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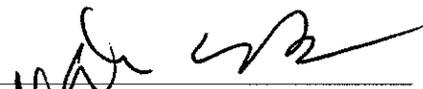
**Moving Ho Chi Minh City:
Planning Public Transit in the Motorbike Metropolis**

by
Jessica Lockrem

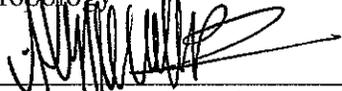
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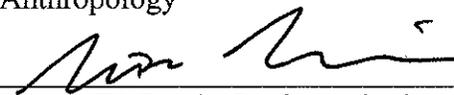
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Anthropology



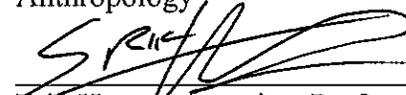
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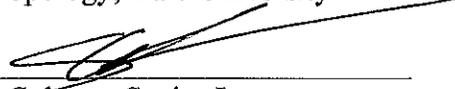
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Erik Harms, Associate Professor on Term
Anthropology, Yale University



Scott Colman, Senior Lecturer
School of Architecture

HOUSTON, TEXAS
MAY 2016

ABSTRACT

Moving Ho Chi Minh City:
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Jessica Lockrem

This dissertation analyzes the role of speed in contemporary urban life in Ho Chi Minh City, Vietnam. While the modern condition often champions speed, I found residents and city planners criticizing the effects of increasingly accelerated movement on street life, safety, and the environment. I argue that trends in transportation planning are shifting from a modernist urbanist emphasis on speed to a holistic integration of mobility with daily activity. The dissertation is based on two years of ethnographic fieldwork with planners who were working on the major public transportation plans being developed and with operators of the current public transportation systems. While planners are often assumed to be concerned mainly with traffic flow, my research shows these experts recognize transport as an important aspect of the social space of the public street. Engaging with scholarly literatures on infrastructure, mobility, and Vietnam, the dissertation is divided into three parts: material infrastructures, lived experiences of transportation, and imagined futures for transport systems. Part I looks into the history of transportation infrastructure in Ho Chi Minh City by examining the material spaces these infrastructures create. Part II analyzes lived experiences of transportation infrastructure. Finally, Part III interrogates the imagined spaces of the city through the perspectives and

practices of transportation planners. The research is concerned with how the science of urban planning and other technologies shape urban form and mediate individuals' experiences of and access to the city. As the cities of Southeast Asia rapidly grow, examining the epistemologies and technologies that are guiding their shape becomes ever more important for understanding urban life.

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you and seeing what you have done since. Back in 2006, I dreamt of one day writing a dissertation on fieldwork in Vietnam, and I knew I would thank all of you for your friendship and the good times. I also want to thank Brian Zottoli for teaching us and guiding us during that semester. Thank you to my homestay sister, My, her brother, Pha, and her mom and dad, for inviting me into your homes.

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Thank you to all who have supported this research over the years. It has truly been enriched by many.

COMMONLY USED ACRONYMS

ADB - Asian Development Bank

BRT - Bus Rapid Transit

HCMC - Ho Chi Minh City

HIDS - Ho Chi Minh City Institute for Development Studies

HOUTRANS - Urban Transport Master Plan and Feasibility Study In Ho Chi Minh City Metropolitan Area (2004 master plan study)

JICA - Japanese International Cooperation Agency

MAUR - Management Authority for Urban Rail

MRT - Mass Rapid Transit

ODA - Official Development Assistance

USD - United States Dollar

V/CR - Volume over Capacity Ratio

VND - Vietnamese Dong

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INTRODUCTION

A Vietnamese expression signifies the pleasure of speed in Ho Chi Minh City. “*Đi chuyển là sống* (life is moving).” It is a saying that captures the popular practice of youth driving around the city in the evenings with no particular destination. After sundown, the city’s wide boulevards are filled with young couples. Women, shedding their long sleeves, gloves, and masks that protect their skin from the sun during the day, dress in fashionable dresses, ride snugly behind their partners, with chins rested on shoulders, speaking intimately into the ears of their boyfriends. They ride to be seen, but also to enjoy a moment away from the eyes of family. “Life is moving,” meaning life happens in movement. Mobility is pleasure.

In this dissertation, I examine the role of speed in urban Vietnam. I connect the desire for movement to notions of modernity, economic development, and the embodied pleasures of motion. I examine transportation modes as not only technological vehicles that allow for mobility, but also semiotic vehicles that signal development, modernity, and pleasure. Yet, what is lost when infrastructures are built for speed? Planners and residents in Ho Chi Minh City are beginning to criticize the effects of speed on street life and traffic safety, and officials are beginning to recognize the benefits of allowing congestion to create more sustainable mobility.

According to the social science literature on infrastructure, infrastructure fails when it is unable to support free circulation and when provision is inadequate (Star 1999; Larkin 2013; Graham and Marvin 2001), such as insufficient water flow in Mumbai (Anand 2011, 2012) or blackouts in Nigeria (Larkin 2008). However, can infrastructures be said to fail if they provide too much circulation? Too much speed? In terms of

transportation infrastructure, popular notions hold that the purpose of transportation planning is to reduce congestion and ensure free-flowing circulation. Yet, during a year of fieldwork with local and international transportation planners working on all of the major public transportation projects and with operators of Ho Chi Minh City's formal and informal transportation networks, I witnessed disjunctive feelings toward the role of speed in modern life. Speed both enables and endangers. It is generative and destructive.

These disjunctive feelings reveal a paradox. When transportation infrastructure is best fulfilling its ostensible purpose, providing for speedy circulation, it provokes the harshest criticism. Flow in transportation is often seen as necessary in the rush toward economic growth, development, and modernist ideals of progress. Yet, in this rush, the city is stuck with structures no longer providing sufficient mobility. The city is in gridlock. And, the velocity it is providing is being criticized for its negative impact on the safety of bodies and the liveliness of public space. A new logic of speed in transportation can be seen in Ho Chi Minh City, one that does not unquestioningly accept increased speed as the ultimate goal of transportation. Rather, the pace of traffic must be controlled and integrated into other social activities of the streets.

Motorbike Metropolis

A second Vietnamese expression, “*không xe máy, không chân* (without a motorbike, without legs)” demonstrates the significance of the motorbike for mobility in Vietnam. Ho Chi Minh City has eight million people and 7.4 million registered motorbikes (Thanh Niên News 2016). It is a metropolis of motorbikes.

The percentage of trips taken by motorbikes (what planners call mode share) is upwards of 78% (Almec 2004). This transportation landscape is relatively new and

continues to change. Only decades ago, most residents traveled by bicycle. Today, car ownership is increasing by 20% per year. Meanwhile, officials have set a goal of increasing public transit usage from the current 5% to 50% of trips in less than a decade, which includes a proposal for an urban rail system (People's Committee 2009).

Transportation is changing in Ho Chi Minh City, but no one is certain in which direction it will go. Will Ho Chi Minh City become an automobile-dominated city? Will residents ride the future metro? In this rapidly changing transportation landscape, the questions of how to increase speed and for whom become technological as well as semiotic and political matters.

Desire for Speed and Economic Development

Scholars have argued that speed is characteristic of the modern condition. Paul Virilio (1986) proposes a "science of speed," what he calls dromology, to help us understand the contemporary. He argues that modern governance is increasingly preoccupied with pace, recognizing that power and control are dependent upon speed. In Ho Chi Minh City, contemporary governance is not only concerned with the consequences of rapid movement, but questioning speed itself.

Infrastructures - as the built networks that allow for the circulation of people, goods, and ideas - facilitate speed. And, as Brian Larkin (2013) argues, infrastructure has its conceptual roots in the Enlightenment idea of a society in movement and open to change where unimpeded circulation is equated with a hope for progress. He further writes that popular belief holds that "by promoting circulation, infrastructures bring about change, and through change they enact progress, and through progress we gain freedom" (332). Similarly in Vietnam, motorbikes are associated with progress. Therefore, to

criticize the pace of this circulation or to offer an alternative to what is seen as a natural progression from bicycle to motorbike to car, is to question assumptions about the proper path to modernity.

Over the past two decades, the rapid economic growth in Ho Chi Minh City has allowed for more speed on the streets, as residents have abandoned their bicycles for motorbikes and motorbike ownership has become a visible marker of middle-class status.

As I rode on the back of a motorbike with Nguyễn to his home on the outskirts of the city to visit his family, he told me he used ride his bicycle down this very road each day to the university when he was a student decades ago. “Of course, the road was much narrower then, and traffic didn’t travel as fast,” he told me. On that same ride, Nguyễn turned to me and said, “Little sister, I need you to understand something, when I was young, we were all very poor, we were hungry. But, look at how much the city has developed now.” The experience of Nguyễn trading his bicycle for a motorbike is familiar to many Vietnamese.

In 1986, recognizing that the centrally-planned economy was failing to produce enough rice to feed the nation or to grow the economy, the Communist Party instituted a series of economic and social reforms called *đổi mới*, or “renovation.” Allowing for private ownership and trade, the political economy of Vietnam after 1986 is often referred to by its architects as a “market economy with a socialist orientation.” The World Bank (2015) touts Vietnam as a “development success story,” reducing extreme poverty from over 50% in the early 1990s to 3% today. The rate of this economic growth directly led to more speed for Vietnam’s citizens.

The motorbike is not only a technological vehicle to deliver speed for individuals, but a semiotic vehicle to signal one's economic success. The make and model of one's bike is an opportunity to display one's taste and social status. When I asked a local planner what motorbike he drove, he told me, "I drive a Piaggio. Very fashionable." Allison Truitt (2008) associates the division of traffic lanes into bicycle, motorbike, and car-only lanes as a material indication of new socio-economic hierarchies, highlighted further by the relative size of the vehicles and the road space allotted to them. Indeed, while the communist state previously attempted to rid society from economic class differences, the ostentatious display of wealth is a marked change.

Economic development has brought speed to Vietnam, and economists argue this speed is important for continued growth. Or, rather, that congestion will slow growth. One study conducted by Vietnam National University claims that the socioeconomic costs of congestion in Ho Chi Minh City are equivalent to about 800 million USD per year, or 6.25% of the city's GDP (Almec 2007). A report from an international team of consultants later utilized this study, stating, "the socioeconomic impact [is] very severe and certainly high enough to warrant immediate action" (Almec 2007: 8-2). The absence of flow can be costly.

Phenomenology of Speed

Speed can be objectively measured, as in how long it now takes Nguyễn to travel into the city, but, importantly, it can also be phenomenologically experienced. Here, I draw upon scholars in conversation with the new mobilities paradigm, including Tim Cresswell (2006), who maintains that "mobility is practiced, it is experienced, it is embodied" (3; see also Sheller and Urry 2006; Urry 2007; Adey and Bissell 2010; Adey

2010; Cresswell 2010; Cresswell and Merriman 2011; Adey et al. 2013). On a motorbike, movement feels faster. The unmediated experience of the environment on a motorbike, absent the protective metal walls and closed windows of a car, produces an embodied feeling of speed: the air rushing by, the bumps in the road, and the acceleration and deceleration are all felt by the body.

The popularity of evening rides through the city, to “*đi vòng vòng*,” literally to “go around” indicates the pleasure of being in movement for urban Vietnamese, especially the young who, in conservative families, often experience it as a taste of freedom. One man told me, simply, “it’s too hot in Ho Chi Minh City not to be moving.” Riding a motorbike can be thrilling at any speed. Parents told me their children begged to go on rides with no other purpose than to enjoy the movement. One extreme example of the pleasure of speed can be found in the illegal nighttime races reported in Hanoi. Young men mix motorbikes, alcohol, and speed to perform masculinity and flirt with danger (Freire 2009). In Ho Chi Minh City, the most aggressive drivers who most often flout traffic regulations are often young men. For older Vietnamese, the mobility offered by the motorbike is in stark contrast to imposed curfews and controlled migration during decades of war and occupation. For those with a long memory, mobility is the result of relative political freedom and economic prosperity (see Elliott 2000).

Moreover, the material qualities of the motorbike allow drivers to remain in motion; the motorbike’s flexibility allows drivers to swerve around obstacles, ride up on sidewalks, and travel down narrow alleyways. On one rainy evening, when flooding of the Ho Chi Minh City streets was causing particularly bad traffic jams, my motorbike taxi driver told me he knew another way to my home. As I crouched under a poncho, trying

desperately to stay dry, Uncle Hung turned into a narrow alley I had not noticed before. We moved through a series of narrow spaces, some so tight I could have touched walls on both sides with outstretched arms. When we arrived, Mr. Hung remarked with pride that we had escaped the congestion. The detour may not have made the ride shorter, but the flexibility of the motorbike, and my driver's expertise of the streets, made us feel like we were gaining speed, as we kept in motion. In the sea of motorbikes that fills Ho Chi Minh City streets, cars and buses must lumber along at a stop-and-go pace as aggressive motorbikes swarm in front of them. This makes traveling by car on urban streets not only an objectively slower mode of transport but also a frustrating ride, as motorbikes pass by more freely. In this way, the motorbike is a unique site to analyze the phenomenology of speed, as the openness to the air and built environment creates the feeling of rapid movement, even as the actual velocity may not be comparatively fast.

Critique of Speed: Loss of Street Life

Yet, speed in Ho Chi Minh City has brought consequences. Virilio (1986) notes the darker side of speed when he writes, "We only need refer to the necessary controls and constraints on the railway, airway or highway infrastructures to see the fatal impulse: the more speed increases, the faster freedom decreases" (142). Speed must be harnessed, limits imposed. Residents and planners in Ho Chi Minh City are also recognizing the limits of speed and its consequences.

Critics of modernist urban planning have argued that designing streets for speed has led to a "death of the street," as James Holston (1989) and James Scott (1998) have claimed in their critiques of planning practices. As roads become domains for machines, people are pushed from those spaces. In Vietnam, public space is frequently utilized for

private use such as eating, playing, bathing, and selling goods, something one Vietnam scholar has called blurring the line between public and private space from the “inside-out” (Drummond 2000). However, the intimate alleys where one almost never escapes the presence of other residents are far different from some of the new boulevards and highways cutting through the city. Some of the critiques of these new highways are coming from international planners and engineers, who, in many cases, have worked in cities like Singapore, Tokyo, and London, where they are now implementing new infrastructures to dampen the impact of the dominance of personal automobiles.

A striking example is Highway 1, which carries large vehicles, and is inhospitable to pedestrians or roadside cafes. Several years into planning what will be the first metro line, which will run alongside this highway, the funding agency realized it needed design plans to ensure that pedestrians could reach the stations. As it stood, riders would need to dart across four lanes of high-speed traffic. Designs were developed to incorporate pedestrian bridges and sidewalks to make the rail line accessible for pedestrians.

Annette Kim (2015) notes that “the sidewalk space of the city *is* the city to most people” (2). We cannot enter most buildings, but we do observe each other in public space, especially in lively Ho Chi Minh City. Kim also notes that increasingly, the Vietnamese government is clearing the sidewalks due to a familiar rationale: “for the sake of traffic congestion, and public health, and in order to be a modern, world-class city” (3). In my years of ethnographic research with motorbike taxi drivers, I found that Ho Chi Minh City’s street life is important for the functioning of the city. For example, one driver, Uncle Nguyen, spoke with me about motorbike taxi drivers’ roles in local security. Uncle Nguyen wore a helmet and uniform given to him from the city that

proclaimed him to be part of the “self-managing security and order program.” In our conversation, he took clear pride in protecting the community from petty crimes. Another driver, Mr. Nam, told me similar stories, when he described, with great animation, the time he chased down a thief and retrieved a purse for a woman.

Motorbike taxi drivers also play an important role in preventing crime. These men, by spending many hours on the same street corner each day, are astute observers of the people and activities. As a result, the drivers in my neighborhood always knew the goings on of the neighbors and were excellent sources of gossip. My regular neighborhood driver, Mr. Hoa, often told me who was new to the neighborhood or where he was bringing particular customers. (He also gave me reports on the comings and goings of my husband while I was away.) Motorbike taxi drivers’ gossip and conversation with passersby can be considered what Bronislaw Malinowski (1936) termed “phatic communion,” language that establishes ties and community for their own sake, as opposed to only for the sake of conveying information. This phatic communion is one aspect of creating a community where people are aware of others’ movements and activities, and, when something or someone is not in order (Sopranzetti 2014). Motorbike taxi drivers’ physical presence on street corners are an important aspect of local security, made explicit through the order and security programs organized by ward police and less explicit, but still integral, within groups of motorbike taxi drivers who maintain their posts many hours of every day within communities.

These drivers do not embody notions of speed and efficiency. One local planner showed me his study where he proposed that drivers be given fare meters and be organized from a central office, which would field taxi requests. Indeed, app developers

are already using the model of Uber to experiment with on-call motorbike taxis. This will mean, however, that drivers may no longer be a constant presence in communities, providing informal security, giving directions to countless lost drivers, or even just being friendly neighbors. Drivers lamented to me that there were fewer and fewer customers because people could now afford to buy their own motorbikes or take an automobile taxi when needed. With major changes in transportation infrastructure, there are ripple effects into the social fabric of the city, in this case, the loss of important figures on the streets.

Critique of Speed: Safety

Another critique of speed can be found in residents' concerns about the bodily risks of motorbike travel. Lien, a local transportation planner, told me one afternoon that every day when she returns home, she feels lucky that she was not in an accident. At another point, I asked her if she takes her son to the cinema. She replied that they rarely go to see a movie because the theaters are in the center of the city, and she prefers not to travel by motorbike with her six-year-old if it is not necessary - she finds it too dangerous. Lien then remarked upon a mutual colleague, expressing surprise that he would move his family from Japan back to Vietnam, saying, "You want to bring your child places on the weekend, but you are scared to bring him on a motorbike, so you just stay at home."

During the year I spent conducting fieldwork at a local transportation research center, I was often confronted with harrowing statistics on road injuries. During one presentation, Mr. Hùng displayed data for more than 20,000 traffic fatalities in Vietnam in a previous year. At lunch after the presentation, the director of the center pointed out to me that Mr. Hùng's helmet cost more than 200 USD, ten times what a good-quality

helmet costs. The director relayed this information to me with a knowing wink: Mr. Hùng studied statistics about fatalities; understandably, he had a top-of-the-line helmet as a result.

Critique of Speed: Speed is not Sustainable

Even as residents are recognizing speed's negative impacts on safety and street life, planners also maintain that constructing infrastructures for speed is not sustainable. Officials are recognizing that widening roads to increase capacity and ease congestion is short-lived. Increasing capacity means more incentive for residents to drive, and will result in the roads becoming congested again with time, what planners call induced demand. In Ho Chi Minh City, I knew several people who used to own cars but do not drive them because it is slow and stressful. Constructing highways will only lead to more cars on the road, and more stress on infrastructure, planners predict. The paradox of urban mobility is that to produce speed in the aggregate, in terms of the moving the greatest volume of vehicles, traffic must be slowed, in terms of velocity for individuals.

This point was exemplified for me at the official launch of the World Bank's project to design a Bus Rapid Transit line in Ho Chi Minh City. From a podium at the front of a large hotel conference room in the central business district, Mr. Gupta, an Indian World Bank official asked, "What is the biggest problem of transport in the city? Congestion? Everyone sees congestion as the biggest problem, but is it really a problem?" Mr. Gupta continued, "if congestion is the problem, then the obvious solution becomes, 'let's build more roads,' but as you can see, all of the cities who have tried to solve congestion by building more roads have really increased the problem, not solved the problem." An Asian Development Bank official told me "you can't avoid congestion,

because people are not going to go to public transport unless they have a reason for it, and congestion is the only reason.” His goal as a transportation planner is not to ease traffic jams. Rather, he wishes to utilize gridlock to create a more sustainable transportation system.

The Logics of Transportation Planning

Speed provokes disjunctive feelings in Vietnam. It further reveals the paradoxes of infrastructure and modern urban life: when transportation infrastructure is best fulfilling its ostensible purpose - providing rapid circulation of people and goods - it is most likely to be criticized for its impacts on safety, the street life, and the environment. In this dissertation, I examine the role of speed in contemporary urban life. While the modern condition often champions speed, I found residents and city planners criticizing the effects of increasingly accelerated movement on street life, safety, and the environment. I argue that trends in transportation planning are shifting from a modernist urbanist emphasis on speed to a holistic integration of mobility with daily activity. To explore the experiences and expertise of the people connected with transportation – planners, operators, and users – I conducted two years of ethnographic fieldwork in Vietnam. While planners are often assumed to be concerned mainly with traffic flow, my research shows these experts recognize transport as an important aspect of the social space of the public street.

My research intervenes at the intersection of social studies of infrastructure, mobilities studies, and scholarship of contemporary Vietnam by revealing the experiential and affective dimensions of transportation from the sensations of riding a motorbike through the streets of Ho Chi Minh City to the desks and methods of transport

planners. I examine the expert cultures that shape transportation infrastructure and how transportation technologies, in turn, affect everyday experience in urban space. As Ho Chi Minh City residents have transitioned from bicycle to motorbike and, in the near future, may transition to car or public transport, my research asks how planners seek to influence those transitions and explores the phenomenological experience of these modes. While much of the existing research assumes that transportation planning is monolithic and consisting of detached technocrats, my research is among the first to ethnographically explore planners' perspectives in Southeast Asia and shows that planners are engaged in internal debates about the role of transportation in shaping urban life. As the cities of Southeast Asia rapidly grow, examining the epistemologies and technologies that are guiding their shape becomes ever more important for understanding contemporary life.

Methods

To study transportation in Ho Chi Minh City, I have spent approximately two years living in Ho Chi Minh City since 2006, including a year of sustained fieldwork in 2013. During that year, I conducted participant observation at a local transportation research center. I participated in their seminars, meetings, daily office life, and their research, such as conducting household surveys. Once a week, I caught a 7:00 am bus reserved for the university's faculty to travel to the research center. The 90-minute ride to the center and the 90-minute ride back to the city at the end of the day, were excellent opportunities to interview the planners. I recorded many of these conversations. At other times, I chatted with one of the planners informally, which also informed my field notes. At the center, I had my own desk in the large office that the eight PhD students and the

director shared. Once a week, on the day I visited, two of the PhD students gave presentations on the progress of their research. I recorded these presentations and the questions and discussions that followed. I also conducted formal interviews with some of the staff that did not ride the bus to the center. At other times, I sat in on meetings regarding projects the staff were involved in outside of their PhD research, including projects involving Metro Line 1 and the Bus Rapid Transit line along the East-West Boulevard. Lunchtime conversations and side conversations throughout the day were another opportunity to learn about the planners' research and daily lives.

The planners at the Transportation Research Center provided me with a robust network of local planners and officials to interview. I was able to interview officials at the Ho Chi Minh City Department of Transportation, a city government think tank called the Ho Chi Minh City Institute for Development Studies (HIDS), planners at several local planning and engineering firms, transport planning and engineering professors at local universities, the Ministry of Transportation in Hanoi, an executive at a local bus company, and the local city bus authority.

I also interviewed many foreign experts working on transportation projects in Ho Chi Minh City. These included project managers for plans associated with Metro Line 1, Metro Line 2, the East-West Highway Bus Rapid Transit Line, a previous master transportation plan (HOUTRANS). I also interviewed an official at the Asian Development Bank working on Metro Line 2, several officials at the World Bank working on the BRT line, and Japan International Cooperation Agency (JICA) officials working on Metro Line 1. These experts were from Australia, Great Britain, Germany, United States, Hong Kong, Japan, France, and China. I also conducted a research trip to

Tokyo where I visited a planning firm that has worked in Vietnam for more than two decades. I also visited the offices of JICA and interviewed two JICA officials dedicated to projects in Vietnam.

To move beyond the desk of planners, I spent many hours on the street and in traffic. I recorded interviews with more than thirty motorbike taxi drivers, and spent many more hours talking casually and watching them work at the major transportation hubs. I focused on motorbike taxi drivers at the East Bus Station, the West Bus Station, the train station, Ben Thanh bus station, and on corners in District 1 and Phu Nhuan District. I also interviewed management officials at the East Bus Station, the West Bus Station, and the train station.

I spent time on the city bus network and on the back of a motorbike, in addition to speaking with residents about their transportation choices. These methods allowed me to gain the perspective of the planner and also the phenomenological perspective of a commuter in the throws of traffic.

Overview of the Dissertation

The dissertation is divided into three parts: material infrastructures, lived experiences of transportation, and imagined futures for transport systems. Part I looks into the history of transportation infrastructure in Ho Chi Minh City by examining the material spaces these infrastructures create. Chapter One offers a survey of the history of different technologies of transportation in the city, and how the recent rise of the dominance of the motorbike has led to the “motorbike-dependent city,” a symbiotic relationship where the motorbike is best able to provide for the transportation needs of urban inhabitants given the physical qualities of the city, such as narrow alleyways, but

also that these material elements of the city, such as ramps for motorbikes, are implemented because the motorbike is the dominant mode of transport. The chapter explores how planners attempt to influence mode share through implementing particular infrastructures and policies. Chapter Two further examines the history of transportation technology in the city by examining how the history of the bus system and its changing modes of funding intersects with the transforming political economy of the city, from eras of capitalism, socialism, and, finally, market socialism.

Part II analyzes lived experiences of transportation infrastructure. Chapter Three explores the embodied experience of motorbike travel through a focus on the perceived vulnerability of the child's body from the perspective of both parents and of officials attempting to increase safety. Chapter Four investigates the lived experience of motorbike taxi drivers, arguing that though they are perceived by the public as being disorderly, they have intricate modes of self-management and are increasingly regulated by city officials.

Finally, Part III interrogates the imagined spaces of the city through the perspectives and practices of transportation planners. Chapter Five argues that, though the public often lists congestion as the chief problem of transportation, public transit planners view congestion as a tool to encourage public transit use and to develop denser, more livable, and more economically vibrant cities. Chapter Six investigates the tools that transportation planners utilize to make decisions about transportation plans, arguing that though these tools attempt to be attuned to individual commuters' travel preferences, they end up recreating globally homogenous streetscapes.

PART I: MATERIAL INFRASTRUCTURES

CHAPTER ONE

Naturalized Transportation Choices: Altering Modal Split in the Motorbike

Metropolis

Introduction

At 6:45 am one Friday morning during my fieldwork I walked down three flights of stairs and out the front gate of my building to find Mr. Hoa, my regular motorbike taxi driver, waiting for me. I had confirmed with him the day before that I would need a ride this morning. I hopped on the back of his bike and put on my helmet as he put out his cigarette and asked me if I had eaten breakfast yet. I replied, “not yet,” so we stopped at the corner to order my favorite noodles-drenched-in-fish-sauce breakfast and a glass of thick black iced coffee to go. Traffic was thick at this hour, with men in shirts and ties and women in pencil skirts and heels on their motorbikes heading to their offices. We chatted as Mr. Hoa swerved through traffic to our destination. He occasionally drove up on to a curb to circumvent the congestion, as I gripped the handle on the back of the motorbike to brace for the jolt of going up onto and back off of the curbed sidewalks. We traveled east until we reached Highway 13, where Mr. Hoa let me off at the curb. We confirmed that he would meet me on the other side of the street that evening at about 6:00. I would pay him for both trips that evening. “We will meet again,” I called after him in Vietnamese as he drove away, negotiating the large intersection filled with buses and trucks coming up Highway 13 as he crossed it.

I stood on the corner and ate my breakfast as I waited for the bus that would take me to the Transportation Research Center. There was a wide sidewalk and a dozen other office workers spread out along the short stretch of road waiting for buses. Every minute or so a van or bus would stop and a few people would enter before it continued along Highway 13, which leads north of the city to an area with industrial parks, universities, factories, and office complexes. After a few minutes, I noticed Lien across the street. She walked slowly and steadily across the six lanes of traffic, traffic which did not stop for her but merely swerved around her. She smiled at me and walked across the street, seemingly with no fear or even thought to the motorbikes, cars, buses, and trucks passing her within an arm's reach. She had parked her motorbike at a private parking lot on the first floor of a family's home in an alleyway across the street. The family locks up dozens of bikes during the day for workers needing a place to park. Lien and I chatted about family and work as we watched the traffic go by and breathed in the exhaust from buses and motorbikes, exhaust so thick that at times you could taste it. At 7:15, a large coach bus pulled up and stopped. The bus is chartered by the university where the Transportation Research Center is housed to travel along this road once in the morning and then back again in the late afternoon every weekday to transport employees living in Ho Chi Minh City. We said hello to the familiar driver as we entered the blissfully cool bus. As he closed the door and drove ahead down Highway 13, he shut out the noise and smells of the street. We picked a couple seats near the middle of the bus. Most passengers were sitting alone in a pair of seats. But, as with every week, we would sit together to chat during the 90 minute ride to the Transportation Research Center.

After ten minutes, the bus made another stop and Dr. Anh entered the bus. He waived to us, but sat near the front, often preferring to sit in silence during the ride. Dr. Anh, born in Hanoi, recently moved from Tokyo, where he attended university and worked for a decade, to direct the Transportation Research Center. When choosing where to live, he told me, he purposely chose a large apartment complex on Highway 13, so that he could easily walk to the bus stop. He and his wife were considering moving to a newer, wealthier area popular with foreigners, but when she also got a job which required her to take a chartered company bus up Highway 13, they decided to buy their apartment in the current complex for the convenience it offered.

When we arrived at the Transportation Research Center, Hùng was already there. He lives on the north side of Ho Chi Minh City, but he told me once it would take him almost twice as long to drive over to Highway 13 and take the chartered bus, so he drives his motorbike directly to the Transportation Research Center. Hùng's research often requires him to look at detailed statistics regarding traffic accidents in Ho Chi Minh City, so he is all-too knowledgeable about the most dangerous conditions for driving a motorbike. Hùng acknowledges the danger of driving motorbike along the highway, where speeds are high and motorbikes drive near trucks and buses, yet the inconvenience of taking the bus makes this risk of a traffic accident at dangerously high speeds a reasonable choice for him at that time.

Việt was also already at the center. He had also driven his motorbike that day, from an area not far from my own home. He also occasionally takes the local bus to a spot to pick up the chartered bus. A handful of other researchers live in dorm-like accommodations not far from the university, as their husbands or wives and children live

in Hanoi even as they study three weeks out of four in Ho Chi Minh City. Mr. Bắc has not yet arrived, but may arrive later in the afternoon for a mandatory English class. Mr. Bắc is a relatively high-level government official working on the plans for urban rail in Ho Chi Minh City, while at the same time working towards his PhD in transportation planning at the center. If he arrives, he will arrive in his mid-size SUV, with his personal driver.

All of us who had now arrived at the Transportation Research Center, about 24 miles outside of the center of Ho Chi Minh City, had taken different transportation modes to reach it. We had traveled by some combination of local bus, motorbike, motorbike taxi, personal car, walking, and chartered bus. On two occasions, I traveled the entirety by motorbike taxi, fearing for my life at times and taking just as long as by bus. A few times I also shared a taxi back into the city with others, costing about 25 USD, but faster and more comfortable than either motorbike or bus.

In all of these instances, individuals are making choices about how to travel to work based on their sense of the cost, convenience, comfort, safety, and prestige of the mode of travel, some valuing some of these characteristics more than others. The sum total of these individual transportation choices make up what transportation planners call modal split. Modal split (or mode split, mode share) is the percentage of trips by a particular type of transportation at a given time in a given area. It could account for the percentage of travelers who are walking, bicycling, using the bus, driving a motorbike, and using a four-wheeled vehicle in Ho Chi Minh City in the year 2013, for example.

This chapter will offer an introductory geography, phenomenology, and history of the transportation landscape in Ho Chi Minh City. I will lay out the current transportation

possibilities in Ho Chi Minh City, with a focus on the infrastructure, policies, experience, and history of those modes. What I aim to demonstrate in this chapter is how transportation infrastructure and transportation policy shape individual choices about transportation mode by changing what is cost effective, convenient, comfortable, safe, and prestigious. I argue that transportation choices become naturalized in the lives of commuters. Commuters come to see their transportation choices as inevitable for several reasons. One, the transportation infrastructures and policies in a given city directly impact what individuals come to see as the best mode of transportation. Second, the materiality and size of transportation infrastructures makes the possibility of change seem unlikely. Commuters see the transportation landscape as “just how it is” and do not see likely scenarios of change that could make them switch modes. Third, transportation is a deeply personal activity, causing commuters to believe their transport choices are based on personal preferences which cannot be changed by external factors. Transport is so personal because it is an embodied experience, contributes to our sense of self, and is deeply habituated. Asking someone to change their transport mode involves asking them to change a daily sensorial experience that is wrapped up in people’s sense of control over their lives.

Yet, the planners I studied in Ho Chi Minh City are trying to drastically change how people move through the city. And, they believe they can do so through infrastructural and policy changes. After the researchers arrived at the Transportation Research Center, they continued their work on their individual PhD research projects and on the transportation projects in Ho Chi Minh City and elsewhere in Vietnam on which they are consulting. Though a researcher might be working on recommendations for

parking policy or how to measure and improve quality in the local bus system, I argue that they are oftentimes, at the most holistic level, also concerned with affecting the modal split of the city. The problems that they are working on, which include problems of parking, public transit, integrating transportation planning and urban planning, calculating the flow of traffic at intersections in order to optimally time traffic signals, or integrating other modes of transportation with mass public transportation, all involve issues of infrastructure and policy and will ultimately affect the modes with which commuters choose to travel and, therefore, will affect the modal split of the city.

For example, one morning, I sat around a conference table with eight of the Vietnamese experts in transportation planning as Thuy was finishing her presentation on parking management schemes in Ho Chi Minh City and Hanoi. One morning each week, we gathered to hear presentations from two of the doctoral candidates on the progress of their research. Thuy finished discussing how parking policies and parking structures can be mobility management tools. That is, policies and the availability of parking can have effects beyond parking itself, but on what mode of travel people choose. In the simplest terms, free and abundant parking in locations convenient to travelers' destinations can have the effect of encouraging private vehicle use, while expensive, rare, or restricted parking can have the effect of encouraging travelers to car pool or take public transit. Dr. Anh, the co-director of the center and de facto advisor to all of the students, commented that parking regulations must be tailored to the modal split goals of the city. This led to a common discussion I overheard and participated in at the center: what did they think the future modal split of Ho Chi Minh City should be (and, what would higher-up city officials want it to be) and how could this be influenced? On another morning, Đoàn was

discussing indicators to measure quality in the local bus system. Dr. Anh encouraged her to think about how the bus system could attract what he called “choice riders.” After all, he argued, the bus-dependent riders, those with no other means of transportation, have to take the bus no matter what the quality. “How can the bus be appealing to riders who have a choice?” he asked. This discussion was again about affecting modal split. The researchers were interested in transforming motorbike drivers to public transportation users, thereby shifting the modal split.

This chapter will demonstrate the effects that transportation infrastructure and policy can have on the transportation modes people make by exploring the current and proposed future transportation landscape in Ho Chi Minh City. I also explore the significance that the transportation landscape has in terms of individual’s lives and for the city.

Infrastructure

If I set this project up to be about infrastructure, it seems necessary to begin with a discussion of what I mean by infrastructure and what the anthropological literature means by infrastructure. Brian Larkin’s (2013) essay in the *Annual Review of Anthropology*, titled “The Politics and Poetics of Infrastructure,” begins by offering a definition: “Infrastructures are built networks that facilitate the flow of goods, people, or ideas and allow for their exchange over space” (328). There is beauty in the simplicity of this definition, and it does seem to be a good starting point. Following Larkin, infrastructures are physical, they are constructed and designed with human intention (built), and they assist in circulating other things. Susan Leigh Star (1999), in another key text in the social science study of infrastructure offers a similar definition, infrastructures

are “part of the background for other kinds of work” (380). For Star, the question is not just *what* is infrastructure, but *when* and *for whom*. Infrastructure is a “fundamentally relational concept” (380). That is, a thing which might otherwise be classified as infrastructure is not infrastructure at all times for all people. For the transportation planner, the bus system is not infrastructure but “topic,” per Star. For the HCMC motorbike driver, the curbs and medians are not infrastructure but may become barriers to movement. For the motorbike taxi driver fixing a broken engine, the motorbike is not infrastructure but target for repair. For Star, one of the key aspects of infrastructure is its invisibility. Any time the thing is no longer invisible, it is something else. Invisibility is perhaps too strong of a word. After all, even when the bus is running on time, smoothly, and comfortably, it hardly becomes invisible. Yet, it is useful to analyze when infrastructures are able to fall into the background and what allows this backgrounding. In contrast, it is also analytically useful to explore when infrastructures are made more visible and foregrounded.

As soon as we come to define infrastructure, there is the opportunity to push the boundaries of what is commonly accepted as infrastructure. There is some very interesting work on infrastructure that uses infrastructure as an analytical category to push us to rethink what can be considered as infrastructure. For example, Larkin’s (2013) definition of infrastructure categorizes infrastructure as “built” (328). In contrast, Carse (2012) makes the case for nature as infrastructure. In particular, he points to the watershed forests that provide water to the Panama Canal as infrastructure, by arguing that infrastructure is “not a specific class of artifact, but a process of relationship-building” (556). In making this argument, Carse shows how the US and Panama came to

realize that the natural watershed forests in the region of the canal were essential to providing the water needed for the working of the lock system of the canal. Preserving these watershed forests, this nature, involved countering the work of the people who were engaging in practices which were destroying the forests. This also involved countering a rural development infrastructure that had previously been put in place to facilitate those practices that were now considered detrimental to the facilitation of the canal. Carse offers rich analysis and description of the many components of the infrastructure of the Panama Canal, including the surrounding land which has been shifted from agricultural frontier to managed watershed. Yet, even in this case, Carse sees nature as infrastructure when it is managed toward a particular purpose, in this instance, providing water for the canal and the transport of ships.

Other scholars have pushed the boundaries of common definitions of infrastructure by showing how people and human behavior can be infrastructure. In a famous essay, "People as Infrastructure," Simone (2004) begins from the perspective that African cities are failing to provide for many of their residents. He calls these areas "half-built environments," where the infrastructure is "underdeveloped, overused, fragmented, and often makeshift" (425). These infrastructures are non-existent or inadequate as they are insufficient to provide for the people: the majority of Africans do not have access to clean water and sanitation, they are malnourished, and they have too-short lifespans. Within these "ruins," ("ruined urbanization, the ruining of Africa by urbanization"), Simone "explores the possibility that these ruins not only mask but also constitute a highly urbanized social infrastructure" (407). The "people as infrastructure" that Simone references in the title of the essay concerns people's activities in the city, the "incessantly

flexible, mobile, and provisional intersections of residents that operate without clearly delineated notions of how the city is to be inhabited and used" (407). These interactions bring together "objects, spaces, persons and practices" which then create an infrastructure, "a platform for and reproducing life in the city" (408). In the absence of built infrastructures that can provide for urban African residents, people's actions become the infrastructures to compensate for the lack of state-provided, material infrastructures.

Julia Elyachar (2010) also challenges common assumptions about the ontology of infrastructure by categorizing human behavior as infrastructure. Elyachar argues that women's phatic communication, communication that is emotional or used for purposes other than simply conveying information, can also be considered an infrastructure, an infrastructure that allows for the flow of value. This phatic speech creates channels. Therefore, Elyachar approaches infrastructure as that which circulates value, and she shows how women's practices and language in Cairo circulate value.

This chapter utilizes a fairly conventional notion of transportation infrastructure: the material structures that are involved in the circulation of people and goods, though I am particularly interested in the circulation of people. My working definition would be familiar with transportation planners and residents of Ho Chi Minh City who are concerned with the current state and future of transportation in the city. My intervention lies not in challenging conventional definitions of infrastructure, but in pointing out how planners believe they can utilize infrastructure to shape individual choices and in the effects that infrastructure has on the city.

Foregrounding Infrastructure

Much of the anthropological research on infrastructure is concerned with when and why infrastructure is called to the foreground, rather than falling into the background. This is relevant for a study of transportation in Ho Chi Minh City, as transportation infrastructure is a common topic of discussion among residents and in the media both for its perceived inadequacy in the face of a rapidly urbanizing metropolis and for the abundance of plans for major infrastructure projects. Larkin (2013) demonstrates that many studies point to the breakdown of infrastructure as a moment when it becomes visible to both scholar and user, following Star's (1999) assertion that infrastructure becomes visible upon breaking down. Larkin then confronts this assumption that infrastructures, when running properly, are invisible. He argues this is only one aspect of infrastructure, at one end of a "range of visibilities that move from unseen to grand spectacles and everything in between" (336). Infrastructures, especially when grand, beautiful, new, and modern, can be very visible to the public. Bridges, new highways, subway systems, a beautiful bike path can be visible to their users, especially when they are working perfectly. In Ho Chi Minh City, the new fly-overs popping up all over the city are very visible to commuters, and politicians and the news media love to point them out to the public as evidence that the state is working to solve issues of congestion. Subway systems are often built to be visible to city residents. It would be odd to assert that a rail system is "invisible" to its users except in moments of breakdown. After all, a resident must descend into the subway system, buy a ticket, pass through turn styles, wait for the train's arrival, enter the train, and either sit or otherwise brace herself for the train's movement. These tasks may become second-nature or commonplace to a commuter who uses the subway daily, they may become background, but the subway

infrastructure cannot be imagined to be invisible to the user. This section further examines situations where infrastructure becomes more visible, or foregrounded: times of breakdown or inadequacy, instances of spectacle, and moments of planning.

In terms of the breakdown and inadequacy of infrastructure, Rodgers and O'Neill (2012) rightly point out that such instances may constitute what they call "infrastructural violence." In their introduction to a special issue, they assert that "infrastructure constitutes an often-ignored material channel" for "structural violence," Farmer's (2004) term for "violence exerted systemically - that is, indirectly - by everyone who belongs to a certain social order" (Farmer 2004: 37). For Rodgers and O'Neill, infrastructure is not only a "material embodiment of violence" but can also be its "instrumental medium" (404). They acknowledge both active and passive forms of infrastructural violence. That is, infrastructure can be deployed with intent to police and segregate populations. It can also exert harm from its limitations and omissions, even if intentional, but direct consequences are absent.

Many anthropologists have been interested in the breakdown of infrastructure and infrastructural violence, whether or not they specify the phenomena in those terms. Anand (2011, 2012) demonstrates how Muslim settlers in a northern suburb of Mumbai are being made abject through the worsening conditions of their water supply, brought on by the deliberate inaction of the city engineers and technocrats. Appel (2012) illuminates the disparities between the poor communities in Equatorial Guinea and their stark lack of access to basic infrastructures as compared with the communities built for foreign oil executives with their comparatively extravagant infrastructures, including potable water from taps, air-conditioning, and phone lines with Houston area codes. Appel explores the

processes by which the infrastructures and expertise that make up the oil rig are made to be considered "off shore" rather than interwoven into the fabric of local life in Equatorial Guinea. Creating this "modularity" of oil production allows the corporations to appear removed from the onshore nation's environment (both social and natural) and economy, justifying the disparities in access to infrastructure.

In an article entitled, "This Is Not a Pipe: The Treacheries of Indigenous Housing," Lea and Pholeros (2010) argue that the housing that the Australian government is providing for indigenous people is not a house, though it may look like a house. They draw upon Foucault to argue that because it looks like a house, it is assumed to be a house, and the looker stops thinking about *if* it is a house. Ultimately, they argue that the state is providing housing that has shoddy construction and is incomplete. Indigenous people are often blamed for not taking care of the housing; they are blamed for the degradation of the housing. Yet, whether the inhabitants are unruly is besides the point for the authors, for what was constructed in the first place, by the state, was not a house. Larkin (2008) is also interested in the breakdown and inadequacy of infrastructures, particularly in the contemporary context, as infrastructure in urban Nigeria, such as electricity, sewage, garbage pick-up, and others are so often neglected, slow, or intermittent. Larkin points to the move toward "enclave infrastructures" in Nigeria. This is infrastructure provided and regulated not by the state and paid for by citizens, but provided by private companies and paid for by individual consumers. So, rather than a working, reliable electric grid, individual houses must have generators that get switched on after each inevitable power failure, for example. In the colonial and postcolonial

context, the breakdown of infrastructures makes them more visible and calls attention to the failed promises of the state.

Another instance where infrastructure can be foregrounded is when it is made to be a spectacle. Larkin (2008) shows how the colonial power in colonial Nigeria used infrastructure to mold and create particular types of colonial subjects. The first half of the book draws on historical material to examine infrastructure and media as tools of colonial rule. Larkin discusses the "spectacle of infrastructure" and the "display of colonial authority" (19-21). He argues that, "the British use of infrastructure was not only about simply staging the representation of rule; it was about addressing and producing a particular sort of modern colonial subject. Technically adept, forward thinking, mutable" (21). Furthermore, he uses Burke's and Kant's notions of the sublime to analyze the spectacle of infrastructure. For Kant, the sublime was located in the subject's relation to an object. One is in awe of the object in relation to other things. The "dynamically sublime," for Kant, is to have both awe and terror in relation to an object. So, Larkin argues, "One intent in using infrastructural technologies in colonial rule was to provoke feelings of the sublime not through the grandeur of nature but through the work of humankind" (36). One of Larkin's aims throughout the book is to call to attention the purposes and effects of infrastructure beyond its technical properties. Particularly in his discussions of infrastructure in the colonial period, he is interested in infrastructure as a tool to subjugate and mold the citizens.

State plans may not always reach the level of the sublime in the manner that Larkin (2008) describes, but instances of planning and development are additional cases where infrastructure is foregrounded and brought to the attention of the state, the experts

planning and constructing the infrastructure, and residents. De Boeck (2011) shows how the state uses the plans for a new area in Kinshasa to promise a modern, bright future, which citizens seem to believe, even those citizens who will never have access to this not-yet-built urban infrastructure. DeBoeck brings attention to the power of promises of infrastructure, especially for hope and desire in the future. Mains (2012) examines two projects in Ethiopia which illuminate issues of private and public provision of infrastructure and the public support for infrastructure. He argues that the people of Jimma, Ethiopia are more supportive of road projects as compared to the dam projects, in part, because they have invested financially and emotionally in the road projects. Therefore, these road projects create relationships between the people and the state. Schwenkel (2013) also demonstrates how moments of planning foreground the infrastructure for the state and residents. Schwenkel examines what an analysis of the materiality of bricks, with their gendered, classed, and historical meanings, can illuminate concerning the history of ruination and reconstruction in Vinh, Viet Nam. She is concerned with the history of housing infrastructure in Vinh and its affective meanings. She also examines the “post/socialist affect,” by which she means the affect of socialist nations to help one another to rebuild, in this case, East Germany's assistance in rebuilding Vinh after the American War in Vietnam.

I have cited the sources above to show instances when infrastructure is made more visible, is foregrounded, for the anthropologist, the state, citizens, and experts. The anthropological literature dealing with infrastructure has looked at issues of visibility and invisibility. It asks questions such as, “When does infrastructure become visible?” and “What allows infrastructure to be backgrounded?” (see Larkin 2013; Star 1999). Yet, it is

also be productive to ask, “What does infrastructure make visible?” For, infrastructure can illuminate relations of power and inequality, values and priorities of state officials and development banks, everyday practices of users of infrastructure and how knowledge is produced and valued in infrastructure projects. This dissertation will examine these issues and others that infrastructure makes visible.

Transportation Infrastructure in Ho Chi Minh City

The Motorbike Metropolis

I will now turn to foregrounding the particularities of the transportation landscape in Ho Chi Minh City. The transportation landscape in Ho Chi Minh City is dominated by the motorbike. All individual transportation choices are made in comparison to going by motorbike and all future infrastructure investments are made with the dominance of the motorbike as an important factor. A term that I came to hear often among local transportation planners to describe Ho Chi Minh City was “motorbike [or motorcycle] dependent city.” The local planners attributed much of the unique characteristics of Ho Chi Minh City’s traffic and built form to this category and label. They told me that the planner and scholar Paul Barter first used the concept “motorcycle city” to describe cities where the majority of vehicles are motorcycles. But, they were also interested in the modifications that the scholar and government official Khuat Viet Hung made to this concept, introducing the concept “motorcycle dependent city.” I was able to speak with Dr. Hung about his use of this term. He explained to me that Paul Barter used the term “motorcycle city” but only to discuss motorcycle ownership, that is, to describe cities where a majority of vehicles are motorcycles. He also noted that many scholars have used the term automobile-dependent city. Dr. Hung's addition was to use the term motorbike

dependent city to also discuss the structure of a city which makes it motorbike dependent. In other words, the small alleyways, which do not allow access to cars, and certainly not buses or trucks, adds to the motorbike dependence of the people and the city. The term came to structure much of what the researchers at the Transportation Research Center were studying and writing about Vietnam. The term is so commonplace, it even has its own three-letter acronym (MDC). Indeed, even those officials and planners who may not have been utilizing the term motorcycle-dependent city, largely viewed the challenges to transportation planning in Ho Chi Minh City as being uniquely related to the city's large number of motorbikes on the streets.

Indeed, any casual observation of the streets of Ho Chi Minh City will prove that most people travel by motorbike. A 2010 technical assistance report for Line 2 of the metro rail system project for Ho Chi Minh City estimated that 78% of daily trips were made by motorbike. It estimates that in 2007 there were 3.1 million motorbikes in a city that then had a population of around 6.5 million people. Local planners told me there were 680 motorbikes per 1,000 inhabitants in the city. Later chapters in this dissertation will show that this data is difficult to gather and therefore likely not completely accurate. However, I utilize the statistics here because transportation planners are using and citing these statistics for the same reason I am: the city is dominated by motorbikes and this needs to be taken into account for any future plans for the city.

Dr. Hung is astute to take into account elements of the built environment that make a city a motorcycle-dependent city, for there are many elements of the transportation infrastructure and the built environment in Ho Chi Minh City that are particularly conducive to motorbike travel. For example, because motorbikes are small

and easily moved by a parking attendant, parking is often in immediate proximity to the entrance of restaurants, cafes, and shops. Moreover, residents are able to park their motorbikes on the ground floor of their homes, especially important as there is rarely parking on the street outside homes. Metal ramps that lead from the street up to the sidewalk over a curb allow for motorbikes to be parked on the sidewalk or for drivers to bypass congestion by driving on sidewalks. Motorbikes are especially useful in their flexibility when they are able to swerve around larger vehicles on congested roads. Finally, many of Ho Chi Minh City's alleyways are too narrow for a car to travel. Therefore, for people wanting to travel to or from residences and businesses located on those streets, motorbike, bicycle, or on foot are the only options for reaching the front door.

Increasingly, the city is building infrastructures that are meant to order and discipline the flexible, unruly nature of the motorbike (see also Truitt 2008). Curbs, medians separating opposite flowing traffic, traffic lights, and banning motorbikes on sidewalks are all meant to restrict the movement of motorbikes in order to create better flow for other modes of traffic and to create safer conditions for motorbike drivers. However, infrastructure and drivers' habits are not easily changed, so these new policies and infrastructures have been slow to implement and met with criticisms from drivers.

The Threat of Automobility

One World Bank official, currently working on plans for a Bus Rapid Transit line in Ho Chi Minh City, said he did not necessarily find motorbikes to be the biggest challenge for transportation in Ho Chi Minh City. Rather, he finds car ownership, and increasing car ownership, to be the most pressing issue. A common topic of discussion

and a source of anxiety among planners working in Ho Chi Minh City was the assumption that, unless drastic measures were put into place, there would be a rapid increase in the number of cars on the roads. In one major study, several different scenarios presented car use increasing from the current 7% to 20-30% in the coming years (HOUTRANS, Almec 2004). Every planner and official with whom I spoke assumed that more and more Ho Chi Minh City residents would begin to buy cars simply because they could afford them. An official at the Asian Development Bank spoke of individuals' choices to buy cars as a "natural evolution," a similar evolution that happened in the West, he claimed. To prove his point, he asked me rhetorically, if "you were getting a better job, I mean would you stay on a motorbike or would you start buying a car and want a bit of luxury?"

Why is there such anxiety over an increase in car usage in Ho Chi Minh City? Indeed, 20%-30% of trips being made by four-wheeled vehicles may not sound like a large percentage. And, these planners and other decision-makers certainly recognize that the mode share for four-wheeled vehicles in Ho Chi Minh City is extremely low by comparison with most other cities. Yet, this anxiety stems from an acknowledgment of the capacity of existing transportation infrastructures and from other particularities of the built environment in Vietnamese cities.

For one, the streets of Ho Chi Minh City already feel filled to capacity most of the time. And, this does not just include the major thoroughfares; the more minor side streets also appear to be full of vehicles. Congestion takes on new meaning in motorbike-dominant traffic. In Ho Chi Minh City, when traffic is moving at a stop-and-go pace, the road is also quite literally full. Because of the flexible nature of the motorbike, vehicles

appear to take up all of the given space on a road. In the heaviest congestion, motorbike drivers will try to fit into any small open space - between cars, in the shoulder, even on the sidewalk. Motorbike drivers will slow to crawl, with both feet on the ground moving their motorbike forward or at an angle with their legs, in order to fit into any open space ahead. This gives the feeling that every square foot, every square inch, of road is being taken up by vehicles. Therefore, as planners are sitting in this congestion, knowing that the current mode share is 7% car and imagining this mode share increasing to 20% or 30%, it is not hard to understand their anxiety that the mode share of cars might increase even slightly, let alone that it might increase from the current 7% to the predicted 30% or greater.

The second reason decision-makers and residents alike express concern over the predicted increase in cars has to do with elements in the built environment specific to Ho Chi Minh City. One official in the Ministry of Transportation explained to me that he calls Ho Chi Minh City a “motorbike dependent city” not only because the majority of people use motorbikes to travel around the city but also because many aspects of the built environment of the city are not conducive to four-wheeled vehicles. For example, as noted above, many of the alleyways are not wide enough for a car, though they are nonetheless vibrant spaces of activity. Therefore, residents must use a motorbike, bicycle, or walk to reach destinations on these alleyways. And, as this official in the Ministry of Transportation also pointed out to me, this means all deliveries and services must be delivered via motorbike to the residents on these streets. He then spoke with some pride about how Vietnamese drivers must be able deliver freight via motorbike. Indeed, it is not

uncommon to see 12 foot metal poles or large sheets of glass carried via motorbike in the city.

Moreover, space for parking, another element of the built environment, becomes a problem with increased car use. Most families park their motorbikes on the first floor of their homes. This is for both reasons of security - they are fearful that their motorbike would be stolen if it were parked outside, unguarded - and also for reasons of space - there is no other place to park the motorbike than inside. Cars often cannot fit inside the home, and homes often do not have the equivalent of a garage, a driveway, or even space on the street in front of the home for a car. So, car owners must rent space in a garage often relatively far from their home in order to park. Or, they find other creative spots to park their cars. I once heard a group of Vietnamese planners joking that their bosses at the universities or local government agencies kept their cars - one, two, or even three personal cars - parked in the parking lots of the government buildings or at their universities because they do not have space at home. The joke was both about the extravagance of these government officials and because the cars remained largely unused. Indeed, they were left parked at work because heavy congestion meant using a motorbike was often more convenient.

Rising income, alone, does not explain increasing numbers of cars on the streets of Ho Chi Minh City. And, though this might be the first reason to which planners point to explain the rise in numbers of cars, they also recognize a multitude of factors attribute to individuals' transportation choices. One local planner told me that her sister's family used to have a car. However, they sold the car after a short time because it was too inconvenient to drive around the city and to find parking. This same planner owns a car

with her husband. She told me she finds it stressful to be in the car with her husband because it is difficult to move through motorbike traffic and her husband gets impatient and aggressive in this traffic. They do, however, enjoy using the car to take trips outside of the city on weekends. Therefore aside from the cost of buying (including high taxes) and maintaining a car, congestion, behavior of current motorbike drivers, lack of convenient parking, and narrow alleyways all hinder car use.

Cultural and environmental conditions also make car use more attractive and convenient. One Vietnamese-American businessman now living in Ho Chi Minh City told me he would never arrive at a meeting in a motorbike taxi or driving his own motorbike because this would send the wrong impression to clients. He does not have a car, so he travels around the city for work in a taxi. One British project manager for a major transportation project in Ho Chi Minh City travels by chauffeured car because the project allows a budget line for it and, he told me, that is how other project managers in the city travel. After an interview, one high-up, city-level government official gave me a ride back to Ho Chi Minh City from an outer province where we had conducted the interview. The car shielded us from the sun, heat, and humidity, as it took over an hour in stop-and-go traffic, with horns from our car and others almost constantly blaring to warn motorbikes of the car drivers' intentions to move forward. In fact, the car was so well air-conditioned another passenger wrapped her head and shoulders in a scarf she normally uses to protect herself from the sun to keep warm. I met with this official multiple times, and later even passed him in one of the local project management offices, after I had interviewed a project manager there and he was later to have a meeting with the team,

and he always traveled by his chauffeured SUV. His status as a high-up government official demanded that he travel by automobile.

There are, therefore, a myriad of factors that affect the increasing use of cars in Ho Chi Minh City. These factors are infrastructural, cultural, and personal, all specific to the particular built environment and social environment of Ho Chi Minh City. Planners see this increased usage as inevitable, yet they also want to curb the growth through offering other attractive public transit options.

Bicycles: Relic of the Past, Tool for the Poor, Resurgence for the Rich

While car use is increasing and expected to continue to increase, bicycle use has drastically decreased in the past two decades. I often heard anecdotal evidence regarding how popular bicycles were fifteen years ago. I spoke with one American woman who had made several documentaries in Vietnam. She filmed one in 1994 in Ho Chi Minh City, and she said the footage shows traffic as consisting almost entirely of bicycles. She said she and her crew traveled around by cyclo, a carriage propelled forward by a driver peddling. One Vietnamese researcher I often worked with told me, as we rode on his motorbike along a major thoroughfare heading to the outskirts of the city, that he used to travel by bicycle down this very road (then much narrower) when he was university student about fifteen years ago. During one of my first interviews with motorbike taxi drivers, a driver who had been driving for more than twenty years said he felt it was more difficult to find passengers today because as people earned more money, they bought their own motorbikes, and they had no use for a motorbike taxi. Indeed, in most cases, it is only the poor and the young that use bicycles. The wife of one of the motorbike taxi drivers near my home traveled by bicycle, bringing her husband his lunch meal and doing

her errands by bicycle. I observed other low-income women doing errands or selling wares by bicycle. Children, too, often travel by bike. I often observed children in school uniforms riding slowly along the side of the road, often giving a friend or younger sibling a ride on the back of the bicycle.

The infrastructures that facilitate the flow of motorbikes also facilitate the flow of bicycles. Yet, the speed and not having to exert physical effort make the motorbike an attractive option for anyone that can afford one. Yet, there are exceptions to this rule. In 2013, I observed increasing numbers of middle-aged, middle-class men riding mountain bikes through the city, complete with nylon black bike shorts. I often met my landlord, an upper-middle-class Vietnamese man who had lived for many years in Germany, leaving in the early evenings with his mountain bike for a ride. Riding through the congestion and smog created by motorbikes did not seem like an ideal space for biking for exercise, but this was a trending practice among the wealthy. I would also often observe teams of cyclists on the highways outside of Ho Chi Minh City, training for the next race. Another group that was redefining the connection between class and bicycles was a group of young hipsters who take nightly rides through Ho Chi Minh City on fixed gear bikes. I met the leader and founder of the group once at his apartment, which also served as a bike shop. With bicycles worth upwards of thousands of dollars hanging on the walls, we talked about his shop and those nightly rides. He imports used frames from Japan and repairs them. The group meets in the early evening in downtown Ho Chi Minh City every evening. They consist of about 200 people total, and about 20-30 meet to ride together every evening. They have a Facebook group where they post pictures of beautiful, young, stylish people with beautiful, stylish fixed-gear bikes. This group stands out precisely

because traveling by bicycle is usually reserved for children and others without access to a motorbike.

Public Transportation: A Struggling City Bus System

Thus far, I have described the main personal transport options in Ho Chi Minh City: the motorbike, the car, and the bicycle. Now, I will switch to passenger transport. I will begin with the local city bus system. I often traveled by local bus during my fieldwork in Ho Chi Minh City. A system that once seemed opaque and intimidating, and that I assumed was inconvenient and uncomfortable, became a safe, inexpensive, easy way to get around the city, especially when I needed to go longer distances. I have found, in the different cities I've lived, that people who do not normally ride the bus often have anxiety about *how* to ride the bus - how to buy a ticket, when to signal to get off, uncertainty about where the route goes - even in their own cities and communicating in their native languages. I had all of those anxieties when I began my fieldwork in 2013. On previous research trips, I had ridden the bus only a few times, and always either with someone who knew how to navigate the system, or with explicit instructions on how to get to my destination. Taking a motorbike taxi had always been simple and within my budget, so I did not find a need to navigate the system. Now, I knew riding the bus would be important participant observation for my research. However, I also came to see riding the bus as a viable transportation option. Taking a motorbike taxi, especially when I was going to the outer districts, was expensive. Moreover, I never felt entirely safe on a motorbike taxi, always fearing an accident, especially on highways and when going long distances. On the bus, I could sit back, enjoy the air-conditioning (most of the time), relax, and appreciate the view of the city.

During my first days in the city, I bought a city map that also had the bus route map on the opposite side. My small street jutted off of one of the main roads leading to the central business district and had several bus lines going down it. To undertake my first ride, I walked down my street, to the main road, and crossed that road at a traffic light. I then walked toward the central city until I found a bus stop. Bus stops were not marked on my map, but on the street the stops are marked with standardized signs that list the route along with the starting and stopping point and the streets along the route. Some bus stops, especially in the central districts, have benches and a roofed shelter, with a city map and a bus route map. At this stop, there was just a sign. Along this major road, there were also cutouts for buses to pull in and pick up or drop off passengers. I waited by the sign, which, for some reason, was a couple of bus lengths before the cut-out in the road. So, when the bus pulled up, I needed to jog to catch the bus as a woman in uniform leaned out the window and gestured for me to come toward the bus. A man in blue uniform also boarded the bus. I took a seat near the back of the bus next to a young woman. The man in blue uniform spoke with a woman holding a book of tickets and exchanged some items with her. Then, he traveled through the bus, as everyone showed him their tickets. He then disembarked. In the meantime, I had gotten out 4,000 VND (roughly .20 USD). However, the young woman sitting next to me, in English, told me that the bus fare was now 5,000. I later noticed a sign on the bus that informed passengers that the bus fare had been raised only days before, on January 1, 2013, from 4,000 VND to 5,000 VND. After the bus began moving, the woman in uniform, with a fanny pack around her waist, made her way to my seat, took my money, and ripped off a ticket from

her book of tickets. I remembered from my last research trip to Vietnam that I needed to keep this ticket, apparently to show inspectors like the one who had just disembarked.

This particular bus seemed pretty run-down, and I came to observe that the quality of the buses varied widely. On this particular ride, the windows were open and the air-conditioning was not on, though on the vast majority of my rides over the next year, the air-conditioning worked well, sometimes even too chilly for my comfort. I wanted to get off the bus at a major intersection, where another bus line intersected. I noticed a sign in the bus that translated, "Press the bell to disembark." So, about a block before I wanted to get off, I rang the bell, which activated a loud buzzing sound. The ticket taker lady quickly turned her head and gave me and the young woman sitting next to me a stern look. The young woman gestured to me and told the lady that I wanted to get off. I later talked to a friend about this incident, asking why the woman reacted so harshly to my bell-ringing. She thought that perhaps the driver and the ticket-taker did not want to hear that sound, so even though it was the official rule to ring the buzzer, people usually just tell the ticket-taker when they want to get off. I came to notice, and to do so myself, that people would simply say, "I want to get off" and the ticket-taker would communicate this with the driver.

Even after my faux pas, the bus did not stop where I expected. It kept going a couple of blocks past the street I needed to catch the next bus, and the woman sitting next to me explained I needed to wait until the next stop to get off. On future trips, I learned to get off earlier, a block before that street. When I disembarked, and walked back toward the street with my next route, I had to walk down that street for a block before I found

another bus stop. I paid for another bus ticket, as tickets do not allow transfers. This bus was bigger, newer, and air-conditioned.

There are currently 110 subsidized routes operated by 17 entities, including a state-owned enterprise, private companies, and cooperatives consisting of multiple owners and drivers (Du and Bowen 2011). The Center for Public Transportation Management and Operation, under the city's Department of Transportation (DOT), oversees the subsidized system, but the entities operate the routes, which partially explains the difference in quality of the buses. In 2002, the city organized and centralized the bus system. They created set routes, set fares, and required that the buses run on a set schedule, whereas previously buses would run only when they had picked up enough passengers. In return, the city began subsidizing these routes. Many of the buses are still owned and operated by individual drivers, but these drivers are now organized into collectives and subject to run particular routes on a schedule.

Bus operator subsidies are calculated by subtracting the amount of tickets sold for the route from the calculated or budgeted amount assigned to the route. The DOT determines how much a route should cost, taking into account the type of vehicle, including a profit margin. This amount, however, is subject to budget approval from the HCMC People's Committee, so if the PC does not approve the full budget, the budgeted amount could be less than the calculated amount. The amount gained from ticket sales is then subtracted from this amount to calculate the subsidy.

As Du and Bowen (2011) and the HOUTRANS study (ALMEC 2004) point out, this method of calculating the subsidy offers incentives for under-reporting ticket sales, receiving money from passengers without issuing a ticket, or issuing a less-expensive

ticket (such as a student ticket) while receiving full fare from passengers. The DOT department overseeing the bus system attempts to mitigate these practices by sending inspectors onto buses to check that all passengers are holding the appropriate ticket.

I saw these inspectors often while riding Ho Chi Minh City buses. I was puzzled, at first, by this system. For, if every bus had both a bus driver and a ticket-issuer, surely they could ensure that passengers were paying the fare, couldn't they? I asked a local planner why inspectors needed to board buses, and she immediately answered that these inspectors were there to keep the driver and the ticket-taker honest. For, she said, otherwise the driver and ticket-taker might take the fare money without issuing a ticket, and simply keep the money. She also said that one time she paid full fare, but she was issued a student ticket, which costs significantly less than the adult fare. She was certain that the ticket-taker would pocket the money or perhaps split it with the driver.

The inspectors take great care in ensuring that each passenger has a ticket. Once, during peak hour afternoon congestion on a standing-room only bus, I showed an inspector my ticket, only to have him state that that was the wrong ticket. I had gotten in a bad habit of putting each of my bus tickets into my wallet, not realizing quite a few had piled up in there. Luckily, this route was a slightly more expensive route, and I had only a few tickets at that rate. Eventually I was able to shuffle through them all, and the inspector concurred it was the right ticket, all the while the older woman sitting next to me was almost imperceptibly shaking her head in disapproval at my disorganization. Yet, Du and Bowen (2011) argue that there is still mismanagement of funds on the part of bus operators, and this was the general sentiment of planners and residents I spoke to.

In 2010, the bus system in Ho Chi Minh City accounted for 5.4% of trips. This is down from the peak of bus ridership in 1973 of 20% of trips (before the end of the American War), yet higher than the lowest portion of ridership in 2002, when it was at only 2.2% (Du and Bowen 2011). In one local planner's survey, she found that 84% of riders earn less than 3 million VND per month (roughly 150 USD per month). She also found that 42% were students, who pay a more heavily-subsidized fare. Indeed, of all of my informants, it was the students at the University of Transport and Communications whom I observed used the bus most often. They often did not own motorbikes, so if they could not catch a ride with a friend or boyfriend, they would take the bus. They were also always very helpful in showing me how to ride the bus. They always knew which bus I should take to come meet them or to find my way home.

The bus in Ho Chi Minh City had a reputation of being the mode of transportation of last resort for all but the poorest and for students (who are also among the poorest). People told me that they do not want to walk to stops, they do not want to wait, and they find the bus too slow and inconvenient. They also told me, again and again, that people would steal my phone, money, and personal things on the bus. I heard this from motorbike taxi drivers, local planners, my son's nanny, and anyone whom I told I often rode the bus. I tried to challenge this notion with a local planner. But, she confirmed these tales, saying every time she rode the bus (which was not often), she witnessed someone's property being stolen. I never witnessed any theft, violence, or confrontation of any kind on a bus, which, of course, does not mean it does not occur. But, I suspect that this fear of theft comes more from the bus's reputation as being transportation for only the poor than from any actually-existing high rate of crime on buses.

Riding the bus in Ho Chi Minh City means one cannot afford a motorbike, does not know someone who owns a motorbike, and cannot afford to go by car taxi or motorbike taxi. Of course, there are exceptions to this rule. The local planners I knew would occasionally ride the bus. Especially the researchers who lived in Ha Noi most of the time, but also those who lived in the city and did not want to deal with driving and parking their motorbikes for a particular trip, would occasionally take the bus. Du and Bowen (2011), in their survey of drivers, also noted an occasional passenger with a high income, but they insist this was very rare.

Local and international planners recognize the status of the bus to be a possible hindrance to the success of the MRT system. After all, for the MRT lines to be successful, many riders will need to take a bus to connect with the MRT station and, after the MRT ride, to their final destination. One local planner at the Transportation Research Center was conducting research on quality management within the bus system, in order to determine indicators for assessing quality in a bus system to ultimately improve that quality and to attract “choice riders,” in the words of the co-director of the center. There are studies connected with MRT Line 1, MRT Line 2, and the Võ Văn Kiệt BRT line to improve accessibility with these future lines, including connecting the stations with bus lines and improving the infrastructure and operation of these lines. The 2007 Transportation Master Plan has set a goal of 47-50% of trips to be taken by public transportation. As Du and Bowen (2011) note, even if all six MRT lines and all three light rail lines were implemented on time and ran at capacity, the local bus system would still need to fulfill 70% of trips taken by public transportation, or 31% of the city’s total trips, to guarantee 47% of trips were being taken by public transportation. Therefore,

expanding the capacity of the local bus system and attracting choice riders will be an important aspect of all future public transportation planning in Ho Chi Minh City, and the local and international experts with whom I spoke all recognized that.

Chartered Buses for the Middle Class

While the city buses are generally the mode of transport for only the poor, the city's middle classes can be seen taking chartered buses to their office jobs, particularly to those office complexes in the outskirts of the city or in the surrounding provinces. As I mentioned in the introduction to this chapter, I came to depend on the university's chartered bus to reach the Transportation Research Center each week. When I first heard about the transportation research center, I started doing research on how I would reach the center that was about 24 miles from the center of Ho Chi Minh City. How much would a motorbike taxi cost? Would it be safe to take a motorbike on the highway? A taxi would be expensive, but perhaps necessary for my research, I thought. However, when I began talking with researchers at the center, they let me know that there was a private bus that faculty and staff could take to and from Ho Chi Minh City every weekday. Lien told me that I should go to Turtle Lake, a prominent intersection at the border of District 1 and District 3, and a staff member would greet me and show me how to catch the bus to the university.

This would be the first time I would ride a private bus provided by companies to transport their employees, yet I had started hearing about these buses soon after I arrived in Ho Chi Minh City in 2013. As I was reading newspaper articles about transportation and traffic, there would occasionally be mentions of company buses, such as when the article cited suggestions to stagger office and industrial park start times so that company

buses were running during non-peak traffic times. In addition, when I was talking with a friend about her family early in my research, she said her sister worked in Nghe An Province, just outside the city and takes a bus provided by her company to get there every day. In my field notes, I jotted down several questions about how these buses might work. Do they pick up employees from their homes? Do they run several times a day? Do employees pay for them? Were these buses a significant means of transportation for Ho Chi Minh City residents?

I took a motorbike taxi to Turtle Lake and arrived at 6:45 outside of the office of the Ministry of Education, as Lien had instructed me in order to catch the bus to the university at 7:00. A staff member approached me, and said she would show me the bus. She explained to me that there are two buses: one for faculty and staff, including the PhD Candidates at the research center, and one for the students of the university. She told me the faculty and staff bus was bigger and more comfortable, but she preferred to take the bus with the students because it was more “fun.” As we waited for the bus, I had a few minutes to observe the intersection at this early hour. Turtle Lake is a relatively large roundabout with a lake and cement structure (which is said to look like a turtle from above) in the middle. At this section of the round-a-about there were between six and a dozen private buses, varying in size from 20-seaters to large coach buses. They were occasionally parked three-deep on the roundabout, still allowing space for passing traffic. On the wide sidewalk on the outside of the roundabout, a dozen or so people were waiting at any given time, occasionally leaving to board their buses as the buses pulled up. The buses all appeared to be going to various universities in the outer districts or just outside of the city. They were going to both campuses of the national university and to

private universities, many with partnerships with foreign countries. There were both Vietnamese and foreigners awaiting buses.

When the bus pulled up, the staff member pointed it out to me. It was a large coach bus and had a sheet of paper in the front window that said the name of the university and “faculty and staff only.” I stepped up into the large coach bus after a few other people. There were a handful of other people already on the bus. Everyone was sitting one person to a row of seats. The bus was splendidly cool, quiet, and clean in contrast to the heat, traffic noise, and dust of Turtle Lake. I sat down in one of the leather seats near the middle of the bus. I opened the curtain so that I could look out the window, but I soon realized the sun was strong and hot, so I later closed the curtain, like everyone else on that side of the bus. I have always loved traveling through Ho Chi Minh City on a bus. For one, the tension immediately leaves my body. I can relax, sit back, watch the scenery outside, and feel safe and comfortable. On a motorbike, I need to be at least subconsciously attentive of my posture; there is no way to lean back and release all of my muscles on a motorbike. Also on a motorbike, I am constantly aware of surrounding traffic, watching for other motorbikes swerving in front of us, turning into the lane near us, stopping in front of us. The motorbike stops with halt, accelerates, turns, and I feel all of these movements through my body. In addition, I might be conscious of keeping appropriate spacing between me and the driver and I might be conversing in Vietnamese. But, on the bus to the transportation research center, I could sit back and let the bus driver do the work. Of course, well before the ninety-minute ride to the transportation research center was finished, I noticed the seats were a little too close together, with the hard seat back in front of me jamming into my knees every time the bus lurched. I noticed the bus

driver utilized the horn a little too much. I noticed the bus driver constantly changed lanes and sped up and slowed down, offering a less than smooth riding experience. But, I never lost appreciation for the sense of safety that came from the large metal box protecting my body from outside traffic, the shade from the sun, and the air-conditioning protecting from a hot and humid day. The bus traveled from Turtle Lake north along Nguyễn Thị Minh Khai street to Highway 13, which would lead us out of the city. Along the way, the bus would periodically stop to pick up additional passengers. Later on, I would begin to wait for the bus at another intersection further north. The bus stop was not necessarily closer to my home, but it meant picking up the bus at 7:15 rather than 7:00, meaning more time in the morning and a 15 minute shorter ride each direction.

As soon as I became aware of these chartered buses, I started seeing them everywhere. The buses are at first a bit inconspicuous. As opposed to the green or blue paint of the local city buses, the coach buses do not have identifying features that mark them as chartered buses, other than a small sign in a window, on the door, or in the windshield that states the office complex or other destination. I would see these buses in rush-hour traffic and when I was waiting for my own bus in the mornings. Yet, when I spoke with planners and government officials, they did not mention these buses as a significant form of transportation. I also did not see mention of chartered buses in planning documents. I asked a local planner if they were a significant mode of transportation in Ho Chi Minh City, and he said they were not. He said a very small percentage of people use them, even though he was one of them. I do not doubt that they make up a small portion of the modal split. Yet, I think they are important to consider in a study about the transportation landscape in Ho Chi Minh City because they show a need

and desire for bus transportation that the local buses are not providing. The company buses are providing direct transportation over long distances, which passengers value for their safety and convenience. I wonder, also, if passengers value them over local buses because there is not a stigma attached to these buses as there is to the city buses, which are known as being the last resort of the poor. These chartered buses are an indication that the middle classes will travel by public transportation, if it is clean, relatively convenient, comfortable, and is not stigmatized.¹

Motorbike Taxis

Other forms of passenger transport are taxi services. In Ho Chi Minh City, taxis can be split into two distinct types which function very differently: the motorbike taxi and the car taxi. During my first research trip to Ho Chi Minh City, in 2006, motorbike taxis quickly became my transportation mode of choice. Wherever I was within the central districts of the city, within a block or two, I could find a driver willing to take me where I wanted to go. In fact, it was more often the case that as I took long walks through the city, I would find myself having to tell drivers as I approached them on the sidewalk or as they drove past, that I did not want to go by motorbike taxi at that time. In order to get to my Vietnamese classes in the mornings, the Vietnamese woman with whom I was staying asked one of the neighborhood drivers to meet me each morning at a particular time and bring me to school. Without fail when I walked out the door in the mornings, he was

¹ I do not mean to suggest that private buses are only for the middle classes. Factories also utilize chartered buses. The first I learned of these buses was when I was chatting with a friend about her sister's new job at a factory in a neighboring province. I asked how her sister traveled from HCMC to the factory each day, and she replied that she boarded a bus provided for the workers. Though chartered buses are not solely reserved for the middle classes, my observations indicate that these buses can be segregated by the workers' position, and, therefore, social class. To the university, for example, there were separate buses for students and for faculty/staff.

waiting for me. During my research trip in 2013, I quickly got to know the three motorbike drivers on my street. At first, I would walk to the corner to meet them and go to my destination. But, I soon realized the convenience of calling or text messaging one of them when I needed a ride. One of them would then meet me outside my door to take me to my destination. I would also call this driver if I was elsewhere in the city and wanted to return home, and he would meet me.

For many Ho Chi Minh City residents, the motorbike taxi is a supplemental transportation mode. There are many drivers stationed at the major regional bus stations to transport passengers arriving on buses and without motorbikes. I also often observed drivers at bus stops throughout the city, especially during peak traffic hours, awaiting bus passengers to transport them the last few blocks to their destinations. In their survey of motorbike taxi passengers, Vu and Mateo-Babiano (2013) found that many passengers took a motorbike taxi only when the motorbikes in their household were currently being used by others. Therefore most used motorbike taxis irregularly. However, in my conversations with motorbike taxi drivers, I found that the elderly, school children, and foreigners were often regular customers, sometimes having standing daily trips. Mr. Hoa, a motorbike taxi driver in my neighborhood, told me he transported an elderly woman early every morning to her massage. Mr. Dong told me he used to transport school children the short distance to their schools every day because their parents were not available to bring them. Vu and Mateo-Babiano's survey also discovered, which they found surprising, that most passengers in their survey were low and middle income. This is surprising because going by motorbike taxi, according to their survey, is 4.4 times more expensive than traveling by motorbike and 7.5 times more expensive than going by

bus (though .4 times as expensive as going by car taxi). I was surprised, at first, that they found motorbike taxi passengers to be mostly low and middle income. Yet, I then realized that, for one, most middle income and high income residents likely own their own motorbikes or cars, and if they need to be otherwise transported, would go by car taxi. Moreover, as they found that most customers utilized motorbike taxi irregularly, it is clear that low and middle income residents are able to afford motorbike taxi only infrequently and only when necessary.

One local planner told me he calls the motorbike taxi in Ho Chi Minh City an “indigenous” form of transportation, meaning it was developed within Vietnam to fit local needs. The network of motorbike taxis throughout the city is decentralized and fluid. In fact, a 2004 major transportation plan, HOUTRANS, called the motorbike taxi system “illegal” (Almec 2004). During my research in 2013, motorbike taxis had an ambiguous legal status. Drivers on street corners told me multiple times that the local ward police occasionally, perhaps every two weeks, stopped on their corner to write down their driver’s license numbers and their motorbikes’ license plate numbers. Therefore, at the level of the ward, it appears as though the police are keeping lists of who the motorbike taxi drivers are. Moreover, I met multiple drivers who were part of a “security and order” program. They were issued particular helmets and uniforms that said “security and order” and they told me that they reported crime they saw on the streets to the local police. They told me stories of chasing down petty thieves and then calling the police, for example. This official connection with the police seems to counter the idea that motorbike taxis are illegal. However, some drivers also told me that they were regularly fined by the police. The fines were not for driving motorbike taxi, per se, but

for parking their motorbikes in no-parking zones. Yet, given that these drivers spend most hours sitting in these areas, and are only fined occasionally, the purpose of this practice does not appear to be to ban or discourage motorbike taxis in these areas. The groups of motorbike taxi drivers at the major bus stations, train station, hospitals, and other areas with high-motorbike taxi demand are the most highly regulated. I conducted extensive interviews with drivers and administrators at four major bus stations, the train station, and a hospital, and found that the administrators keep lists of registered motorbike taxi drivers. The drivers must pay a monthly fee and wear a uniform. The drivers “self manage,” meaning they have devised systems for who is allowed to approach customers and how. Smaller groups of drivers tend to congregate at intersections throughout the central districts. As I spoke with these drivers, they also had various ways to “self manage,” though in a less regulated way. They often took turns catching customers.

Many of the drivers to whom I spoke felt there were fewer customers now than in past decades. They attributed this to rising incomes and the ability of more residents to buy their own motorbikes. The percentage of trips in the city by motorbike taxi is low - comparable to the percentage of trips by bus or bicycle. Yet, it is an important supplemental form of transport for many. If one does not have access to a motorbike, motorbike taxi can be the most convenient and cost-effective form of transport. Transportation planners looking to the future of transportation in Ho Chi Minh City also recognize the importance of motorbike taxis. When I spoke with the planners working on issues of accessibility at metro stations and the station design, they told me they were taking into account the needs of motorbike taxi drivers, setting aside space for those

drivers to wait for customers and space for drivers to let off customers at the stations. The infrastructure that makes the motorbike a convenient form of transportation in Ho Chi Minh City also facilitates the convenience of motorbike taxis, especially for those who would prefer not to spend the higher cost of taking a car taxi.

Automobile Taxis

Taxis, by which I mean car taxis as opposed to motorbike taxis, were an important part of my personal transportation practices during my fieldwork in 2013. A large part of why I took so many taxis was because this was the safest, most convenient, and most comfortable way to travel with a baby. Though it is a common sight to see a woman on the back of a motorbike holding a baby or toddler, my partner and I decided before we moved that our baby would not travel by motorbike, and he never did. In fact, just when we were softening our views on this issue, and started to think that when he was old enough to wear a helmet we would consider small trips on a motorbike, my husband and I got into an accident. Though both of us walked away with only scrapes and bruises, and no one else was hurt, this strengthened our resolve that our child would not ride on a motorbike. So, though I often walked with my baby around the neighborhood, when we wanted to go further, we would take a taxi. At first, we would walk to the corner of our street where it intersected with a six-lane road that led to the center of the city. There was always a steady stream of taxis going up and down this road, and it rarely took more than a couple of minutes to catch the attention of one.

The two main taxi companies in Ho Chi Minh City are Mailinh and Vinasun. There are other smaller companies, but I have heard stories of “unknown” taxis having rigged meters or dishonest drivers who might drive in circles or turn aggressive when it is

time to pay the fare. So, we always waited for a recognized taxi company. Plus, catching a taxi on this corner had the added benefit that I was able to visit with the motorbike taxi drivers who sat on that corner. And, they always enjoyed saying hi to my baby. These drivers would often help us to flag down a taxi. There is nothing like stepping from the hot sun and humid air into a taxi that has been cooled to below a comfortable temperature. The sound and the dust and the sun are shut out. The chaos of traffic, the constant feeling that a collision was only just-missed, becomes inconsequential because there is a metal barrier between my family and the surrounding traffic. Traffic in Ho Chi Minh City is almost always stop and go. Traveling speeds rarely get above 20 mph, especially in a car. Whereas motorbikes can swerve around obstacles, a car must progress slowly, always aware of a motorbike that might swerve in front of it. Whereas this often makes traveling by taxi or car slower than by motorbike within the city, it also means that even though my baby was not in a car seat in the taxi, even if an accident were to occur, it would not be fatal. (Now, traveling at higher speeds on the highways outside of the city is a different story.) Traveling from our home in Phu Nhuan District to District 1 or District 3 was usually the equivalent of 3-4 USD, affordable especially compared to the taxi rates in the US.

Phuong, one of the motorbike drivers on my street, soon asked, “why don’t you call for a taxi? Why walk to the corner?” In part, it seemed like it was hardly inconvenient to walk half a block to the corner when I never had to wait more than a few minutes to catch a taxi. However, one day, when it was raining and I was getting ready to head out the door with my baby and husband, we decided to call a taxi. Before we had even finished putting on our shoes, we heard a light honk outside our building. “Could

that be the taxi already?” “How could it. We called not more than a minute ago.” Indeed, when we walked out the door, a taxi was waiting. We soon learned to call for the taxi after we were ready to walk out our apartment door, for by the time we walked down the four flights of stairs to the ground floor, a taxi would inevitably be waiting for us. The speed with which taxis can respond to calls attests to both the abundance of taxis and the efficiency of the call centers. When I was talking to a local transportation planner about the taxi system, he warned that if taxis became less abundant or too expensive, this could have a rippling effect, in that more people might consider buying a car rather than relying on taxis.

There are many reasons for Vietnamese to go by taxi rather than other modes. I often saw large extended families piling into a seven-seat van taxi. The group might include elderly people and babies, two groups who might be uncomfortable or unsafe on a motorbike. Moreover, families may prefer to travel together in a van than with multiple motorbikes. One local planner said he always travels by taxi when he is with his wife and daughter on weekends. His four-year-old daughter never travels by motorbike because he finds it unsafe. As he told me, “even a minor accident can become very serious for a child.” He is considering buying a car, but has not yet. He wants to use it to travel with his family but also for work. He works 90 minutes outside the city and travels by company bus to and from the office. However, the bus only travels to and from the office once per day. Therefore, if he has a meeting in the city in the middle of the day, he must take a taxi. Though he owns a motorbike “a very fashionable one,” in his words, he will not travel by motorbike on the highway for reasons of safety. Therefore, for those who can afford it, the taxi becomes the mode of choice for long distances.

Moreover, taxis are important when it rains. The motorbike leaves the driver and passengers incredibly vulnerable to rain. Even with a poncho, rain becomes uncomfortable as it splashes in one's face and on one's legs. Moreover, the street drainage system often cannot keep up with sudden downpours, as are common in Ho Chi Minh City. Streets, and especially sunken alleyways, become flooded easily. I have seen many scenes with motorbike drivers going through standing water above their ankles. Therefore, the taxi becomes a haven in inclement weather, both for reasons of comfort and for reasons of safety.

Pedestrians

I will end this section on the current transportation infrastructure in Ho Chi Minh City by discussing the infrastructure which supports pedestrians. "Vietnamese people don't like to walk!" "The Vietnamese will never walk to a metro stop!" I heard a version of these sentiments throughout my research from local planners, international planners, and Ho Chi Minh City residents. Indeed, the widespread use of motorbikes, and the convenience of motorbike parking, means many people are able to drive their motorbikes out the front door of their home and leave their motorbikes with parking attendants at the door of their destinations.

Walking as a means of travel is so rare that local planners do not always even take it into account in their studies. For example, one morning, I was listening to a presentation at the Transportation Research Center by a local planner on the progress of his research, in particular on the methods he was using to estimate traffic flow at signalized intersections. He was taking great care to count the vehicles that were traveling through the particular intersections, and tabulating them separately by vehicle type.

While explaining this, he was showing the group some of his footage from an intersection. I asked why he did not have a category for pedestrians. He answered that he was not counting pedestrians because “there are not so many.” Yet, in the short amount of footage he showed us, I counted five people crossing the street. More than two months later, the same researcher was again presenting the progress of his research, this time focusing on intersections in the central business district. For these intersections, he included a count of pedestrians. I again asked him about his decision to count pedestrians, and he answered that since these intersections were in the central business district, there were pedestrians. He went on to say that in the other intersections he looked at there were “no pedestrians.” I repeated, “no pedestrians.” And, he answered, “maybe one or two in fifty minutes.” For this planner, pedestrians outside of the central business district were not significant enough in number to be counted, and therefore they, albeit small in number, are rendered invisible.

This planner’s research methods reinforce the generally-held notion that Vietnamese people will not walk to get to a destination. Indeed, if the planner were to count the “maybe one or two [pedestrians] in fifty minutes,” even if this number were even a bit higher, he would be able to show with numbers that walking is rarely used as a mode of transit. And, he or other future planners would be able to show changes in the numbers of pedestrians. In the central business district and other areas in the central districts with office buildings, it is common to see groups of young office workers walking to get lunch together during the noon hour. At other times and in other areas, pedestrians can, of course, occasionally be seen. Indeed, I often took note of pedestrians

crossing the street simply because I was in awe of their seemingly steely nerves crossing the street in the middle of a block with motorbikes swerving on both sides.

Walking in Ho Chi Minh City may be rare at present, but taking the infrastructure necessary for pedestrians into account is important for two reasons. One, even if walking to get to a destination is rare, street space is often used by people for selling, buying, resting, and socializing, utilizing the same infrastructure that supports pedestrians. Two, a successful metro, bus rapid transit, and local bus system will almost inevitably require that passengers walk to and from stops. Indeed, both metro line projects and the BRT project that I observed have studies which focus on improving pedestrian infrastructure surrounding the stations.

Much of the infrastructure that facilitates pedestrians also provides a comfortable environment for anyone who would like to sit, stand, lean against a motorbike, set out plastic tables and chairs, or allow their children to play outside in and near the street. Many of the streets in the central business district and some of the major streets in other areas of the city that have been recently redesigned have wide sidewalks lined with trees. The sidewalks allow for a separation of pedestrian traffic from most motorized traffic. (Though it is not uncommon for motorbikes to drive on the sidewalk to bypass congestion or to park.) Even streets without wide sidewalks often have large trees providing necessary shade from the harsh sun.

Yet, a lack of sidewalk, though making walking more uncomfortable, does not stop residents from walking along a road. In the absence of a sidewalk, I often saw pedestrians walking along the side of the road. On such streets, at first, my husband and I would walk single-file, as to be out of the way of motorized traffic as much as possible.

Yet, we soon realized that this was not how Ho Chi Minh City residents walked down roads without sidewalks. They would walk side-by-side, relaxed, and not particularly worried about being as close to the edge of road as possible. They were able to be relaxed, though walking in the street, because Ho Chi Minh City drivers are very attentive to pedestrians and other slower traffic. It is the drivers' responsibility to avoid hitting pedestrians, and drivers know that they could encounter pedestrians, children playing in the street, a woman carrying goods to sell, or someone pushing a large cart with wares. The motorbike drivers are attentive, and they swerve around this slower traffic when necessary. This attentiveness of drivers and the flexibility of the motorbike to be able to swerve around obstacles also allows pedestrians to cross the street at any point. Crossing the street in a sea of motorbikes is not uncommon. I was never quite completely comfortable with motorbikes seemingly coming straight at me while crossing the street. But, I quickly learned (and was told) to continue to walk at a slow, steady pace. I also learned that making eye contact with drivers assured me that the driver saw me. I learned that if I stuck out my arm, at a slight angle down to the ground, I could indicate to drivers that I wanted them to go behind me, rather than in front of me. I also learned that I could stick my arm straight up in the air, which drew extra attention to my presence, and drivers would slow slightly and go behind me. However, I also came to realize that these actions, though occasionally also used by Ho Chi Minh City residents to cross very busy streets, mostly helped *me* feel safer (and look like a terrified foreigner), rather than actually affecting driver behavior. For, drivers would have swerved to avoid hitting me without those actions.

It is not just the infrastructure and driver behavior that facilitates pedestrian traffic in Ho Chi Minh City. The built environment, and, in particular, the dense and multi-use nature of the buildings mean that there are destinations to which to walk and to make the walk more interesting. On my relatively small street in a district just outside the innermost districts, there were three sidewalk coffee shops, a sandwich stand, a noodle stand, a salon, a flower shop, a mechanic, a printshop, and an indoor coffee shop. If I walked to either end of the short street, and turned either right or left, within half a block, I could reach two bakeries, two more sandwich stands, a vegetarian restaurant, two salons, two fruit stands, a pharmacy, a shoe store, a boutique clothing shop, and a couple more indoor coffee shops. It sometimes felt like I could reach everything I needed within a block and a half from my home. Most streets in Ho Chi Minh City contain narrow buildings with a storefront on the ground floor and one or more dwellings above. This means that while walking down the street, there is always something to look at, and, that what one is looking for may very well be within walking distance.

Moreover, there are almost always others on the street, save, perhaps, the early afternoon hours when most retreat to their homes and offices for a much-needed nap and respite from the sun and heat. Scholars working in urban Vietnam have noted the widespread use of public space on streets (Drummond 2000; Harms 2009; Earl 2010). One of the highlights of my day was waking up early with my son (he woke without fail at 6:00 am, when the sun was up and the rooster next door was crowing), strapping him into the Baby Bjorn baby carrier (surely a bizarre sight for all who saw us - why can't that American just carry her baby in her arms?), and walking to the end of our street to buy some coffee, buy some bánh ướt ("wet noodles," which are large noodles, some

meat, bean sprouts, herbs, and plenty of fish sauce), and talk with the motorbike taxi driver on the corner. As we made our way to the corner, we would pass two dozen or more people along the way, all who loved to smile and say hi to the baby (even the groups of men drinking their coffee together before their days began would wave to us). Walking down a long, desolate street, where all that is visible are fences, parking lots, or shops set far back from the sidewalk, with vehicles traveling at 45 mph, in the hot sun is unpleasant (I know. I used to live in Houston.) It is a completely different experience walking along a shady road, looking into store windows, and greeting people along the way.

Yet, as the planner doing the traffic counts whom I described above asserted, not many people in Ho Chi Minh City walk to get from point A to point B (though, again, people utilize road space for business, socializing, and relaxing). And, just as there are infrastructural, cultural, environmental, and policy-related reasons that walking can be made more pleasurable and practical, there are reasons that walking is ultimately not the mode that most people choose. Most residents choose to travel by motorbike, and there are multiple infrastructural, policy-related, and cultural reasons why the motorbike makes sense to most residents.

For one, even if individual streets are dense and lively places, the city is sprawling. Many people live far away from their jobs. I met many people who lived in the outer districts where land is less expensive, yet they worked in the inner districts. Therefore, walking to work becomes impractical due to distance. Moreover, it can be uncomfortable to travel outside for long periods of time. For one, air pollution is a concern in the city. As a result, many people wear masks as they travel. On one of my

first days back in Ho Chi Minh City in 2013, after I had been absent for more than a year, I decided to take a long walk to reconnect with the built environment of the city. I walked along a main road which had recently been redesigned with wide sidewalks, yet also to allow large vehicles. Without a mask, I was breathing in the exhaust from all those motorbikes, cars, buses, and trucks. After about thirty minutes, I started to cough. I began a coughing fit that I was not sure would pass quickly. Luckily, I was near a store that was enclosed and air-conditioned. I stepped in, and coughed, doubled-over, and teary-eyed for far too long, before I was able to compose myself. I attributed this coughing fit to the polluted air I was breathing along those main roads. I soon learned the value of walking along smaller roads, avoiding walking during peak traffic hours, traveling by car taxi to avoid breathing exhaust altogether, or traveling by motorbike taxi to reach my destination quicker and reducing exposure.

Ho Chi Minh City's weather can also make walking unpleasant. Though many people might choose to sit outside on the street on a plastic chair under some shade, exerting energy by walking, and inevitably having to step out from under the shade, means the heat, the strong sun, and the humidity make walking far more unpleasant than sitting. Moreover, the rainy season in Ho Chi Minh City brings sudden downpours and many streets flood. Although motorbike drivers are also subjected to these elements of weather, the speed of the motorbike means less time out in the elements.

Ultimately, driving a motorbike, for anyone who can afford a motorbike, becomes the most convenient, cost-effective, and comfortable way to travel compared to walking, riding a bicycle, or riding the bus. It is also far more fashionable. Aside from very short trips, such as grabbing lunch with colleagues down the block or walking from a parking

garage, only children, university students, and the very poor, (and foreign tourists), can regularly be seen walking to get to a destination. A motorbike is a desired commodity that asserts one's status both by being able to afford one and by the make and model of the motorbike. To ask a Ho Chi Minh City resident why they take their motorbike rather than walking would elicit odd looks - if one owns a motorbike, why wouldn't one drive it? Yet, throughout this chapter, I demonstrate that there are many factors that make this the obvious choice of transportation for Ho Chi Minh City residents. Planners in Ho Chi Minh City are attempting to change infrastructure and policies that will make walking a more attractive option. There are several plans completed or currently being completed that are doing just that. The World Bank's initial discussions around planning a Bus Rapid Transit line along Võ Văn Kiệt have always included discussions about how to make the areas surrounding the stations more walkable, according to my discussions with planners and officials, minutes from meetings, and the documents produced from those meetings. The Asian Development Bank (ADB), one of the funding agencies for the MRT Line 2, has funded a plan that specifically looks at how people will access the stations. As one of the head planners on the project told me, their project begins at the edges of the station building and expands out into the neighborhoods. We spent a lot of time talking about sidewalks, connecting the bus system to the stations, pedestrian bridges, and other elements that will aid pedestrians in reaching the stations. Japan International Cooperation Agency (JICA) is also funding a project alongside the MRT Line 1, which aims to improve accessibility to the stations. JICA recognized, along with the World Bank and the ADB, that it is essential for the main projects' success that people be able to reach the stations, including being able to walk to them. At the moment,

Line 1 travels along a major highway, meaning the stations are disconnected from the dense neighborhood streets and streets where people can safely walk across. Therefore, they are thinking about how to create attractive pedestrian bridges and other ways to connect to the surrounding neighborhoods.

Planners and residents are skeptical that Ho Chi Minh City residents will ever willingly, and gladly, make walking a part of their commutes if they have other choices. Yet, planners and officials are also trying to change the infrastructure and policies to make walking more attractive, and to make other modes less attractive. For, changing the future transportation landscape involves a holistic approach to encourage some forms of transportation and make others more expensive and less convenient.

Imagining the Future of Infrastructure in Ho Chi Minh City

The Transportation Master Plan

I have given a brief snapshot of the transportation landscape in Ho Chi Minh City in 2013. This landscape had greatly changed from only fifteen years prior, and there was a sense among residents that it would continue to shift into the near future. Rising incomes and urbanization meant increasing numbers of motorbikes and cars on the roads. The Vietnamese government along with international development banks were pouring money into plans and construction of mass rapid transit systems. There are two documents which were guiding the direction of the transportation landscape in Ho Chi Minh City. The first is *The Study on Urban Transport Master Plan and Feasibility Study in Ho Chi Minh Metropolitan Area*, referred to by planners and officials as HOUTRANS. The second document is the Ho Chi Minh City Master Transportation Plan, a plan approved by the Ho Chi Minh City People's Committee and, I was told by local planners,

largely based on the information and recommendations from HOUTRANS. I received the Vietnamese and English versions of HOUTRANS from two local planners, both of whom said that HOUTRANS was the first major transportation study in Ho Chi Minh City. The study was conducted from 2002-2004, and published in 2004. It was funded by the Japanese International Cooperation Agency (JICA) for the Ministry of Transport in Vietnam and the Ho Chi Minh City People's Committee. The ALMEC Corporation, a Japanese consulting firm, conducted the study with assistance from local experts. The team conducted thousands of field surveys, forecasted traffic demand, formulated a master transportation plan, and did feasibility studies on priority projects, most notably on the MRT Line 1, which would later also be funded by JICA. Based on an assessment of the current road capacities, the study forecasted the road capacities into the future, given several different modal split possibilities. In this analysis, the study states that even if all current road construction is completed, that "Lack of traffic capacities is obvious all throughout the study area" (ALMEC 2004: 6-3). Based on detailed forecasts of where traffic capacities would be lacking the most, the study offers a "Recommended Network" (ALMEC 2004: 6-10), including widening and adding at-grade roads, an elevated urban expressway, a regional expressway, and an urban mass rapid transit (UMRT) system with a total length of 138 km (or almost 86 miles). The study also contains detailed recommendations for improving the local bus system. The study sets a goal of 50% of trips made by public transit by 2020. It admits that if this figure became infeasible, the study would be overestimating the requirement for bus and rail capacity and underestimating the vehicular volume of roads, therefore affecting the feasibility of many of the projects (8-3).

HOUTRANS is now outdated in terms of the feasibility of the timeline: No one is expecting the modal share of public transportation to increase to 50% by 2020 and many of the projects recommended in the study are already behind schedule. Yet, the spirit of the study and the recommendations are still in line with the direction that the city government is heading in terms of public transportation. HOUTRANS also remains an important study because it is still the largest, most comprehensive study conducted to date in Ho Chi Minh City, and, therefore, has a wealth of data that planners still rely upon. HOUTRANS is also seen by planners as a model study. For example, when I spoke with planners about a study they were doing on accessibility along a corridor which will have a future MRT line, they referred to the surveys they were conducting as an update on the HOUTRANS surveys. They were also comparing their survey data, which included individuals' travel habits and preferences, to the data gathered during the HOUTRANS study, to see how residents' travel habits and preferences had changed in the ten plus years since the HOUTRANS study.

Moreover, local planners told me that the city's transportation master plan was formulated from the HOUTRANS report. Indeed, throughout the plan, several tables and maps are cited as being sourced from HOUTRANS. The transportation master plan is a formal government document, prepared by a local transportation engineering firm, TEDI-South, and approved by the Prime Minister by decree Quyét Dinh 101/QĐ/-TTg in 2007. The full title of the plan, from my translation, is "The Plan for the Development of Ho Chi Minh City's Transportation up to the Year 2020." In terms of public transportation, the plan is ambitious, to say the least. It calls for four heavy rail lines that will connect Ho Chi Minh City to the broader region, two light rail lines that will serve new development

and a new airport, six metro lines to serve the city, and three light rail or monorail lines (TEDI-South 2007: 24-27).

Although the transport master plan has been revised, most recently during my research in 2013, it remains highly unfeasible, especially in terms of the timelines established. Du The Huynh (2012) argues that the city's plans are unrealistic and rarely built as scheduled or as expected. However, the plans do serve specific purposes, even if they are not a realistic step-by-step plan for the city. Namely, the plans help the city government to "1) negotiate with the central government to achieve more policy and fiscal autonomy; 2) seek international donors' financing and technical assistance, particularly for infrastructure; and 3) encourage private businesses to participate in building the city" (Du The Huynh 2012: i.) In many ways, this is not far from the function of a plan for a US city. Planners and city officials know that plans will mostly likely not be completed according to schedule or fully completed at all. However, the plan allows for many parties to share a vision and work together toward that vision. It also allows the city to seek funding more easily, as the funding for a particular project can be seen as part of a larger project, which will bring even greater benefits to the area. However, the Ho Chi Minh City transportation master plan is far more unrealistic than any US transportation plan. For example, of all of the rail lines listed above, two of the MRT lines might be completed in 2020. Yet, according to some of the international experts working on the projects told me, even the completion of these lines by 2020 is uncertain. Yet, the plan provides a (perhaps utopian) vision of the future of transportation in Ho Chi Minh City, and allows officials, planners, and funding agencies to see individual projects in terms of a long-term plan.

Mass Public Transit

Now I will highlight three of the major mass public transportation projects currently in various stages of planning or construction in Ho Chi Minh City: MRT Line 1, MRT Line 2, and the BRT Line along Võ Văn Kiệt Avenue. I am focusing on these three projects because they are arguably the most important and most likely to eventually be completed. I was also able to interview multiple people involved in each of these projects, including local experts, international experts, and officials at the funding agencies.

MRT lines require large, permanent infrastructures, and, therefore, great amounts of expertise, time, and, funding. MRT Line 1 has been being planned since at least 2004, with the release of the HOUTRANS study. As of my fieldwork in 2013, MRT Line 1 had begun construction on the elevated section, with construction on the underground portion delayed due to failed bids, according to rumors I heard from international experts working on other transportation projects in the city. The line will begin at Bến Thành Market, a popular market and bustling city bus station in the center of the city. It will have three underground stations, traveling to the Northeast, and then will cross the river aboveground and continue heading Northeast to Suối Tiên in District 9. The line travels through the city center, through some wealthy, developing areas of District 2, and then through some outer districts and nearby some major universities. The total length is expected to be 19.7 kilometers, with 2.6 kilometers traveling underground. Vietnamese newspapers regularly report the total estimated cost to be 2.25 billion USD, although, as Flyvbjerg, Bruzelius, and Rothengather (2003) point out, mega projects such as MRT lines are rarely completed within the projected budget. *Tuổi Trẻ News* reports that 88.4%

of the funding is coming from Japanese ODA funding, that is, from JICA, with the rest coming from the city.

MRT Line 2 is being funded by KfW, a German government-owned development bank, the European Investment Bank, the Asian Development Bank (ADB), and the Vietnamese state budget. When I spoke with engineers working on the project in 2013, they were in the detailed design stage of the project and preparing for tendering, Phase A. After the contracts are signed, they will move into Phase B, which is construction supervision. The line will also begin at Bến Thành Market but will travel northwest to Tham Lương. The line will include nine underground stations and one aboveground station, not including the underground Bến Thành station, with a length of about 10 kilometers. There are also discussions to extend the line in both directions, to District 2 to the east and to An Suong to the northwest. The international engineers working on the project whom I interviewed said that the line might be running by 2020 or 2021. An official at the Management Authority for Urban Railways told me they would be finished by 2018 .

Because of the high cost of MRT and the long timeline, the World Bank has proposed developing Bus Rapid Transit (BRT) lines in Ho Chi Minh City. As one transportation planner at the World Bank working on this BRT project told me, the World Bank prefers to fund BRT projects because they require less infrastructure, and, therefore, less funding, yet, when done correctly, BRT can transport nearly as many people as MRT. During my year of fieldwork in 2013, the World Bank launched the project to institute a BRT line along the avenue Võ Văn Kiệt. Two years earlier, there was a workshop to discuss planning a BRT line along this avenue. The workshop was

attended by officials from the World Bank and the Vietnamese government. I read the report and the minutes from this workshop and spoke to a couple of people in attendance at the workshop. That workshop was to discuss the general concept of BRT and to begin coordination and communication among multiple departments within the city government. This workshop, in 2013, was supposed to be the official launch of the project. And, the international team of experts who would go on to do a feasibility study were also in attendance. I interviewed some of these planners as they were beginning their study.

BRT involves buses running in dedicated lanes, on regular, frequent schedules, and with passengers purchasing tickets before boarding. BRT proponents argue that BRT allows the benefits of MRT, with comfortable, convenient, fast, mass transportation, without the massive infrastructure investments that MRT requires. Specifically in Ho Chi Minh City, the World Bank has proposed this BRT line, and potentially other future BRT lines, because the MRT lines will take years to be completed.

Impacting Future Transportation Choices

I have spent a great deal of space in this chapter outlining the current and future infrastructures and policies that make up Ho Chi Minh City's transportation landscape. In this final section, I will demonstrate why this matters for people's lives and for the city. I will first go into more detail about how planners believe they can affect the modal split of a city, and then why it matters what the modal split of a city consists of.

Planners believe that they can curb the seemingly inevitable evolution of increasing car ownership in Ho Chi Minh City and also influence the other segments of the modal split. I argue that planners believe that if they had complete control over policy

and an unlimited budget to build the necessary infrastructure, they could engineer, rather precisely, the make-up of modal split. This became such a background assumption during my research that, on a couple of occasions, I was jilted out of this worldview of the transportation planners when I had a conversation with a resident and they would express doubt that anyone would ride the urban rail when it was finished. These residents would say things like: “it will be too inconvenient,” “no one will want to walk or to wait,” “people are too used to using their motorbike - you can’t change their habits.” Comments such as these would awaken me to the difference between the control that the planners thought they had and what residents feel are their own choices, made on account of their sense of rationality, convenience, and personal preference.

However, planners believe they can engineer what people will find rational and convenient, and they believe they can, therefore, change what people will prefer in terms of mode choice. When I asked one German engineer, “do you think the planned urban rail will be successful?” he just looked at me blankly for a second, and then answered, “of course it will be successful.” He then went on to explain that you can predict the success of a metro system based on the density of a city, and Ho Chi Minh City exceeded the density needed for widespread use of the metro. Other planners answered this question with a bit more nuance. They admitted that the success of the metro depended on a host of policy and infrastructure initiatives in order to make it successful. Others also recognized that it would take some effort to convince the Vietnamese to get off of their motorbikes, because of the convenience and affordability of travel by motorbike. But, overwhelmingly, planners and officials believed that if the city put the right policies and

infrastructures into place, the project would be a resounding success, that is, the metro would be filled to capacity.

What are the tools that planners believe they could utilize to affect modal split? According to my discussions with transportation planners, it appears that almost any transportation policy or infrastructure could have an affect on modal split, so used together planners believe they can shape modal split in a particular direction. For example, Vietnam has high taxes (upwards of 100%) on automobiles, which many credit for the relatively slow rate of growth of car ownership. The government is also discussing lifting many of those taxes, which many fear will lead to a flood of new cars on the streets. Even congestion is a tool that planners use to control modal split. One planner explained to me that it is only when there is sufficient congestion, and it therefore becomes relatively inconvenient to travel by car versus urban rail or bus rapid transit, that people might choose alternative travel. Moreover, Ho Chi Minh City is considering policies that would limit motorbikes in certain areas of the central business district, making it more convenient or even necessary to take public transit than to drive. It is also acknowledged, though, that these punitive measures to discourage driving are only practical if the city also provides a reasonably attractive public transit alternative. Therefore, a great deal of money, time, and expertise is currently being devoted to developing the current local bus system, developing a bus rapid transit system, developing an urban rail system, and making sure all systems are integrated and are comfortable, affordable, and convenient.

There are many reasons why plans to affect mode share may not succeed. I have heard many planners joke and complain that they plan and plan, but do not always see

their plans come to fruition. The reasons why a plan does not have the predicted or desired income is well-documented throughout the planning literature. My focus in this chapter is not so much on the ability of planners' to affect the transportation landscape in particular instances but on their belief that they can and their desire to do so.

Thinking in terms of modal split allows planners and government officials to abstract individual choices. If one is talking about 30% or even 50% of trips by public transit, there is always room for a particular individual to imagine him or herself as the other percentage. These percentages are, therefore, non-threatening. Both the planner or official themselves and the public to whom they are speaking, do not need to imagine themselves as being part of the shift. Setting goals for shifting modal split (and putting policies and infrastructure investments in place to accomplish that modal split) allows officials and planners to affect residents' choices of transportation, but avoids being deterministic on an individual level. After all, setting a goal of 50% modal split does not point the finger at the particular 50% of individuals who will be shifting from motorbike to public bus or urban rail. Yet, I also want to bring attention to the fact that individual transportation choices have affects on the entire population of a city. If Ho Chi Minh City were to become car-dependent, it would take major changes to the built infrastructure - many homes and businesses would need to be torn down to make way for roads and parking spaces. It would also change the way people move through and experience the city.

Thus far, I have spoken of planners' conceptions of urban space, or what Henri Lefebvre would call "conceived space" within his "conceptual triad" (33) for thinking about the production of space (Lefebvre 1991). However, I also want to move beyond

planners' conceptions to how these plans play out in "perceived space" and "lived space," to further think with Lefebvre (1991). Why should residents care if policy-makers can affect the modal split of a city? I argue that the modes of transportation affect residents' daily experiences of moving through the city and affect the feel of the city as a whole. Motorbikes are key to the feel of the streets of Ho Chi Minh City, yet they are relatively new, as just a few short decades ago the dominant form of transport was bicycle. Transportation experts on Ho Chi Minh City talk about a future, perhaps only 15-20 years away, where motorbikes make up far less of the modal share and cars and public transport make up far more. This means Ho Chi Minh City will look, feel, and operate much differently than it does today.

Modal split matters because transportation configures the different ways that are possible, and comfortable, to move through a city. Julia Elyachar (2011) points out that in each new city one must learn how to walk. In Vietnam, it is most common to cross the street where it is most convenient - perhaps in the middle of a block, with traffic swerving on both sides of you. I observed many Vietnamese crossing without incident, without anxiety. I, on the other hand, never become completely comfortable with crossing the street. In fact over the past eight years I have been visiting Ho Chi Minh City, I have become delighted to see traffic lights popping up at increasing numbers of intersections, so that I can cross the street in a more familiar mode.

Another reason that the particular modal split of a city makes it feel so different than other cities, is that transportation adds to the what Brian Larkin (2013) calls the ambient infrastructure of a city. Larkin refers to an "embodied experience governed by the ways infrastructures produce the ambient conditions of everyday life: our sense of

temperature, speed, florescence” (336-337). Larkin brings attention not only to the function of infrastructures, to their function as assisting circulation of other things, but also to how these infrastructures contribute to the ambient atmosphere. Indeed, in the case of transportation in Ho Chi Minh City, the number of motorbikes, cars, buses, and pedestrians, affects the noises, smells, sights, and physical feel of public space.

The Ho Chi Minh City People’s Committee has set a goal of increasing public transit from 5% to 50% in the near future. Teams of planners, funding agencies, and government agencies are working on multiple planning studies to bring the modal split of the city closer to this goal. Were this goal in altering the modal split to occur, it would have an effect on the environment (emissions will be lowered, air quality will improve), safety (fewer serious accidents for vulnerable motorbike riders), and congestion (transporting more people using less road space). It would also have an effect on the feeling of moving through the city and the ambient atmosphere of the city. When I bring attention to the uncertain future of the modal split within Ho Chi Minh City, I am neither warning of a loss of the “essential character” of Ho Chi Minh City nor advocating for some sort of improvement to the current transportation landscape. My aim has been to draw attention to how transportation planners think about modal split, how they feel they can affect the make-up of transportation in a city, and what broader effects on the character of a city and everyday experience of a city for residents and visitors.

Planning for modal split serves as a way for planners to plan holistically. Rather than focusing on specific issues, methods, or areas, planning for the modal split of a city allows planners’ imaginations to encompass the entirety of the city projected into the

future. By starting with goals of shaping modal split, planners can project their desires for the city and plan individual projects accordingly.

Conclusion

Ho Chi Minh City's transportation landscape is made up of individuals making many individual decisions throughout the day about how they will travel. Yet, these decisions are constrained by how individuals evaluate the cost, convenience, comfort, prestige, and availability of these modes, with some actors placing more emphasis on particular values and some actors more constrained by their circumstances than others. I have aimed to show in this chapter that transportation infrastructure and policy can greatly affect how modes of transport can become more or less costly, more or less convenient, more or less comfortable, and more or less prestigious. This is not to say that history or cultural values do not play a role in how modes of transportation are perceived differently in different cities. Yet, at a time where the transportation landscape is rapidly changing, due to urbanization, increasing household incomes, and billions of dollars worth of aid, it is important to recognize what affect infrastructure and policy can have on individuals' decisions and how the sum total of those individuals' decisions (the modal split) has an affect on the city as a whole.

CHAPTER TWO

Virtual Passengers, Real Subsidies:

A History of Bus Infrastructure in Ho Chi Minh City

Introduction

Ho Chi Minh City's bus system was embroiled in a minor scandal, and Liên was in the midst of it. It was early August 2013 and Liên had just returned from a conference in Rio, so I had not seen her in a couple of weeks. She sat next to me on the 90-minute bus ride to the Transportation Research Center, and I was looking forward to catching up and hearing about her trip. After telling me she had a wonderful time on her trip, and sharing some thoughts on Rio's transportation infrastructure problems, she became more serious and told me she had attended a meeting the day before yesterday concerning bus subsidies. She said the system of subsidies had recently come under attack, with some people arguing that though the subsidy for public buses increases each year, the total share of public transport is not increasing, therefore criticizing the amount spent on public transportation.

I later tracked the story through a series of newspaper articles, and found that this particular outrage at the subsidized bus system was sparked by an article in a local newspaper, *Tuổi Trẻ*. On July 29, 2013, *Tuổi Trẻ* published an article with the provocative title of "Buses: Virtual Passengers, Real Subsidies" (*Xe buýt: khách ảo, trợ giá thật*) with dramatic (perhaps too dramatic to be believable) investigative-detective-like photos of bus drivers tearing tickets and throwing the tickets into the air. The article claims that some drivers are tearing out tickets and throwing them away instead of selling

them to passengers to make it look like ridership is higher than it really is. The article explains that each bus route must have a certain minimum number of riders, otherwise, the article claimed, the amount of money that the bus companies received as subsidies would be decreased. In order to receive the full subsidy, the article claimed, the owners of the bus companies were asking drivers to tear up tickets.

As a result of the public uproar resulting from this article, Liên told me many government officials and other experts had gathered to discuss the system of subsidies, including officials from the city's department of transportation, representatives from the bus companies, and researchers from local universities. Liên attended the meeting, and she also gave me the minutes from the meeting. The presentations included many expressing their opinions that the bus system was important for many reasons, including relieving congestion in the city. She said others argued that they cannot let the bus system deteriorate because the city had been building it for many years, and it would be impossible to re-build it. She also talked about the importance of the bus system for the planned metro system. The metro system cannot operate in isolation, it needs to be part of a more expansive bus system. Moreover, the subsidy for the MRT will be ten times as much as the subsidies for the bus system, so some are worried that the public will also not want to invest in that infrastructure, the metro will quickly deteriorate, and then they will not be able to pay back the investors.

Two things struck me about the debate that was going on in those mid-summer weeks. First, the debate over subsidies reveals different views on what the relationship between the state and transportation should be. In Ho Chi Minh City, the relationship of the city government and public transit has been tumultuous, moving between various

configurations of partnerships between the city government and private companies, with many different schemas to fund urban transportation. Second, the debate reveals the importance of the history of public transit in HCMC for the future of transportation infrastructure in the city. Part of the critique of the subsidies occurred because the current system of subsidies were relatively new, instituted only ten years earlier. Yet, those ten years had been spent constructing a system that was meant to endure into the future, its designers believed. Moreover, the future metro system will depend on those years of creating a viable public transit network. This chapter will examine the history of public transit in Ho Chi Minh City through the lens of political economy, analyzing how changes in political regimes and economic systems has impacted urban transport.

Pre-1945

Professor Mai felt it was important for me to understand the history of public transport in Ho Chi Minh City. I met him at his office at the University of Transport and Communications. He filled my USB drive with documents, including hundreds of pages of a recent study of the current bus system that he had helped conduct. He also gave me a relatively short document which laid out a short history of public transport in HCMC, complete with charming photos throughout. The document, titled “History and Development of Ho Chi Minh City’s Public Transit,” (*Lịch sử hình thành và phát triển GTCC tp HCM*) begins with history from before the city had its current name, during the French Colonial period. France had attacked the south of Vietnam in 1858, which led to a treaty between Vietnam and France that ceded the South to France in 1862. By 1867, France violently seized the remainder of the South, which became the French colony of Cochin China. By 1883, the French had established a protectorate over the remainder of

the country (Duiker 1995). At the same time the French were securing their position in the North, they were building infrastructure in the southern city of Saigon, which would later be named Ho Chi Minh City. Professor Mai's document dates the construction of the first rail line (from Saigon to My Tho) to 1881, with operation beginning in 1885. Meanwhile, an urban rail line, pulled by steam engine, from Saigon to Cho Lon (both of which are now encompassed within Ho Chi Minh City) was put into operation in 1881. Du and Bowen (2011) also date the French urban rail system to the late nineteenth and early twentieth century, writing that three lines were built between 1891 and 1928. Professor Mai writes that a multimodal system was built around a transportation hub in District 1, including heavy rail, bus, tram, and the river port. Photographs from the late nineteenth and early twentieth centuries show the streets otherwise filled with horse-drawn carriages and rickshaws. Starting in 1936, the *Compagnie française de tramways* exclusively operated the tram system.

Meanwhile, resistance to the French, particularly in the North, was gaining strength. Ho Chi Minh established the Viet Minh (League for the Independence of Vietnam) in 1941. In 1945, after a brief occupation by the Japanese, culminating in the toppling of the colonial government, Ho Chi Minh declared independence for Vietnam, beginning his speech with the first lines of the American Declaration of Independence. However, Ho Chi Minh's efforts to gain the sympathies of the Americans for his cause were not successful. The Allies still viewed Vietnam as a French colony, sending the British to the South and the Chinese to the North to disarm the Japanese and evacuate the POWs, setting the stage for the French to return and retake their colony. The first

Indochinese War thus began with a well-armed French army against a popularly supported Viet Minh force.

1945-1975

In 1954, the French were defeated at Dien Bien Phu, they retreated, and Vietnam was divided into North and South. An election scheduled for 1956 intended to unify the country never occurred, and the US escalated their support for the South in the form of military advisors. Amidst the political upheaval, Saigon's infrastructure was also being demolished and rebuilt. By 1949, the tram system was dismantled and replaced with a bus system, called the "Blue Buses" for their color. Seventy-seven buses ran along nine routes at that time (Du and Bowen 2011). In 1957, the Saigon government took over operation of the Blue Buses, forming the Urban Bus Public Administration (*Công quản xe buýt đô thành*). By 1961, there were 119 buses running along 12 routes, serving 68.4 million passengers per year (Du and Bowen 2011). Du and Bowen attribute the beginning of the decline of the bus system to the purchase of 105 new gasoline-powered vehicles in 1962. Though this added 85 additional buses and five additional routes, ridership stagnated. The system continued deteriorating, and was finally fully abandoned in 1969. The apparent acute reason for the final dismantling of the system was social unrest and demonstrations by workers, though the number of riders and routes had been decreasing for years (Du and Bowen 2011). While the Blue Buses were publicly-owned buses, the Yellow Buses were owned and operated by a private company established in 1948. At its peak, also in the early 1960s, they operated 26 buses on three routes. However, the company went bankrupt in 1969, the same year the Blue Buses were abandoned. Four years later, in 1973, due to public pressure, the bus system was reinstated, this time

through the formation of consortiums of lambro owners who switched to full-sized buses, yet the impact of full-size buses within the urban transportation system remained small (Du and Bowen 2011).

As we can see from this period, Ho Chi Minh City does not have a history of robust public bus usage. The ridership has always been a small percentage of overall trips within the city. Moreover, there is a history of unsuccessful attempts to provide and grow public transportation. Therefore, contemporary calls to pull public funding from the public bus system are not unprecedented. Moreover, concerns from officials that the bus system could be dismantled entirely if efforts are not made to support it are also legitimate, given the system has been abandoned in the past and has failed to gain a prominent ridership over the past 70 years.

A far more common mode of mass public transportation was the system of Lambros, or Lambrettas (*xe lam*). Professor Mai began his explanation of the Lambros with a multisensory description: “Surely each person who heard the bang of a Lambro’s engine and then experienced the crisp smell of smoke when caught behind one remembers the Lambros. There was discomfort there, but also lasting memories” (my translation). Lambros are three-wheeled mini-buses with open back areas that could carry passengers or cargo. The vehicles originated in Italy, produced by the same company that made Lambretta scooters, and derived their name from the make and model of the vehicle. They arrived in South Vietnam in the early 1960s to replace horse-drawn carts. Initially, Lambros were not allowed to operate in the center of the city. However, as the public bus system deteriorated, the ban was lifted in 1966. It is estimated that there were 10,000 lambros operating in Ho Chi Minh City in the late 1960s, carrying around 15% of

the population in areas that they served (Du and Bowen 2011). Though they served an important niche transportation needs, they were restricted and eventually banned starting in 2004.

The lambros operated within self-organized groups. Each lambro driver needed to wait for his turn, running on demand rather than fixed routes. The lambro departed only when it filled with enough passengers, commonly waiting 15-45 minutes. Yet, it was a relatively inexpensive and efficient mode of transport for many. Moreover, the smaller vehicle size meant they could traverse the small alleyways of the city that full-size buses could not.

Also common during this period was the motorized cyclo. Professor Mai said the motorized cyclo was the first machine on the roads in the morning and still could be heard long after dark. He told me both American civilians and military personnel liked to ride the motorized cyclo, partly because it was like a little adventure. He told me he recalls seeing an American scream with excitement as the cyclo quickly raced down the street. Mai's research dates the motorized cyclo appearing in Saigon in 1940-1950. This was a suitable mode of transport for many, he told me, including, "pregnant women, a child or elderly or sick person, a prostitute, or a drunk ARVN soldier." Moreover, the motorized cyclo was a symbol of security and "the driver with his felt hat, helmet, and sunglasses always looked cool." He assured me that when people remember those days, they remember the cyclos populating "every corner, every alley, hospitals, bus stations."

Also during this time, the motorbike became a popular mode of transport, which would later become the dominant mode of passenger transport, remaining so today. In the 1950s, motorbikes from France and Italy entered the city. Starting in the 1960s, Mai told

me, Japanese motorbikes, such as Hondas, Suzukis, and Yamahas became popular. The nonmotorized cyclo and the bicycle were also commonly seen on the streets at this time. Lambros, motorized cyclos, pedaled cyclos, motorbikes, and bicycles offer a degree of flexibility and efficiency that full-size buses could not.

1975-2002

In 1973, the US withdrew troops from Vietnam. By 1975, the northern communist government had reunited the country, instituting a centrally planned economy in the South. In the arena of passenger transport, this meant that the official bus services were nationalized into two state-owned enterprises, one serving the central urban areas and the other serving the outskirts of the city. The lambros were organized into cooperatives. In 1980, public transport still only consisted of 10% of the city's travel demands, with the bus accounting for 63% of public transport and lambros carrying 33.5% of public transport riders (Du and Bowen). Professor Mai told me that the state subsidized the bus system through providing fuel, tires, and spare parts. The state continued to invest in the bus system, purchasing almost 100 new vehicles from Czechoslovakia in 1982 and some additional vehicles from Japan in 1984 (personal communication with Mai). However, just as many sectors deteriorated under the centrally planned economy, so did public transportation services. The state would continue to subsidize and operate the public bus system until after the government instituted *doi moi* policies, which transitioned the centrally planned economy to a "market economy with a socialist orientation." Before discussing the public transportation system in the 1990's, which would again drastically change the system of subsidies and the state's relationship to the bus system, it is worth

discussing in some detail how these changes from a centrally planned economy to a late socialist political economy came about.

There are several ways in which the motivation behind, implementation of, and results of economic and social reforms in Vietnam are particular to Vietnam as compared to other postsocialist or global South countries. For one, Vietnam implemented its reform policies, starting in the late 1970's and continuing through the major overhaul of policies with *doi moi*, in relative political and economic isolation from the West (see Schwenkel 2012 for an account of Vietnam's relationship with East Germany at this time). Many scholars argue that the motivation behind these policies did not come from international pressure from international financial institutions or other countries, but from within Vietnam. Vietnam was ineligible for multilateral loans because of the US embargo, so the International Monetary Fund and the World Bank did not influence the initial reforms in Vietnam (Norlund, Vu, and Gates 1995).

Rather, motivation for reforms came from the political and economic conditions within Vietnam. Production was well below the needs of the country, and inflation was soaring in the 1980s. De Vylder (1995) points out that reforms in Vietnam did not begin with short-term austerity measures, as they did in so many countries where the World Bank and the IMF were encouraging economic reforms, but with a period of rapid inflation. "The expression 'short-term pain for long-term gain,' so common in other countries undergoing structural adjustment, does not apply to Vietnam; rather, it was long-term pain that was replaced by short-term gain" (de Vylder 1995: 37). Anh (1995) argues that the state recognized that the then-current policies could not raise living standards or meet the people's increasing demands for enterprise autonomy, emphasizing

that reforms were motivated by economic conditions and not political upheaval that was seen in Eastern Europe. Yet, the reforms were not completely divorced from the political realities within Vietnam. Hiep (2012) argues that the Communist Party of Vietnam (CPV) adopted *doi moi* policies in order to regain the legitimacy it had been losing since the end of the war. Whereas the CPV's legitimacy declined after the American War due to deteriorating socioeconomic conditions, *doi moi* led to the country's reputation as an economic success story and directly led to the CPV's current legitimacy, which is performance-based legitimacy, dependent on continuing economic success. The CPV adopted *doi moi* policies in order to gain approval from the people, and these policies have been successful in doing so, Hiep argues.

The inspiration and knowledge for the reforms came from several sources. One, Norlund, Vu, and Gates (1995) argue that since stark reforms were not imposed upon Vietnam by international aid agencies, Vietnam has not "perceived these agencies as 'enemies.'" As a result, many of their recommendations have been subsequently incorporated by Vietnam. Surprisingly, given the similarities between Vietnam's and China's policies, many scholars downplay the amount of influence China had on Vietnam's reforms. Turley (1993) points out that China and Vietnam did not restore diplomatic relations following China's attack on Vietnam in 1979 until 1991. Any Chinese influence on the early period of reforms was not direct. Turley further points out that Vietnam claimed they studied China's reforms but deny imitating them. Turley argues that the similarities between Vietnamese and Chinese reforms have less to do with Vietnam directly imitating China and more to do with their "shared culture, geographical proximity, mutual familiarity between the two parties' senior leaderships, similar

domestic social environments, predominantly agrarian and rice cultivating economies, and the reverberation of Chinese experience in Vietnamese internal debates" (3). He further argues that similarities exist between the two because they both look for inspiration not from the West, but from other economically successful Asian countries that show the ability of economic success within a political system of one-party rule. Given Vietnam's history with China, and the thousands of years they have spent attempting to distinguish themselves from the Chinese in order to build a distinct national identity, it is clear why Vietnam would want to maintain that their reform policies are indigenous and distinct from China's.

Similarly to Turley (1993), Wurfel (1993) argues "Nevertheless, despite the proliferation of foreign models and even the pressure from allies, it is probably fair to say that the timing and sequence of Vietnamese reforms was derived primarily from Vietnamese experience" (19). Vietnam was watching China, the Soviet Union, and other newly industrializing Asian countries for ways to develop its economy while maintaining a one-party state. Yet, it is also worth looking at the ways in which the reforms were specific to the Vietnamese context. Wurfel (1993) outlines some practices already occurring in Vietnam that assisted in the implementation of the economic and social reforms. For one, "bottom-up reforms" began in agriculture as early as 1966 and then reemerged later. These reforms meant that the agricultural cooperative agreed with farm families that they could sell any excess over the agreed-upon quota on the open market. Therefore, families had incentive to increase production. The state eventually endorsed these practices. Bottom-up reforms in industry may have started as early as 1977. "Fence-breaking" (to use a translation of the Vietnamese term) involved individual factories

selling goods on the open market to raise money to buy supplies when they found themselves short or to pay bonuses to workers to increase productivity. Turley (1993) also argues that these measures that communities in the North used during war time were re-sanctioned after socialist policies were failing. These gradual reforms were shown to be successful, and so more reform policies were implemented. Moreover, Wurfel points out that the South had a market-oriented economy until 1975, when the country was united under the Northern government. "Vietnamese officials in Hanoi often spoke of 'learning from the South;' in fact, many of the ideas and the policy models for reform did come from southern Vietnam - which had experienced a capitalist economy more recently than any region in other Communist-ruled states" (Wurfel 1993: 20).

Finally, it is worth pointing out that the results of these reforms have been different than in many other countries, perhaps largely due to the conditions of implementation outlined above. Nordlund, Vu, and Gates (1995) show how the political climate has remained stable, the reforms have been gradual rather than the "shock therapy" seen in so many other countries in the Global South, and that a large segment of the population has benefited financially, particularly farmers, though they also point out that many social costs for families have also risen. Most political scientists and economists argue that the reforms have been successful and largely popular. They argue that the question for the population has not been whether to implement economic and social reforms but how.

The public bus system was also reformed following *doi moi*. In 1988, the government returned the means of transportation to their owners, small private companies who operated as cooperatives. In 1992, one of the state-owned enterprises was dissolved

into five cooperatives. The other state-owned enterprise was re-named Saigon Passenger Transport Company, or Saigon Bus. All state subsidies for public transport ceased (except for subsidies to transport school children and university students). The system further deteriorated, with ridership decreasing to less than 2.3% of the share of all urban transportation in 1993 (Du and Bowen 2011).

2002-present

In the 1998 master plan for the city, an ambitious goal for mass public transportation was declared: public transportation was to account for 30% of all transportation in 2010 and it was to account for 50% by 2020. (In the 2007 Transportation Master Plan of the City these goals were amended to 22-26% by 2010-2015 and 47-50% by 2025.) Yet, in 2002, ridership accounted for only 2.1% of trips. With a rapidly growing metropolis, crumbling transportation infrastructure, and low rates of bus ridership, city officials once again reformed the city's relationship with public transit. After almost fifteen years, the city once again instituted subsidies for the bus network. First, the city established the Model Bus Scheme, which established routes on the major corridors, ensured buses operated 14 hours per day, and established predictable schedules (buses were no longer allowed to wait until they filled with enough passengers; rather, they were to depart particular stations at particular times and at regular intervals). A standard ticket price was set at 1,000 VND in the beginning. By 2013, the ticket prices had been raised three times, to the 2013 prices of 5,000 VND for shorter routes and 6,000 VND for longer routes, though school children and university students pay a lower fare. In exchange for following these guidelines, the city subsidized the routes. In November

2002, the city subsidized 29 routes. This increased to 73 routes in 2004. In 2013, there were 110 subsidized routes (Du and Bowen 2011).

The city also had a plan to reduce the number of bus operators to three: two state-owned enterprises and one union of cooperatives. However, in 2013, there remained seventeen operators. In addition to the operators that run the subsidized routes, there are nine additional operators that run non-subsidized routes, which generally travel from HCMC to nearby provinces. The operators of both the subsidized and nonsubsidized routes include a state-owned enterprise, private companies, and cooperatives (Du and Bowen 2011).

The efforts of the city to create a single bus system are apparent in some important ways. There is one bus map that shows all 110 routes. There is also a website that one can visit to view route information and plan a trip. Riders can buy packs of tickets and use them on any bus, though I soon learned that I needed to buy a pack of the “short route” tickets and the “long route” tickets to be prepared. Bus signs at the bus stops are fairly uniform in appearance. However, the number of operators has contributed to other irregularities. For example, whereas many municipal bus systems aim for uniform bus design, Ho Chi Minh City’s public buses vary in terms of color and bus size. The iconic HCMC bus is painted two tones of green. Yet, there are also many blue buses and even bright pink buses. Buses also vary in terms of size and interior design. I have ridden many buses where the driver has decorated the driver area with religious icons, pictures, and statuary, making the bus feel much more like a private enterprise than one vehicle in a city-wide system.

Du and Bowen (2011) report that the amount of subsidy per route is calculated by determining a standard cost, including a profit margin, for each type of vehicle on each route, minus the revenue from tickets sold per trip. As one study pointed out, this system provides incentives for under-reporting the number of sold tickets (Almec 2004). The city has tried to remedy this by instituting inspections. The first time an inspector boarded my bus, I could not figure out the purpose of the inspection. He went from person to person and verified that each had a valid ticket. However, since there was a ticket-issuer, separate from the bus driver, who had approached each passenger after they boarded to either sell a ticket, or exchange the pre-bought ticket for a ticket, I did not understand why a third inspector was needed to ensure each passenger had paid his or her fare. When I asked a friend about this, she replied that the inspectors were not there to ensure the honesty of the passengers, but the honesty of the driver and the ticket sellers. She then told me that on one bus ride, she paid full price to the ticket issuer, but the woman had handed her a student ticket. She was certain that the woman would pocket the price difference between the standard fare and the student fare. Whereas the newest buses had fare machines near the driver where one deposited one's ticket or money and was issued a receipt, on most buses, the ticket issuer simply wore a fanny pack filled with low denomination bills to keep the fares and issue change. Yet, as the debate that opened this chapter shows, bus operators must also sell a minimum of tickets per route to ensure that their subsidy will not be lowered or the route canceled.

In 2010, the bus ridership was 5.4% of total transportation, far from the goal of 22-26% by 2010-2015. The bus system is known as a mode of transport for school children, university students (who pay highly subsidized ticket prices), and the very poor.

I was often warned (by transportation planners and motorbike taxi drivers alike) to watch my valuables carefully on the bus, something I believe reflects not the actual threat of being robbed on the bus, but the reputation for only the poor to take the bus. I occasionally witnessed a seemingly well-off business man in a suit or a Western expat on the bus, but this was rare.

Conclusion

The newspaper article that sparked the scandal that opened this chapter was titled “Buses: Virtual Passengers, Real Subsidies.” These “virtual passengers” are the inflated ticket sales that the newspaper accused some bus companies of reporting, thereby referring to the passengers who the buses claim are sitting in the seats, but are, in fact, not. Yet, the larger debate concerning subsidies for public transportation in Ho Chi Minh City is also about virtual passengers, those passengers the city wants to ride the buses, now and in the future, but are driving motorbikes and cars instead. The scandal regarding bus drivers over-reporting passenger numbers betrays an anxiety that not enough people are using the bus to justify the “real subsidies.” The fact that bus use accounts for a very low percentage of all commutes in the city, that buses run whether they are filled with passengers or are empty in order to keep a schedule, and that only the poor, those valued by society the least, are assumed to be riding the bus all contribute to some questioning whether public money should support the system. The subsidies for the bus system are real. They are also relatively recent, with the newest mode for subsidization beginning only in 2002. The history of state public transit subsidies that I have outlined in this chapter shows many changes in how and whether there has been public involvement in mass transportation. Some of the periods with the most public involvement also saw the

lowest levels of ridership, with the private, independent collectives running the lambros thriving. Within this history, it is not surprising that some see public transit as futile, as not being part of the future of Ho Chi Minh City's transportation landscape.

What should the role of government be in transportation? Should the market determine the level of bus service? Or, should the government take steps to incentivize certain transport modes over others? The debate over subsidies reveals these tensions over the role of government. Some argue the market should determine what infrastructure is supported. Others claim that the market and individuals' choices will lead to worse outcomes for the city and society, such as congested roads, crumbling infrastructure, pollution, and no decent transportation options for the poor. While some remain skeptical of growing public transportation infrastructure, city officials have committed to moving in this direction, as evidenced by the the progress made on metro lines 1 and 2, and the plans for the other lines.

PART II: EXPERIENCING INFRASTRUCTURE

CHAPTER THREE

Moving is Life (and Death): The Traffic Collision, the Child's Body, and the Backgrounded Risks of Motorbike Travel

Introduction

Minutes before the end of the school day, outside every school in Ho Chi Minh City, Vietnam dozens of motorbikes sit near the gates of the schools, spilling onto the sidewalks and roads. Caregivers are waiting to drive the children home on the backs of motorbikes. Infants are also commonly transported on motorbikes; if a woman was riding as a passenger with a blanket draped over her lap, I came to understand she is most likely holding a days- or weeks- old newborn in her lap. For those new to Ho Chi Minh City, seeing children and infants on motorbikes can be unsettling due to the presumed risks to the child in the case of a collision. The perception of the vulnerability of these children's bodies is amplified because the children and infants are commonly not wearing helmets, while their parents almost always are. Statistics show that there are increased risks to riding a motorbike versus in a car or bus and that helmets decrease the risk of death in the case of collisions. Yet, most parents are not riddled with anxiety when transporting their children on motorbikes. What allows motorbike travel to feel safe?

I am not arguing that Vietnamese parents are negligent or ignorant. After all, parents in automobile-dominated cities transport their children in cars despite knowing that automobile crashes claim the lives of children. Rather, in this chapter I apply the social science literature on infrastructure to examine the qualities of infrastructure that

allow the risk of collision to be backgrounded in parents' minds. Susan Leigh Star argues that infrastructure is "by definition invisible, part of the background for other kinds of work" (1999: 380) and only becomes visible upon breakdown. While scholars have since debated the inherent invisibility of infrastructure, I follow Brian Larkin's (2013) call to examine how visibility and invisibility are mobilized and why. In daily life in Ho Chi Minh City, motorbike transportation is backgrounded, serving to move commuters to their destination. A collision, as an instance of transportation infrastructure breakdown, foregrounds transportation infrastructure. Absent a collision, the risks of a crash are backgrounded along with the infrastructure in daily life. The risks of transport fade while the more immediate work of traveling is in focus. I argue that the ability of infrastructure to fade to the background facilitates the feeling of safety while in traffic. City officials are working to foreground transportation infrastructure, and the risks of collision, in order to encourage parents to ensure their children wear helmets.

The Motorbike-Dependent City

Upwards of 78% of trips in Ho Chi Minh City are taken via motorbike, making the motorbike by far the most common mode of passenger transport (MVA Asia Limited 2010). One planning study estimated that in 2007 there were 3.1 million motorbikes in a city that then had a population of around 6.5 million people. Local planners told me there were 680 motorbikes per 1,000 inhabitants in the city. Planners at the transportation research center often used the term "motorbike-dependent city" or "motorcycle-dependent city" to describe Ho Chi Minh City. They told me that the planner and scholar Paul Barter first used the concept "motorcycle city" to describe cities where the majority of vehicles are motorcycles. But, they were also interested in the modifications that the

scholar and government official Khuat Viet Hung made to this concept, introducing the concept “motorcycle dependent city.” I was able to speak with Dr. Hung about his use of this term. He explained to me that Paul Barter used the term “motorcycle city” but only to discuss motorcycle ownership, that is, to describe cities where a majority of vehicles are motorcycles. He also noted that many scholars have used the term automobile-dependent city. Dr. Hung's addition was to use the term motorbike dependent city to also discuss the structure of a city which makes it motorbike dependent. In other words, the small alleyways, which do not allow access to cars, and certainly not buses or trucks, adds to the motorbike dependence of the people and the city.

Dr. Hung is astute to take into account elements of the built environment that make a city a motorcycle-dependent city, for there are many elements of the transportation infrastructure and the built environment in Ho Chi Minh City that are particularly conducive to motorbike travel. For example, because motorbikes are small and easily moved by a parking attendant, parking is often in immediate proximity to the entrance of restaurants, cafes, and shops. Moreover, residents are able to park their motorbikes on the ground floor of their homes, especially important as there is rarely parking on the street outside homes. Metal ramps that lead from the street up to the sidewalk over a curb allow for motorbikes to be parked on the sidewalk or for drivers to bypass congestion by driving on sidewalks. Motorbikes are especially useful in their flexibility when they are able to swerve around larger vehicles on congested roads. Finally, many of Ho Chi Minh City’s alleyways are too narrow for a car to travel. Therefore, for people wanting to reach residences and businesses on those streets, motorbike, bicycle, or walking are the only options for reaching the front door.

As Allison Truitt (2008) has argued, motorbike ownership has become a sign of middle-class status in recent years, particularly in contrast to riding a bicycle or using the city bus system. Truitt, who conducted the research for her article on motorbikes in Ho Chi Minh City more than ten years ago, emphasizes the motorbike's role as a marker of middle class status and analyzes the motorbike primarily as an item of conspicuous consumption. She connects the mobility of the motorbike with class mobility and emphasizes that the state's efforts to assign different types of vehicles to different lanes as separating economic classes, too. In her own discussion of the tension between state regulations and drivers' actual behaviors, Truitt writes, "the disorder of traffic, rather than a sign of the failure of citizens to heed the law, can be read as an indicator of economic reform - the promise of individual freedom and autonomy associated with the market, newfound urban mobility, and the formation of new hierarchies of who (or what) has the right-of-way" (14). Truitt's research reflects a period of incredible growth of motorbike ownership along with the growth of the middle class, and her research astutely connects the physical mobility of the motorbike with the metaphorical mobility of transitioning to the middle class. Elizabeth Vann (2006) also notes that Vietnamese middle-class consumers owned and displayed particular makes and models of motorbikes that would not only allow them to be "in fashion" but also to "see themselves as consumers of the types of goods that are popular in wealthier countries and, therefore, as worthy participants in a global economy" (291). Motorbikes are an important site of consumption, partly because they were rarer even twenty years ago, so they signal Vietnam's rapid economic development in recent decades, and partly because they are visible in public space as commuters utilize them in daily life.

Yet, motorbikes are more than a utilitarian way to travel to work or school: they are also an opportunity for leisure, especially for the city's youth. A friend shared a Vietnamese saying with me: "Moving is life" (*đi chuyển là sống*). He explained that this refers to the common practice of young urban Vietnamese driving through the city at night with no particular destination. They travel with friends or romantic partners to relax in the cool night air, away from family or roommates. Freire (2009) also discusses illegal motorbike races taking place at night in Hanoi as "an expression of both the construction of a social male identity and an act of defiance linked to a political dimension of consumerism." By using a symbol of a "pleasure seeking-society" late night racers are displaying defiance of the "long-promoted ascetic socialist moral values" (73). Freire also analyzes the motorbike as a space of intimacy and privacy, in a place where it is difficult to find space for intimacy and privacy. Indeed, when walking through any of the city's parks in the evening, I often saw young couples cuddling or kissing atop a motorbike.

In all of these cases, the motorbike became a tool to experience speed and a symbol of freedom. The motorbike fulfills the desire for speed and freedom. In a functional sense, the motorbike offers speed by being the most efficient mode of transport in the congested inner districts of the city. This sense of speed is further experienced because of the relatively unmediated experience of the environment on a motorbike. That is, absent the metal wall and closed windows on a car or bus, the motorbike passenger feels the air rushing by, the bumps in the road, and the acceleration and deceleration. The motorbike, as a site of conspicuous consumption, serves as a metaphor for the speed of Vietnam's transition to a market economy and the freedom that increased wealth brings

to consumption choices. As a site of leisure and intimacy, the motorbike is a space of freedom from the constraints of family members' view and to be with friends.

Speed and Modernity: Desires, Limits, Anxieties

Scholars have argued that speed is characteristic of the modern condition. Paul Virilio (1986) proposes a "science of speed," what he calls dromology, to help us understand the contemporary. He argues that modern governance is increasingly preoccupied with speed, both ensuring mobility and protecting from the dangers of speed. "We only need refer to the necessary controls and constraints on the railway, airway or highway infrastructures to see the fatal impulse: the more speed increases, the faster freedom decreases" (142). Arjun Appadurai's (1990) model of global cultural flow emphasizes the "sheer speed, scale and volume of each of these flows" in contemporary life. David Harvey (1990) also shows that speed is the key characteristic of modern globalization. The time-space compression allows space to be conquered more quickly. Globalization is a result of speed: the speed of travel, communication, and goods.

Road projects, in particular, embody a promise of speed and desire for freedom and economic growth. Erik Harms (2011) writes that residents near a new highway construction site at the outskirts of Ho Chi Minh City see the project as "a symbol of social progress and transformation" (156), "people emphasize progress and development, how the highway will bring jobs, ease traffic congestion, and cut down the travel time from the suburbs to the city," "the highway stands for Saigon's cutting edge, the forward progress of a move into the future" (156). Harvey and Knox (2012) further argue that one of the enchantments with new road infrastructure projects is the promise of speed. They show that in the case of the Peruvian roads they have been studying, the promise of speed

and connectivity is one promise of emancipatory modernity that the roads embody. “The slowness of travel appears as a barrier to the achievement of international development goals which stress the importance of connectivity between distributed populations and urban centres where people have access to hospitals, educational opportunities, jobs and markets” (Harvey and Knox 2012: 523). Naveeda Khan (2006) shows how the motorway, and the speed it brings to travel, is tied to ideas of modernity, the future, and development. In Pakistan, the site of her ethnographic research, the issue was that the motorway was thought to be “out of step with its environs” (88). “In other words, the Motorway’s modernity far outstripped that of Pakistan’s” (88).

Paul Gilroy (2001) argues for the significance of the car for American black communities and the political and economic history of those communities. He recognizes that there were social movements with people "who had very good reasons to fear the constraints involved in being tied to one place and who were, as we shall see, especially drawn to the allure of speed, autonomy and privatized transport quite apart from their attraction to the automobile as a provocative emblem of wealth and status" (86). Yet, he also argues that cars "have damaged life of black communities everywhere they have helped to produce a new conception of the street as a place of danger and violence rather than community, creativity and mutuality" (88). Relatedly, Mimi Sheller (2015) demonstrates how the decrease in car use in Philadelphia is concentrated among young, white, relatively affluent residents. Tim Cresswell (2010) similarly points out that choosing to slow down must come from an elite position. “And it is not always high velocities that are the valued ones. Consider the slow food and slow culture movements. How bourgeois can you get? Who has the time and space to be slow by choice?”

(Cresswell 2010: 23). These ethnographies of roads and car cultures demonstrate that with speed comes the promise of freedom for those who have not historically had access to speed. Eric Laurier (2004) offers the important point that speed is relative. Using the example of driving on a motorway in the West, Laurier demonstrates that drivers believe themselves to be slow or fast in relation to other drivers. He further argues that fast drivers want to go at a speed faster than the drivers around them, they always want to catch up with the car ahead. So, speed cannot be assumed to be only an objective measurement, but it is always in relation to past movement and the surrounding environment.

Yet, another major thread in the literature on mobility is that speed for some inhibits mobility for others. Jensen, Sheller and Wind (2015) point out that “one person’s mobility patterns may have a direct impact on another’s capacity to be mobile, so, we must consider mobile subjects as clusters of interacting agents, not simply singular and individuated actors” (366). Latour (1996) demonstrates this point concretely in the case of automobiles. He cites a document that points out the paradox of the car with regards to speed - it is the fastest mode of transport, yet the more it is used, the more that mode will be slowed down. The limits of infrastructure and road space mean that the car is only fast if not all are utilizing it. Anna Tsing (2005) also utilizes the road to show how streets both facilitate and limit mobility: “Roads are a good image for conceptualizing how friction works: Roads create pathways that make motion easier and more efficient, but in doing so they limit where we go. The ease of travel they facilitate is also a structure of confinement” (6). Harms (2011) makes a similar point when he argues that a highway outside of Ho Chi Minh City compresses space and time between the center of the city

and the outskirts, yet the same road expands space and time on either side of the road. While residents can now travel to the center of the city faster, it takes far longer to cross the road than before the highway was constructed. Both Tsing and Harms demonstrate that though the road promises speed, this speed is confined to the road, at the expense of other places the road might travel, and, the speed is limited to the length of the road, hindering movement across the road.

Jörg Beckmann (2004) further analyzes the relationship between mobility and immobility by utilizing the term “motility.” Beckmann uses this term motility to describe instances where mobility also means immobility, such as the driver of a car who is mobile because of the moving car, yet immobile as she is simply sitting in the car as it moves. Or, motility describes the internet user who can move using the internet while staying at home. “[M]otility means the ability to be mobile without necessarily performing movement" (85).

While speed can be associated with freedom and desire, it can also induce anxiety. Freudendal-Pedersen and Cuzzocrea (2015) argue that “Historically, mobility has contained the idea and promise of friction-less speed [Jensen and Freudendal-Pedersen 2012; Urry 2007], as that which would lead to better and happier lives. Instead the realization of the vision of ‘seamless mobility’ and a ‘zero-friction society’ has often ended up in producing congestion, noise, and environmental problems” (5). Others have explicitly connected speed in transportation with the threat of death. Lamont (2013) writes in relation to his ethnographic work on cars in Kenya, “everyone acknowledges that the value of speed is often exchanged for human lives: speed kills” (370). He goes on to argue that “The annual loss of 3,000 Kenyans is seen - with some measure of cynicism

- as a blood price for the cost of development, a price that while enriching the wealthy and punishing the poor takes the lives of citizens irrespective of class, albeit in disproportionate numbers (376).” In other words, the cost to some is necessitated in order to produce the speed, development, and freedom for others. Masquelier (2002) discusses Nigeriens' stories of the road, particularly their stories of their encounters with evil and protective spirits on the road, to show Nigeriens' terror and fascination with the road. The terror and bad feelings towards the road begins with some older Nigeriens memories and experiences with building the road - forced labor, unsafe and horrifying conditions of this labor. She also discusses the current dangers and fear of the road - that of the accidents along it. These accidents are often told in the context of a spirit causing the accident. Yet, the stories of the road are not as simple or one-sided as these stories of terror and evil. There is also a fascination with the road and the belief that it will bring wealth to those who know how to use it. Indeed, there are also protective spirits along the road, helping commuters get safely to their destination. “In all these tales of violence and terror on the road, there is a constant: Instead of joining people or communities together, roads sometimes lead to death. Rather than serving as pathways to prosperity and education, roads can become deceptive traps that maim and kill their prey” (Masquelier 2002: 842). Masquelier concludes by arguing that speed and efficiency introduce “new forms of violence, fear, and loss” (846).

In Ho Chi Minh City, the motorbike offers speed, freedom to travel, and economic desires. It also brings anxieties about injury and death in the face of collision, worries about the effects of air pollution, and complaints about congestion. Yet, my argument for this chapter is that despite knowing the dangerous potential of motorbike

travel, most parents do not feel overwhelming and constant fear when transporting their children via motorbike. Even if residents know that motorbikes can be dangerous in the abstract, what allows daily travel to feel safe?

Feelings of Anxiety and Calm on a Motorbike

Despite the near ubiquity of the motorbike, not all parents transport their children on a motorbike without anxiety. A local transportation planner, whom I call Lien, told me one day when we were discussing road safety that every day when she arrives home, she feels lucky that she was not in an accident. At another point in the same conversation, I asked her if she takes her son to the cinema. She replied that they rarely go to see a movie because the theaters are in the center of the city, and she prefers not to travel by motorbike with her six-year-old son if it is not necessary - she finds it too dangerous. When she does ride with her son, she uses a cloth belt to tie her son to her. These belts are commonly used with younger children, to make sure the children do not fall off the motorbike but remain connected with the driver. Lien said that when she arrives home, the security guard at her building often laughs when he sees them pulling up, asking why a child this big still needs the belt. Her son also wears a helmet and sits in front of her on the bike, measures she felt would keep him safer in the event of a crash. Lien then remarked upon a mutual colleague, expressing surprise that he would move his family from Japan back to Vietnam, saying, "You want to bring your child places on the weekend, but you are scared to bring him on a motorbike, so you just stay at home."

Lien's hesitance to bring her son on a motorbike was rare among those I spoke with about children and traffic. I interviewed one official in the city's department of transportation whose wife had recently had a baby. When I asked him if he brought his

new baby on his motorbike, he at first answered, “no, the baby is too small.” However, he followed up by saying that if they travel by motorbike, his wife must be there to hold the baby. That is, he meant that the baby is not too small to ride on a motorbike, just too small to ride without being held by another passenger. This pragmatic attitude towards babies and motorbikes was quite common in my conversations and observations. When the woman who cared for my son while I was doing fieldwork asked if I had brought my then nine-month-old on my motorbike yet, I replied that I was concerned that it was not safe. She replied, forcefully, “if you hold him, it is ok.” In my fieldnotes that day I reflected that it is as if a mother’s love can protect a child from the consequences of a truck colliding with a motorbike.

My son’s caregiver was not considering the possibility of a collision. She was drawing on her experience of transporting her two daughters thousands of times without incident. When all of the elements of transportation infrastructure are working as they are designed to, the infrastructure is backgrounded and the more immediate focus is on the work that the infrastructure is facilitating, moving from point A to point B, providing a delightful ride through the city, or even projecting wealth and style through the make and model of one’s motorbike (Truitt 2008, Freire 2009).

Vietnamese parents utilize “structural stories” (Freudendal-Pederson 2009, 2015; see also Cuzzocrea and Mandlich 2015) to rationalize their transportation choices. Freudendal-Pederson (2015) examines why cars remain important and occupy much of the city’s transport infrastructure in Copenhagen, a city where 60% cycle to work or school daily and which is known as a city of cyclists. To do this, Freudendal-Pederson examines “structural stories” that people tell to rationalize their practices around

transportation. Structural stories “explain actions and choices of everyday life that are understood and expressed as if they are universal truths” (31). One common structural story is “more mobility by car gives more freedom” (31). She argues that although the link between cars and freedom is contested in parts of society, this notion is elsewhere so strong that it reinforces the high value that society places on cars, justification for infrastructure for cars, people’s need for cars. “The individual defines a world that he or she has no control over, and which is, instead, controlled by things out of the individual’s reach. The mobilities system surrounding everyday life is reified on all scales, and the need for a structural story comes up when ambivalence shows up in everyday praxis. Mobility choices become ‘objective’ factors, where the individual has no possibility or control to change it and they can disclaim responsibility” (41). In other words, individuals are often convinced that they do not have a choice in mode of transportation, that they simply base their mode choices on objective factors. Where individuals may be confronted with a choice, when “ambivalence shows up in everyday praxis,” there is a need for a structural story to justify decisions. In Vietnam, the motorbike is seen by many as the only efficient, cost-effective transportation choice. Most people do not consider the possibility of taking the public bus, if they are able to afford a motorbike. Many people lamented the inefficiency of the bus system, though they had never used it. In contrast, the university students who did not have access to motorbikes were always able to tell me the exact bus line I should take to get to my destination, and I found the bus to be reliable, comfortable, and surprisingly efficient. These structural stories regarding the efficiency of the motorbike perpetuate the notion that the motorbike is the best

transportation choice for all who can afford one, despite statistics regarding traffic injuries and fatalities.

The Banality of Statistics and the Foregone Modern Moloch

Data on traffic accidents, fatalities, and injuries are alarming in Vietnam.

Statistics on injuries and deaths from collisions are alarming in every country, though the reality of these deaths in aggregate have become a banal part of everyday life. The World Health Organization (WHO; 2013) reports that 1.24 million people were killed on the world's roads in 2010 (v), the eighth leading cause of death worldwide and the leading cause of death of young people aged 15-29 (vi). For Vietnam, the WHO estimates there were 24.7 deaths per 100,000 population in 2010. This compares with 11.4 in the United States, 3.0 in Sweden, and 37.2 in Venezuela.

During the year I spent conducting fieldwork at a transportation research center among local transportation planners, I was often confronted with similarly harrowing statistics on road injuries and deaths. During one presentation of Mr. Hung's ongoing research on traffic safety, Mr. Hung displayed nine graphs breaking down traffic injuries and fatalities by age, gender, time of day, type of vehicle, and cause of the crash. Seeing this data for more than 20,000 traffic fatalities led to some ambivalent responses from Mr. Hung and the other planners in the room. For one, these statistics are undoubtedly grizzly, and I, and the others, were certainly contemplating our own and our family members' mortality in the face of Ho Chi Minh City traffic.

Yet, these statistics did not prevent Hung from driving a motorbike. He was one of the few researchers who traveled to the research center, which was 90 minutes outside of Ho Chi Minh City, via motorbike rather than the bus provided by the university for

employees. The route necessitated taking a high-speed highway, where motorbikes travel at fast speeds next to cars, trucks, and buses going even faster. Mr. Hung's data was very clear in showing that these conditions were among the deadliest for motorbike drivers. Yet, he made the trip via motorbike because there was not a reasonably efficient alternative mode of travel from his home. In this case, these statistics must fade to the background. The data become mere disembodied numbers, not individual horrific incidents. Despite gruesome statistics, people continue to drive and ride on motorbikes. Part of the reason for this is certainly because a reasonably efficient and affordable alternative does not exist, in the opinions of many drivers. Another reason is because statistics concerning fatalities have become banal and acceptable. Even as reporting on fatal accidents often fill the pages of daily newspapers, these accidents and statistics become a part of the everyday. They have become a necessary sacrifice for the convenience of the motorbike.

The same acceptance of the inevitability of deaths caused by vehicles exists in the United States. Lochlann Jain (2004) asks how large numbers of pedestrian deaths involved in car accidents came to be acceptable, or at the very least ignored. Through analyzing liability suits brought to court involving the automobile, she shows how the court rulings "allocated the responsibility for injuries in ways that consistently favored the interests of drivers and manufacturers" (63). Through doing so, she shows how the cases construct the bad mother, clumsy child, and negligent driver in explaining death and injury when involving cars and bystanders. Therefore, it is not the system of automobility that can be blamed for deaths, but the errors of humans. To take it one step further, it is not the mode of transportation that needs to be changed, but the actions of

individuals who are found at fault in particular cases. Similarly in Vietnam, it is not the mode of transportation, the motorbike, that is inherently dangerous. Rather, the actions of individuals at fault. Therefore, the motorbike as a mode for transporting children does not need to be challenged. Rather, instituting new laws, infrastructures, and education campaigns are used to influence individual behavior.

This general acceptance of traffic accidents as an inevitable consequence of motorized modes of transportation is a stark contrast to the role of safety at work sites. Appel (2012) shows the great lengths that oil companies go through to keep workers safe on off-shore oil rigs, putting many rules and procedures in place to minimize the possibility of a moment of breakdown that could threaten human life. Knox and Harvey (2011) demonstrate the many regulations that a road constructions company working in Peru institutes in order to achieve a “zero accident” goal, even if that goal is proven to be unachievable. In both of these cases, procedures are put in place to constantly remind workers of the dangers of the work site. These dangers are deliberately foregrounded. In contrast, the dangers of traveling by motorbike or car recede, except in the immediate aftermath of a collision or another reminder that such collisions are possible.

European and American planners working in Ho Chi Minh City, among other Westerners, often remarked to me how dangerous it was for the Vietnamese to bring their children on motorbikes. Yet, I want to compare relaxed attitude many Vietnamese people have to bringing their children on motorbikes to the relaxed attitude that most Americans have to transporting their children by car on freeways. Like the motorbike in Vietnam, the car is the most convenient option in the opinion of many Americans. Yet, there were 33,808 road traffic fatalities in 2009, and 70% of those were drivers and passengers in 4-

wheeled cars and light vehicles (WHO 2013). Road fatalities happen every day, yet only the most sensational stories get reported in the daily news. Laws and public service campaigns regarding seat belts, car seats for children, driving while drunk, driving while tired, and driving while texting or talking on a cell phone have undoubtedly helped to lessen road fatalities over the past decades and have brought the perils of driving into focus to some extent. On a daily basis, parents do not fear for their children's lives when loading them into the car, even as statistics prove that the car can be fatal. The same is true for Vietnamese, particularly when it comes to driving in the city, which is statistically far safer than traveling on highways between cities. Even as statistics and anecdotes show that the motorbike can be dangerous, previous experience and embodied knowledge based not that previous experience tell parents the motorbike is safe enough.

This attitude toward the car was not always so sanguine in the United States. Comparing attitudes and responses to the automobile in the early 20th century United States to contemporary attitudes sheds light upon how acceptable current rates of fatalities have become in the United States. As historian Peter Norton (2008) demonstrates, the automobile had a "bloody reputation" in 1920's United States. Norton describes a cartoon, published in 1923 in the *St. Louis Star*, as one example of the attention and outrage that the automobile's responsibility for death and injury, particularly among children, generated. The cartoon is titled, "Sacrifices to the Modern Moloch." The moloch is a god to whom the Ammonites would sacrifice children. The modern Moloch, in this cartoon, is depicted as an automobile. A man, labeled as "reckless and vicious drivers" is bowing down before it, apparently sacrificing children to this modern god. Norton said drivers who killed pedestrians could expect to be attacked

by enraged mobs. Crowds marched in the streets, among them women who had lost children to automobiles, to publicly memorialize those killed by cars. This level of public rage and public acknowledgment of those killed by cars in the 1920s was largely changed by the 1930s due to successful campaigns by the motor industry and car enthusiasts. Today, as Jain (2004) has shown, accidents are blamed on bad mothers, clumsy children, or negligent drivers. It is not the automobile, or the infrastructure that allows for the supremacy of the automobile in most American cities, that is held responsible for deaths, only the bad actions of individuals.

In the same way, traveling by motorbike has become a banal and acceptable aspect of life in Vietnam. Almost everyone does it almost every day. And, most of the time, traveling by motorbike is without incident. It is past experience, and the ubiquity of the motorbike, that allows parents to feel safe while traveling with their children. Statistical knowledge falls into the background for most. As Mike Featherstone (2004) argues, “The traffic accident is denied because it is not seen as a normal social occurrence, but more as an aberration” (3). He further posits, “This regular murder of human beings and frequent physical injury is largely accepted as something unavoidable. Indeed it has become banal, something unworthy of reporting in the media, except in the case of dramatic human interest tragedies...” (4). Therefore, traffic deaths are seen, on an individual level, as an aberration, something that can be avoided, and, on a societal level, unavoidable, acceptable, and banal. Similarly in Vietnam, drivers do not regularly confront the possibility of death on their daily commutes. Yet, they also are aware of the statistics, which are quickly pushed aside in order to drive their daily commute.

Collision as Breakdown

In this chapter, I argue that the reason collisions can be pushed aside in the minds of commuters has to do with the qualities of infrastructure, namely, that infrastructure is backgrounded except in the case of breakdown. The collision, in the case of transportation infrastructure, is an acute example of breakdown. In the case of a traffic collision, the breakdown could occur because of any number of components of transportation infrastructure. The motorbike's brakes might malfunction. The road might have a pothole or be slick with rain or sand. Or, the driver may be tired, distracted, drunk, or aggressive. At the moment of the crash, these elements of the infrastructure are foregrounded. Whereas the mechanics of the motorbike, the smoothness of the road, or the skill of the driver was previously taken for granted, the crash reveals the interrelations among these components and their vulnerability.

Scholars such as Stephen Graham and Nigel Thrift (2007) have shown that the apparent durability of infrastructure is made possible only by a team of people repairing and maintaining the infrastructure, work that is often invisible. Roads need to be constantly repaired. Signage needs to be maintained. Drivers need to be trained and informed of new traffic laws. Drivers also need to be sober, rested, patient, and skilled. Christopher Henke (2000) further argues that infrastructures are vulnerable, their apparent durability a result of repair and maintenance work. By analyzing the collision as an instance of infrastructural breakdown, I wish to highlight how the motorbike collision illuminates the vulnerability not only of the infrastructure, but of the human body. For, in contrast to instances of electric power outages or the failure of water to flow through pipes, a collision puts the passengers in immediate, direct bodily harm. This is not to say that other instances of breakdown do not have implications for quality of life or even

threaten death, as Nikhil Anand (2011, 2012) has shown in the case of the inadequacy of water provision in Mumbai and Hannah Appel (2012a) has argued in the case of the lack of basic infrastructures for most Equatoguineans. The crash, like an explosion on an oil rig (Appel 2012b) or a fatal accident at a construction site (Knox and Harvey 2011), highlights the vulnerability of the body because of its immediate and direct impact.

Foregrounding Infrastructure: Billboard Safety Campaigns

City officials have made efforts to foreground the threat of vehicle collisions through billboard campaigns plastered throughout Ho Chi Minh City. When I arrived in early January, there were still many billboards “in response to the year of traffic safety, 2012 [*“hưởng ứng năm an toàn giao thông 2012.”*” One such billboard showed a photograph of a man’s hand reaching for a key that was sitting next to a glass mug only one quarter full of beer. In large red letters, the billboard warned, “After drinking alcohol, one is not able to drive [*đã uống rượu bia không được lái xe.*” Other billboards offered additional concrete instructions for safer traffic. One billboard, in the common style of Vietnamese propaganda posters, with animated figures with clean line and bright colors, urged drivers to “use the correct lanes [*đi đúng đường*]” and to “stop behind the line at intersections [*dừng đúng vạch.*” The billboard, showed a motorbike, a truck, and a car, each in their designated lanes (from the right-most lane to the left), stopped behind a crosswalk at a red light. Another billboard depicted a drawing of a woman looking over the shoulders of two schoolchildren as they read a book that depicted some common street signs. Under the street signs, a description of their meaning was typed, including “do not go the wrong direction [one-way street]” and “vehicles may only go straight [no turns allowed].” A school, with a Vietnamese flag, was depicted in the background, and,

in larger typeface at the bottom, the billboard read, "Drive according to street traffic laws, signs, and signals near schools." Another sign, this one posted near the entrance of a neighborhood school, proclaimed it to be a "Clean and safe entrance to the school." The sign then read, "Wear helmets when sitting on a motorcycle, motorbike, electric bicycle!"

Other billboards had less concrete urgings for drivers to drive safely. On one billboard outside a construction site in the central business district, white letters on a plain blue background proclaimed, "'Ensuring orderly and safe traffic is the responsibility of all of society.'" And, "Safe traffic is happiness for every person, every household." Another billboard depicted drawings of pedestrians, a motorbike, a freight truck, and a car with a traffic light looming above them. Several phrases were typed among the images, including, "Safe traffic means no accidents," "safe traffic is happiness for every person, every family" and "safe traffic is the best choice." Another billboard proclaims, "Strictly observing traffic laws contributes to building a strong, rich country." These billboards connect traffic safety as integral to love of family and of Vietnam. Safety is a familial and patriotic responsibility.

One billboard safety campaign differed because of its aesthetic style and message. I observed the series throughout the city in 2013. Each billboard featured a school-age child playing dress-up for a future career. One girl wore a white coat and plastic stethoscope. The billboard read, "I want to be a doctor." Another featured a girl in a pink dress with a pink microphone and read "I want to be a singer." Under the pronounced dreams of the children, the billboards read, "Don't allow a traffic accident to ruin the future of the young. Children must also wear helmets." This safety campaign foregrounds

the threat of traffic collisions and the potential danger for children. It is also disabusing the belief of some parents in Vietnam that helmets harm the necks of even older children.

In 2001, helmets became mandatory for all motorcycle drivers and passengers on some roadways, including national highways and other roads. However, the law was not widely enforced, and there was low rates of compliance, estimated at 30% on average, though fluctuating greatly by type of road and time of day (Pervin et al 2009). When I lived in Vietnam for six months in 2006, commuters rarely wore helmets on city streets, though I observed helmet usage on highways. A new resolution was passed in 2007, which mandated all motorbike drivers and passenger wear helmets on all roads beginning December 15, 2007. A couple of American friends later recounted this day to me. They had been living in Vietnam for months, but they were not aware of the new law, perhaps due to limited knowledge of Vietnamese. As they got on their motorbike that morning, as usual, suddenly their neighbors stopped them and tried to communicate that they needed to wear a helmet. They then realized that all of the motorbike drivers were wearing helmets, a transformation that occurred seemingly overnight. When I returned to Vietnam in 2009, I was also surprised to all adult motorbike drivers and passengers to be wearing helmets. In 2007, the lack of helmets seemed to be a practice that would be very difficult to change. However, many children were still not wearing helmets. Children are not exempt from the law. Rather, under the articles of Viet Nam's Ordinance for Administrative Sanctions, children under fourteen cannot be given sanctions, including penalties for not wearing a helmet (Pervin et al 2009). Children ages fourteen to sixteen can be given a warning. Children ages sixteen to eighteen can be fined, but at half of the rate for adults. As a result, thought adult helmet use was being more strictly enforced

through financial penalties, children were effectively exempt. Moreover, shortly after the helmet law went into effect, the media published reports from local medical practitioners claiming that helmet use among children could hurt their necks. Even though other experts disputed these claims, many parents were concerned and opted to not have their children wear helmets, according to a report from the World Health Organization (WHO; Pervin et al 2009). Thus, during 2013, the Vietnamese state and the WHO were plastering the city with billboards promoting helmet use among children.

The future careers campaign highlights the vulnerability of children's bodies through featuring photographs of children. The viewer is asked to consider their own child's body and their own child's future and dreams in the face of the danger of traffic collisions. The campaign does not, however, address the reality that no mode of transportation is 100% safe, the relative safety of different modes, or the relative safety of different driving conditions, such as driving on highways versus congested city streets. The issue of safety for newborns who cannot wear helmets is further bracketed. These billboards work to decrease the risk of injury and death for school-aged children within the existing transportation culture and infrastructure of Ho Chi Minh City.

Conclusion

“Moving is life,” is a Vietnamese saying that emotes the joy and freedom of speed, particularly on the motorbike. Speed is viscerally felt on a motorbike. The wind brushing one's cheeks is a welcome respite from the heat and humidity of Ho Chi Minh City's weather. One's body must adjust to the acceleration and the weaving of the motorbike as it travels the streets. For Ho Chi Minh City residents, the motorbike is also a symbol of speed and freedom, of moving into the middle class and the acceleration of

capitalism and connections to the world economy. Speed is a defining feature of modernity, yet it also threatens danger and death. While the transportation infrastructure in Ho Chi Minh City is increasingly allowing for more speed, the dangers of the speed, the threat of collision, is often backgrounded in everyday life. Upon breakdown, when all of the elements of transportation infrastructure have not properly worked together, the vulnerability of the body is foregrounded. While public health campaigns aim to foreground risk in an effort to encourage helmet use among children, it is only because transportation infrastructure can be backgrounded that parents can currently transport their children without debilitating fear.

CHAPTER FOUR

Guys on the Street: Formality, Order, and Security among Motorbike Taxi Drivers

Introduction

Soon after I moved to Phú Nhuận District in Ho Chi Minh City (HCMC), I inadvertently caused a fight between two motorbike taxi drivers, culminating when one of the drivers drove his motorbike into the other. I had only recently moved to this neighborhood, so I was not yet familiar with the local drivers. I left my apartment that day, conspicuously carrying my helmet because I wanted a motorbike taxi ride, and walked toward a nearby corner where I had seen several drivers perched. A motorbike taxi driver drove up next to me and asked where I was going. I told him my destination. He nodded and signaled with a tilt of his head for me to get on the back of the motorbike. I offered to pay 30,000 đồng for this trip, 10,000 less than similar trips had cost in the last few days. He readily agreed, which both delighted me and made me a little suspicious because of his lack of negotiating and the lower price. As I hesitated, a second driver peered down the street from where he was waiting for customers on the intersection. He yelled something, which I did not understand. The first driver again motioned for me to get on the bike. The yelling unsettled me, so I hesitated and then decided I would not ride with him. The first driver, now upset that the second driver had cost him a passenger, drove to the corner to confront him. They began yelling, loud enough to call attention from people in nearby homes. I stepped into a gated courtyard with a woman and her children, and we watched the confrontation. The first driver eventually got so upset that

he revved his motorbike and drove into the second driver. Luckily, since he was only about one meter away, he did not seriously injure him. At this point, a security guard walked to the corner, and I lost sight of the drivers. By the time I walked to the intersection after the screaming had subsided, both drivers were gone, and the street corner was once again calm.

Witnessing aggression between motorbike taxi drivers was rare during my year of fieldwork studying transportation systems in HCMC. Although I speculated to myself, I did not understand why the fight had broken out and what my role in instigating it was until, after many months, I had become well acquainted with the second driver, Mr. Hoa. I asked him what had happened. He animatedly explained that the other driver was not supposed to pick up passengers on this street. He pointed down the road to indicate where that driver normally sat to wait for customers, even telling me the exact ward. This story may reinforce negative views of some HCMC residents toward motorbike taxi drivers: they are disorderly, unmodern, and aggressive. Yet, the very cause of the fight - one driver was soliciting customers away from his usual street corner and in another driver's territory - shows the extent to which motorbike taxis are regulated (both self-regulated and regulated by the city) and follow agreed upon rules of order. In this chapter, I will show that motorbike taxis' legal status, their role in creating urban order, and how they function in neighborhood security are ambiguous, contested, and, at times, contradictory. Though I began with a story of aggression between drivers, this chapter argues that drivers play an important role in providing security for the neighborhood. And, it is precisely the ambiguity of drivers' role in the legal and social landscape of HCMC that

allows them to be informal security, the eyes on the street, watching a neighborhood for crime in order to prevent and stop incidents.

Formalization

During lunch in the cafeteria at a transportation research center just outside HCMC, I was discussing my ongoing research on motorbike taxi drivers with an American planning student completing an internship at the research center. He remarked that motorbike taxis were illegal in the city. I expressed a little surprise and skepticism, as my recent interviews had focused on drivers' registration with local police and the extensive regulation at major transportation hubs. When we returned to the office, he showed me a section in an oft-cited transportation master plan study of HCMC. It stated, "Although actually an illegal transport business, the increase in the number of *xe om* has been remarkable. They provide fast and cheap services. The number of *xe om* drivers is not available but it is estimated to be in the tens of thousands" (Almec 2004: 2-89). This short description of motorbike taxi service - *xe om* in Vietnamese - comes from a 2004 study often called by its acronym, HOUTRANS.² As noted in previous chapters, this is the first transportation master plan study of HCMC. The HOUTRANS study team noted that motorbike taxis were illegal. It also admitted that tens of thousands are operating openly in public space. This is similar to other entrepreneurial sidewalk activities, such as some food vendors, that are illegal, but, in practice are tolerated and only sporadically fined (Leshkovich 2005; Lincoln 2008; Kim 2012; Turner and Schoenberger 2012). In contrast to their supposed illegal status in 2004, I found that drivers were in practice lightly regulated by local government. Motorbike taxi driving services remain neither

² The study's full title is "The Study on Urban Transport Master Plan and Feasibility Study in Ho Chi Minh Metropolitan Area."

fully licensed nor illegal. Their legal status has increasingly become more formalized while remaining not fully enveloped in the city's increasingly regulated transportation system.

In contrast, the city's attempts to ban the cyclo have been relatively effective. Cyclos are non-motorized vehicles where the passenger sits in a bucket seat in the front, while the driver peddles perched in the back. I noted street signs banning cyclos throughout the city, especially on major thoroughfares. The HOUTRANS report states that cyclo use has declined due to these bans, and I gathered much anecdotal evidence to support that claim. One cyclo driver with whom I spoke was concerned about being fined by the police. I walked up to him in a shady area outside of Bến Thành bus station. When I asked if I could interview him, he agreed, though he said he would need to look out for the police, for he was not allowed to be there. Throughout our short discussion, he kept actively scanning the intersection so that he would be ready to flee if necessary. As Ursula Rao (2013) demonstrates in urban India, it is sometimes necessary for the urban poor to flout legality in order to survive, even as the state is attempting to formalize practices.

Cyclos are ostensibly prohibited from the city's central areas because they impede faster-moving traffic. Scholars have demonstrated how streets are increasingly being designated to fulfill the primary function of mobility, particularly for automobiles, in the name of modernist urbanism (see Holston 1989; Scott 1998; Amato 2004; Truitt 2008). Lisa Drummond (2000) notes that these efforts to outlaw cyclos in Hanoi are an attempt to create a "modern" cityscape, eliminating the "backward" elements of informal-sector activities. William Rollason (2013) similarly criticizes state efforts to harass motorcycle

taxi drivers in Kigali, Rwanda, arguing that this harassment shows that development efforts have more to do with the image of modernity (which motorcycle taxi drivers do not fit) and less to do with improving livelihoods (of which income from motorcycle taxis can contribute). Nicholas Blomley (2007) argues that traffic codes in Canada treat all persons and objects on the street on the same ontological plane, examining only the level to which they hinder traffic flow. He suggests that we need to rethink mobility and traffic in a more inclusionary and humane way. Relatedly, cyclo drivers depend on driving for their subsistence. Banning and fining drivers threatens their livelihoods. Annette Kim (2012, 2015) notes that property abutters in HCMC often refrained from harassing vendors, and even aided them, out of an understanding that the vendors needed to use the public space to make a living. Junxi Qian (2014), examining bans on motorbike drivers in Guangzhou, China, argues that the purge of motorcycles from the streets is a violation of the right to the city, echoing others who have examined issues of urban spatial justice and access to transportation, as both commuters and operators (Soja 2010; Richardson and Jensen 2008; Czeglédy 2004).

Cyclos are easily identified by police, and, given the low fares the cyclo drivers charge, a fine can be devastating for these drivers. This has led to many drivers, as seen in my interviews, switching to motorbike taxis. Motorbike taxis have not been banned from streets like cyclos. In the case of the cyclo bans, it is the vehicle that was banned, not the act of transporting passengers via cyclo. Motorbike taxi drivers, on the other hand, utilize the same vehicle as the majority of commuters in HCMC. Nevertheless, the opportunities for cyclos drivers versus motorbike taxi drivers is an example of Ananya Roy's (2005) argument regarding the state's power "to determine what is informal and

what is not, and to determine which forms of informality will thrive and which will disappear” (149). In contrast to fining the operators of what the HOUTRANS report (Almec 2004) called an “illegal” form of transport, motorbike taxi drivers have been increasingly recognized by city officials and de facto formalized. While I was interviewing motorbike taxi drivers in 2013, I often asked if they were ever sanctioned by the police. Some admitted to being issued tickets for traffic violations. Yet, I heard only one account of a driver being penalized for the actual practice of driving a motorbike taxi. This driver told me he was sporadically fined for parking violations while sitting in his regular spot, outside the walls of Bến Thành market, where dozens of drivers await passengers daily.

In contrast to being fined, drivers in several districts told me that the local ward police (*công an*) registered the motorbike taxi drivers. One driver told me that the ward police come around every two weeks to record which drivers were sitting on which streets, including noting their motorbike license plate numbers and their driver’s license numbers. That the lowest level of local administration, the ward, is responsible for regulation of motorbike taxi drivers is consistent with other areas of urban governance.³ The fact that drivers are registered, rather than penalized, by the local police is at least an implicit endorsement of motorbike taxi service. Moreover, when I asked some drivers if they were registered by the city, they showed me “labor union” cards. Some drivers, particularly in District 1, wear uniforms that proclaim them to be District 1 motorbike taxi drivers.⁴ The city’s bus stations may be the institutions that have been regulating

³ See Koh (2004) and Kim (2007) for discussions of ward-level governance of urban housing

⁴ Annette Kim (2015) also noted drivers wearing uniforms with badges in District 5.

motorbike taxis the longest. I found that the major bus stations had been regulating drivers for years, keeping registered lists, requiring uniforms, and requiring drivers to pay a monthly fee.

Though drivers are registered and monitored by the local government, drivers are not licensed by the state like automobile taxi drivers. They also do not pay income tax, though their monthly income is almost certainly too low to warrant it.⁵ In these ways, drivers have an ambiguous legal status. Their presence is recognized, tolerated, and regulated to a degree, but they are not licensed or taxed by the state.

Though the registration of the motorbike taxi drivers indicates a degree of formalization, to the extent that the ward police now have an official list of drivers, the registration process does not require the drivers to change their modes of operation. In 2009, the Ministry of Transport issued a circular requiring all motorbike taxi drivers to wear badges and uniforms designated by the province or city. However, this regulation has not been uniformly enforced in HCMC (Kim 2012), and many drivers operate

⁵ In my conversations with motorbike taxi drivers, I almost always asked what they earned in a typical day. I became increasingly skeptical of the usefulness and accuracy of their answers, however. For one, drivers almost always first answered by saying that their income varied drastically from day to day, making their daily and monthly income highly unstable. Also, I wondered if the drivers were always telling me the truth when they did offer me an average daily or monthly income. One driver, the only one who declined to offer a specific amount, asked me how many drivers I had interviewed thus far. I estimated that I had spoken to eighty drivers at that point. He told me that of those eighty, fifty were lying, and thirty were *possibly* telling me the truth about their income. Reasons for not giving me accurate numbers could be many. But, one, I suspect, is that I was always seen as a potential passenger or other source of money. If drivers told me low numbers, and they almost always began any discussion of income by saying it was too low, I might feel sympathetic and offer a higher fare. There were also times where I was mistaken for a development worker developing programs for poor people. I suspect that some drivers make as low as 100,000 đồng (about 5 USD) or less per day, sometimes not having a single passenger. Drivers at the East Bus Station in the most coveted positions may make as much as 350,000 (about 17.50 USD) or more in a day on the best days.

without uniforms. The state, rather than demanding drivers to submit to increasing regulations, has changed its procedures to be more in line with the reality of the motorbike taxi drivers' practices. Daniella Gandolfo (2013) observed similar processes at Lima, Peru's Office of Formalization, where the law was continually simplified to bring it more in line with the realities of informal vendors. She argues that rather than the formalization of vendors, this indicates an informalization of the legal and bureaucratic apparatus. Rather than attempt to classify motorbike taxi drivers as participating in the formal or informal economy, it is more productive to ask what their ambiguous position within a spectrum of informality reveals about a changing economic, political, and social structure in HCMC. That is, in addition to focusing on how the practices of motorbikes are being formalized, the fact that HCMC's officials are changing their practices in relating to motorbike taxis indicates an informalization of the legal and bureaucratic apparatus as much as a formalization of motorbike taxi drivers.

Disorder

Motorbike taxi drivers have a reputation for disorderly driving. I came to expect that my motorbike taxi drivers would violate multiple traffic laws. On one ride with Mr. Hoa, he drove on the sidewalk, in the wrong direction, and in lanes reserved for four-wheeled vehicles, all in the first five minutes of the ride, in order to travel to my destination in the fastest time possible. As Claudio Sopranzetti (2014) observed of motorcycle taxis in Bangkok, "In the post-modern fractured time of the traffic jam, the motorbike, with its mellifluous yet regular zig-zag, becomes a modernist tool for the compression of time and space, and drivers, its operators" (123-124). In HCMC, as in Bangkok, the flexibility of the motorbike and the willingness of its drivers to utilize that

flexibility to find creative ways through and around traffic jams allows motorbikes to travel faster, to compress space and time.

One driver told me that he needed to complete the trip as fast as possible to return to the station to await another passenger and the next fare. These “locomotory bodily practices” (Elyachar 2011) are not always or only a conscious effort to maximize opportunities to find new passengers. They are also embodied practices of motorbike taxi drivers, drivers who feel they have command of their motorbikes and the city streets through frequent use, and, therefore, take pride and comfort in dominating the roads. The roads are the domain of the motorbike taxi driver, his arena of expertise where he wants to feel in control.⁶

Transportation planners, both local and foreign, often remarked to me that motorbike drivers were disorderly. One German transportation engineer was speaking to me about his research on road capacity analysis. He remarked that driver behavior in Vietnam was “different from our countries for sure,” and he spoke about the “undisciplined” behavior of motorbike drivers. A local transportation planner, working on traffic models in Vietnamese cities, wrote in a conference paper, which he gave to me, that motorbike drivers drive in “erratic and chaotic trajectories.” Vietnamese motorbike drivers have a reputation from planners and the general public alike for driving disorderly (Harms 2014), and motorbike taxi drivers are assumed to be some of the worst offenders. In China, Junxi Qian (2014), notes that “the flexibility of motorcycle movements contradicted the entrenched notion of ordered urban traffic” (13). Allison Truitt (2008,

⁶ Throughout the paper, I utilize masculine pronouns to refer to motorbike taxi drivers. Motorbike taxi drivers are almost always men, though not exclusively. In my observations of hundreds, perhaps thousands of motorbike taxi drivers in Ho Chi Minh City, I met three women drivers: one at the East Bus Station, one at the train station, and one outside a coffee shop frequented by tourists in District 1.

2013) and Erik Harms (2011) both document ways in which the city has constructed material infrastructures to limit the chaotic mobility and flexibility of the motorbike, such as constructing medians, curbs, and separating traffic into designated lanes. Truitt (2008) suggests that "the disorder of traffic, rather than a sign of the failure of citizens to heed the law, can be read as an indicator of economic reform - the promise of individual freedom and autonomy associated with the market" (14). Alexandre Freire (2009) also argues that the motorbike in Vietnam "symbolizes the advent of new hedonist values, a shift from a culture of discipline towards a culture of pleasure" (73). The motorbike has both semiotically and in practice become a thing to control in the eyes of planners and citizens. Harms (2011) notes that "behind the search for smoothly flowing traffic lurks a civilizing mission" (191). The motorbike which can travel on sidewalks, into oncoming traffic, and around various obstacles is a vehicle which is a symbol of an uncivilized, disorderly city and also of pleasure and economic growth.

Yet, motorbike taxi drivers are associated with disorder for more than their driving behavior. It is their very presence on the street corners of the city that make motorbike taxi drivers an aspect of urban disorder. Multiple scholars of Vietnam have shown that street vendors, and other private uses of public space, are associated with urban disorder (Harms 2009, 2012; Kim 2012, Lincoln 2008; Leshkovich 2005). Ann Marie Leshkovich (2005) argues that, "street traders in late socialist visions of modernity had come to represent a backward subsistence economy that thwarted state efforts to implant modernity through rational economic development" (187). Motorbike taxi drivers are also private entrepreneurs utilizing public space for private gain, without being taxed or strictly regulated by the city. The Vietnamese state has worked to present Vietnamese

cities as modern, civilized, ordered, and their economies as rational and under the control of the state (Harms 2012; Lincoln 2008; Schwenkel 2012). Though Leshkovich (2005) argues that it is the femaleness of itinerant vendors that make them so easily labeled as disorderly by the state (see also Wilson 1991), I would add that the class status of motorbike taxi drivers adds to their association with disorder. Motorbike taxi drivers are often among the lower classes, their appearance might be unkempt (understandably given their long hours outside), their clothes often very faded, well-worn, perhaps threadbare. Furthermore, their customers are also most often among the low to lower middle classes (Tuan and Mateo-Babiano 2013). The state has attempted to create ordered urban spaces, casting vendors and motorbike taxi drivers as anathema to that goal. Though Harms (2009) argued that residents supported the “retreat from the street” of vendors and sidewalk cafes, Kim (2012) also notes that while some residents of HCMC view sidewalk vending as dirty, disorderly, and a nuisance, the view is not as widespread in Vietnam as elsewhere, partly because many enjoy buying snacks and eating meals on the street. Furthermore, Thomas (2002) suggests that increased bustling street life in Hanoi could provide for the destabilization of state control over the meanings of public space. Therefore, we see competing narratives of what vendors and drivers mean for the symbolics of urban space, coming from both the state and the public. Yet, one dominant narrative has been that motorbike taxi drivers contribute to disorderly urban space, whether that notion of disorder is reviled, tolerated, or celebrated.

Maintaining Order

These ostensibly disorderly drivers, in reality, often have highly ordered rules for approaching potential passengers and even help to maintain order at transportation hubs. I

began this essay with an altercation I witnessed between Mr. Hoa and another driver. This one event seemingly betrays a haphazard, aggressive mode in which motorbike taxi drivers find customers. Yet, the fight broke out precisely because the rules were being violated.

Mr. Hoa, for example, spent his early morning hours, after drinking coffee and reading the paper with other drivers at an inexpensive sidewalk coffee shop, at one end of the block on which I lived. Then, before the noon hour, he moved to the intersection at the opposite end of the block. At that intersection, he was often joined by one or two other drivers. Mr. Hoa told me that they rotate taking passengers. When I walked to that intersection, I would often approach the driver sitting closest or the one who looked up first, but, occasionally he would then point me to another driver as it was that driver's turn for a customer. (Once, when walking to the intersection, Mr. Hoa was returning from a ride and saw me before we reached the view of the other drivers. He quietly asked me where I was going, then said to hop on, and turned around, going slightly out of the way so that the other drivers did not notice he was taking me out of turn.) Drivers on other corners also told me they followed a strict order for taking passengers.

Drivers also maintain control over who can wait for passengers in particular places. As I was talking to a group of four drivers, I asked one of them how long he had been driving, and, surprisingly, he answered that he had only begun a week ago. I then asked how he was able to sit at this intersection, which apparently already had enough drivers, as they were all currently sitting there without passengers. They explained to me that the man knew these drivers previously. The driver who had been driving at that corner the longest told me that only people they know (*người quen*) were allowed to wait

for passengers there. He said this was the law of the street (*luật hè phố*). He told me if you have three bowls of rice, you should give one to someone. In other words, he wants to help his friends in need.

Drivers at major transportation hubs have even more complex rules for keeping order. I spent many hours interviewing at bus stations, the train station, and a small public hospital. In all of these places, I found intricate regulations regarding who could approach passengers and how they could do so. While interviewing management at the East Bus Station, the security manager, in charge of overseeing the motorbike taxi drivers, pulled out a list of drivers registered at the bus station. There were 410 active registered drivers, and the list contained their names, their assigned driver number, position (some drivers had the position of leader or vice leader of their group), year of birth, and license plate number. The drivers were divided into five groups, according to where they were assigned to approach passengers. After spending time with each of these groups, I found that the fees they must pay to the station, the color of their uniforms, and their rules for organization were different for each group. For example, the drivers stationed where the regional buses disembark must pay the station management 350,000 đồng, about 17 USD, per month. They are allowed to work from 5:00 in the morning until 5:00 in the afternoon. When I asked one driver what it was like to drive a motorbike at the East Bus Station before there was the system of registration and organization, he described the atmosphere as lacking order (*mất trật tự*) and said drivers would often get into fights with each other. In 1992, the bus station created the motorbike taxi self-management group (*tổ tự quản xe ôm*) and issued them ID cards.⁷

⁷ Kim (2015) observed a similar system outside a busy hospital in District 5. The drivers organized themselves in 2000, as a response to the fighting among drivers. She

Although the administrators in the bus station offices collect the drivers' fees, approve new drivers, and maintain lists of registered drivers, the drivers self-manage how they will share customers. For one group at the East Bus Station, the organization centered around the driver board (bảng tài). The board hung on a pole above some benches in the driver waiting area. Metal clips hung on four wires draped across the board, each with a different driver number. Precisely every fifteen minutes, one of the drivers would grab a pile of either green or yellow armbands from the desk and the first ten numbers from the board and start calling them off. As his number was called, the driver stood and grabbed an armband, putting it over his uniform, and headed out to the pavement to approach passengers. Any drivers who did not find customers within those fifteen minutes returned to the waiting area and deposited their numbers on the board to await another chance.

The system seemed to benefit the drivers in many ways. It is more efficient and comfortable for there to be a smaller group of drivers trying to approach customers at any one time. Drivers do not need to yell over one another or jostle one another to get to the front of a large group. Attempting to catch customers therefore becomes a calmer, less aggressive task. Drivers are able to take a break from the sun and from standing and jogging after buses. Rather than having dozens of men fighting over passengers all day long, the drivers can approach customers in groups of ten, with the others resting.

One group of drivers at the East Bus Station performs another level of order at the station. While talking to the lead driver of the group of drivers at Gate 1, I learned that the drivers do not pay a monthly fee. Rather, the group must supply two drivers at all

notes that although Vietnam does not allow non-Communist Party organizations to form, this group solved a problem and created order. It was not only allowed to continue, but the idea was shared with other wards throughout the city.

times from 5:00 am until 4:00 pm to maintain order (*trật tự*) at the entrance to the bus station. The leader of the group showed me a white board hanging near their territory that listed one-hour shifts over the following three days, with a driver's number and name assigned to each shift. At the top of the hour, driver picked up a baton, donned a red arm band with yellow letters spelling out "*trật tự*" (order), and walked to the station entrance to direct traffic. The motorbike taxi drivers at the train station similarly took turns maintaining order in traffic. They also had a red and gold armband that read *trật tự* and carried whistles. Once, I observed an older driver blowing his whistle at two young people on a motorbike. They did not heed his directions to travel in the other lane, and he became so angry at their defiance that he slapped the driver on the arm. Here, and elsewhere, I noted drivers taking their responsibilities to maintain order very seriously. There is a sort of irony that drivers whom some assume are most likely to ignore traffic regulations are directing others to follow all regulations strictly.

Eyes on the Street

I met Mr. Hung walking down a wide, shady sidewalk in District 1. Mr. Hung smiled at me, so I approached him and asked if I could speak with him about working as a motorbike taxi driver. We chatted for nearly an hour, on a surprisingly pleasant afternoon, which was not too unbearably hot out of the sun and with a light breeze. Mr. Hung, who I learned was 65, told me he used to work for the state and now has a pension in his retirement. He said he found that staying at home was not good for his health. He prefers to be out, in the fresh air, for it ensures a lucid mind. Mr. Hung's circumstances were rare among drivers, as he did not need to worry about daily fares to support a family, though he acknowledged several times that not everyone has a state job or a state

pension. As we spoke, leaning against a ledge off of the building that lined the sidewalk, Mr. Hung greeted people walking by. When I asked if they were his customers, he said no, that he just enjoys talking to those out on the street.

Most of our conversation centered on the “self managing security and order” program and the motorbike taxi driver labor union. I had been noticing some drivers in District 1 wearing olive green helmets with bold yellow lettering that read “*TỰ QUẢN ANTT*,” and a four-digit number in parentheses. As noted above, “*tự quản*” means self-managing, and the ANTT stands for *an ninh trật tự* (security and order), with the entire phrase on the helmets translating to “self-managing security and order.” Mr. Hung had one of these helmets hanging from his motorbike handlebars. He was also wearing a uniform: a loose, light blue button-down shirt, with a yellow graphic including a Vietnamese flag on the upper arm. Above the graphic was written, “liên đoàn lao động Q. 1” (District 1 labor union), and underneath, “ngành đoàn xe ôm phường Bến Nghé” (Ben Nghe Ward motorbike taxi driver trade union). Through my conversations with Mr. Hung and other drivers, I found that this security and order program was meant both to protect passengers in the face of unscrupulous drivers and also to ensure safety within the neighborhood by empowering drivers to take part in maintaining that safety.

Mr. Hung told me he had worn this helmet and uniform for about four years, and that he had been driving for six or seven. The local security police (*công an*) had issued them to him, along with his driver number. He described the system as a way for the police to more easily manage the drivers. When I asked about the drivers who did not wear the uniform and helmet, pointing to a driver sitting just meters away, he explained that the police would occasionally ask to see their papers, to ensure that they are

registered drivers. If the police find they are not in the organization (*tổ chức*), then the officers may suspect that the driver lives in another area, and is attempting to pass as a local driver, Mr. Hung told me.

The system is in part meant to protect passengers from exploitative drivers. For one, Mr. Hung said that if a driver steals from a passenger, the passenger will know the driver's number, and the police can track him down. Moreover, the numbering system means that passengers can be assured a particular driver belongs to the driver union. Mr. Hung warned me never to go with a driver who did not have a badge, pointing to the graphic on his uniform. He said men may pose as drivers, and then steal from passengers. Indeed, the only times I encountered any trouble with drivers, were from men who were moving past me but stopped to offer me a ride. Though I was never robbed or assaulted, these drivers could get very aggressive, not accepting the price we had agreed upon before the ride, but demanding more. I soon learned that there was some accountability with drivers who sat on a particular corner. If there was any trouble, the passenger would know where to find the driver again and could report him to the police. A mobile driver could drive off never to be seen again. With the numbering system in Ben Nghe Ward, the accountability and ability to trace drivers is even greater. The system also draws attention to those drivers who do not have the helmet and uniform, acting as a warning to potential passengers that the driver may not have good intentions.

Mr. Hung also spoke about motorbike taxi drivers' roles in protecting people, potential passengers or not. Mr. Hung took clear pride in protecting (*bảo vệ*) foreigners and locals from petty crime, such as theft. He told me, "I was entered into the group to combat petty theft so that foreigners can come and visit." He added, "In order to find

security and order, we have this organization.” He told me drivers might directly interfere if they see a theft. He added that he goes to monthly meetings of Ben Nghe Ward as the leader of the motorbike taxi driver labor union to report on the activities of the drivers, such as drivers who helped with a crime, so that the police might issue a certificate of merit as appreciation. Another driver told me similar stories of protecting people from theft. He described, with great pride and animation, the time he chased down a thief and retrieved a purse for a foreign woman. With this security and order program in Ben Nghe Ward, the motorbike taxi drivers change from a sign of the inability of the state to control the street and unregulated market activities (Leshkovich 2005) to a visible presence of the state inscribed on the helmets and uniforms of the same drivers, an indication of both the verticality and the encompassment of the state, what Ferguson and Gupta (2002) have termed “state spatialization.”

These stories of stopping theft in the middle of the act are dramatic and almost certainly rare. Yet, motorbike taxi drivers play an important role in preventing crime before it takes place. These men, by spending many hours on the same street corner each day, are integral to the neighborhood and astute observers of the people and activities. Drivers often work ten or twelve hours or more. Even on a particularly busy day, a driver spends many idle hours on his motorbike, reading the paper, smoking, drinking coffee, talking with other drivers, and waiting for passengers. As a result, the drivers in my neighborhood always knew the goings on of the neighborhood and were excellent sources of gossip. Mr. Hoa often told me who was new to the neighborhood. He would even tell me where he was bringing particular customers. I was often amused when he told me he had driven my husband somewhere before I had been able to speak with him at home at

the end of the day. He also explained to me why I had heard a scream at 1:00 am one night; a woman's purse had been snatched in the alley.

Motorbike taxi drivers' gossip and conversation with passersby can be considered "phatic communion," language that establishes ties and community for their own sake, as opposed to only for the sake of conveying information (Malinowski 1936). This phatic communion is one aspect of creating a community where people are aware of others' movements and activities, and, when something or someone is not in order. Julia Elyachar (2010) utilizes Bronislaw Malinowski's concept of phatic communion to argue that women's communication in Cairo establishes ties and a social infrastructure that is as essential to the economy as any other infrastructure. Similarly, motorbike taxi drivers' physical presence on street corners are important parts of local security, made explicit through the order and security programs organized by ward police and less explicit, but still integral, within groups of motorbike taxi drivers who maintain their posts many hours of every day within communities. Claudio Sopranzetti (2014) observes a similar function of motorcycle taxi drivers in Bangkok, as they serve the neighborhoods as handymen, movers, controllers of local security, and political mobilizers during the Red Shirts protests and other political mobilizations. In HCMC, I did not witness political mobilizations of drivers, rather, I saw evidence that the state, particularly at the ward level, is in some instances enveloping the drivers into the local security infrastructure, in addition to drivers' more informal, unacknowledged roles in local security.

Jane Jacobs (1993 [1964]) famously claimed a neighborhood was safer with more "eyes on the street." The more people who were in the public spaces of the street, and watching the activities there, the more this prevented crime from occurring. "This is

something everyone already knows: A well-used city street is apt to be a safe street. A deserted city street is apt to be unsafe. But how does this work, really?" (44). Later, she answered this question, "There must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street" (45). Jacobs argued merchants at small neighborhood stores were especially good at fulfilling this role, for they were a constant presence on the streets and had motivations to want the streets safe because it would be good for business. She felt it was important for those who were watching the streets to know the neighborhood and the people, in order to spot suspicious activity and those who did not belong. Motorbike taxi drivers, men who spend many hours outdoors, are ever-present eyes on the street. By being present, they discourage thieves who do not want to be witnessed stealing a purse or phone, and, therefore, deter crime.

Conclusion

"Quintessential urban figures - be they artists, taxi drivers, cops or those belonging to a more opaque popular world - may be charismatic by virtue of their action and the knowledge and resources in the city they are rumoured to command. They, like their gestures, are suffused with that elusive spirit of the city, or the neighborhood itself" (Hansen and Verkaaik 2009: 6). Motorbike taxi drivers in HCMC are the quintessential urban figures that Hansen and Verkaaik describe, an essential part of the charisma in and of the city. They are found throughout the city, on street corners, at major transportation hubs, and within neighborhoods. And, their knowledge and presence helps the city to function. They provide an important transportation service for those who are without a car or motorbike but need to travel quickly and relatively inexpensively. They provide knowledge of the city, both through neighborhood gossip, but also by giving directions to

countless lost motorbike drivers. Their embeddedness in neighborhoods means there is a reliable set of eyes on the street, providing informal security in public spaces. In these ways, motorbike drivers serve as a sort of “people as infrastructure” (Simone 2004) in terms of both transportation infrastructure and security infrastructure.

I have argued in this paper that motorbike taxi drivers hold an ambiguous position in the legal landscape in HCMC. In 2004, in a transportation master plan study, they were labeled illegal. Yet, as with other sidewalk enterprises, the laws prohibiting sidewalk vending are only sporadically enforced. In 2013, at the time of my fieldwork, motorbike taxi drivers in many wards were registered by the local police. Yet, some are still fined occasionally for parking violations, and the practice itself is not fully regulated. Second, I argued that while motorbike taxi drivers are denounced for contributing to “disorderly” urban space, because of their class status, driving behavior, and status as vendors, drivers in fact often have strict rules for keeping order among themselves, rules regarding who can approach passengers and how they are allowed to do so. Finally, while sometimes feared to be a source of insecurity themselves, I argued that drivers play an important role in maintaining security in neighborhoods. They do so directly through intervening when possible in petty crimes on the street. Perhaps more importantly, they do so indirectly by being a near-constant, familiar presence, acting as eyes on the street and preventing petty crime in their vicinity.

It is precisely drivers’ ambiguous status within the legal and social landscape of the city that places them in such an effective space to be able to fulfill the eyes on the street function. Drivers are a part of their neighborhoods, blending in with the other residents, neighbors, and street vendors on densely populated streets. Their ability to

blend in as part of the neighborhood, yet maintain a presence, an unobtrusive presence, allows them to circulate gossip and keep an eye on the activities of the street.

PART III: IMAGINING INFRASTRUCTURAL FUTURES

CHAPTER FIVE

The Case for Congestion: Planning for Slow Movement and a Better City

Introduction

“What is the biggest problem of transport in the city? Congestion? Everyone sees congestion as the biggest problem, but is it really a problem? Or is it a symptom?” A World Bank official, Mr. Gupta, asked these questions from a podium in a hotel conference room in Ho Chi Minh City. He and other transportation planners and government officials were officially launching the “Ho Chi Minh City Green Transport Development Project,” a project to develop Bus Rapid Transit (BRT) along the East-West Boulevard in Ho Chi Minh City. Mr. Gupta continued, “the reason I say that is because if congestion is the problem, then the obvious solution becomes, ‘let’s build more roads,’ but as you can see, all of the cities who have tried to solve congestion by building more roads and buying more buses and metros, have really increased the problem, not solved the problem. To solve the problem of congestion, you must look at what those causes are, and actually solve those.” Mr. Gupta posed these questions near the beginning of his presentation, and then returned to the issue of congestion near the end by reiterating that we must understand causes, not just symptoms, and “congestion is a symptom.”

In his presentation, Mr. Gupta provocatively asked if congestion was really the problem. Yet, in the same passage, he contradicted his line of rhetoric. After questioning whether congestion was really the problem, he stated, “To solve the problem of

congestion, you must look at what those causes are, and actually solve those.” Congestion really is a problem. Mr. Gupta’s point to the room filled with city officials, researchers, and consultants is that the way we frame the problems of transportation determines the solutions that are proposed and the outcomes that result. In this chapter, I argue that the consultants developing the BRT line in Ho Chi Minh City are actively reframing how they think about the problems that transportation planning should solve, and, therefore, what the solutions should be and what the outcomes can be. They are extending the reach of transportation planning from movement, speed, and infrastructure to the wider neighborhoods, city, and daily lives of residents. I utilize ethnographic research I conducted with multiple people involved with developing a BRT line in Ho Chi Minh City to show how the parties involved with this project believe the function of transportation systems should go beyond speed alone, but should improve the urban fabric and daily lives of commuters and residents.

The Reach of Transportation

This section will review the social science literature on mobility, namely what is called the “new mobilities paradigm” literature and the anthropological literature on roads. I argue that social scientists have given increased attention in recent years to the cultural aspects of transportation. However, there is an assumption in some of this literature that this realization of the social impact of transportation is an insight of social scientists only, that transportation planners and engineers remain distanced technocrats, concerned primarily with the technical problem of how to increase speed and volume of traffic. As I will show, these studies that assume that the planner is unconcerned with the cultural aspects of transportation do so from the perspective of the commuter, resident,

and already-built infrastructure. It is easy to assume a monolithic, detached expert when the end-product seems to point in that direction. However, my research intervenes, through sustained participant observation among an international team of transportation planners developing a BRT line in Ho Chi Minh City, by showing how this group of planners is both challenging the paradigm that faster is better and also showing how planners are concerned with the rippling effects of transportation systems on urban life.

In an article titled “The New Mobilities Paradigm,” Mimi Sheller and John Urry (2006) argue a new paradigm is emerging in the social sciences. They maintain that social science had previously ignored or trivialized the role of movement in social life. The new mobilities paradigm undermines these sedentarist theories and takes movement, real and imagined, as central to understanding the contemporary world. The article is broad in scope and opens many possibilities for avenues into mobilities research. One theoretical direction that they mention which is important for my research is that of centering the “corporeal body as an affective vehicle through which we sense place and movement, and construct emotional geographies” (216). They continue by stating, “Various analyses show how means of travel are not only ways of getting as quickly as possible from A to B. Each means provides different experiences, performances, and affordances” (216). This focus on embodied experience has been a strong theme in the mobilities literature on transportation (see Lockrem 2016). Tim Cresswell (2006) also asserts that “mobility is practiced, it is experienced, it is embodied” (3).

Some scholars have taken a phenomenological approach to movement and transportation. Tim Ingold (2011), whose scholarship has focused on phenomenology, skilled practice, and environmental perception, is concerned with embodied movement

through space as a means of perception. When discussing how actors perceive the environment, Ingold places touch on par with seeing and hearing. He argues that walking is one of the primary ways that touch is engaged and that we perceive much of the environment through feeling the ground as we move. Ingold argues, “But if perception is thus a function of movement, then what we perceive must, at least in part, depend on how we move” (46). He argues the body, through walking and movement, is necessary for cognition. He then deepens this inquiry by asking how the shoes, skis, flippers, and other materials we attach to our feet change our engagement with and perception of the environment. Luis Vivanco (2013) further analyzes how modes of transportation affect one’s engagements with the environment in his anthropological study of the bicycle when he states: “Different mobilities carry the potential for knowing, sensing, and interacting with the world in specific ways... Put simply, if a bicycle is your main mode of getting around, you are likely to know and interact with the city differently than if you regularly ride on a bus or drive a car.” (12).

In addition to a focus on corporeal bodies, scholars contributing to the new mobilities paradigm have argued for the importance of considering mobility as essential to understanding social life. Freudendal-Pedersen and Cuzzocrea (2015) argue that transitions in mobility systems, such as the plan to implement a BRT system that I discuss in this chapter, are not only about individual choices, instituting new technologies, or economics; these transitions also impact “mobility cultures and the way in which practices and networks are cultural assembled in producing and performing city space” (4). Rather than considering spaces of movement, such as highways and airports, as “non-places” (Augé 1995), these scholars argue that transportation infrastructures are

infused with cultural meanings and affect daily life and a sense of belonging (Fallov, Jorgensen, and Knudsen 2013).

Others have explored the cultural forces behind individual mode choice. Mimi Sheller (2004) attends to the emotional dimensions of automobility. She argues that car use cannot be explained by rational economic decisions alone. Furthermore, she contends that the negative aspects of car use that scholars and activists may point to, such as cars' destruction on the environment, their danger, their negative effects on social life, will not change current car cultures because people have an embodied, emotional attachment to cars. Sheller examines these "automotive emotions" on three scales: the body, the family and social network, and the nation. "Pleasure, fear, frustration, euphoria, pain, envy: emotional responses to cars and feelings about driving are crucial to the personal investments people have in buying, driving and dwelling with cars," (224) Sheller writes. She theorizes that, "These feelings are neither located solely within the person nor produced solely by the car as a moving object, but occur as a circulation of affects between (different) persons, (different) cars, and historically situated car cultures and geographies of automobility" (227). Paul Gilroy (2001), for example, a scholar of race and the Black Atlantic diaspora, argues for the significance of the car for black communities and the political and economic history of those communities. He recognizes that there were social movements with people "who had very good reasons to fear the constraints involved in being tied to one place and who were, as we shall see, especially drawn to the allure of speed, autonomy and privatized transport quite apart from their attraction to the automobile as a provocative emblem of wealth and status" (86). Yet, he also argues that cars "have damaged life of black communities everywhere they have

helped to produce a new conception of the street as a place of danger and violence rather than community, creativity and mutuality” (88). Gilroy argues for examining the significance of the car for black communities, while also accounting for how it takes on different meanings and uses, and has different consequences, within those communities.

Other scholars have pointed to the ways that gender affects how individuals inhabit, experience or are excluded from public spaces, therefore affecting their experience and ability to walk in public space. Elizabeth Wilson (1991), for example, has argued, “women, along with minorities, children, the poor...have never been granted full access to the streets...they have survived and flourished in the interstices of the city” (8). Similarly, Giuliana Bruno (1993) challenges the supposed universal figure of the flaneur by showing how women do not have the same access to the streets and public spaces as they are often believed to be in danger or believed to be prostitutes or streetwalkers. Anne Marie Leshkovich (2005) shows how female vendors in Ho Chi Minh City are chased from the streets and widely believed by the state and urban residents to be a sign of disorder and the unmodern.

These insights occasionally come as a critique of the engineer or planner who is assumed to be unobservant or unconcerned with how mobility affects the daily lives of commuters and those living near the transport infrastructures. These scholars are often taking the viewpoint of the commuter or city dweller, who also assumes a monolithic, faceless planner. One important exception is Harvey and Knox (2015) who also point out that engineers are often portrayed in anthropological accounts as “detached, autonomous, rationalist planner[s]” (197). They counter this image by showing that engineers working on the material construction of a road in Peru “know perfectly well that the data they

work with is provisional, and know that they can only transform the environment by working with what is already there” (197). I am making a similar argument in this chapter: Planners are aware that they must work with not only existing infrastructures and the existing built environment of surrounding spaces, but also within local culture and histories of movement. In contrast to the engineer however, who recognizes that he must work within a particular material environment and find a “good enough” solution, according to Harvey and Knox (2015), the planning community is diverse in its recommendations and solutions for urban transportation. Within planning, it is not a matter of finding the best transportation solutions, as it might be for an engineer who is working in a particular material environment. “Best” for the planner must be defined in terms of how the problem is defined and what solutions are desired.

Planners are divided as to how to define the problem. Historically, worldwide, planners have attempted to ease congestion and facilitate the flow of cars by widening roads, increasing speed limits, and making other infrastructural changes to facilitate cars. The view that roads should be utilized primarily for the fast flow of motorized vehicles is best captured and articulated in the ideals of high modernist urban design. One of the most influential proponents of high modernist urbanism was Le Corbusier. James C. Scott (1998) writes, “In his daring, his brilliance, and his consistency, Le Corbusier casts the high-modernist faith in sharp relief” (104). Le Corbusier’s ideals covered the totality of the urban built environment, though I will only focus on their application to transportation infrastructure here. Two ideals of high modernism are “formal, geometric simplicity and functional efficiency” (Scott 1998: 106). For roads and transportation, this means straight roads meet at ninety degree angles or form other geometric shapes and

function to move vehicular traffic, at the expense of pedestrians, sidewalk cafés, storefronts, itinerant vendors, and other uses of public road space. The road is a space for machines and movement, not for the chaos of urban life. Le Corbusier sought what he called the “death of the street”: the separation of pedestrians from vehicle traffic and the separation of fast- and slow-moving traffic (Le Corbusier 1964; Scott 1998). James Holston (1989) analyzed the “death of the street” in his ethnography of Brasília, a city whose master plan was based heavily on high modernist ideals. Holston demonstrates how elements of the built environment in Brasília, such as the replacement of street corners with roundabouts; lack of sidewalks; storefronts facing the residential *superquadras* rather than the street; and the lack of long, contiguous facades along narrower streets seen in preindustrial Brazilian cities discourage pedestrian traffic and social activity in the streets. Brasília is a city without crowds, without public life on the streets.

High modernist values have also been applied to streetscapes in urban Vietnam. Some scholars have pointed to the ways that Ho Chi Minh City’s streets are being physically reconstructed in order to allow for increased mobility of vehicles to the detriment to other activities on the street. Allison Truitt (2008) describes the efforts of the World Bank along with local and national government agencies to regulate traffic, including separating different classes of traffic into different lanes. Truitt emphasizes the role of the motorbike as a marker of middle class status and connects the physical mobility of the motorbike with the metaphorical mobility of transitioning to the middle class. Officials’ efforts to discipline traffic, create discernible order through enforcing traffic laws and instituting physical barriers to further ensure order, and separating slow-

moving from fast-moving traffic closely align with concepts of high modernist urbanism. Truitt (2013) also writes about the widening of the road that connects HCMC's central business district with the airport. The road was widened to almost twice its original size to facilitate mobility and encourage economic growth by facilitating the flow of traffic. Yet, she also writes that, "widening Nam Kỳ Khởi Nghĩa was not a project designed to facilitate the movement of ordinary Vietnamese. Nor was it intended to improve the livelihoods of those residents who earned scant incomes on the boulevard's sidewalks. In fact, the state-sponsored project only marginalized the vendors who pushed carts and bicycles loaded with baskets of fruit, and old men and women who wandered from cafe to cafe selling state-issued lottery tickets" (127). Truitt is astute in claiming that the project has created a very different social environment from the surrounding, smaller streets. The wide sidewalks are left largely, though not entirely, free from vendors and pedestrians. Cyclos are banned from the street. The physical redesign and widening of the street has made it a space for motorized vehicles, and particularly for cars, and has marginalized pedestrians and other non-motorized street activity in the process. In recent years, the city has constructed dozens of flyovers, bridges for motorbikes or cars or both that cross above intersections, allowing for theoretically unimpeded travel of motorized vehicles. Highways, which separate car and motorbike traffic, and do not allow for bicycle or pedestrian traffic, have been constructed and more are in the city's transportation master plan. In these ways, the city's streetscapes are being redesigned to favor motorized traffic, and especially car traffic, and to separate faster from slower modes of traffic.

These physical reconstructions of the streetscape are manifestations of the city's attempts to alter the activities that occur on the streets and sidewalks. Ann Marie Leshkovich (2005) analyzes two state campaigns to eradicate street vendors from the city's streets and sidewalks. She argues that the state associates the street vendors, and particularly the femaleness of many of the vendors, with notions disorder and tradition. Therefore, the campaigns to rid the streets of the vendors are efforts to order and modernize the streets. Erik Harms (2009) argues that in the state's campaign to "clean-up" the streets in anticipation of the 2003 Southeast Asia Games, the state explicitly linked notions of urban order with urban civilization. Order means civility and modernity. And, he argues, this particular campaign had lasting effects, particularly in a previously bustling major intersection known as Turtle Lake, because the property-owning classes were now agreeing that private and public should be separate. Harms (2011) ethnographically documents the physical reconstruction of Highway 22 into the Trans-Asia Highway. As the road was widened to support more vehicles and faster vehicles, residents living and working along the road began to bemoan its transformation, including the fact that "the road is made for moving, not stopping" (161). Harms argues that the road is altering the spatial and temporal life of the surrounding area, as spaces along the length of the road are compressed as it becomes faster to travel along the road, the spaces on opposite sides of the width of the road become further apart, as it becomes inconvenient and dangerous to cross the road. These campaigns to discourage mobile street vendors are not limited to Ho Chi Minh City, as Martha Lincoln (2008) documents similar state efforts in Hanoi.

Some planners are now actively critiquing these high modernist values, and arguing for transportation infrastructure that favors pedestrians and public transit. Not only is a public transit-focused system most likely to increase capacity, especially in the long-term, but public transit can create economic development, vibrant neighborhoods, and sustainable cities, they argue. In transportation planning, some planners have advocated for transit-oriented development as an alternative to planning for car-dominant cities and a solution to the effects of planning primarily for the car, such as sprawl and the lack of social activity on the city's streetscapes. One seminal thinker for transit-oriented development, also known as TOD in industry terms, is Peter Calthorpe. Calthorpe (1993) writes: "our current aesthetic of place is Modernism. Across political ideology, modernism defines the fundamental nature of our times: segregation, specialization, centralization, and an undying dedication to technology. Implicit is its sense of progress and the ideology of materialism" (11). He writes of "sprawl reaching its limits" (15) and "more finely integrated, walkable communities with a strong local identity and convivial public places are possible" (21). This is the goal of transit-oriented development: to create neighborhoods that are not only accessible to public transit but are improved because of public transit, allowing for commercial and residential development and the "convivial public places" for which Calthorpe advocates. He advocates for planning for the pedestrian and public transit, and states that though the goal is not to eliminate the automobile, the needs of the automobile must be balanced with those of pedestrians and transit-users. Newman and Kenworthy (1999), also influential in transit-oriented development, pointed out that American cities have "automobile dependence - that is, where cities assume the use of an automobile in their design, infrastructure, and

operation” (xiii). They argue that planners must not assume automobile dependence and that transportation priorities (along with economic priorities and cultural priorities) have a major role in shaping cities. Another important early advocate for transit-oriented development, Robert Cervero (1998), wrote of the need to integrate land use development with public transit development. For most transit-oriented development advocates, this means dense, mixed-use development near public transit stations (see also Dittmar, Belzer, and Autler 2004). Calthorpe (2004) wrote of transit-oriented development as “an alternative that provides choice not only in transportation modes but also, more fundamentally, in lifestyle” (p. xi). In other words, transit-oriented development is concerned with much more than transporting people from point A to point B.

Those who practice transit-oriented development are also interested in the effects of transportation infrastructure on the community and the social activity on the streets and sidewalks. Yet, like any worldview, the vision of a transit-oriented city is rarely monolithic. Just as the visions of the modernist planners in Brasilia were not carried out in totality (Holston 1989), so are infrastructures being planned and built that undermine public transit in Ho Chi Minh City, such as highways, flyovers, and increased automobile parking, all which make driving motorbikes and cars more efficient, and, therefore, more attractive.

My research, by taking the viewpoint of the planner, shows that planners can be very concerned with local culture. Rather than building highways as non-places (Augé 1995), functioning solely for speed, the developers of the BRT system are concerned with how the system will fit in with the existing built environment and existing mobility practices. They are also concerned with the rippling effects of new transportation systems

on local culture and the material and symbolic built environment. Freudendal-Pederson and Cuzzocrea (2015) further point out that, “traditionally, urban transport systems and their underlying rationalities are explained from a technocratic perspective which seldom leaves room for understandings of the ways mobilities frame so many of today’s opportunities” (7). I aim not only to add to our understanding of how urban transport systems effect daily life and urban space, but also to show how the planners, too, go beyond technocratic understandings when planning new public transport systems.

Congestion as the Problem

To return now to the launch of the BRT project in HCMC, the effectiveness of the rhetoric of Mr. Gupta’s statement questioning whether congestion is the biggest problem of transportation lies in the popular understanding that, of course, congestion is among the biggest problems of transportation in many cities. The very fact that the city is considering developing a BRT line is an acknowledgment that congestion will continue to worsen unless new infrastructures are built. Why is BRT the best solution for Ho Chi Minh City’s transportation problems, according to the World Bank? A promotional video that Mr. Gupta played at the end of this presentation nicely sums up the basic characteristics of BRT and why the World Bank wants to promote that particular transportation infrastructure for Ho Chi Minh City. While showing a montage of BRT buses in different cities, a voiceover boomed: “BRT is a high-speed rapid transit system, using high-capacity vehicles, physically separated busways, feeder services, modern stations with electronic fare collection, integrated bicycle and pedestrian access, rapid boarding, and high-service frequencies. How does BRT compare with light rail and metro rail? BRT can equal or exceed the capacity of most rail systems, cost much less to build

and operate, and is up and running much more quickly.” BRT can rival metro systems in the number of people it can transport, the promotional video claims. More people on BRT means fewer motorbikes and cars on the roads. In his presentation, Mr. Gupta noted, “I see a lot more motorcycles on the street, but more than that, I see a lot more cars.” BRT, then, is the solution to reduce the numbers of motorbikes and cars on the roads, and, therefore reduce congestion.

The anthropological literature on roads has emphasized the connections between mobility, speed, and modernity. Dalakoglou and Harvey (2012) state that “associations between modernity, mobility and accelerated living have subsequently become quite standard in contemporary social science” (460). They also point out that mobility is central to the modern sensibility. Harvey and Knox (2012) argue that the "enchantment" that people have with the road infrastructure projects, specifically enchantments with the promises of speed, political integration, and economic connectivity, come from mundane interaction with these projects that threaten to destabilize the projects, both challenging and reinvigorating the promises of these projects.

Maquelier (1992, 2002) shows how Nigeriens had ambivalent attitudes toward the speed that the road was bringing to their region. Masquelier (2002) discusses Nigeriens' stories of the road, particularly their stories of their encounters with evil and protective spirits on the road, to show Nigeriens' terror and fascination with the road. The terror and bad feelings towards the road begins with some older Nigeriens memories and experiences with building the road - forced labor, unsafe and horrifying conditions of this labor. She also discusses the current dangers and fear of the road - that of the accidents along it. These accidents are often told in the context of a spirit causing the accident. Yet,

the stories of the road are not as simple or one-sided as these stories of terror and evil. There is also a fascination with the road and the belief that it will bring wealth to those who know how to use it. Indeed, there are also protective spirits along the road, helping commuters get safely to their destination. She shows how speed and efficiency introduce “new forms of violence, fear, and loss,” (846) even as they also bring economic growth and connectivity. Khan (2006) also demonstrates how a new motorway in Pakistan was associated with modernity and the future. She shows how residents felt “the Motorway’s modernity far outstripped that of Pakistan’s. Although everyone agreed on this point, there were those who felt that it was not necessarily a bad thing” (88). Thomas (2002) similarly points to how roads connect people to their “present peripherality and to imagined futures” (380). He further argues that the road he studied in Madagascar was paradoxically perceived as both having developed the village through increased connection and also as causing its continued underdevelopment. Villagers believed that the road would bring modernity through its speed and connectivity, yet it was also brought continued state neglect into stark contrast with this imagined future. In all of these cases, the function of roads is unquestionably for speed. And, speed is associated with modernity and development. Congestion, therefore, is a sign of the unmodern and undeveloped. Slow speeds are a problem to be overcome.

Congestion was a large part of my fieldwork in Ho Chi Minh City, and not only because I was studying those who are attempting to solve this problem. I confronted congestion every time I left my home and in daily conversations. Traveling to and from one of my fieldsites, a local transportation research center where the local consultants working on the BRT study were based, required sitting for many hours in congestion. To

reach the transportation research center on the outskirts of the city, I boarded a chartered bus provided for the center's faculty and staff. The full-sized coach bus lumbered through the streets, with motorbikes swerving on all sides. The driver was forced to maintain a slow steady speed, and make constant use of the horn, to push through the sea of motorbikes. The bus traveled about twenty-four miles, and it took ninety minutes to do so. This slow average rate of sixteen miles per hour could not be blamed on frequent stops or a circuitous route. The bus stopped only a handful of times along a main road heading straight out of the city. We had to travel ninety minutes to go twenty-four miles to the research center (and then another ninety minutes back to the city on the return trip) because of congestion. The bus crawled along Highway 13, what was supposed to be a high-speed highway. Many of the researchers at the transportation research center traveled between Ho Chi Minh City and the research center five days a week, meaning their daily commute on the bus alone, not counting the time it took them to reach the bus stop, was more than three hours each day. Though this time on the bus turned out to be an opportune time for me to speak with the researchers both formally and casually about their work and family, it was also frustrating to be crawling through traffic at 5:45 in the evening after a long day, just wanting to get home to be with family.

Transportation planners have quantified the problem of congestion in terms of economic costs. I was first alerted to these calculations at the transportation research center when one of the researchers brought up those economic costs during her presentation on her research on a related issue. When I asked her how this was calculated, she did not have an immediate answer, so I looked to some prominent recent transportation studies on Ho Chi Minh City. The HOUTRANS master plan study claims

that in mega cities in developing countries, “economic loss due to congestion reportedly reaches 2-3% of GDP” (Almec 2004: 2-148). A technical assistance report for Line 2 of the urban rail system, conducted by a Hong Kong transportation planning firm, also makes claims about the economic effects of congestion. To do so, it cites a study conducted by Vietnam National University, which claimed that the socioeconomic costs of congestion were equivalent to about 800 million USD per year, or 6.25% of the Ho Chi Minh City GDP. They calculated this loss based on estimates of “wasted investment in private vehicles, travel delay, wasted fuel costs for private vehicle trips and waiting time, impacts of deaths resulting from traffic accidents and the opportunity cost of land given over to parking for private vehicles” (MVA Asia Limited 2010: 8-2). The consultants’ report admits that “this 6% estimate seems almost unbelievably high” but that “even if the actual amount was half or even just 20% of this estimate, the socioeconomic impact would still be very severe and certainly high enough to warrant immediate action” (8-2). In a foot note, the report explains that “the consultant noted some potential double counting in the analysis but the order of magnitude remains large and the overall message of the study - that congestion is a costly constraint - remains the same” (8-2, note 8). These studies and planners are arguing the same point: It may not be possible to know the exact economic cost of congestion, but it is high, and congestion, therefore, deserves attention.

Moreover, land developers in Ho Chi Minh City are concerned with how congestion affects possible future development sites. In my interviews and site visits with developers in Ho Chi Minh City, I often noted discussions of the traffic conditions leading to a site and their effects on future profits. On one occasion, I was accompanying

a group of developers and planners to a site they were looking to redevelop, when the project was almost immediately abandoned when they heard rumors of a large bridge being planned abutting the land they were looking to develop. The size of the bridge would require a large setback, which would cut off the entrance to their site, causing them to drastically rethink their desire to buy and develop the land. Others have remarked to me that congestion has an effect on Ho Chi Minh City's ability to attract foreign investment. Not only is congestion costly to business, but investors told me that the seeming inability of government officials to solve the congestion problem made them wary of the city's ability in other areas of infrastructure provision, with direct effects on how smoothly they could run a business in Vietnam.

So, yes, congestion is a problem. Congestion forces the workday to be longer and keeps workers away from their families and other obligations while they wait in a vehicle. Congestion has economic costs from wasted fuel, stress on vehicles, stress on infrastructure, wasted productivity hours. Congestion hinders development as developers are wary to build where consumers may be hesitant to travel due to long travel times. Congestion, particularly for quickly urbanizing cities in the Global South, may be a symbol of inadequate governance to potential investors. Mr. Gupta's questioning of whether congestion is the biggest problem is, in actuality, a question of what are the proper responses and solutions for congestion. For, as he said, "if congestion is the problem, then the obvious solution becomes, 'let's build more roads,' but as you can see, all of the cities who have tried to solve congestion by building more roads and buying more buses and metros, have really increased the problem, not solved the problem."

Addressing Congestion through Increasing Road Capacity

This strategy, widening roads so that they can carry more vehicles and can carry vehicles at higher speeds as a response to congestion when cities grow in population and grow economically, has been utilized in Ho Chi Minh City and perhaps every growing city worldwide. In Ho Chi Minh City, the road that is being considered for the BRT line financed by the World Bank has been recently widened in order to increase volume and speed of traffic. The study team working on the BRT feasibility study are considering the roadway Võ Văn Kiệt (VVK), also called the East-West Boulevard or East-West Highway. The road runs from West to East and then travels through a tunnel to the planned urban renewal area, Thủ Thiêm. Before reaching Thủ Thiêm (District 2), the road cuts through several central districts of Ho Chi Minh City, including Districts 1, 5, 6, and 8. I spent some time walking along the road, observing the infrastructure and social life. Despite traveling through the center of a very dense city, much of the road feels lifeless and without the bustling social activity of the other roads in the near vicinity, though it is a popular spot for early morning walks or jogs on the canal-side at dawn.

Much of central Ho Chi Minh City is a teeming web of alleyways barely wide enough to allow a motorbike to pass up to modest roads with two to four lanes with narrow sidewalks or storefronts spilling directly into the roadway. Võ Văn Kiệt, on the other hand, is a comparably vast expanse of pavement. Many portions of the road are divided into four groupings of lanes, divided by grassy medians or metal pole dividers. These four groupings of lanes allow not only the separation of opposite flows of traffic, but they also physically separate two-wheeled from four-wheeled traffic. At times, I counted up to nine lanes of traffic. The vastness of the roadway is further highlighted by

the canal on one side and a wide sidewalk on the other. This open space that is so rare within the central districts of the city becomes even more pronounced by the relative lack of activity on the roads, sidewalks, and pedestrian bridges crossing the canal. My pictures from my walks and bus rides along the road are markedly absent of people and vehicles. Whereas only blocks away from this street, traffic seemingly fills every available square meter of roadway and even sidewalk, on Võ Văn Kiệt, traffic was seemingly scarce in comparison.

Whereas Võ Văn Kiệt was only recently redesigned to serve vehicle movement, resulting in the asocial space I just described, the World Bank and its team of local and international consultants are now redesigning the street again to accommodate a BRT line and with the intention of making it a more pedestrian-friendly thoroughfare. My argument in this chapter is that transportation planners working on projects in Ho Chi Minh City are now actively working against high modernist notions of the function of the street. Rather than cordoning off the road to support the fastest travel possible, planners are working to create roads that support multiple modes of transport and street life. Though this may mean slower speeds for some vehicles, it is a more sustainable solution to ensure against future gridlock and it creates pleasant streetscapes that will attract vibrant public life.

The Vicious Cycle of Widening Roads and Worsening Congestion

Another World Bank official echoed Mr. Kumar's argument regarding the futility of widening roads as we had lunch following the presentations at the launch of the BRT project. Diego told me, "A fact, a scientific fact, is basically saying you cannot solve a city's congestion problem or transportation needs by expanding capacity. Fact. But, many

people do not see that still.” By “expanding capacity,” he was referring specifically to widening roads so that roads can support a greater number of vehicles. The HOUTRANS master plan states a similar argument: “Even if it has unlimited resources, the city cannot continuously expand the provision of roads without destroying the fabric of the city... Besides, as shown by other cities, adding more roads only leads to a vicious cycle of more cars and more congestion” (Almec 2004: 3-4), even as some of the master plan study’s recommendations is to widen some roads. The logic of this argument concerning a vicious cycle of more roads leads to more congestion is that more roads will just lead to more traffic because easing congestion makes it easier and more attractive to drive more frequently and for longer distances.

Mobility has been historically associated with the idea of speed and freedom, though as Freudendal-Pedersen and Cuzzocrea (2015) point out, it too often ends up producing more congestion, pollution, and noise (5). Harvey and Knox (2012) list “speed and connectivity” as one of the three “enchantments” of infrastructure. They argue that slow travel appears as a hindrance to international development goals and responds to the feelings of road travel as slow and difficult. What is surprising about public transportation planners in Ho Chi Minh City is that they are countering this notion that speed leads to connectivity. Rather, they argue that speed could hinder connectivity. Contrary to much of the other social science literature that links the promises of roads to speed, I show that speed is not an unquestioned benefit of road transport. In the case of Vietnam, widening roads to increase speed and ease congestion could lead to more people switching from motorbikes to cars. If additional highways continue to be built, and roads are widened to support cars and ease congestion (in the short-term), the middle

class may have incentives to switch from motorbikes to cars and to drive more frequently. As cars take up more road space than motorbikes, widening roads could actually lead to more congestion, the argument goes. As Diego, the World Bank consultant working on the BRT project, told me during our first interview via Skype from his office in Washington DC, “At least from my view... motorbikes on their own are not so much of a challenge. But I guess the way the challenge is posed, is that Vietnam’s still growing, experiencing this fast, booming auto ownership. And then the issue is how much can the city take in terms of car ownership before it becomes a real pain in the ass and really unsustainable as a transport option? That's the challenge that all these projects are trying to address, in terms of the new metro lines and the new BRT line, and this effort to bring about public transport options that are efficient. That's the basic spiel, one we use to argue for those projects.” At the moment, a multiplicity of factors are constraining car ownership, including high taxes on car purchases and the relative cost of an automobile compared to a middle-class income. But, lack of infrastructure to support cars is also a real factor in dissuading people who might otherwise become car owners. Lack of space to park a car, residential alleyways that are not wide enough to fit a car, and current levels of congestion all make owning and driving a car significantly less convenient than owning and driving a motorbike. Despite cars being more comfortable, offering higher prestige, and being safer, I met multiple people during my research who could afford cars but either chose not to drive them often or sold them, for the primary reason that driving a car in Ho Chi Minh City congestion was much slower and more stressful than driving a motorbike. Diego and others fear that changes in that

infrastructure could create the conditions for a more dominant car culture that would, in turn, put too much stress on existing infrastructure.

Throughout my fieldwork, I sensed an implicit, and sometimes explicit, assumption that the dominance of the motorbike would not be a long-term phenomenon in Ho Chi Minh City. Would motorbike drivers shift to cars? Or, could infrastructures and policies be put in place to encourage a shift to public transportation? All of the planners with whom I spoke agreed that simply building BRT or metro infrastructure was not enough to encourage public transit use. Other factors, both push and pull, needed to be implemented to encourage this shift in transportation choice.

Planners argued that one of these factors which could push commuters to use public transit was congestion. An official at the Asian Development Bank (ADB) explained to me, based on his decades of experience overseeing public transportation projects in Southeast Asia: “So, basically, the situation is you can't avoid congestion, because people, they are not going to go to public transport unless they have a reason for it, and congestion is the only reason, or very high pricing [such as congestion pricing or high cost of parking].” This ADB official is talking, in particular, about urban rail, and the ability of urban rail to be a quicker mode of transport in highly congested areas. Because the ADB has set “sustainable transport” as one of its priorities, this official argues “you can't avoid congestion.” In other words, in order to successfully fulfill the priorities and projects of the ADB in terms of sustainable transportation, congestion is a positive force. This argument demonstrates that public transportation has a complicated, perhaps contradictory, relationship with congestion: public transportation is often given as a solution to ease congestion, yet decision makers also told me that without

congestion, there will be no incentive for commuters to switch from driving a motorbike to riding public transit. Whereas high modernist urban planning argues for widening roads in order to increase capacity and reduce congestion, public transportation planners argue congestion can be an incentive to encourage commuters to switch to public transport, thereby increasing capacity.

Even as there is an acknowledgment of the short-term benefit, but ultimate long-term ineffectiveness of widening roads to allow a greater volume of vehicles to travel free of congestion, not all planners and officials are in agreement and even within a single study, efforts do not starkly adhere to a single vision for the future of transportation in Ho Chi Minh City. Yet, I argue that the view that increasing capacity through widening roads is losing ground while the position that capacity can only be increased in the long-term through encouraging public transit is gaining ground.

Beyond Congestion: A Holistic Approach to Transportation Planning

“When we say transport, it is not just about moving people from A to B. There’s a number of other issues related to transport that must be kept in mind. They are related to the environment, safety, land use, and energy efficiency. All those issues related to how best to develop the program to improve the transport,” Mr. Gupta, the World Bank official in HCMC to launch the BRT project, told the audience. He opened his presentation with his statements on what transport planning was not: it was not about defining congestion as the biggest problem. Now, he was stating his vision for what transportation could be. Transportation could and should extend beyond the infrastructure itself and beyond a single function, movement. Rather, transportation projects have the ability to develop adjacent land; promote sustainability efforts; support the transportation

needs of users; and support a vision for the future of a city. Abram and Weszkalnys (2011) theorize the plan as a “manifestation of what people think is possible and desirable, and what the future promises for the better” (3). Therefore, the developers of the BRT project, by promoting the project as improving economic development, positive shifts in mobility culture, sustainability, and the city’s modern image, show these things to be desirable and possible for the future of Ho Chi Minh City. Abram and Weszkalnys also rightly point out that “the future promised in plans seems always slightly out of reach, the ideal outcome always slightly elusive” (3). Yet, what is important conceptually at the planning stage is the vision that the plan puts forth, as it illuminates planners’ hopes and desires for the city.

The Surrounding Built Environment

To be successful, a public transit project must be integrated with surrounding land, planners told me. This means that, one, the land should allow easy and pleasant access to the stations, and, two, that land should be economically developed so that the city can benefit through a larger tax base and economic growth resulting from the transit project.

Issues of pedestrian access to BRT stations were directly debated during a 2011 workshop with the World Bank, foreign consultants, and city officials to discuss the broad outlines of redesigning the East-West Boulevard to institute a BRT line. This workshop occurred two years prior to the official launch of the project in 2013, and was meant to gather key stakeholders and experts to discuss the purpose, benefits, and potential design of a proposed BRT line. I was not present at the workshop, though I read the final report, the minutes of the meetings, and interviewed two participants who were

at the meetings. At the workshop, a conversation about how to re-design the East-West Boulevard in order to include dedicated traffic lanes for the BRT and to place relatively large stations for the BRT stops was imbricated with conversations about competing visions for the purpose of the East-West Boulevard. The East-West Boulevard is lined on one side by a canal and on the other side by a dense neighborhood with many small homes and shops. If the dedicated BRT lanes were placed either on the building side or the canal side, this would allow for the least disturbance of vehicle traffic. Elevated pedestrian bridges could be built so that traffic lights would not be necessary and pedestrians could reach the stations without impeding private vehicle traffic. Especially if the lanes were built on the canal side, the BRT buses would have no interference with the other traffic. These designs were said to support a “highway” style for the East-West Boulevard, meaning the road would support speedy vehicle traffic, and align with high modernist values.

In contrast, designing the BRT infrastructure so that the dedicated lanes and the stations were in the center of the boulevard, with other vehicle traffic on both sides, would allow for what the planners were calling a “boulevard style” road. To quote from the workshop report, a boulevard style roadway is a “major support of urban life of a district” and allows for “vibrant urban life along facades of commerce and activities with street parking and comfortable sidewalks” (World Bank et al. 2011: 33). This language closely aligns with how transit-oriented development proponents discuss the benefits of transit-oriented development: vibrancy of neighborhoods, walkability, social activity on the sidewalks, and slower vehicle traffic in order to provide comfort and safety for pedestrians and slower vehicles.

The decisions that planners and engineers make regarding the physical design of a roadway are much more than technical solutions to facilitating flow. Rather, if done intentionally, these decisions may reflect the visions that the stakeholders have for the purpose of a roadway - should the road be for machines or people? The study for a BRT line on the East-West Boulevard recognizes that questions regarding the purpose of the roadway need to be addressed: such as, what types of traffic the road should allow, how fast traffic should move, and how the road should be connected with surrounding neighborhoods. I spoke with one of the organizers of the workshop, a European woman who works for an organization that often invites experts from Europe to meet with local decision-makers in Ho Chi Minh City to share knowledge. She told me “the BRT is not just transportation infrastructure, but can really, really help the city to improve the quality of the public space area, of commercial activity.” I asked her, “Do you remember the workshop well? Do you remember any pointed discussions...?” She answered, “I mean the professional culture is totally different, so, yeah the people who are planning the transportation also work on technical engineering aspects, so they don't consider they should link [the transportation infrastructure] to [the] environment. I mean that basically they [think the purpose] of the metro is for the mobility of the population, to one point to another point. It isn't supposed to improve the quality of any of the...land around. So...in general, I think they know about this, but they don't focus on this.” The workshop minutes and final report presented a debate that was occurring among participants: those who believed the road should continue to be a highway, a roadway primarily for large vehicles that would travel at high speeds through the surrounding neighborhood. Others

wanted to develop the road so that there would be pedestrians, a connection to the surrounding neighborhood, and slower vehicle traffic.

Dalakoglou and Harvey (2012) argue that roads hold out the “promise (or threat) of future connectivity” (460). Much of the anthropological literature on roads has focused on the construction of new highways or the widening and paving of roads in the name of speed to rural areas and villages previously without access to high-speed roadways (Harvey and Knox 2015; Dalakoglou 2010; Masquelier 1992, 2002; Roseman 1996). Dalakoglou (2010) contrasts the stark immobility of Albanians prior to 1990 with their newfound current mobilities of people, capital, and goods, as symbolized and made materially possible with the construction of roads. However, just as the road is a “proximate, visible, and tangible” evidence of the otherwise abstract and distanced processes of globalization and postsocialism, it also reveals the asymmetries of globalization. The redesign of Võ Văn Kiệt to develop BRT infrastructure is not meant to connect previously disconnected places or even to promise faster mobility. Rather, it is offering qualitative differences in how that connectivity is experienced, though they are anticipating staving off a future threat of increased congestion (see Anderson 2010). The road redesign to support BRT is not about the promise of future connectivity, but of a promise of qualitatively better connectivity, more comfortable, sustainable, greener, perhaps faster in the face of anticipated increase in congestion. Harms (2011) notes that in the redesign of roadway on the outskirts of Ho Chi Minh City, from a dirt road to a highway, that even as space-time was compressed along the length of the road, space-time was expanded on either side of the road. That is, while people living and working on either side of the road used to easily cross the street, with the expansion of the roadway, it

became more difficult and unsafe to cross, therefore effectively disconnecting the people on either side of the new highway. In the case of Võ Văn Kiệt, the opposite is being considered for the newest redesign: space and time will be compressed for those wishing to cross the road, at the sacrifice of speed for those traveling via motorized vehicle along the road.

Modal Shift as Cultural Shift

While preparing for my first interview with Diego, I asked a local transportation planner, Dr. Anh, if he had any documents related to the BRT project and if he had any questions he would like me to ask the representative of the World Bank. Dr. Anh provided me with a document and wrote, “Please ask him how the Bank see[s] the opportunity to shift MC [motorcycle] users to BRT and what is their view on measures to encourage the modal shift to BRT.” This may be the most important question for the BRT project, according to its proponents. For the BRT to increase capacity, encourage land development, present the city as modern, and be an example of green and sustainable transport, people must utilize the BRT. And, it is not enough for current bus users to use the BRT, as this is a very low percentage of commuters. The BRT must attract motorbike drivers to have an impact. Though planners are aware of ways to make BRT more attractive, they also know that switching to BRT from a motorbike will be a significant change in lifestyle for those who currently travel by motorbike.

Through my interviews with consultants working on the BRT project, I was impressed with their awareness of the importance of understanding local cultural practices surrounding transportation in order to influence individuals’ decisions. Intentions to understand local cultural practices surrounding transportation are not always

supported by the specific aims of the project, however. And, my interviews were carried out at the very beginning of the project, as consultants were just beginning their work on this particular BRT project, so I cannot speak to results. Before I met the planners working on the BRT project, I heard criticism on this point from a transportation planner who had been consulting on projects in Vietnam for two decades. He had consulted on projects funded by both the World Bank and the Japan International Cooperation Agency (JICA), the Japanese government agency that coordinate official development aid (ODA). This planner praised JICA for the funding it made available to conduct household surveys, sometimes numbering tens of thousands of household surveys, because it allows him a “full picture” of what is going on.

Parts of this critique ring true. During the presentations of the launch of the BRT project, members of the international consulting firm had only just arrived in Vietnam, one of them traveling from the airport directly to the launch. For the particular international firm that the World Bank hired to do the technical pre-feasibility study, they prioritized the firm’s prior experience developing BRT systems over their experience in Vietnam. The World Bank often portrays BRT systems as being applicable to any city. The promotional video that Mr. Gupta showed at the beginning of the launch of the “Ho Chi Minh City Green Transport Development Project,” showed BRT systems in cities around the world, as if a system could be plopped down into any urban context. Harvey (2010) while discussing road construction notes that the “promise of concrete to operate as a generic, homogeneous, and above all, predictable material is constantly challenged by the specificity of the terrains to which it is applied - terrains that are intrinsically unstable and heterogeneous” (44). Similarly, BRT proponents insist that the system can

serve many contexts, and the characteristics of BRT stay the same in all those contexts, as indicated by the ratings assigned to different systems. BRT systems around the world are evaluated against the BRT Standard, and assigned points based on how they comply to international best practices as defined by the BRT Standard Technical Committee, composed of representatives of the World Bank, Asian Development Bank, consultants, and other experts. BRT corridors are given a gold, silver, bronze or basic rating depending on their performance according to the scorecard (Institute for Transportation and Development Policy 2014).

Just as the material terrains that Harvey discusses in Peru are unstable and heterogeneous, so are the cultural and material terrains in Ho Chi Minh City distinct from other cities that have instituted BRT, necessitating local knowledge of both the built environment and local mobility cultures. As BRT had only recently started being developed in Ha Noi and was in the very earliest stages of being considered in Da Nang, finding an international team of experts with experience both in BRT development and in Vietnam would have been difficult. Yet, for transportation projects such as these, international consulting firms often team with a local consulting firm. As one of the local consultants for the BRT project told me, the local team is imperative both for the local knowledge and as an effort to build expert capacity, in the stated hope that Vietnamese firms will learn to carry out this type of work for the future.

The project manager for the technical pre-feasibility study emphasized to me that he approaches transport planning from a “user-needs” perspective. He repeated this again to me after I had sent him a thank-you email after our meeting. He insisted to me that this set him apart from other transport planners. He told me, “First you really need to

understand what the people are experiencing, people are actually really going to use the system, not the experts, what they should be doing. We actually need to understand what they want from it.” In other cities, his team had even conducted participant observation of how people use transportation and where they encountered “stress points” while using public transportation, that is, when do they encounter conflict or become uncomfortable during commutes. He told me that, “we’ve come here to Ho Chi Minh City with quite narrow terms of reference, really, to do a very specific thing, and that’s to be involved in the development of BRT, but, purely to do the demand modeling, the economic appraisal, and then the integrated transport land use. So, that’s quite a narrow focus. But, that’s not normally what I do.” He told me that a few nights prior, during dinner at restaurant in Ho Chi Minh City, he began speaking with some young Vietnamese men who spoke quite good English. He asked them if they would take a girl out on a date on the bus. He told me they laughed and said a definitive “no.” He used that as example to show me that he’s aware of the cultural barriers to convincing commuters to use the BRT. Yet, he also believes these barriers can be changed. Freudendal-Pederson (2009; 2015) introduces the concept of “structural stories” to show how people rationalize their transportation choices. “I cannot take a girl out on a date on the bus” is one such structural story. Structural stories are rationalizations that one uses to justify transportation decisions. They often frame a decision as if there is no decision at all, that there is only one possible choice, when, in fact, there may be alternatives. She uses a common example of “more mobility by car gives more freedom.” This may be true for many in most circumstances, but there may also be circumstances where a car becomes a burden due to parking fees, congestion, cost of gas, and cost of maintenance. Indeed, Catherine Lutz (2014) argues

that the car-dependent mobility system in the US actually creates inequality, because those in the lower economic quintiles are disproportionately burdened by the costs and risks of car ownership, but nonetheless feel obligated to own one in order to stay mobile. The car, therefore, is a burden and a risk, not a tool for freedom, for the US poor. Yet, these structural stories are repeated often and come to reify people's beliefs about why they choose certain transportation modes. Only when people are actively choosing an alternative mode are they aware of their choice, as Vivanco (2013) describes for bicyclists in Vermont. In Ho Chi Minh City, the head consultant for the BRT study was aware of the power of structural stories (though he did not use this term), but he also felt they could be changed through public information campaigns and modern, sleek infrastructure that could change the image of public transit.

Greening the City

The name of the event that officially launched the Võ Văn Kiệt BRT project was, “Introduction Workshop: Ho Chi Minh City Green Transport Development Project.” Though the presentations and my interviews with those involved in the project clearly indicated that the focus of the project was a BRT line, the title gave no indication of this. Diego, the World Bank transport planner, discussed some confusions regarding the name of the project with me over lunch. As we sat down to lunch, two researchers at a local transportation and communications university began to discuss the merits of buses utilizing CNG (compressed natural gas, an alternative to gasoline). The topic of CNG and alternative fuels also came up in more than one question during the question and answer session following the presentations. After a lull in the conversation with the two transport engineers, Diego turned to me to discuss the confusion over the name of the workshop.

“Going back to the green thing. The name Green Transport, my guess is that that is more the product of the Bank itself...But, now you can kind of see the cost of that name [Green Transport]. Because it veers the conversation away [from] what we are really trying to do [to] CNG, electric buses, which is not really what the project is. It’s more about the modal shift more so than the actual buses.” Diego went on to say that when people hear “green transport,” they think about hybrid cars and CNG. But, to the Bank, for this project, green transport means shifting transport users to buses and also building “a beautiful corridor” and trying to “build a more sustainable city.” Whereas many of the audience members of the introduction workshop appeared to understand green transport as discrete changes in technology to obtain better fuel efficiency, Diego argued for a more holistic approach to green transport. Diego’s interpretation of green transport means shifting commuters from private vehicles to public transport, which necessitates dramatic shifts in everyday life for residents. It encompasses building green spaces, such as parks and lining roads with trees, which means an alteration in the urban fabric. His vision is for a more sustainable city, a long-term, far-reaching vision, one that calls for changes in people’s daily lives.

Building a Modern City

Finally, the amorphous, ill-defined, yet resonant issue of modernity is a motivation behind developing a BRT system in Ho Chi Minh City. As Diego told me in our first interview, “Ho Chi Minh City [wants] to ... claim a certain spot in the Cities of Asia, of Southeast Asia, and I think metro projects are a sort of signifier of arrival.” Diego said this in the midst of a conversation about the merits of metro versus BRT. Here, he is acknowledging that metro projects are a symbol of modernity, signaling

development, securing a spot among the important Southeast Asian cities. Yet, during the introduction workshop for the BRT project, the presenters argued that a BRT system could be a driving force behind a modern city. The promotional video after the first presentation depicted bustling cities with shiny, efficient, sleek BRT buses. Another presenter emphasized that “transport is about economic vitality,” pointing out that BRT stations are an opportunity for land development and an engine for economic growth in the area. The report that came out of the design workshop from two years prior briefly outlined some strengths, weaknesses, opportunities, and threats involved with developing BRT in Ho Chi Minh City. The opportunities were: “Major investment potential to become a city showcase (new development area of new tech), to develop a major open area, to develop cultural and tourism aspects.” Here the BRT is a potential *showcase* for new technology and a cultural and tourism attraction. BRT, according to proponents, can elevate a city’s image and economic development. Yet, even if the BRT might elevate a city’s image, this does not mean it will be effective in serving its purpose as a transportation system, and, in particular, a transportation system for those who need public transit the most. Friedner and Osborne (2015) show that even as New Delhi’s infrastructure to improve mobility and accessibility for the disabled elevated New Delhi’s status as a world-class city, the infrastructure did not benefit the majority of the city’s disabled, particularly the poorest.

Conclusion

With the BRT as a new transportation system in Ho Chi Minh City, its developers have instituted new logics to transportation for the city. Modernist principles have been instituted in Ho Chi Minh City. They include functionally separating transportation from

other land uses, separating fast-moving vehicles from slow-moving vehicles, and supporting the quick flow of traffic. BRT proponents, and other public transit planners, argue that the methods previously utilized to decrease congestion, such as widening roads and favoring private vehicle use, eventually lead to a cycle of increasing congestion and widening the roads once again. To combat this cycle, public transit planners argue public transit must be instituted. To develop public transit, however, a user-needs and holistic approach must be taken, planners argue. Therefore, public transit planners take into account land use, cultural practices, the environment, and visions of modernity to encourage residents to use public transport. This approach results in an integration of public transport with the urban fabric and with residents' daily lives. Planners argue that public transit can have positive effects on the built environment, economic development, and culture of a city. Rather than a machine-centered approach to transportation, these planners promote a people-centered approach. I have shown in this chapter that the object of concern for transit planners is not just speed, but it encompasses the affects that transportation infrastructure can have on street life, land use, and everyday life.

CHAPTER SIX

The Kind of Problem Transportation Is:

Planning Methods and the Homogenization of Street Scapes

Introduction

One September evening in 2013, I waited for Mr. Kaneko outside the Movenpick Hotel, near the Ho Chi Minh City airport. Mr. Kaneko, a Japanese urban planner, told me in an earlier email that he would be traveling from Ha Noi to Ho Chi Minh City earlier that day (and from Laos the day before). The next day he would be flying to Manila before returning to his home in Tokyo. Mr. Kaneko owned a planning firm that had been working on transportation projects throughout Southeast Asia for decades. He had personally been working on projects in Ho Chi Minh City since the mid-nineties. As I waited on a bench outside the hotel's main door, an SUV pulled up and a Japanese man, whom I later found out was Mr. Kaneko, got out of the back seat, his driver retrieving his bags. Fifteen minutes later we ordered sushi at the Japanese restaurant on the ground floor of the hotel, popular with international business men for its proximity to the airport. Mr. Kaneko had worked on projects funded by both the Japanese International Cooperation Agency (JICA) and the World Bank. When I asked Mr. Kaneko about the differences working for JICA versus the World Bank, he offered a critique of the World Bank's methodologies in comparison with JICA's. JICA provides funds to do thousands of household surveys, he told me, including tens of thousands of surveys when he was involved with a master plan study in the mid-2000s. For World Bank projects, on the other hand, "it is a lot of discussion in a room." He said that people who have just arrived

in Vietnam yesterday will speak their ideas like they know what is going on. He admitted the World Bank (for whom he has also worked) employs a lot of very smart people, but they do not know about the Vietnam context. Mr. Kaneko's comment implies that JICA's methods lead to more culturally relevant plans. Yet, in both cases, I argue planners are utilizing designs suited to an imagined homogeneous global population, not the particularities of Vietnamese mobility practices. Thus far in this dissertation, I have argued that planners are increasingly more attuned to the social space of the street, turning away from decades of modernist urban planning that sought to create a road only for vehicles and separate from other public social activities. While I still maintain this argument for this chapter, I argue that the sociality that planners are currently designing for is not specifically Vietnamese, but rather an imagined global sociality - a one-size-fits-all social space of the street. In the end, I argue that global planning practices, while attempting to create lively street life, are homogenizing spaces across diverse cities, creating similar streetscapes across the globe.

In this chapter, I examine some of the methods being employed on major public transit projects in 2013 to argue that although planners are concerned with the social space of the street, they do not utilize the tools necessary to attend to the specificities of how Ho Chi Minh City residents utilize that space. After outlining the major actors involved in public transportation planning, I begin with the method that should lead to culturally attentive designs: the household survey. While these surveys require many hours gathering information face-to-face with Ho Chi Minh City residents, the questions do not allow for data that would lead to culturally specific designs. I then examine methods for calculating traffic volume in Vietnam. I show that these methods assume the

normativity of the car, and, even after converting motorbikes into “car equivalents,” do not take into account the driving behaviors of HCMC motorbike drivers which differ from car drivers in the Global North. Finally, I examine design elements which are internationally recognized as creating “livable streets,” but which make little sense in the context of Ho Chi Minh City’s roads, concluding that the space of the street is becoming increasingly homogenous globally.

Actors

This dissertation aims to not only examine current transportation infrastructure and its relationship with everyday life, but also to examine the people and processes that shape this infrastructure into the future. Planning, designing, constructing, operating, and maintaining transportation infrastructure also demands an infrastructure, an infrastructure of expertise.

In any large-scale transit project in Ho Chi Minh City, there are a number of actors involved. For one, there is a client. The client is a government agency that is overseeing the project. In Ho Chi Minh City, the Management Authority for Urban Rail (MAUR) was overseeing the urban rail projects. The client requests and secures funding, submits a request for qualifications, and oversees the process and final reports submitted by the consulting firms.

The funder is the entity that is providing the capital for the project. In most projects, the government provides some of the capital, usually for discrete portions of the project, and a development bank or multiple development banks provide the remaining capital. Officially, the client, that is the government entity, applies to the development

bank for Official Development Assistance (ODA). The funding agency continues to stay involved in the project.

Finally, there are the consultants who do the work of the design and planning. These firms are composed of a consortium of international firms and a local firm. I interviewed at length a woman who works for the local engineering firm consulting on one of the major public transit projects. A large part of this woman's position was to coordinate between foreign firms and her engineering firm as they prepared to bid together on particular projects. She explained to me that, most often, the international firms would approach her firm because they needed to partner with a local firm in order to bid for a project. I began to ask her questions about why foreign firms and local firms needed to partner together for these large, development bank-funded projects. She explained that, first, the request for qualifications (RFQs) specified how many "man months" would be needed for particular tasks, and designated whether these would require local expertise or international expertise.

Heather Hindman (2013), in her ethnography of expatriates in Nepal, states that "the work of expatriate middle-men may be assumed to be transmitting a message between two parties, but more often that are mediating among a diverse set of factors not simply defined by global versus local" (16). In descriptions of my research, I often fall back on terms such as "local" experts and "international" experts. Utilizing these terms could certainly lead to the assumption that I am neatly separating the local and global and reifying this dichotomy. Indeed, I am often uncomfortable using these terms, though it is a quick way to define two groups with whom I worked. I am uncomfortable because the two groups are not so neatly divided. Where does the Vietnamese man who went to

school, lived, and worked for decades in Australia and has only recently returned to Vietnam fit? He is both and neither local and expatriate. For, he has the education, the salary, and the background of an international expert. Yet, he also has the fluency and familiarity of Vietnam of a local worker. And, where does the man who trained in Japan, worked for several years in Japanese planning firms, and has now returned to Vietnam to direct a local consultant firm fit? He is certainly now considered a local expert, despite his PhD from a Japanese university, because of his Vietnamese upbringing and his current residence in Ho Chi Minh City. Yet, when he was working for Japanese firms in Tokyo, he was part of the “international team of experts.”

So, do these terms have any utility at all? Well, yes, for they are emic terms used by aid agencies and clients, and to which firms respond. In requests for proposals, they most often indicate that teams should consist of a consortium of international and local experts. The request for local experts and international experts is based on an assumption that each set of experts has training, skills, and experience that the other set does not have. When I was discussing the requests for proposals that the World Bank produces with one of the project managers of the World Bank, he described the utility of both teams working together. He explained that the local teams were needed for their local knowledge, networks, and language skills (and, though he did not mention it, their labor for much lower salaries). Indeed, I witnessed the necessity of these skills on multiple occasions, including what appeared to be one of the key tasks of many local teams for transportation planning projects, that of conducting the household surveys. Conducting these household surveys required that the local teams hired dozens of local Vietnamese (often transportation or social science university students) and train them. For the survey

training that I participated in, the local planners, who were also lecturers at a university, recruited students from their department to conduct the surveys. They had easy access to a giant pool of potential surveyors because of their local connections to the community. Moreover, the training was naturally conducted in Vietnamese, as many of these students were not fluent in English, a skill most non-Vietnamese experts do not have (though I did meet one French expert who was fluent in Vietnamese - one of the local planners spoke very highly of her Vietnamese skills to me). Moreover, organizing the logistics of conducting the survey necessitates knowledge of local regulations and the local landscape and norms. For example, the survey conductors carried with them an official letter from the university president signed and stamped with a seal. Throughout my fieldwork, I began to realize that I, too, needed these formal letters to gain access to many areas for my research. The letters would, presumably, be presented if needed to assure that the survey conductors were official. Moreover, the local teams have intimate knowledge of the landscape of the city, able to divide the city into smaller regions to focus the surveys. Local knowledge is also needed to know when the rules could be broken. For example, an employee of a local government think tank explained to me that all household surveys needed to be approved by the local wards and that a ward official would accompany the survey conductors on all surveys. When I asked if this meant that that meant that all households who were asked would be required to comply with the survey, she said yes. This is certainly a benefit to surveyors who want a high level of compliance with the survey, but also presents ethical issues from the AAA's code of ethics. However, these issues of ethics proved not to be of concern, for, in practice, they do not inform the wards of the survey conductors and no one accompanies the survey conductors on their surveys,

for the chief reason that they would also have to pay these ward officials . Yet, even knowing that this official regulation can be broken requires local knowledge of norms. Though one could imagine a Vietnamese person educated and trained elsewhere and currently working for a firm in another country to have these networks, skills, and knowledge to perform tasks such as the coordination of household surveys, the price for that person's expertise, simply because he is working and living in a foreign country would undoubtedly be higher , and it would take a team of people with such skills, a team which is undoubtedly easier to find and put together consisting of people living in Ho Chi Minh City.

The justification for calling explicitly for international experts seems even thinner. When I asked an official at the World Bank why they required an international team, he simply said that locals do not have the required expertise for the project . While this is probably currently true, it appears that this bias is being institutionalized by explicitly calling for international experts in the request for proposals . Although currently there are individuals who have the skills to be a part of the international teams, there likely is not an entirely local team that has the project management experience and the technical expertise to fulfill this role, if not simply because transportation planning is relatively new in Vietnam and a subway has not yet been built in Vietnam. Yet, one could imagine a time when a local team could fulfill these requests. It is unclear, however, whether, if such a time came, a local team would be allowed to head the team because there is an institutional bias towards composing an international team of experts.

Household Surveys

Many of the projects I followed, and many previous studies, conducted household surveys as a source of information. Because conducting the household surveys requires Vietnamese language skills; knowledge of local practices; support and knowledge of local government officials; and the recruitment, training, and supervision of workers to conduct the surveys and enter the survey data, conducting household surveys was part of the scope of work for local consultants. In 2013, some of the researchers at the Transportation Research Center had formed a consulting firm and were part of a team which was doing a study funded by JICA to “ensure and maximize the benefits of the [MRT] project.” I participated in the surveyor training, assisted in conducting some of the surveys, and interviewed many of the consultants overseeing the surveys. The team conducted just under 4,000 surveys, each requiring 30 minutes or more of face-to-face contact with HCMC residents in their homes, places of work, or out in public space. Gathering this detailed information was meant to produce HCMC-specific information on how best to attract residents to taking the MRT. However, I argue that the questions do not allow for data that would lead to culturally specific designs. The consultants end up making recommendations that they would have made without the survey data, and designs that could be replicated in other cities.

Training and the Survey

I texted Lien as I got off the city bus at the University of Transport and Communications 2 (UTC2; the campus of UTC1 is in Hanoi) to tell her I had arrived. As I walked on a path through the open area of campus, I saw her up ahead. Lien had completed undergraduate studies at UTC2, and was now back to train some current undergraduates to do household surveys for her transportation planning consulting firm.

Lien said they had been training the monitors, the supervisors. The monitors were confused, she said, and it had been difficult. When we entered the room where they had been working, I saw six of the researchers from the Transportation Research Center (TRC) and said hello. They were sitting near the front of the room, talking quietly over some documents. There were others scattered throughout the small rooms, sitting at the tables. The director of the TRC asked how I had arrived at the university, when I replied I had come by bus, he said, a little jokingly, that I should fill out the survey. I said I would love to. I dug into the survey as the others continued to talk. It appeared that they were winding up their meeting. After a few minutes, when I was nowhere near finished with the multi-page survey, Lien told me that they would now move rooms. It was 3:00, the time I was told that the survey training would begin.

We walked together to another building on campus not too far away. We walked in a door at the front of the room, and I was surprised to see the room was already full of UTC2 students. As the TRC researchers walked to the podiums and tables at the front of the room, I, feeling a bit self-conscious, feeling all eyes on me, noticed a few empty benches at the back left-hand side of the room, so I took a seat there. Almost immediately, a group of students slid into the benches next to me and in front. These were students that I had gotten to know over the past six months. One of the researchers at the TRC, Ms. Doan, who also teaches courses at UTC2, had mentioned early on in my research that some of her undergraduate students would like to meet me. She arranged a meeting between me and the students on a Saturday morning at Ben Thanh market. Doan and four students sipped coconut juice out of fresh coconuts while I drank black iced coffee. We chatted, alternating in Vietnamese and English, about their coursework, their

families, my research, and my family. I invited them over to my home the following Tuesday, and three of the students came with an additional friend. We continued to meet periodically, in a cafe to play cards, to eat bánh xèo at a sidewalk vendor, to sing karaoke, or to gather in one of their homes. They also gave me a tour of UTC2, and it was one of those students who alerted me to this survey training (and then I later asked the TRC researchers if it would be okay if I joined). One of the students, Huong, also invited me to join her when she conducted surveys for the current project. These students became friends, but they were also aware of my research and were willing to tell me about their coursework, their lives, and the projects they were working on.

After I said hello and we chatted for a bit, the leaders of the training who were researchers from the TRC, called for everyone's attention, and the training formally began. As the leaders began introducing the training and the survey, I had a chance to look around. The room was warm, even with the barred windows open and large ceiling fans whirring above, due to the hot sun and heat outdoors. Though warm, it was not uncomfortably so. Though, by the time we left the room four hours later, when the sun had set, I felt a much-welcomed cool breeze as soon as I stepped out of what had become a stuffy room. The room had rows of dark wood tables, each table long enough to seat two students side-by-side. Each table had a narrow bench. The tables were crammed into the mid-size room, so that if I leaned back only a bit, my back was touching the table behind me. At the front of the room was a chalkboard, filled with equations from a previous class, and a screen. There were also speakers mounted on the wall, and the leaders used microphones throughout the training. I counted about 90 students in the room, with only 9 or 10 women among them. I was a bit surprised to see the imbalance of

men and women, mostly because the majority of UTC2 students I had met thus far were women. When I remarked to the female students sitting next to me that there were “so many men,” they remarked simply that that was because they were all in the “road and bridge engineering” major.

After the co-director of the TRC, Dr. Anh, gave his introductory remarks, Ms. Thuy Anh, took roll call. Later, Huong told me that 200 students were signed up to be a part of the training, but less than half were there. After roll call, Ms. Thuy Anh told the students that those who did not show up for the training might be replaced. In the final report, the team indicated there were 67 surveyors, nine supervisors, three area coordinators (TRC researchers), and one survey coordinator (TRC researcher).

Mr. Vi, another researcher at the TRC, picked up the microphone and a powerpoint presentation was projected onto the large white screen at the front of the room. Mr. Vi began to discuss the project and the logistics of the survey for the students.

A few months later, around the time when the Vietnamese team was preparing to submit their final report on the household surveys, I met with one of the team leaders of the JICA study team at his firm’s office in Tokyo. After we discussed all of our mutual acquaintances within the HCMC local transportation planning community and our mutual fondness for a particular area of HCMC with many Japanese restaurants, I started asking about the Special Assistance for Project Implementation (SAPI), the project for which the students I describe above were being trained to conduct household surveys. He said he had just given a presentation on the project and he asked me if I would like to see it. He then went through each slide and allowed me to ask questions. He also later emailed me the powerpoint presentation. On the “Introduction” slide of the presentation, the slide

states, “To achieve the modal shift from private to public transport, intermodal facilities of the stations along HCMC Line 1 and development of the feeder bus network will be required.” It then states that the current project, SAPI, is being carried out to “ensure and maximize the project benefits.” This echoes what one of the leaders of the Vietnamese study team explained to me: building the MRT line alone will not ensure that people will ride the MRT. They must pay attention to how people will reach the stations and how the stations interact with the surrounding environment. On the same slide, the “study objectives” are listed as “1. To develop an implementation plan of Feeder Bus Network along HCMC Line 1. 2. To conduct a feasibility study and Basic Design of Intermodal Facilities in station areas of HCMC Line 1. 3. To recommend Policies and Regulations for Station Area Urban Development.” Later, the “scope of work in this study” is defined as: “Basic design of intermodal facilities at each station,” “concept design of urban development,” and “feeder bus network planning.” Therefore, in order to ensure that HCMC residents are best able to utilize the MRT, the project will be attentive to how people will reach the stations, the design of the stations, and the surrounding urban development. Specifically for this study this means planning a network of bus lines that travel from surrounding areas to the MRT stations, designing the MRT stations so that they support intermodal transport (that is, they provide for motorbike and bicycle parking, they have areas for buses to drop off and pick up passengers, they are accessible to pedestrians from surrounding areas, and they are handicapped accessible, etc., for example), and the stations are integrated with surrounding urban planning (this might include developing commercial areas surrounding the stations, encouraging new residences, and development of urban services in the area, for example). The study is

attentive to the ways people will actually use the MRT, acknowledging that simply building an MRT line does not guarantee passengers. The MRT stations must be accessible and attractive to residents to convince them to shift their transportation choices to MRT. The success of the study is, therefore, dependent on the preferences and behaviors of HCMC residents. The household interview surveys are one of the ways that the study team is trying to get information about the specifics of how HCMC residents travel, including their preferences, desires, current practices, and constraints.

Returning now to the classroom at UTC2 filled with undergraduates being trained to conduct these surveys, Mr. Vi has projected a map onto the screen at the front of the room. The map included a line indicating the route of the MRT line and each of the fourteen stations was indicated with a dot and concentric circles surrounding the dots. Mr. Vi then zoomed in on a portion of the map. This more detailed map included areas that were marked by blue lines. Black numbers, such as “202,” marked areas, and sub-areas were marked by red numbers, such as “202-1” and “202-2.” Another slide had listed all fourteen stations and the number of surveys that would be conducted in areas surrounding the station. A total of 410 surveys would be conducted at four stations: Bến Thành, Thảo Điền, Thủ Đức, and Suối Tiên. These are predicted to be some of the busiest stations, therefore demanding a higher number of surveys. A total of 205 surveys would be conducted at the remaining ten stations. One of the study team members later told me that they are conducting 2.5% more surveys than required in order to allow for some incorrect surveys. The final report indicates that they gathered between 205 and 209 surveys for the ten smaller stations and between 405 and 410 surveys for the four main

stations. The surveyors would be conducting surveys with people in their homes, and also with people at schools (universities), factories, and malls in the survey areas.

Next, Ms. Thuy took the microphone and displayed an organizational chart for the survey team. The chart listed the survey coordinator, three area coordinators reporting to the survey coordinator, three supervisors reporting to each of the area coordinators (for a total of nine supervisors), and then groups of 25 surveyors reporting to each supervisor (for a total of 225 surveyors). However, in the final report, there are only 67 surveyors listed in the organizational chart. Below the organizational chart on the slide were listed the “responsibilities” of the coordinators and monitors. Then, Ms. Thuy switched to a new slide with the responsibilities of the surveyors. The responsibilities included reading and conducting the survey as assigned by the supervisors, bringing along and showing the interviewees a map of the MRT line and other materials, and taking a picture of the interviewees. The surveyors would pay each interviewee 30,000 đồng and get their signature to show they received the payment. The coordinators then handed out packets of information to each of the surveyors, including information on the MRT line and the survey. Another one of the coordinators then divided the students into groups by listing off names. The students then rearranged to sit with their groups.

Now sitting in their groups, with the survey in front of them, Ms. Lien projected the first page of the survey on the screen and proceeded to go through each question in detail. The survey was long. It was seven full pages, with more than fifty questions, many of them multi-part and complex. When I later commented to Lien about the length of the survey, she replied that JICA surveys are always very long. I then asked her if they had composed the survey, or if they had received the survey from JICA. I had assumed that

the local team had composed the survey, since the household surveys were within their scope of work. Lien said they had made some changes, but they had not constructed the survey from the beginning. Over the next few days, the surveyors would conduct pilot surveys, a test run to train the surveyors and also to assess the survey. After the pilot surveys, the local team made further minor changes to the survey for clarity. I asked Lien how long she thought it would take to complete one survey, and she answered, “thirty minutes,” but, then after a beat, she added, “maybe longer.”

The survey is titled, “Questionnaire regarding current characteristics of travel and preferences for future modes [my translation].” In the final report submitted to the JICA study team, the survey title is translated as “Interview survey on revealed and stated travel preferences.” The top of the survey has space to indicate the survey name, supervisor name, date of survey, and the general location (station, zone, and subzone). Next, the survey is to indicate whether the survey was conducted in someone’s home or elsewhere (in parentheses examples of where elsewhere might be are indicated as a “factory, school, market, supermarket...”). Following that, there is a box to indicate detailed information about the person being surveyed, including full address, name, and telephone number. Section One of the survey gathers demographic information about the individual and his or her household. The sixteen questions in this section ask about gender, age, educational level, personal income, number of household members, and total monthly income for the household. Next, the survey asks information about the location of the subject’s home to the nearest car-accessed road and nearest bus stop. It then asks those same questions in relation to the subject’s workplace. The last questions in this section ask how many and what types of vehicle the household owns and which vehicle

the subject most often uses to commute to work or school. Finally, the survey asks how often the subject uses the city bus service, offer multiple choice answers ranging from more than once per day to never. This section is designed to gather detailed personal information from each of the survey subjects.

Section Two is subtitled “Characteristics of daily trips made by the individual.” The first question of this section is a chart to be filled out according to the trips the subject made yesterday or on a typical weekday. For each trip made in a day, the subject is to indicate the exact departure time, the exact arrival time, the estimated distance of the trip in kilometers, the purpose of the trip (with multiple choice answers: to go home, to work, to study, business, private, other) and the main mode of transport (with multiple choice answers: walk, bicycle, motorcycle driver, motorcycle passenger, motorcycle taxi, car driver, car passenger, taxi, minibus, standard bus, other). This information is to be filled out for each trip made for that particular day. So, a subject may have brought her child to school (trip 1), returned home (trip 2), went to the market (trip 3), returned home (trip 4), picked up her child from school (trip 5), returned home (trip 6), etc. In the chart, there is room for up to seven trips. The surveyor is then instructed to fill out questions 18-30 if the interviewee currently uses the bus, or to skip to questions 31-41 if the interviewee uses a motorcycle or car.

For bus users, question 18 asks the interviewee to consider the trips she indicated above that she made by bus and which one she might consider switching to MRT Line 1 once it opens. If none of the above trips were suitable, the survey asks the interviewee to choose another trip that she might take using the MRT Line 1. The survey then asks the trip number that the interviewee has chosen (trip 1 through trip 7 above) or to indicate

other. It then asks if the bus for that trip ran along Hanoi Highway, an important question as this is the route for MRT Line 1. It then asks the address of origin and the address of destination for the trip (street number, street, ward, district). Next, it asks how the interviewee reached the bus stop and how long it took, with multiple choice answers for mode (walk, bicycle, motorcycle driver, motorcycle passenger, or taxi/car). The next questions ask how much the interviewee paid for parking or taxi. The next questions are regarding the bus trip itself, such as how long the interviewee had to wait for the bus, how many different buses she had to take for the trip, how long was the bus ride including transfer waiting time, if applicable. It then asks how the interviewee reached her final destination after she disembarked the bus at the last stop (walk, bicycle, motorcycle driver, motorcycle passenger, taxi/car), and how much she paid for the motorbike or car taxi, if applicable. Finally, it asks why the interviewee chose the bus for that trip, with multiple choice answers (fast, cheap, flexible, comfortable, reliable, safe, secure, punctual, frequent, route, no vehicle or driving license, or other with a blank space for writing in another answer).

The last two questions in this section for bus riders are multi-part questions that have the interviewee consider the time and money that would have been spent if she had made the same trip by vehicle (motorcycle/car) or by bicycle. For the first of these two questions, regarding if the interviewee had traveled by motorbike or car (if the interviewee has a motorbike or car in the household), the questions ask her to indicate the time it would take to walk from origin to the parking place of the vehicle, the time spent driving the vehicle, the time to walk from arrival parking to the final destination, the parking fee at the destination, and the cost of any road/highway/bridge tolls, if any. The

second of the two questions then asks these same questions (minus the cost of tolls) for taking a bicycle (only if the household owns a bicycle).

The corresponding section for motorcycle and car users is similar to the section for bus users. It asks vehicle users to choose a trip above that they might consider using the MRT Line 1 instead of their motorcycle or car. If none of the trips would be suitable, it asks them to choose a new trip that could be suitable. It then asks details about this trip: the origin and destination addresses, where the interviewee parks at the origin and destination, how long it takes her to reach the parking, the cost of parking, and the length of the trip. It asks why the interviewee chose to use a motorcycle or car (fast, cheap, flexible, comfortable, reliable, safe, secure, punctual, frequent, route, no vehicle or driving license, other). The last two questions of the section again ask the interviewee to consider the time and cost of utilizing a car (if the previous questions were answered in the case of a motorcycle and the interviewee owns a car, or the opposite scenario if the above questions were answered in the case of using a car) or a bicycle, if the interviewee's household owns a bicycle.

At this point, the surveyor is asked to go to question 42 for both bus users and vehicle users. Question 42 begins section three, "Stated choice scenarios." The section begins with the statement, "MRT Line 1 (Ben Thanh - Suoi Tien) is expected to open in 2018. Let's consider whether you may prefer to use the line for making the specific trip (that you described in detail in Part II) or not [translation from the final report submitted to the JICA study team]." The survey then asks the interviewee which station she would choose to make that specific trip and the main reason for choosing that station (nearest to my origin, close to my child's school, many shops/markets/banks at the station, or other).

The survey asks the same questions for the station she would choose to disembark. Finally, the survey asks the interviewee to estimate the walking distance to and from the stations chosen.

The survey up until this point has already been quite long and detailed. It has asked the interviewee to estimate many distances, lengths of time, and costs. Yet, the next two questions are even more detailed and complex. The questions each contain a chart which add up the total length of time and total cost in VND to go by different modes of transport and combinations of modes of transport for the interviewee's chosen trip as indicated in section two. Then, the interviewee is asked to consider these different modes (and their calculated costs in time and money) and indicate one preference. The first column indicates the current mode of transport, either bus or motorcycle/car. For the bus column, the surveyor is supposed to fill in "time to reach bus stop and wait," "time on bus," and "time to reach the final destination." Then, they are to indicate the cost of the bus fare and the parking fee, if applicable. This is all information that was already gathered in section two. If the interviewee uses a vehicle, the interviewer is to fill in "time needed to pick up motorcycle or car," "driving time," and "time needed to walk to final destination." For the cost of the trip, they are asked to fill in the fuel cost and parking fees. Next the surveyor is to fill in the estimated length of time and financial cost of five different possible combinations of modes of transport, always involving the MRT as the main mode. For the first question, the combination of modes of transport are: 1) walking to the MRT station, taking the MRT, walking to the final destination, 2) bicycling to the MRT station, taking the MRT, walking to the final destination, 3) taking a feeder bus to the MRT station, taking the MRT, walking to the final destination, 4)

taking a motorcycle to the MRT station, taking the MRT, walking to the final destination, and finally 5) taking a motorbike taxi to the MRT station, taking the MRT, and walking to the final destination. To fill in these time and cost estimates, the surveyors were given tables that included the length of time it takes to bicycle/walk/drive a particular distance, fares for the MRT and feeder buses, cost of parking, how much a motorbike taxi ride should cost for a particular distance, etc. The surveyors were to consult these tables and fill in the proposed scenarios, and then present them to the interviewee so that the interviewee could indicate their preferred choice.

The second question was much the same as the first, but included different scenarios. Again, it included the current option, but then also included 1) walking - MRT - feeder bus; 2) bicycling - MRT - feeder bus; 3) feeder bus - MRT - feeder bus; 4) motorcycle - MRT - feeder bus; and 5) motorbike taxi - MRT - feeder bus. These questions ask the interviewee to consider the many ways that she might reach the MRT station and reach her final destination from the MRT station. It frames these choices in terms of the time the entire trip would take and the specific cost in VND of the trip. Yet, elsewhere in the survey, the survey acknowledges that commuters make decisions based on many different factors, including the availability of vehicles, comfort, safety, security, convenience, reliability, and flexibility of different modes.

Finally, section four asks a series of discrete questions on the interviewee's opinions on how to improve the usefulness and attractiveness of the MRT stations and how to encourage MRT use once the MRT line starts running. It asks, for example, the maximum amount the interviewee would be willing to pay for motorcycle or bicycle parking. It asks the maximum fare she would be willing to pay to ride a feeder bus and

how long she would be willing to wait for that feeder bus. The final question asks, “In your opinion, how important would the following measures be to attract more people (including you) to using the MRT Line 1?” The interviewee is asked to rate these as very unimportant, unimportant, so so, important, and very important, each rating also given a number value from one to five. The interviewee is not asked to rank these measures and is not limited to how many items can be evaluated at each rating, so, for example, an interviewee could mark every measure as “very important” if they thought they were each very important. The descriptions of each of these measures is sentence length, so I will shorten them here. They are: high speed and frequency of trains; low fare prices of the MRT; free but low-frequency (every 10-15 minutes) feeder buses; low-fare but high frequency feeder buses; sufficient motorbike and bicycle parking spaces at stations; improving walking and bicycling conditions to and from stations; restricting motorcycle use on Hanoi Highway; restricting car and motorcycle use in designated areas (e.g. Ben Thanh market and Opera House areas, etc.); relocating or developing new shopping malls, restaurants, and/or schools to MRT station areas; increased taxes and fees on motorcycle/care use; integrating tickets and arrival/departure times between feeder buses and MRT; and handicapped facilities at the stations.

Lien’s explanation of each of the survey questions had taken more than one hour. Several times during her presentation, students’ discussions among themselves had gotten loud enough that Dr. Anh had to interject and ask the students to be quiet. Now that Lien was finished, she asked if the students had any questions, and Dr. Anh and Ms. Thuy answered the questions. Then, the students were asked to fill out the survey with their own answers, in order to get some familiarity with the survey. The student sitting next to

me began filling out the survey, though she told me she was not filling it out with real information about her previous day's trips, rather she was inventing new information (it was a practice survey, after all). And, she did not finish the survey before she gave up and started talking with me and her other friends in the room. She kept repeating to me that the survey was *so* long. By the noise level of the room, it seemed that by the end, most students had either given up on completing the survey that afternoon or had already finished. Dr. Anh and Ms. Thuy eventually picked up the microphone again and gave some concluding remarks. The students would be doing pilot surveys over the next few days, and then the official survey would begin later that week. The wall of fresh, cooler air that hit me when we exited the room was very welcome. I said goodbye to the TRC researchers on my way out, and joined a small group of UTC2 students waiting for me outside the room. We walked to sidewalk vendor selling bánh xèo, which the students had previously found out was my favorite Vietnamese dish, and we ate and talked into the evening, at this point past 7:00. The survey training had taken four hours.

As we sat eating bánh xèo and drinking cool sugar cane juice, with families taking strolls down the quiet street and children riding their bikes nearby, I asked the students if they were nervous to do the surveys. Huong replied confidently that she was not. She explained that she had done surveys for class before. Weeks before, when she first told me about the surveys and how excited she was to take part as a surveyor, I asked her if she would get paid and she said she did not know. Huong was looking forward to doing the surveys before she even knew she would get paid. She viewed it as a good experience to gain skills. Lien, during the training, told me she thought it was very good for the students to be involved in the project. She said that when she was a student on that same

campus, what they did was “very simple, just theory,” meaning that they did not get practical training. Later, Huong told me she was getting paid 45,000 VND per survey she conducted. This was a little over 2 USD (current exchange rates were 21,123 VND per 1 USD) per survey. The total number of surveys conducted, according to the final report submitted to the JICA study team, was 3,782 (including 91 surveys that were not included in the final results). Multiplying the number of surveys by 2.13 USD equals a total of 8,057 USD. These are my calculations, and do not reflect the actual budget for paying the surveyors. I am also not including the amount paid for data entry, the amount paid to the interviewees, or the amount paid to the supervisors and the local firm. My point is that this is a relatively low amount of money needed to pay for the intensive (and skilled) labor needed to go out into the city and conduct these lengthy surveys.

Yet, later that evening I came to realize how much this money might mean to the students. After dinner, Huong’s friend, Ngoc, invited me to walk back to her room. We walked a few blocks and came to a long, narrow building. They explained to me that many students lived in this building. They started laughing as we approached her room on the sidewalk alongside the building, as people were spilling out the room next to hers. Ngoc explained that it was her neighbor’s birthday, so there was a bit of a party. We entered Ngoc’s room and sat on the floor in a circle. The walls were a bluish teal, though they were a bit discolored from water stains in places. The floor was a greenish parquet. There was a small bathroom tucked in the back of the small room. On one side, there was a pot and some dishes and some small cooking appliances - a hot plate, a rice cooker. Her roommate was cooking a hotpot that evening. There was a ladder leading to a small platform on the second floor. A thin mattress and blankets were upstairs, though Ngoc

told me that when it gets hot, they sleep downstairs. I asked Ngoc how much she pays per month for the room, though it still made me uncomfortable at times, I had learned it is acceptable to ask about prices. She said they pay 1,400,000 VND for the room (about 66 USD). I replied, “oh, so 700,000” per roommate. She laughed, and replied, “No! Four people live here!” So, they each pay about 16.50 USD per month. After conducting only nine surveys, she can pay her monthly rent.

University students are widely acknowledged to be among the poorest residents of HCMC. Many are coming from the surrounding rural areas, where average incomes are drastically lower than the average incomes of residents of HCMC. Moreover, these students must live apart from their families, securing rooms, transport, and food apart from their families. To give another example of how much 45,000 VND can mean for these students at this point in their lives, I asked Huong if she thought she would ride the MRT in the future. She told me that students can ride the bus for 2,000, but the MRT was going to cost 5,000. She said this would be too expensive, so she would probably continue to ride the bus, except for special trips to Ben Thanh once in a while. A ticket the equivalent of 25 cents as compared to a ticket for the equivalent of 10 cents was too much of an extravagance in Huong’s mind at that time. That evening, after we spent a bit more time talking in Ngoc’s room, and other students wandered in and out to socialize, Huong and I boarded a bus to go home. We needed to take a different bus than what I had taken to get out there, Huong told me, because that bus route had stopped running at 6:30. So, we boarded the bus, and then she showed me where to get off and which bus for which I should wait to reach my home.

Conducting the Surveys

The training had taken place Saturday afternoon into the evening. The following Tuesday, Huong sent me a text message to see if I would like to join her to conduct some surveys. I was very curious to see how the surveys were actually conducted. We had both previously confirmed with the planners of the firm running this portion of the study that it would be okay if I joined Huong. Huong asked me to meet her at a bus station near where we would be conducting the surveys. The bus station was very near the location of a future MRT station. She told me which bus I could take from my home to meet her. However, as we'd agreed to meet at 8:30 am, and I did not want to be late, I asked Hoa, my regular motorbike taxi driver, to bring me.

Huong pulled up on a motorbike she had borrowed from one of her siblings. She was wearing a crisp white shirt and blue jeans. She would later put on a lanyard that held a name tag. The name tag contained the name of the university, the logo of the local transportation planning firm, an official stamp from the university, a line for Huong to print her name, and a line at the bottom stating the card was effective until September 20, 2013. Huong also had a letter on university letterhead, with the director's signature and university stamp, briefly explain the MRT project and the surveys they were doing, asking for assistance. The letter included a list of the 76 student who had attended the training, with their phone numbers, although, in my observations, Huong did not pull out this letter to show the people she was approaching to interview.

When Huong arrived, she took out a blue clipboard with her materials, and laid out a color street map of the area surrounding a portion of the MRT Line 1 route. There were smaller areas delineated and marked with numbers. Huong explained that we would

be doing two surveys in section 115-1 and one survey in section 115-2.⁸ She said that we were to interview one person “on the street” and two people in their homes. Huong later showed me a spreadsheet with the surveyor’s names listed in a left-hand column and numbers corresponding to regions on the map listed across the top of the spreadsheet. Within the spreadsheet, cells were marked with H’s and O’s. An H indicated that the surveyor was to conduct a survey in a home within that region. An O indicated that a surveyor was to conduct a survey with someone at a hospital, school, factory, or shopping area within the specified area. For this particular day, Huong was assigned a “H, H” for region 115-1 and an “O” for region 115-2.

Huong told me she was very nervous, and she did act timid. This was her first day conducting surveys out in the city. Previously, she had filled out a survey herself, at the training, and then she was instructed to conduct the survey with a friend. (Though, she told me that half way through the survey, her friend told her the survey was too long and he was tired, so she ended up filling in the remaining portion of the survey by herself.) She had met with her supervisor to go over these surveys, and now she was to conduct three surveys which were part of the pilot period. After she was finished, she would turn these surveys in to her supervisor, before conducting surveys that would contribute toward the final results.

We began to look for people to survey. She asked a man who was leaning on his motorbike nearby. He was holding a stack of documents and looked to be waiting for someone. He told her that he did not have time. She told him it would only take fifteen minutes, but he declined. I then pointed to a security guard a few buildings down. She said no. When I asked her why, she said, “he is not handsome.” I laughed, and she

⁸ These section numbers have been changed to protect Huong’s anonymity.

suggested that we go to a university that was in the area. This was the first aspect of the surveys that surprised me: it was up to the surveyors to choose and approach individuals to be surveyed. The surveyors were told a relatively large area in which to conduct the surveys, and they were told whether to survey some living in the area or working/shopping/going to school/visiting the area. But, otherwise, the surveyors had a lot of discretion on who to approach. For Huong's first trip out doing surveys, she was clearly looking for people whom she felt comfortable talking with, and these people ended up being one student and two women who did not work for pay outside of the home.

We turned onto the road with the gate for the university and stopped the motorbike across the street where at least a dozen people were leaning against their motorbikes. Huong explained to me that today was the first day of school. Indeed, the young man that we ended up interviewing did not attend the university, but had borrowed a friend's motorbike in order to drive another friend to university on his first day. Huong got out her blue clipboard and put on her lanyard and whispered to me, asking if a young man leaning against his motorbike would be ok. I said sure. She was a bit hesitant and shy, but she approached him and introduced herself as working on the Metro Line 1 project and asked if she could conduct a survey with him. Immediately, it was clear that the survey was not flexible enough to fit all situations. For example, in the first section, when Huong asked him how many people were in his household, he answered 32. "32?!" Huong clarified. He told her that he lives in a church with 31 other students. They are able to live there for free, paying only for meals, in exchange for doing work for the church, waking up early in the morning to do so. When we discussed his situation later,

Huong told me she knows another student who lives in a church in a similar situation. However, I noticed that Huong wrote down “4” when answering the question about the size of household. I later asked her why she wrote 4 rather than 32, and she explained to me that calculating the total income of a household of 32 would be too complicated (another survey question), so she had asked him if he had a smaller group of good friends that lived there, and he had answered 4. When she asked him what his salary was, he said nothing. So, she asked him if his parents send him any money, and he answered 1,400,000 VND per month, the equivalent of less than 70 USD. Huong later expressed surprise to me that he lives on so little money per month. When she asked how many motorbikes the household owns, he replied that there were none. This is when I interjected and asked about the motorbike he was currently standing near and he told us he had borrowed it. In a city where 78% or more trips are made by motorbike, it is striking that no one in his household owned a motorbike. It is a powerful example of how many university students from rural areas are living in poverty. When Huong asked him about the trips he makes on a typical day, each trip was made by bicycle. This proved to be a second way in which the survey could not fit this man’s situation: one section was to be filled out if the respondent goes by bus, the other if the respondent goes by motorbike. This young students went by neither regularly. Huong ended up filling out both sections, but then she later erased the motorbike section, as she explained to me that he never goes by motorbike. I did not remember to time how long the survey took, but my guess is that it took more than thirty minutes, perhaps closer to forty-five. He was very patient, perhaps because he was waiting there for his friend, anyway. At the end of the survey, Huong gave him an envelope, which she later told me contained 30,000 VND. She also

pulled out a sheet of paper where she again wrote his name, address and phone number, and she asked him to sign to show he received the 30,000 VND. After we got on the motorbike and had driven away, she exclaimed that she forgot to take his picture - they were told to take a digital photo of each interviewee.

We drove to a cafe because I had told Huong I was not feeling well. I later found out I was developing a high fever (though at the time I was ready to blame my aches and weakness on the stress of traveling through HCMC traffic!). Rather than go home, Huong convinced me to have a fruit shake at a nearby outdoor cafe. As we sat, Huong used the time to go through the survey she had just filled out. She erased the “if going by motorbike” section. She also erased much of the “stated choice scenarios” section. This is the table where the time and cost of a particular trip is compared according to many different modes of transportation. When I asked Huong why she was erasing it, she said that he had “answered according to his own thinking.” Now, she was consulting the charts and other information on time and cost - retrieving the standard numbers, rather than keeping the interviewee’s estimations on length of time and cost. Huong did not seem to think there was anything wrong with changing the information after the survey was completed. At this point, she was interested in filling out the survey correctly, rather than reflecting the information that had been elicited and discussed during the survey. When I asked Huong if she thought the young man would go by MRT when it opened. She replied with a definitive no, saying if his monthly income was only 1,400,000, he would not be able to afford it.

We left the cafe and Huong began riding up and down some streets within the area where she was to conduct two more surveys. I asked her if we would knock on

people's doors to see if they were home and could be interviewed. She said she thought that would be difficult. She was quite nervous at this point. She said we would need to see if someone's door was open in order to ask them to be interviewed. She said she was worried people might think we were thieves. She gave me instructions to look for someone we could interview. After a block or two, I saw a woman watering some plants in front of her home. Huong turned the motorbike around, and we stopped in front of the house. The woman was no longer outside. Huong hesitated a bit, but I offered to call into the woman's home and asked Huong if I should. She said yes, so I called into the open door, "cô ơi," a polite way to get someone's attention.

A woman appeared, and Huong introduced us. Without hesitation, the woman asked us to come inside. In the front room, the woman signaled for us to sit at the heavy wooden tables and chairs. As we sat, the woman disappeared into the kitchen in the back. When Huong heard her preparing something in the kitchen, Huong called out that we did not need anything. But, the woman returned with a tray of water and glasses. The woman later offered me tea. I politely declined at first, but she continued to offer me tea, even saying it was "good for one's figure," so I said I would love some. Huong asked me to begin giving the survey, then explaining to the woman that I spoke Vietnamese very well. I began reading and explaining the first sections with the more basic, straight-forward questions, but I handed off the survey to Huong when I reached the sections asking for detailed information about a typical day's trips, thinking that the survey was already very long, and would only be longer with my slower-than-native Vietnamese.

The woman was in her early forties. She told us she was a housewife. In the same room, sitting on a bed that looked to fold up against the wall when not in use, was an

older woman, presumably her or her husband's mother. This woman seemed to listen a little, but didn't pay too much attention to us. At some point she got up and left the room. An older man came down the stairs at one point, sat at our table for a few minutes, then picked up the tea pot and went into the kitchen. At about 11:00, a school-aged boy came home on his bicycle wearing a school uniform. The household owned many vehicles. I did not take my own notes at the time, so I cannot remember exactly what she answered on the survey, but there were three motorbikes sitting in the front room, and then the child came home with a bicycle. She also said they have a car.

The woman was very patient and gentle when answering the questions. It took a little over thirty minutes, though Huong did not fill out the second “future preferred mode” section. Huong thanked her for being so nice, and she said that I was the one that pointed her out and said to turn around. Huong gave her the envelope and she signed the sheet, though she later realized that we had forgotten to take a picture again.

After we thanked the woman, we got back on Huong's motorbike and, again, began looking for someone suitable to interview. We drove a few blocks, and I pointed to a home where a couple of people were standing outside the door. Huong stopped the bike and asked me to introduce ourselves. Huong at first told me to approach the man, but as we walked towards the door from across the street, the man retreated into the home, so I began talking with a woman standing outside. The woman smiled slightly, amused at my request to survey her, and perhaps also amused at the foreigner speaking Vietnamese, and she agreed. During an interview with a local planner, not belonging to the firm running this survey, the planner had said that having students conduct was a great benefit because people often felt comfortable with students. I also noticed this during our surveys. People

did not seem to feel threatened by us and seemed to understand Huong, as a university student, conducting this research.

The woman stepped inside the house and pulled out three small plastic chairs. She arranged them outside of the house and inside the outer gate. Huong and I sat facing the woman as we began the survey. Again, I began the survey and then handed it off to Huong. Again, when Huong reached the section about future preferences, she asked the woman to imagine a trip where she might use the MRT Line 1. The woman said she had no use for it. Indeed, the woman's trips during a typical weekday consisted of multiple trips to nearby schools to drop off and pick up children and to a nearby market. But, Huong suggested she might take the metro to Suối Tiên, the stop at the end of the line that was near an amusement park. However, Huong did not completely fill out this table, as she did not fill out the table during the previous survey. When I later asked her why, she said the survey was already too long. Indeed, the surveys, even with skipping this lengthy section, were at thirty minutes or a little longer. Huong said she would fill out the table later. After filling out the table (using the charts given to her by the survey coordinators), the interviewee is supposed to choose their preferred mode. When I asked Huong how she would choose the interviewee's preferred mode for them, she said that if the household had a lot of money, she would choose the mode that was the fastest. If the household or individual did not have money, she would choose the least expensive mode.

I began to see that the survey did not fit every person. Ideally, one of the trips that the person described that they took that day would be a trip that might make some sense on the metro. And, this may have been the case for the student - he attended a school and lived near metro stops (though he would probably not be able to afford the fare). But, for

most people, they will likely not have a daily trip along this route. So, they are having to imagine some special trip for the purpose of the survey.

I also began to question if the survey was sufficiently randomly sampled. The students are choosing people that are at home and approachable. It seems like this is going to lead to a lot of housewives and elderly people and students. Also, it seems like wealthier people might not be home during the day or might have their homes locked up and shut. But, the survey does ask about profession and household income, so these figures can be compared to city averages.

These three pilot surveys took place on a Wednesday, eleven days later, on a Sunday, Huong again invited me to join her to do surveys. She instructed me to meet her at a hospital at 8:30 in the morning on that Sunday. I was waiting for Huong under an awning at the hospital on that rainy morning. Huong pulled up to greet me, then she rode off to ask a security guard where she could park her motorbike. She soon returned, and we crossed a busy road in front of the hospital and entered a smaller alleyway. Huong pulled out her map, and showed me that we would be doing six home surveys and two surveys on the street in a different region than where we conducted the pilot surveys together. She also told me that she would be doing thirteen surveys the following day, and had already done fifty-one surveys in the past ten days. Although she told me that she has been working very hard and is tired and that she did not even go to class one day because of being so tired, she seemed happy and energized to be working on this project.

As we began to do surveys, I noticed that Huong's demeanor was completely different during this round of surveys. For one, she was confident in asking people if she could interview them. We approached the first woman we saw when entering the

alleyway. During that survey, the woman's father came out to observe, and Huong then asked me to conduct a survey with the father, as she finished the survey with the woman. After we finished with them, we darted across the small alleyway, as it was still raining, and ducked our heads into an open door. When the woman inside refused, Huong insisted it would only take fifteen minutes, but the woman did not change her mind. Unfazed, Huong again darted across the alleyway to the next building with an open facade. The family had a storefront connected to their home - the front room was lined with old televisions hooked up to gaming systems, and several children were playing on this rainy morning. Huong coincidentally knew the woman from her pagoda. We surveyed both this woman and her husband. The morning continued like this, with Huong boldly approaching anyone she could find to survey, as compared to our previous outing where we rode around, trying to find someone whom Huong found approachable.

During these interviews, Huong was clearly more familiar with the survey. She spoke with authority and knowledge about the questions. She had succinct, direct ways of explaining the survey. Whereas the surveys were taking thirty minutes during the pilot survey period, each survey was now closer to fifteen minutes. However, she was again not filling out the future preferences tables. When I asked her about this, she said that it would take too long to fill out these tables. She seemed very unapologetic about this. She told me she would fill out the tables at home. She did partially fill out the tables, asking the interviewee what trip they would make by metro, and showing them the map of the MRT Line 1, how much the ticket will cost, and how long the trip will take. However, she would then fill in the rest of the table at home, picking the fastest route for those she deemed wealthy, and the cheapest route for those she deemed poor.

At the end of the morning, Huong told me they were almost done conducting the surveys for MRT Line 1. She said she would then be helping to do data entry for the surveys. A couple months later, Huong told me she and her friends were again conducting household surveys, this time for the area around the proposed Bus Rapid Transit (BRT) project along the East-West Boulevard. She was again very happy to be doing the surveys and gaining the experience.

The Results

In mid-November, two months after the surveyor training, the local firm conducting the survey submitted the “Final Report on Travel Behavior Survey” to the JICA Experts Team. I obtained the report from the local team a few months later. The results of these surveys are underwhelming. For example, in the section where respondents were asked to indicate how important particular measures would be in attracting more people to the MRT, the most important measure by far was “providing facilities for handicapped people in the station area.” It seems that stations should be handicapped accessible whether or not able-bodied respondents believe it to be so. Also, given respondents were not given limits on how many measures could be characterized as “very important,” it is not surprising that respondents included accessibility for people with disabilities. In reality, though, those who do not have physical disabilities would likely not be deterred from utilizing the MRT if there were no such facilities - most likely would not notice. The measure deemed least important for attracting users to the MRT, according to respondents, was “increasing taxes and fees on motorcycle/car use (registration, license, fuel tax, parking fees).” However, this measure is something that can be proven or disproven to attract public transit users by looking to other cities that

have put such policies into place. Singapore, for example, requires aspiring car owners to purchase a certificate of eligibility costing 80,000 Singapore dollars (about 60,000 USD), before a car is even purchased. As a result, car ownership is very low in Singapore, and, public transit usage is high. Whether or not Ho Chi Minh City residents *think* that high taxes on motorbike and car usage would not have an impact on their transport choices does not matter in the face of examples that prove otherwise. Moreover, I wonder if respondents were more likely to answer very unimportant or unimportant on that measure because they did not want higher taxes on personal vehicles, rather than because they thought it would not have a positive impact on MRT ridership.

The final report also indicates what percentage of people would consider using the MRT for some trips. In the first scenario presented to the respondents, where it was assumed that the rider would walk to the final destination from the MRT stop, they found that 50.3% might consider shifting to MRT, while 49.7% would continue to use their current mode. When I spoke with one of the consultants working on the study, she indicated skepticism that these numbers had any accuracy. She argued that some might say that they would try the MRT once, but would soon go back to their current modes. On the other hand, without an existing MRT system, I am skeptical that residents can yet know if the MRT could fulfill their needs. I am not arguing that planners can not make reasonably accurate prediction on future ridership numbers. Rather, I am arguing that asking residents whether they think they might ride the MRT is not the best way to get to these predictions.

In the end, the nearly 4,000 household surveys of people living near future MRT stations serves as advertising for the future line more than as a method to gather data to

impact the design of the stations and surrounding environment. Many of the respondents knew only incomplete information about the future urban rail system. The surveys ensured that 4,000 households spent 30 minutes or more discussing the line with the surveyors, imagining how they might use it in the future. All of the respondents were shown maps of the future line and given basic information about its service. This information will only spread as the respondents discuss the line with their family and neighbors.

Calculating Congestion: The V/CR

Whereas the household surveys treated commuters as unique drivers, with individual preferences and habits, a second method, that of calculating and predicting the Volume over Capacity Ratio (V/CR), erases individual characteristics by converting human drivers into numbers. Planners working in Vietnam utilize methods developed in the Global North to make these calculations. As a result, methods developed to measure the volume of traffic consisting of predominantly cars must be altered to account for dominance of motorbikes in Ho Chi Minh City. I show that these methods assume the normativity of the car, and, even after converting motorbikes into “car equivalents,” do not take into account the driving behaviors of HCMC motorbike drivers which differ from car drivers in the Global North.

For many transportation planners, engineers, and city officials, easing congestion is the problem to be solved, and, therefore, the justification for new infrastructures, such as highways, flyovers, wider streets, and metro lines. However, first, transportation planners and engineers must calculate and measure the severity of the congestion and where it occurs. This information is then utilized in master plans to prioritize projects.

To calculate the level of congestion for a given area, transportation planners use what they call the V/CR, the Volume over Capacity Ratio. The volume is the current or predicted demand for road space, that is, the amount of traffic currently utilizing or predicted to utilize the given road space. The capacity is how much traffic could move through the road, and is determined by more than just the road's area, but by the "road structure, traffic condition[s], and environment," (Almec 2004: 5-8) all of which affect how fast traffic can flow. In the HOUTRANS master plan study, the study team calculated the Volume over Capacity Ratio (the V/CR) according to three possible urban growth scenarios and plotted those results on maps, color-coded according to the V/CR. A V/CR of under 1.00, meaning the capacity of the roads was greater than the volume of traffic, is colored blue. Other colors accounted for corridors with V/CRs under 1.20; under 1.50, and greater than 1.50 (Almec 2004: Figure 4.7.6, 4-47). The V/CR allowed the study team to quantify congestion and easily compare levels of congestion in different parts of the city, showing which areas are most in need of new infrastructure, and to compare the outcomes of different proposed transportation infrastructure projects.

To calculate the V/CR, transportation planners must first equalize many types of vehicles by converting the volume of each type of vehicle to passenger car units (PCUs) or the passenger car equivalent (PCEs). This number, the PCU or PCE, is the amount of space that an average passenger car occupies plus the amount of surrounding space it needs to travel at a given speed. The number changes according to the speed of traffic. A car stopped at a stoplight needs much less surrounding space than a car going forty miles per hour, when cars must allow for more of a buffer. Each mode of travel is given a PCE for the purpose of calculating volume of traffic. So, for example, a large truck might be

equal to 3.5 PCEs, while a motorbike would be less than 1 PCE. This number allows for all traffic to be made equivalent: traffic consisting of trucks, buses, cars, motorbikes, and bicycles can be calculated in terms of PCEs and compared with mixed traffic elsewhere. Calculating the PCE for each mode of transport is the source of much scholarship, and there are generally agreed-upon calculations that study teams use across plans.

Calculating traffic in terms of passenger car units demonstrates the fact that the prominent theories and methods of transportation were developed for societies where the car is dominant and taken as the norm. Indeed, the dominance of the motorbike in Vietnam poses problems for study teams. For example, during his presentations on his research developing more accurate transportation models for traffic in Ho Chi Minh City, one researcher at the Transportation Research Center would display up to three different PCE calculations for the motorbike. These numbers were all published in different peer-reviewed studies, showing a lack of consensus on what the PCE is for motorbikes in Vietnamese traffic.

The HOUTRANS master plan study team, headed by a team of Japanese transportation planners, also recognize that the PCE for motorbikes in Vietnam is different than the PCE for motorbikes in Japan. To quote from the study: “Based on Japanese standards, the possible capacity of a road section is 2,200 PCUs/hour/lane in multiple lanes ... However, the actual capacity observed in HCMC is often higher than the possible capacity due to the following reasons: [1] PCU of motorcycles in Japanese standards can not be applied. [2] Motorcycles can travel on the shoulder of a road section” (Almec 2004: 5-8). Regarding the first reason, this particular section of the study does not explain why the standard PCU for motorcycles in Japan does not apply in

Vietnam, only that their empirical observations proved that they could not be applied. However, elsewhere in the study, the study team describes the “undisciplined nature” (2-139) of motorbike drivers, “ignoring traffic rules” and “encroaching upon the opposite lane was a common practice [on congested roads]” (2-139). The behavior of motorbike drivers, described in negative terms by the Japanese study team, actually increases the capacity of roads, by the team’s own admission in claiming that these behaviors decrease the PCE of the motorbike. Motorbike drivers in Vietnam have found organic and individual ways to decrease congestion, yet because these methods disrupt the transportation engineers’ notions of order and law, they are deemed inappropriate.

Elsewhere, the study team states, “While in most cities, traffic normally comes to a standstill or forms long queues, in HCMC, queues develop in some areas but the dense stream of motorcycles continues to flow fluidly along with other two-wheeled vehicles, albeit slowly” (2-65). These practices impact the flow of traffic, allowing motorbikes to flow faster even in congested traffic than if they were to behave as cars. Therefore, if in Japan, motorbike drivers follow traffic laws and behave as cars do, the PCU of motorbikes in Japan would be different than the PCU of motorbikes in Vietnam. The second reason given by the report is that motorbikes use the shoulder of roads (and I would add that motorbikes also use the sidewalk in congested traffic). Cars generally do not utilize the shoulder or sidewalk even in congested traffic. Therefore, the different behaviors of car drivers and motorbike drivers, which affect how fast they can travel, makes comparing them in numerical terms more complicated, leading to scholars arriving at different PCU calculations for motorbikes.

When I was among groups of Vietnamese transportation planners, they were often interested to hear my descriptions and opinions on the behavior of motorbike drivers. They would often smile and nod along as I described how my motorbike driver wove through congested traffic or traveled up on the sidewalk. On one such occasion, one of the planners pointed out to me that another planner, Nguyen, was developing what he called the “attractive force theory.” Nguyen explained to me, in terms a non-transportation engineer could understand, that, normally in transportation planning, researchers talk about a repulsive force, whereby when vehicles get too close together they detract from each other, and move in such a way as to get further apart. This made a lot of sense to me, and I imagined one car braking and the driver behind that car also braking so as not to get dangerously close to the first car. However, Nguyen explained to me, in motorbike traffic in Vietnam, there is an attractive force, whereby motorbikes work to be closer together so as to form a larger presence to protect themselves and prove a stronger force in the presence of larger vehicles. Nguyen’s theory explained so much of what seemed fundamentally different about moving in Vietnamese traffic as compared to traffic in the US. I later asked Nguyen to send me the paper he was writing on the topic.

Nguyen’s paper begins by pointing out that Vietnamese traffic can be composed of around 90% motorbikes in mixed-traffic flows, so understanding the behavior of those motorbike drivers, which directly affects the capacity of roads is essential for being able to accurately model Vietnamese traffic (Nguyen, Boltze, and Vu 2013). In the introduction, Nguyen recognizes the importance of understanding the “motorcycle driver’s psychology,” as he points out that motorcycle drivers behave differently than car drivers, “driving in erratic and chaotic trajectories” (1). (It is interesting to note that even

as this paper attempts to model so-called “erratic and chaotic” driving behavior, it utilizes this language that is so common when foreign planners discuss HCMC motorbike drivers’ behavior.) This particular paper is concerned with motorbike drivers’ behavior at signalized intersections. As most signalized intersections in Ho Chi Minh City are two-phase signals, meaning there are no left-turn green-arrow signals, if drivers wish to turn left, they must be aware of and interact with the oncoming traffic. Nguyen’s basic theory is that motorbike drivers wanting to turn left group together in the intersection. When the group becomes large enough, Nguyen argues the drivers feel “safer and more confident” and they cross in front of oncoming traffic, forcing that traffic to slow, stop, or swerve around the group to let them pass. In contrast, if there is only one motorbike driver waiting to turn left, he or she feels “weaker” and must wait for a suitable gap in oncoming traffic to cross. Nguyen argues that this “grouping behavior” of motorbikes may be a key factor in capacity analysis of signalized intersections.

Calculating congestion in the form of the V/CR formed the basis of the master transportation plan for Ho Chi Minh City and the justification for transportation projects. Calculating and demonstrating that congestion either currently exists or is predicted to exist and get worse in the future has been the justification for future action. Calculating congestion in this way flattens and makes equal not only the subjective experience of congestion but also the many forms congestion might take in mixed-vehicle traffic. Planners must equalize congestion in the form of large trucks traveling through the city and congestion composed of motorbikes with drivers traveling short distances at the end of the work day. These types of traffic are made equal through converting them to the baseline PCU number and then the V/CR . Yet, as Nguyen’s research shows, the drivers

of these vehicles behave differently, when compared to other national contexts and when compared to other vehicles. Converting congestion to a number obscures these differences, though planners are attuned to this and working to continue to come up with better models to better calculate congestion.

Conclusion: Homogenization of Space

The results of planning studies where the teams do not take the time to understand local cultures of transportation or the particularities of the built environment are design plans that are not site-specific. Too often, I have seen design plans that could be located anywhere, or, worse, have elements that make little sense on Vietnam's roads.

For example, one early design for the redevelopment of District 2, included bike lanes on some streets. While bicycle lanes are increasingly being implemented in many US cities, they seem comically out of place in Vietnam. For one, in the city, bicycles do not travel that much slower than motorbikes. In 2006, a friend took me out on her motorbike while two of her friends joined us on their bicycle. We traveled next to each other to the restaurant without seeming overly out of place. Moreover, given the challenges of keeping motorbikes out of car-only lanes (even with the real threat of the danger that fast-moving cars on highways can pose), it seems unlikely that a painted line will stop motorbikes from utilizing that space. At the moment, bicycles and pedestrians stay to the far right of the road. A designate lane will neither ensure this continues to happen, nor help those bicyclists to feel safer in traffic.

Similarly, in early designs for the redesign of the East-West Highway to accommodate a Bus Rapid Transit line, the renderings of the street scape included elements found in renderings in any US city: crosswalks, sidewalks, medians, trees, and

divided lanes. The traffic lane is another example of a design element which makes more sense in an automobile-dominated city. Whereas the traffic lane is meant to keep cars traveling next to one another at a safe distance, the lane does not serve the same purpose for motorbikes. Motorbikes in Vietnam do not line up one after another traveling down the center of a traffic lane. Rather, they travel as a swarm down the street, swerving amongst one another as needed.

In the end, though some planners claim to take local norms and values into account in their designs, their methods are not suited to capture local transportation culture. International standards and methods are imposed on the Ho Chi Minh City streetscape, gradually turning these streets into spaces that favor personal automobiles and do not accommodate the unique material qualities of the motorbike. As a result, re-designed roads look more and more like streets in cities around the world, homogenizing the street scapes globally.

CONCLUSION

Planning Public Transit in the Motorbike Metropolis:

Fantasy, Desire, and the Infrastructural Sublime

Early in my fieldwork in 2013, I asked a high-up official in MAUR (the agency responsible for instituting the metro system; Metropolitan Authority for Urban Railways), Mr. Bắc, when Line 1 and Line 2 were scheduled to be completed. He replied that they would both be running in 2018. Shortly after I returned from fieldwork in 2014, I read reports that Line 1 would not be completed until 2020, and Line 2 would be later than that. It is not surprising that the timelines for these lines have been delayed. In large infrastructure projects around the world this is the norm more often than finishing on schedule. What was remarkable about my first conversation with Mr. Bắc was the forcefulness with which he answered my question. “They *must* be completed in 2018,” he had told me. Another government official was with us, and she concurred, saying that it was set out in the plan that the lines would be completed by then.

Throughout my fieldwork, I observed a tension between the sacrality of the plan (i.e., assertions that things must and will go according to the written document) and its infeasibility (i.e., grand visions for the future of the city). This tension ensures the plan always remains a tool to dream and desire, never to materialize in full. For, in order for the plan to materialize, for the goals to be met through the construction of infrastructures and the enactment of policies, the timelines must be lengthened and the scope minimized, admitting the original plan was flawed. New plans are continually enacted to represent ever greater ambitions. This tension between the belief in the inviolability of the plan and

its infeasibility is paralleled in the paradox of mobility that I outlined in the introduction. Here, speed is the ambitious goal of transportation planning. Yet, as it is enacted, it is criticized for its negative impacts on safety (see chapter three) and on street life (see chapters four and five). Aside from these consequences of speed, speed in urban transportation is revealed to be an infeasible dream. For, as roads are widened, they only induce demand; wider roads make transportation faster, thereby encouraging people to drive more, leading to more congestion (chapter five). It is an endless cycle that planners recognize as such. Why, then, does the city continue to produce these grand, yet ultimately impossible, plans?

In its grand designs and targets, the plan functions less as a roadmap to increase urban mass transit and more as an indication of the desires and fantasies of its authors. I conclude this dissertation with an analysis of urban planning as a means for envisioning a utopian future. Specifically, I explore the transportation master plan as an instance of the infrastructural sublime. In Ho Chi Minh City, a plan is desperately needed that will address real infrastructural inadequacies, particularly in the face of a rapidly urbanizing metropolis. Rather than pragmatically fulfill this need, the plan works to provoke awe in the citizens in its grandeur. I argue here that the plan is most productively interpreted not as an indication of a possible infrastructural future for Ho Chi Minh City, but rather as a document of fantasy and desire of planners for a speedy, modern city which may never materialize.

The Sacred Plan

During my first interview with Günther, an international engineer working on the detailed design plans for Line 2, he exasperatedly told me several times that MAUR was

very concerned with following the feasibility study exactly. He explained to me that in the detailed design phase, they utilized the feasibility study, but that it was very common to need to change some of the original plan. In this particular case, he had just had a meeting to discuss the dimensions of the cars that would run on Line 2. The feasibility study had specified the size that the cars should be. “No company manufactures cars of that size!” Günther told me. However, MAUR was insistent that the cars must be this length and width because the feasibility study indicated so. He said even after his team convinces MAUR something needs to be changed from the previous study, they are reluctant to change it very much. Moreover, the changes must first be approved by MAUR, then by the HCMC Department of Transportation, and then by the HCMC People’s Committee. This needs to happen for every minuscule change, he told me. He was audibly frustrated by the client’s insistence on sticking to the regulations that had already been put in writing. Another international planner working on the design for one of the metro lines in Hanoi expressed similar frustrations with me. He described how the client “really wanted to stick to the feasibility study,” even when this was not possible. In one particular example, he told me that the location of a bridge needed to be changed, but it was difficult to convince the client of this because it was already in writing in the plan.

Employees of the city government also confirmed the city’s unwillingness to question the current plan. I interviewed several workers at Ho Chi Minh City Institute for Development Studies (HIDS) who work on transportation projects. HIDS was described to me as a government think tank. When I asked Liên about the mission of HIDS, she replied that HIDS’ purpose was to oversee the implementation of the plans for Ho Chi Minh City. She explained that the plan is set until 2020, and cannot be changed. Her job

is to make sure the plan is being followed. For example, if one of the city departments wants to carry out a project, she makes sure it follows the plan, she told me. When I asked why she was in a different department than the Department of Transportation, she said the government needed an independent entity to make sure the plan was being implemented correctly (though, note that HIDS is still a government agency). She talked about going to meetings with other departments and consulting with them on their plans, according to HIDS' understanding of the transport plan. Her institute also has a budget to carry out studies. She emphasized that they are studies geared toward the future a decade or more out, since the transport plan is already set until 2020. Her job ensuring that the current plan is followed and her work on research for subsequent plans after 2020 indicates that the government is not interested in incremental changes to the current plan, but on sticking to the current plan and making changes only to future plans.

Grand Plans

The 2007 transportation master plan for Ho Chi Minh City, as well as plans for particular projects, are unrealistic. One Vietnamese planner, Du The Huynh, trained in the United States, stated in his doctoral dissertation that “the transportation plan is perhaps the most unrealistic plan of all [the city’s plans]” (Huynh 2012). He points out that the plan would require 43 billion USD by 2020, yet only 2.1 billion USD had been invested in the first five years of the plan. The public transit usage goals set forth in various plans are similarly ambitious. The 1998 spatial plan set a target for 30% of modal split to be public transit by 2010 and 50% by 2020. At that time, the public transit modal split was only 2%. The goal has since been reduced, with a goal in 2011 setting targets at 15% by 2015 and 30% by 2020. In 2013, public transit usage was around 5%.

Interestingly, Huynh calculates that even if the proposed mass transit system were to be built, it would only provide 2.8 million daily trips, which would be only 9.2% of the modal split, far from the 30% goal. This means the other 20% of public transit trips would need to be fulfilled by the bus system, though there is not a plan to expand the bus system to this extent in this timeframe.

Huynh (2012) argues that the master plans are purposefully unrealistic in order to do three things: negotiate with the central government for greater autonomy; seek financing and technical assistance from international donors; encourage the private sector to participate in planning. “Basically, the municipal government has used its urban planning to mobilize resources for a few megaprojects, programs, and targets” (55) Huynh argues. While I agree that an overly-ambitious plan can achieve some of these pragmatic goals, my focus here is on what an unrealistic plan reveals about the desires and fantasies of its authors.

Studies for individual projects, in addition to the master plans described above, are also developed without regard to feasibility, particularly in the early stages. For example, the document produced from the East West BRT and Greenway Concept Workshop (see chapter five) reflects an almost utopian green future for Ho Chi Minh City. The design of the BRT stations are one way this utopian green future is indicated in the concept. “The BRT stations are iconic and pedagogic with regard to renewable energy sourcing and bioclimatology. They are beacons that illuminate the night like giant lanterns designating access to the green valley” (World Bank et al. 2011:20). The design of the stations are meant to evoke water palm trees. They are constructed of steel and bamboo supports which provide a grid on which plants are vertically grown. This

vegetation provides shade and shelter to passengers while also being “iconic” and “becoming identity landmarks of the Boulevard.” They are to be lit at night by solar and wind generating technology to become “lighted landmark[s] of the Boulevard.” Hand-drawn renderings show street scenes of these latticed, green stations complete with windmills directly behind them. Particularly at this early stage of planning, planners told me that feasibility was not the focus. At this stage, planners, city officials, and the public should dream big.

The Paradox of Mobility, the Plan, and the Infrastructural Sublime

The plan, in its ambitions, is an instance of the sublime. For Immanuel Kant (1952), the sublime is an individual or collective response to a phenomena that is outside of the realm of possibility. In the mind’s attempt to comprehend the representation of the seemingly impossible, it invokes awe in the mind of the viewer. Brian Larkin (2008) argued that colonial powers have instituted technological and infrastructural projects in order to inspire awe and terror in colonial subjects. He points out that the sublime is only effective if it can be compared to something else. In the case of the colonial power, the infrastructure was overwhelming to the colonial subject in comparison to tradition. In the case of Vietnam, and the ambitious plan, the sublime is in comparison to what has come before - an inadequate, crumbling infrastructure that is feared to be insufficient for a desired future for Ho Chi Minh City. In contrast, the plan envisions a future where the city is fully equipped with the infrastructures of the most modern cities of Asia, those of Singapore, Tokyo, and Shanghai. In these plans, Ho Chi Minh City has an entire metro system, BRT lines, and light rail. These plans indicate a drastic modal shift from motorbike to public transit, bringing it more in line with the modal splits of these cities.

More specifically, the plan, as an indication of the paradox of mobility, is an instance of the infrastructural sublime. For in the paradox of mobility, as I laid out in the introduction, there is a desire for speed, but that speed cannot possibly materialize. Similarly, with the plan, there is a desire for speed, as well as modernity, but these plans are too grand to be implemented.

Moving Ho Chi Minh City

Speed provokes disjunctive feelings in Vietnam. It further reveals the paradoxes of infrastructure and modern urban life: when transportation infrastructure is best fulfilling its ostensible purpose - providing rapid circulation of people and goods - it is most likely to be criticized for its impacts on safety, the street life, and the environment. Why are these disjunctive feelings important for understanding the future of infrastructure in rapidly urbanizing cities of Southeast Asia? They indicate a further paradox of infrastructure. When infrastructures are at their most efficient, they are creating the conditions that are threatening to kill us. That is, infrastructure has enabled our current consumption and travel habits that are causing what some have called the Anthropocene, the unprecedented human impact on the earth's environment. Yet, infrastructures both mitigate and magnify precarity in the Anthropocene. They have eased the challenges inherent in rapid urbanization, allowing for water, electricity, and safe disposal of sewage. Yet, they also encourage over-consumption, pollution, and depletion of natural resources. And, it seems our best solutions are again infrastructural: mass public transit and wind energy, as a couple of examples. Though infrastructures are the means to achieve rapid movement, their size and materiality make them slow to adapt to new needs. Therefore, today's transportation infrastructures may well be ruins in just a

few decades. Ho Chi Minh City, with its rapid urbanization and economic growth and billions being invested in new infrastructures, becomes an important site to analyze the logics behind infrastructure. Currently, those logics are contradictory. Infrastructures produce speed. Speed produces freedom and risk. And, our only way to mitigate against the risks produced by infrastructure is to build ever newer infrastructures.

The title of this dissertation, “Moving Ho Chi Minh City,” utilizes “moving” in several senses of the word. For one, planners are tasked with the goal of increasing mobility in the city. In this sense, planners aim to physically move people, goods, and vehicles from point A to point B. In the second sense, as I have argued in terms of the sublime, planners and their clients seek to emotionally move residents. Not only do planners recognize that different modes of transport invoke different feelings in commuters (see chapter three), but the plan invokes feelings of pride and awe in residents. In the plan, there is hope for the future. Lastly, transportation can move a city toward a desired trajectory towards modernity. The case of Ho Chi Minh City reveals that it cannot emulate the developmental trajectory of the automobile-dominated cities of the Global North, nor is it looking to. While cities in the Global North are now recognizing the limits of building infrastructures to favor automobiles and attempting to lessen this dominance, cities like Ho Chi Minh City are looking to avoid this path, looking to a more sustainable future. This suggests that Ho Chi Minh City is looking to other Asian cities, as opposed to the West, for an alternative road to modernity.

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