car capabilities (reissued in 2018) — level 0 for a fully human driver to level 5 for fully autonomous with no safety driver available to assist in case of an emergency.²⁸¹ The U.S. Department of Transportation adopted this taxonomy in its Federal Automotive Vehicles policies;²⁸² the reissued 2018 taxonomy is incorporated in the most recent policy document.²⁸³ The six-level

²⁷⁸ See Boston welcomes (2017).

²⁷⁹ See LaFrance (2016).

²⁸⁰ See Metz & Conger (2020).

²⁸¹ See SAE International releases (2018).

²⁸² See United States Department of Transportation (USDOT) (2017).

²⁸³ See United States Department of Transportation (USDOT) (2021).

scale not only has become industry standard, but also has made more evident the complexity of the fully autonomous vision.

Yet the promises of autonomous vehicles are still very much alive and well. In the early stage, the promises of autonomous taxis were grandiose: low-cost, fully automated, carbon-neutral emancipation from wasted time, annoying drivers, city traffic, and roadways dangers. nuTonomy's own promise to the mayor's office was to provide a "safe, efficient, fully autonomous mobility-on-demand transportation service" (nuTonomy, 2016). Over the years, such promises have become more tempered, focusing on passenger efficiency, reduced traffic congestion, increased driver safety, autonomous capability, and cost. However, recent work demonstrates that autonomous taxi implementation may initially lead to more congestion, more waste, and more time spent on the road until a saturation threshold can make them efficient.²⁸⁴

As such, Boston, and other city administrations have adjusted some of their expectations. Boston's current vision for autonomous taxis, led by now Mayor Kim Janey, include increasing safety and reliability, while providing more equitable access for older persons. That approach echoes the most recent federal guidance that autonomous transportation will provide "improved safety and mobility for all travelers" (United States Department of Transportation (USDOT), 2021, pp. 31). Boston's current autonomous vehicle plan states:

²⁸⁴ For summary of studies see Lunsford (2020)

Autonomous vehicles offer immense promise to help us get closer to these goals. However, the promise of these vehicles isn't a given. They could displace an important workforce and encourage both sprawl and congestion. That's why we launched an autonomous vehicle testing program.

We want to shape the development of technology and policy to deliver on the potential promise and not the potential drawbacks.²⁸⁵

Despite this recent development, these promises are being implemented into future city plans and are poised to further shape Boston's material, social, economic, and political landscapes. Yet the autonomous taxi's promise of equitable access conflicts not only with its own legacy of strategic deployment, but also with the practical reality of technological development.

9.3.2 The Need for Monetization

Current supporters of the autonomous car struggle with fulfilling the promissory combination of profitability, equitable access, and availability. With safety a given requirement and efficiency a demand, manufacturers have met with the same tension Henry Ford did when designing the Model T: cheap, high-production, and ubiquitous — or expensive, with a niche customer base, and limited production? What makes this tension different today is that autonomous taxi makers must choose whether to embrace or ignore the promise of accessibility, where Henry Ford

²⁸⁵ See The Mayor's Office of New Urban Mechanics (2021).

accessibility was a problem of the individual — not a necessary factor in automotive planning.

Put another way, developers frequently contend with the following choices:

- Ignore the promise of accessibility to satisfy supply cheaply, saturate for the broader public who do not need accommodations, and move toward profitability;
- Focus on individual-specific accommodations that increase cost slightly; or
- Build a car that facilitates access of all sorts but is too expensive for most to afford.

Some companies have sought a middle ground, choosing instead of broad accessibility to make each version differently and uniquely accessible. But even then, developers struggle with what accessibility should look like. Some leading autonomous vehicle companies focus on accessibility inside the car. Waymo and Lyft are working to communicate information to passengers with disabilities. Nissan's Virtual Reality avatars may provide company, comfort, and assistance to passengers in need. Other companies approach accessibility by redesigning access. Startup May Mobility's low-speed shuttle can deploy a wheelchair ramp, but there are only a handful for an entire city. Tesla's gull wing doors open vertically for easier access and their Smart Summons feature allows drivers to call their car to them, but they are enormously expensive.

The tension of cost, supply, and access guides a lot of thinking in the autonomous space, particularly in the concern over hyper-specialization of vehicles. Making one with a wheelchair ramp and one with low-vision assistance will increase the number of cars on the road, thereby increasing congestion and time on the road, decreasing efficiency, and increasing pollution. None of those outcomes are ones developers of autonomous vehicles want to be associated with. As one supply chain coordinator put it,

... supply side won't matter if you don't have the right car, and the accessibility stuff are pet projects that will never get to mass distribution.

Where the money is, is the sale of large quantities of cheap AVs so that most people can get around (Personal Communication).

His sentiments about the prioritization of finding profitability were, even if quietly, shared by others in the weekly working group:

There's no money in these limited-use service ones.

The best you can hope for is to develop one and make a swift exit. The buyer can take on the risk of it.

Making the venture profitable beyond public appeal is a tension Uber struggled with for autonomous taxis and a reason the company ultimately decided to sell to a startup, Aurora (Domonoske, 2020). But the problem is not Uber's alone, nor is it a problem exclusive to accessibility concerns. The need to monetize is a necessity without which networks cannot function and workers do not get paid, nor do investors. And although monetization can seem problematic or even distasteful to

some, it is a messy reality of a capitalist society. Monetization was a frequent topic of conversation, as one respondent said: “It’s always a question that can never have too many answers.”

In a series of discussions I had around monetization options that occurred over the course of several months the necessity of it was emphasized constantly, if from different angles:

Respondent 1: Anything can be built if you can find funding, but survival cracks down to money. That is the questions you always get asked, and you have to have an answer. You get asked it before you even get to pre-seed funding, and your answer has to get better, more precise. So when VC [venture capitalists] come out and say, How’s it make money? You don’t just have an answer, you have plan.

Respondent 2: ... but that is a very upside. You can get anything out there if you puzzle out how it make money, even the accessibility stuff.

Respondent 3: Yeah, but the shinier it gets, the more lines you need to have it funded. Cost of ride only cover it so far, and VC money money run out fast.

The conversation here was a common one about the tradeoffs between cost and capability. The more features — whether luxury or assistive — the higher the cost to purchase and thus to use. That model might work for luxury car service, but it would be difficult to make any vehicles that were costly to produce, expensive to buy, and

cheap to use. The answer, they believed, was in figuring out the right kinds of income generation.

9.3.3 *Monetizing the Ride*

Monetization tactics can share similarities across industries. One, in particular, spoke volumes about the autonomous industry's future involvement in producing and reproducing inequality. During several brainstorming and planning sessions with industry professionals, I catalogued a list of tactics that resolved around three avenues to achieve profitability: in-cab spending, datafication, and monetization of the ride's geography.

9.3.3.1 In-cab spending

In-cab spending meant beyond the cost of the ride on, for example, the classic advertising mechanisms via screen and print media. Other suggestions would have those expanded to encompass windows, ceilings, backs of seats, branded seats. This idea expanded to products one could scan and buy. Other ideas included localized advertisements — specific to city, storefront, and destination — that synced to smartphones, tables, and laptops. Some considered in-car consumption such as minibar items, food, coffee, and technology vending; others would have expanded the network of service, offering to-car delivery coordination with restaurants or food delivery services.

Respondent 1: Ja, but you still have to pick and choose. Like, don't send a minibar to get a kid. Like, I woulda drunk the shit outta that when I was in school.

Limited or no supervision of alcohol, tobacco, and other use can present problems (although an age-verification system would be an easy fix) and overlay yet another set of technological networks, licenses, and permits to an already complex task. This is not to mention the mess food can leave behind. So, monetization tactics could require some close management by the for-hire distributor.

Technology could solve many of these problems, such as requiring age verification to unlock a minibar. The breadth of problems and solutions, however, are themselves a communication of interests — profit, accountability, and culpability being just a few. The potential negative social reverberations were not a factor in the discussions. Who is responsible when an angry rider gets wasted via the minibar and is dropped off in a place where they can put themselves or others in danger? As long as that “who” is not the car manufacturers, then the strategy is a viable option.

9.3.3.2 Datafication

Respondents cited datafication as another popular means of achieving profitability. This is where the information a company can glean is sold to “marketplace,” where buyers purchase the data for targeted advertising and other activities. Again, the examples given were existing practices that could be adapted for autonomous taxi use, such monetizing user registration information and single sign-on that can tap into user data and advertise on social media, like websites that offer sign-in via a user’s credentials from Facebook, Google, or Amazon. Other forms consist of data captured in transit — recording user data from synced devices to catalogue where

a passenger went, whom they talked to, the contents of the conversation, and the content of text messages and emails.

Other, more conspicuous modes of capture can include text message recording and accessing phone, tablet, or computer contents via Bluetooth (which users agree to in end-user licensing agreements toward a stated goal of improving “customer experience”). And then there were less scrupulous methods of data capture, such as unseen, in-car microphones — for “maintenance purposes” — that could not be shut off, which also happened to capture any conversations had in or around the car. This last option entered questionable legal territory, and was talked about several times in primary data collection. It involved the strategic monetization of the ride in transit; specifically, the manipulation of transit routes as a means for making money.

There were several different propositions for this scenario. One included strategically driving by storefronts, real estate, or cultural events, such as concerts or political fundraisers. The idea was that the host, investor, or other interested party could pay a nominal fee for the mapping system to determine whether there was a way to conspicuously drive a passenger by that site or event. This technique could combine with localized advertisements sent to smartphones or appear as commercials on-screen in the car, or even tap into a broadcasting livestream from the event.

A second proposition was more involved. It began when one of the autonomous car working group members was approached by a lobbyist or someone working for a campaign with a bid to direct the route of the autonomous car. In discussions with their boss, the group member and their supervisors decided to pilot a

program whereby different groups could bid for route preference, with the restriction that it needed to be within a certain range of degrees of freedom from acceptable transit efficiency parameters. In other words, the route the buyer wanted the car to use could not be 40 minutes when the trip would typically take only 25 minutes, but a 27-minute or 23-minute route could be acceptable.²⁸⁶

The implications here were as considerable as the possibilities. This capability could easily augment the suggestion of navigating a passenger toward specific events or sites and then pairing those moments with advertisements using contact, localization, or proximity indicators. Any recommendations would be mediated by the consumers existing advertising profile.

9.3.3.3 Monetization of the ride

The route to monetization through the autonomous taxi presented a unique opportunity, different from other digital spaces. In the interest of both anonymity and clarity, I present two possible examples:

Scenario one: A politician is running for public reelection and wants to emphasize the improvements they have made during their tenure. The politician places a bid in the software: if transit time is within acceptable parameters compared to the estimated time for the trip, then have the autonomous taxi take a route that moves the passenger through specific areas of the city that either advertise for the politician's

²⁸⁶ This route times in this example has been by the author for the purpose of this dissertation and does not represent actual parameters for operation. Any similarities are purely coincidental.

reelection campaign or demonstrate that activity by moving the passenger through spaces the politician's work has improved.

In this way, an incumbent politician running for reelection could advertise their accomplishments to anyone taking a taxi by moving them through routes designed to visually communicate their accomplishments. This could be paired with a voiceover tour system to explain the accomplishments and/or through messaging or emails to augment the desired visual and auditory communication.

Scenario two: A new politician seeks to unseat the incumbent. The idea functions in much the same way. The opposition candidate could bid to route passengers through under-developed areas of the city or other areas commensurate with the campaign's criticism of the incumbent party. For example, someone might seek to campaign against the incumbent politician with the criticism that in gentrifying the old industrial waterfront district in South Boston, he had displaced low-income families. Assuming it fit within the efficiency parameters of the trip, an autonomous taxi could circulate passengers through low-income areas.

The developers' willingness to accept bids from external parties not associated with a campaign further complicate this scenario. This may bring to mind popular discourse around Russian interference in the 2016 Trump presidential campaign; in fact, that is where they got the idea. Not only could they wait for external parties to bid; an assertive company could also approach external parties to gauge their interest in bidding. To maximize profits, all of these bids would operate simultaneously and anonymously (no bidder would know what others had bid) to shape the taxi's route.

This is not some new nefarious plot constructed by emerging technology companies to glean every possible cent from the consumer. Rather, it is similar to the operation of Google’s AdWords, something I and many others in the group had experience using to run ad campaigns; in our discussions, we frequently drew parallels. If, for example, I offer \$0.20 in AdWords for every time someone types the keyword “autonomous,” I do so with the hope that my advertisement will appear ahead of my competitors’. If another party offers \$0.21, they have out-bid me and their ad is likely to out-rank mine in search results. The same principle applies to the theoretical navigation system proposed by one autonomous vehicle navigation software development company. While there is a new articulation, new elements and perhaps new implications, the idea is not a new one. And because of the way terms-of-service contracts and end-user license agreements are currently constructed — that is, with the tacit understanding that no one but researchers and attorneys may read them — such tactics are likely to succeed.

9.4 Concluding Thoughts

The market reality that Imagine Boston 2030 and Go Boston 2030 have so staunchly ignored seems in opposition to the promise of equitable access to transportation that those plans espouse. Not only could routes and access to the city be manipulated by external parties; given the resources and intention, a group could efface entire communities by paying enough for transportation to circumnavigate them. In a way, this parallels the white walls of Chicago’s Columbian Exposition — built around low-income communities to both keep them out and keep their visage from disturbing the patrons of the White City. This time, it is possible to use

autonomous taxi services to create navigational walls that render problematic or displeasing communities invisible. And although the Imagine Boston and Go Boston plans stress equitable access to transportation and society, does the reality of Boston's future communicate the same? Given Uber's operation in society and the continued practice in which for-hire transportation reinforces unequal access, can we expect anything different from the autonomous taxi? Recalling Walsh's tweet demonizing as intruders those whose ideology opposed his own vision of law and order seems to countermand the assumption of an equitable solution the plans propose. That stance harkens back to Nixon, Johnson, and Goldwater's xenophobic, anti-immigration position (Chapter 4) and runs counter to the idea that Boston is open to everyone.

Given that the position of the autonomous taxi in the public imagination and its role in Boston's future do not aim towards equality, but rather are contingent upon the views of the political administration of the city, it seems already positioned to reinforce an established social order. The taxi, autonomous or driven, remains a communication of the dominant social order. Tony West, my former employer and now chief legal officer of Uber, said of the ridehail company, "Uber is a reflection of society that it serves." (Conger, 2019). West meant it as a link binding violence between passengers and drivers to the prevalence of interpersonal violence in society. On the surface it was a smart strategic maneuver to deflect any prospect of accountability or responsibility away from the company as a facilitator or enabler of a context where violence could be easily reproduced. Yet it also can stand for a long present presence of violence with and as a byproduct of for-hire use for centuries.

On one hand, this is an expected example of a ridehail company's efforts to cultivate a neutral public image by distancing themselves from deviant behaviors. On the other it is also a demonstration of the way companies articulate their relationship with the built environment, a relationship where they merely navigate existing problems and inequalities, rather than participating in their continued presence. The presence of Uber declaring this is not only accurate, its revealing, perhaps in a subtle way that argues unintentionally for Uber's own complacency as one participant of many within a society designed to produce unequal structures of access, but also that this is not about any one company, platform, driver, or passenger is responsible for behavior. It is a condition affirmed and reaffirmed by overlapping structures of society none of which are whole responsible for the environment of unequal access, but likewise none of which are wholly free from benefitting, exploiting, buttressing or propagating its unequal effects.

And it is not only that Uber reflects society, but that Uber — as a for-hire institution — joins with the autonomous taxi in paralleling the kind of service that such institutions have used throughout history to communicate the priorities of the dominant social order that they were designed to service and reify. As the emergence of the autonomous taxi continues develop reflective of the demands and influence of contemporary society, like its predecessors its emancipatory promise will continue to be tempered by the priorities of a society that continues to regulate access unequally. On its current trajectory the autonomous taxi will be incapable of providing equitable access, and by so doing will continue to participate maintain in the unequal structuring of society. Like its forebears the autonomous taxis development can be read as a

communication of our society's priorities, of social order by demonstrating who it would most benefit and who it would not.

The prospect of the autonomous taxi introduces new possibilities as well. Discrimination by drivers gives way to but cementing, expanding and obscuring 'legitimate' forms of discrimination that continue to position taxi use as a viable option for anyone, when the reality is far different. And if, for example, these recommendations and algorithmic bidding systems are developed to fruition then inequalities built into the city landscape become a tool for profit and maintaining the social order and an incentive to keep them that way. One might ask, how does that differ from the current system? And one answer is that it would not, and it would. It would not in the sense that taxi and Uber drivers have preferred ways of moving through cities, with a tradition of incentivizing certain routes and businesses. And in that way it is no different which itself is a problem, because more of the same is a rebuilding of for-hire to perpetuate inequality. The difference is that many of these associations become further obscured behind interfaces and algorithms and their activity further obscures reinforcing inequalities in which for-hire continues to participate.

There is another implication here that warrants further attention in ways that cannot be address in this dissertation. In shifting the decision making, and thereby the negotiating and imperfectly human regulation of for-hire access, to systems and process built to articulate corporate interests, the ritual activity of taxing is pushed further toward automating not only the activity of driving but the concerted flow of

urban life. This would not be an entirely new activity as GPS, and one ways streets already direct flows of city life with the vision of optimal efficiency. And yet as the activity of transit becomes more algorithmically determined, optimized, and orchestrated we may threaten the spontaneity, the messy *je ne sais quoi* of urban life that helps producers cultural activity as unique, the spontaneity so important to innovation, arts, and science. By automating urban navigation we not only threaten to further instantiate inequalities in society, but automate ourselves and our place in the production of it. If as Carey suggests ritual as communication of culture serves to maintain society, then the society we are building toward communicates a value in the absence, and automation of human activity.

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CHAPTER 10

10 FINAL THOUGHTS AND ANALYTICAL CATEGORIES

10.1 Introduction

Through this dissertation I have introduced and expounded upon issues of ritual, the taxi amalgam, and the built environment using limited accounts of taxi involvement expanded on through historical and media analysis, primary documents, and fieldwork data. When woven together these concepts shape how for-hire transportation like the taxi is folded into social practice, what is communicated in this process, and its role in the context of emergent and emerging forms of for-hire transportation. In this conclusion, I address the overarching issues related to ritual, the taxi amalgam, and the built environment and offer some reflections on the future of the for-hire industry.

10.2 Ritual

The activity of taxiing, and indeed all other forms of for-hire transit covered in this dissertation, communicates a longstanding cultural agreement between would-be passengers and the various institutions that inhabit or once inhabited the for-hire industry. From the hackney horse, carriage, taxi, ridehail, through the autonomous taxi, I identified five core elements that have stabilized within the practice, and which guide the process of for-hire transit. Hailing, getting in, navigation, payment, and getting out are all essential for the accomplishment of the process to ferry an individual under short-term contract from one location to another.

I also contextualized this process as an industrial ritual which broadens classical interpretations of ritual in significant ways. Classical interpretations have largely focused on meaning making produced by individual activity in relation to institutional values as one might find in the relationship between parishioners and a church. The beneficiaries of the meaning making provided by the ritual are both the institution and the individual. However, I suggest in this research that as an industrial ritual, the benefits afforded by ritual are predominantly on the side of the institutions, hence the industrial focus to the ritual. While participants do benefit from for-hire service, it is not the meaning making – the reinforcement of mores or advancement of cultural relations with the world – that provide them benefit, but rather the activity of transportation as it facilitates the logistical necessity of mobility, essential for participation in urban life. The difference is nuanced but significant nonetheless.

As an industrial ritual, stakeholder institutions that guide the for-hire industry benefit not only from the mobility that transit provides people to maintain elements of society, but also the symbolic way in which ritual practice maintains the distribution of social order. This research has demonstrated that for government and corporate institutions the activity of for-hire transportation reinforces flows of politics, culture, and economics in ways that are designed to support and perpetuate the continued success of existing social structures. Building on James Carey's work around communication as ritual, I demonstrate that ritual takes on a key role in interweaving the activity of transportation within the structure of values that reflect and buttress the established social order's notions of appropriate distributions of resources in society.

Taking Carey's work a step further I argue that rituals which maintain society do not only communicate in broad strokes about social activity but reveal nuanced understanding of how the order of society is maintained. I suggest that the activity of for-hire transit both as a means to communicate social values (ritual) and as a means to facilitate individual activity (practice) maintain society through the regulation of for-hire access. The unequal regulation of for-hire access can be read as a communication of both the priorities of the dominant social order and the means by which they maintain their dominance.

Essential to the practice of the ritual but not significant to the participants themselves, the use of for-hire transit is not an end unto itself but a means by which riders accomplish something more important than the ride. Though the individual participates in shaping the industrial ritual for the maintenance of society, I show that the structure of the ritual's activity does not facilitate ritual-like meaning making between participants. Instead, I suggest that through policy, social practice, and technological changes the practice of for-hire transit is becoming increasingly automated. With the ever-increasing interests in cost, commute, and resource efficiency automation does not actively discourage social relationships as much as it removes the need for them as an essential component of navigating for-hire transit for both passenger and driver. For-hire transit is at present, if it ever was, less about facilitating relationships en route between passenger and driver and more about facilitating broader access to the riders' participation in political, cultural, and economic activity.

10.3 Amalgam

Part of the design of the industrial ritual is in transmuting for-hire transits' constituting parts of social role, machine, and driver into a deployable unit of both utility and analysis. The constituting parts of the taxi amalgam are subsumed within the for-hire unit that takes its place. The effect is double faceted. On one hand, the amalgamated unit whether a hackney, carriage, taxi, or a ride hail, becomes not the driver or the vehicle solely but how often and how efficiently the unit transports people. On the other hand, the continued maintenance of the five essential elements present in every iteration of for-hire transit covered here facilitates a ready transmutation into a datafied object of transport.

Importantly this accumulation of for-hire expectation, which I reflect upon as taxiness, is not only inured into the amalgam's activity or how we think about its use, but also in how we think about and propagate its place in society. What constitutes the amalgam's place is taught to children through play and mass-produced toys or represented to the public through television and film, and is the foundation upon which emergent rideshare institutions ground their product in the for-hire market, and upon which emerging systems like the autonomous taxi developed. These in turn feeds back into urban development, public shaping of use, and the re-capitulation of for-hire transit to the strategic use of the dominant social order.

Communication of and by taxiness reflected in emerging autonomous systems is not exclusive to recent for-hire systems like rideshare or the autonomous taxi. Nor is the recursive relation in both responding to and reinforcing existing institutional preferences of the built environment. Taxi and other for-hire systems are shaped in

response to the needs of the moment, again communicating through use the priorities of stakeholders that have a hand in guiding its emergence and dictating the contours of the environment in which it emerges. In turn the material, cultural, and political landscapes that constitute the taxi's framing environment are built to accommodate new possibilities afforded by this new mode of transit.

Yet, the image of taxiness, or other forms of for-hire transit, has been by no means egalitarian in its regulation of access to the for-hire amalgam, the ritual it facilitates, or the societal resources such access promotes. This dissertation has shown that this reality of unequal access stands in stark contrast to the public discourse of emancipation frequently coiffed at times of emergence. As a communication of the institutional priorities this dissertation has demonstrated that each time for-hire transit emerges it is quickly folded into existing systems, flows, and negotiations around how and who is deserving of accessing society's resources. Meanwhile incorporating for-hire access into those flows that regulate access to society through cultural, political, and economic opportunity is afforded by a built environment designed to regulate access to the amalgam unequally.

10.4 Built Environment

It is from here that I investigated how for-hire transit communicates and what it communicates by considering the interplay between the built environment and the taxi amalgam. I present a reworked understanding of the built environment to include not only the materiality typically ascribed to conventional understanding of what is built, but also political and social dimensions of urban environments that comprise the cultural positioning of how such materiality could be used and by whom. We see the

interplay of material, social, and political, which I explore at several different moments where for-hire transportation became folded into the established social order. In the 13th century with hackney horse, then again in the 17th century with the emergence of the hackney carriage, I demonstrate how the activity of for-hire transit was not only folded into the political and economic flows of early London society and how the unequal regulation of access, first excluding the serf class, then disabled people and itinerant laborers, was strategically deployed to reinforce existing flows of power and money. I then turn to the beginning of the 20th century with the development of America's City Beautiful movement that built city infrastructure that unequally regulated access to transit so strategically that it enacted a vision of a more productive society. This pattern again excluded the poor and disabled, as well as Black and other communities of color for the enforcement of a White dominated order of society. Keenly it was not only the presence of the taxi that excluded Black participants that could not afford it or disabled users from navigating the car physically; it was in the taxis carefully structured absence – physically, geographically, economically, and socially – that acted as a mechanism of social control and urban evolution, and through its exclusive use and absence communicated a set of priorities about whose participation dominant society valued.

I argue that the connection between urban development and taxi use paralleled industrial and cultural practices around car manufacture and use that bolstered the same unequal divisions of access. Drawing on early 20th century manufacturing and automotive culture, I demonstrate how these ideas became built into the design and availability of the combustion car, excluding people physically, as well as by race and

gender out of fear that providing such mobility would threaten the established White male dominated structure of power that led and benefitted most from inequalities around access and availability of resources.

In juxtaposing this environment with the women's suffrage moment, I illustrate an important moment of work that problematizes the oft leaned upon emancipatory claim of automobiles and mobility. Couched in terms of emancipatory potential the car, and in particular the iconography of the suffrage taxi, represented women's resistance to the very social order that limited their access to geographic and political mobility. Yet as the movement wore on the taxi communicated through use a subscription to the ideal of that exclusionary social order. Through the drivers' actions of only servicing White non-disabled people communicated priorities also echoed in the 1917 suffrage leadership's decision to exclude Black women from suffrage affiliation. This represented a moment where what was an emancipatory promise of the automobile was only achieved once the White women fighting for the right to vote conditioned the promise of its use on in terms of service and capitulation to a White supremacist social order.

Here the emancipation that was promised by the emergence of new for-hire services came with a caveat that those emancipated must service the established social order. The alternative was and still is erasure.

10.5 Building Toward Invisibility

In several ways invisibility has been built into for-hire emergence, into the environment it emerges into, and the way it is folded into existing practices and ways of accessing society. Strategically, often these incorporations of invisibility operate in

tandem with existing inequalities, each bolstering the other. The rendering of invisible has taken several different forms. First the unaffordability of hackney access for the poor, feeding into the inability to promote monetary or cultural trade between cities too far to walk, thus keeping the local impoverished populations isolated, invisible in their silence to the world outside their city walls. And in the 17th century, disabled members of society were expected to stay in their homes, to not burden the public with their visage, to self-segregate and as such never be available for carriage use, nor in a position to afford it or impose the burden of their care on other outside their own family. For itinerant workers, consisting of Black workers, other people of color, and lesser class White immigrants, their mobility was limited to low infrastructure areas of the city, as the ruling elite needed disposable low wage workers to fuel dangerous jobs for Britain's industrial revolution. And when those hazardous jobs took their toll, disabling workers, custom demanded their isolation from society and with them went the living testament to unfree labor. Carriage absence, more than their presence, marked the boundaries of transportation possibility. And for middle-class women, invisibility as the duty of the housekeeper was hung around their neck like a bell, whose toll warded away carriages and possibility of service, and with-it opportunity for visibility, employment, or political participation.

By the 20th century, the absence of accommodation continued to limit disabled mobility for anyone but the wealthy, sliding neatly into cultural beliefs that disabled people were economic burdens at best, and moral or genetic threats at worst. Chicago's urban development, refined in Boston, replicated the technique of structural isolation, strategically limiting disabled people's visibility to the rest of the city in part

by physically and economically limiting their ability to access it. Though concerned with some of the same threats posed by disabled communities, Black communities were also strategically disadvantaged. Believed to be predisposed to disease and lesser productivity than White laborers, Black access to transit was also limited by unequal housing, employment, opportunities for political participation, and the absence of mass transit alternatives available to the White middle class.

The strategy of isolation so as to promote invisibility was carried forward successfully, for example, as disabled residents were excluded from assessments of war needs, thus limiting any access to resource they might have. Meanwhile judging low-income areas that designers themselves created, coupled with belief that low-income equaled laziness those afflicted were seen as burdens as their potential contribution could not outweigh the cost of transportation. As early 20th century urban designers held, these isolation tactics were meant to be persistent, and they were effective in that regard. Today taxis still hold more opportunity costs for Black and disable people to access in time or money, and the built environment upon which these inequalities were enacted have become the framework for emergent systems like Uber, and yet to emerge systems like the autonomous taxi, to operate.

What makes this particularly pernicious is both in the interaction with the built environment and the automation of ritual processes leading up to and contextualizing how we may see the autonomous taxi operate, and how these issues are subsumed under layers in which interaction, tradition, and shifts in decision making that make exclusion difficult to express. But what invisibility communicates as a product of the unequal regulation of access is also necessary to acknowledge.

Invisibility is not only extended to patrons but to the activity of transportation itself. Taximeters replace driver calculation, GPS replaces navigation, apps replace payment regulated by the driver, gradually shifting more of this decision making to institutional authorities. Improvements to the five elements of the taxi ritual are not made to account for the systemic nature of invisibility built into to the taxi's relations to society and incorporation into social structures. Thus, those rendered invisible by process, practice or built environment are equally invisible to usage calculations, ridership statistics, and any visibility transportation affords member of a society. At first, this may seem at odds with the emancipatory promise of more equal or equitable access provided by emergent systems.

By pointing to the driver as the source of unequal treatment institutions skirt promises of unequal access, divorcing the link between the operation of for-hire institutions and the landscape upon which they both depend and depend on them. Doing so offers the panacea of improving driver decision making (by taking it out of the hands of a driver) which continues to carry with it the promise of a new technology's ability to offer mobility more fairly. These are the promises incorporated into the Go Boston 2030 and Imagine Boston 2030 plans for transit and urban landscape renewal. Yet without the ability to address the problems created by for-hire transit relationship with the built environment, for-hire use will continue to communicate the priorities of a society that motions at equality but never intends to achieve it, and built and re-built with the deterministic expectation that technology will fix a fundamentally relational problem of inequality.

10.6 Final Thoughts

Throughout this dissertation, I demonstrated the inter-dependent and entangled relations between for-hire transit and the priorities of a society it is built to both reflect and service. I catalogued patterns of emergence as ritual to illustrate where and how emergent forms of for-hire transportation were and continue to be folded into existing social practices, where hierarchies of social dominance that helped shape both the built environment into which new forms of for-hire transit emerged, and where its strategic incorporation reinforced the conditions that shaped its emergence. I have suggested that for-hire transit can be read as communication of social priorities by grounding patterns of emergence and incorporation as articulations of dominant ideologies of the time.

I argue that for-hire transportation, like the taxi, is simultaneously a collection of individual rides that move people from one location to another and an aggregate unit of analysis whose mobility helps maintain the structure of society. It is the aggregate that communicates social values through the routinization, and gradual automation, of the industrial rituals practice.

As for-hire transportation continues to advance to ridehail, and the prospective autonomous taxi, I show these patterns reoccurring in ways that communicate the same prioritization. While public attention is focused on the promise of emancipatory mobility and a problem of the individual, for-hire transit as a unit of societal maintenance continues to be staged in support of an environment built to regulate access unequally. Because of for-hire transit's unique position as both an individual movement and social maintainer, how for-hire transit is used, who uses it, and what

guides its use will remain a means of communications by which vital information about the ordering and value of people in our society is conveyed.