

Finding ways to move through Accra's traffic

A study about urban transportation planning in one
of Africa's most growing cities

Master thesis in Geographies of Sustainable Development

University of Bergen
January 2022

Written by Lukas Siegfried Hoose

Supervisor: Ragnhild Overå



Abstract

This master thesis dives deep into the historical, current, and future urban planning of Ghana's capital, Accra with the main focus on urban transportation. For decades Accra's traffic has been a huge problem for the city's development. This study aims to present a detailed overview over the historical developments that led to today's situation and to analyze current planning framework for future urban transportation in regard to their feasibility. The theoretical basis of the studies are theories of feminist geographies wherefore the study follows a bottom-up approach. The research process was heavily impeded by the outbreak of the global pandemic which prohibited a long fieldwork at place. For that reason, the study is based on secondary data and primary data collected in a short fieldwork towards the end of the research process.

The research aims to identify local perspectives and knowledges about urban mobilities to then analyze how those are include in current planning frameworks. The study finds that current planning for urban transportation does not contains all of the identified important perspectives on urban mobilities. To solve Accra's traffic problematic a holistic approach is needed that includes improved land-use planning, the equal distribution of road space to all transport modes and the implementation of integral mass transit system that includes the existing public transport providers.

Acknowledgements

First of all, I would like to thank Ragnhild Overå who guided me through the process of writing this master thesis. She has supported me with her feedback and guidance and has inspired me with her passion for qualitative research and the country of Ghana. She has brought me into touch with many interesting conversation partners and encouraged me to travel to Ghana for fieldwork when it became possible. Thank you!

I want to specially thank the Urban Enclaving Futures project for financial support and especially for the inspiration for urban geographical research in the African context.

Then I want to thank Maïlys Rouillé. In the last couple of months, she has constantly supported and encouraged me. Her feedback has helped me immensely in the writing process. Furthermore, has she been a constant source of positive energy, new motivation, and encouragement. Thank you, I could not have finished this thesis without you.

I want to thank my friends Bia Sjøvoll, Karin Gunnestad, Flo Wingens and Janik Marschall who carried me through the last year and were a source of constant moral support, new motivation, and encouragement. Thank you, I am very grateful for having you as friends in my life!

Lastly, I would like to thank my parents who made it possible for me to follow my passion for Geography in the first place and who worked very hard all their life to give me the best conditions for a good life.

Table of figures

Figure 1: A typical trotro, a mini van that offers space for up to 20 passengers. Source: Fieldwork 28.09.2021	41
Figure 2: Trotro with German ambulance sticker, a relic of the vehicle's former life before it became a trotro. Source: Fieldwork 21.09.2021	42
Figure 3: The information for the Aayalolo bus at one of the bus stops. Source: Fieldwork 22.09.2021	51
Figure 4: One of the Aayalolo busses at the main bus terminal. Source: Fieldwork 22.09.2021	51
Figure 5: Wastewater channels that can be found on most roads in Accra. Source: Fieldwork 18.09.2021	60
Figure 6: Decreasing quality of the road from center towards the side. Source: Fieldwork 27.09.2021	60

List of abbreviations

BRT	Bus Rapid Transit
CBD	Central Business District
CES	City Express Service
GAMA	Greater Accra Metropole Area
GPRTU	Ghana Private Road Transport Union
MMT	Metro Mass Transit Limited
OSA	Omnibus Transit Authority
PAR	Participatory Action Research
PROTOA	Progressive Transport Owners' Association
SAP	Structural Adjustment Program
SDG	Sustainable Development Goals
SSATP	Africa Transport Policy Program
TNC	Transport Network Companies
UN	United Nations
UNEP	United Nations Environment Program
WHO	World Health Organization

Table of content

<i>Abstract</i>	<i>ii</i>
<i>Acknowledgements</i>	<i>iii</i>
<i>Table of figures</i>	<i>iv</i>
<i>List of abbreviations</i>	<i>v</i>
1. Introduction	1
1.1. What is this thesis about?	1
1.2. Area of research	2
1.3. Purpose of research and research questions	4
1.4. Brief description of research attempt (inc. difficulties of covid pandemic)	6
1.5. Personal motivation for the research	7
1.6. Sketch of the structure	7
2. Theory Chapter	9
2.1. Theoretical perspectives on (urban) mobility	9
2.1.1. Mobility.....	9
2.1.2. Urban mobility.....	11
2.2. Theories of feminist geographies	12
2.2.1. Gender.....	12
2.2.2. Feminist geographies.....	13
2.2.3. Gender and mobility.....	16
2.3. Theories of urban planning	17
2.3.1. New Urbanism.....	18
2.3.2. The communicative model.....	18
2.3.3. Just city approach.....	19
2.3.4. Urban planning in the Global south.....	20
2.4. Concluding thoughts	23
3. Method Chapter	24
3.1. Research Design	24
3.2. Methods used	25
3.2.1. Secondary data collection and analysis.....	26
3.2.2. Fieldwork.....	27
3.3. Strengths and weaknesses of data	31
3.3.1. Positionality.....	31
3.3.2. Quantity of informants.....	33
3.4. Summary	33

4. Empirical Chapter	35
4.1. First sub-question: How has transportation in Accra been planned historically and how is transportation currently planned for the future?	35
4.1.1. Historical urban planning in Accra	35
4.1.1.1. The colonial era (early 1900 until independence in 1957).....	35
4.1.1.2. Independence and the following years (1957-1970s)	37
4.1.1.3. The era of national liberalization policies (1980s-90s).....	39
4.1.2. The 2000s – trotros dominating public transportation	41
4.1.2.1.	41
4.1.2.2. Trotros and their way of operation.....	41
4.1.2.3. A new player on the field – Transport Network Companies.....	48
4.1.2.4. Summary - today’s situation	49
4.1.3. A BRT system to solve Accra’s urban transportation problematic? – existing plans for future transportation systems	49
4.1.4. Summary first sub-question	58
4.2. Second sub-question: What are the everyday experiences with being mobile in Accra?	59
5. Discussion Chapter.....	64
5.1. What are the local experiences with, solutions for, and knowledge about urban mobilities?	64
5.2. How are the local experiences with, solutions for, and knowledge about urban mobilities included in future planning for urban transportation?	66
6. Concluding thoughts	69
References.....	70

1. Introduction

1.1. What is this thesis about?

This master thesis at hand deals with the urban development of the capital of Ghana, Accra. It dives deep into the historical, current, and future urban planning with the main focus urban transportation. For decades Accra's traffic has been a huge problem for the city's development. Long traffic jams in rush hours, road accidents and poor travel conditions for everyone that moves within Accra is a well-known issue in Ghana and a conversation topic for Accra's inhabitants – like rain and bad weather are a common conversation topic in Bergen.

The study has its foundation in theories of feminist geographies and follows therefore a bottom-up approach and seeks to present a detailed overview over the historical, spatial and cultural context of Accra to find explanations for the urban transportation situation in Accra we can find today. From this perspective the goal is then to analysis current urban planning frameworks in regard to their feasibility. The main goal of the study is to identify local perspectives, knowledge and solutions on urban mobilities and to analyze if those are included in future transportation planning.

The research process was impeded by the outbreak of the corona virus which prohibited for a long time a fieldwork at place in Accra. That is why the study heavily relies on secondary data like official planning documents. However, in the final stages of the research a short fieldwork was possible.

1.2. Area of research

This research is situated in the context of urban development and urban planning studies in the global South with a focus on urban transportation. In recent decades especially cities in the global South experienced rapid growth. More and more people all over the world move to cities. By 2050, two third of all humanity will live in urban areas, this accumulates for around 6,5 billion people (UNDP, 2019). This makes urban spaces to main arenas of future societal developments. Cities are the spaces where the global challenges of climate change and increasing gaps between rich and poor (to name a few) must be met.

The UN has recognized the importance of cities and has dedicated one of the Sustainable Development Goals (SDGs) especially to urban areas. SDG 11 is called “Make cities and human settlements inclusive, safe, resilient and sustainable” (UNDP, 2019). Under this development goal the UN is committed to different targets to ensure urban development that contributes to an overall global sustainable development.

One of the targets focuses on transportation and the way people move in cities. Target 11.2. says “By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons” (UNDP, 2019). Urban transportation is a key factor in the search for sustainable urban development. The way people move within urban areas touches all facets of urban life. It has implications on air quality and with it on the health of urban residents. Access for everyone to urban transportation in form of affordable transport modes produces opportunities for the people, for example in the labor market. And an efficient, functioning, and reliable transport system contributes to a good urban economy. What is important to notice is that urban mobility tends to get worse the richer the urban society gets. More people are able to buy cars which increases the number of vehicles. This challenges the existing road space and puts increased pressure on the traffic.

In the post-colonial era in most developing countries general political orientations and developmental projects where from neoliberal nature, (Mahendra and Beard, 2018) which means rather market-driven than state-led. This fact has had critical implications for the urban development of cities in developing countries and has contribute to the so challenging rapid urbanization where cities have almost unregulated spread and grown. But especially in terms of traffic state-led initiatives and interventions are necessary to regulate the worsen traffic and improve urban mobility in the cities.

Accra, the capital of Ghana is one of the most growing cities in sub-Saharan Africa with now about 2,5 Mio. Residents (World Population Review, 2022). The rapid growth especially in the late 20th century without much governmental regulation has led to a status quo where many basic infrastructural services cannot be provided to all residents. In terms of urban transportation Accra has major traffic problems due to increasing vehicle numbers, bad road conditions, inefficient land use planning and a lack of a mass transit system (to name a few). Those traffic problems are characterized by endless traffic jams, increased travel times and uncomfortable and unsafe travel conditions. The national government in cooperation with international development actors has tried for years to improve the traffic situation with development initiatives that to date cannot report general success. Mainly the initiatives were based on the believe that improving and extending road infrastructures would take pressure from the existing road space and improve the traffic. In addition, the government aims for the introduction of a state-regulated mass transit system as we can find it in cities of the Global North. Very low focus in transport policies has been set on non-motorized forms of transport namely walking and biking which results in very unsafe and uncomfortable conditions for pedestrians and cyclists.

The void of a state-led public transport service was filled by a system of privately owned mini-vans and busses that offer public transport on very affordable rates. The so called trotros operate intra- but also inter-city connections in Ghana and can be found all over the streets of Accra. Because the system is organized and regulated by transport unions and not the state it is often described as informal but it is important to mention that the system operates to some degree in cooperation with the government.

The way people move in Accra is by walking, trotros, taxis, private cars and very few state-owned busses. Moreover, in recent years, transport network companies (TNC) like uber and bolt joined the transport market in Accra.

1.3. Purpose of research and research questions

This research has the purpose to go into that arena between the status quo and the official plans that exist to improve the status quo in regard of urban transportation in Accra. There is a history in post-colonial cities where urban planning practices were taken from Western cities as orientation in the hope those cities would develop the same. Ideas of the European and North American urban have dominated the perspectives on sustainable urban development for years and thus influenced the design of development initiatives in cities of the Global South. Within the field of feminist geographies this image of development does not hold and especially in the concept of situated knowledge (Haraway, 1988) it is theorized that context matters. The spatial, historical, and cultural context of each area is important and should be acknowledged in research as in development initiatives. That is why for this research one aim is to give an detailed overview over the historical and culture background of urban planning in Accra and how it led to the situation today in regard of traffic. This results in the first research question: How has transport in Accra been planned historically? Moreover, I want to take a deeper look at the official plans of the government which were used in the recent years to improve traffic and the transportation situation in Accra which leads to the research question: How is transportation currently planned for the future in Accra?

In a second step this study aims to look at the everyday experiences with being mobile in Accra. Here the goal is to gain a more profound understanding about what it means to be mobile in Accra and what is needed to improve urban mobility. So, the second part of the study is formulated in the research question: What are the everyday experiences with being mobile in Accra?

Lastly, this study wants to bring the first two stages together and analyse if and how those local perspectives on urban mobility are included in the future plans for urban transportation. Basically, this part is about to find out if the different types of contexts are acknowledged in future urban planning in regard of transportation to ensure that future solutions and policies fit to the needs of the urban residents in Accra. This includes the analysis in which ways the existing local and private public transport providers (the trotro sector) are included in those plans. Summarized is this in the research question: How are the local experiences, solutions and knowledge about urban mobilities included in the plans for future urban transportation systems?

To have a summarizing overview following the three research questions in one take:

1. How has transportation in Accra been planned historically and how is transportation currently planned for the future?
2. What are the everyday experiences with being mobile in Accra?
3. How are the local experiences, solutions, and knowledge about urban mobilities included in the plans for future urban transportation systems?

All in all, this study hopes on the basis of the answers to those questions to gain an understanding of how future urban transportation that contributes to a sustainable urban development in Accra could look like.

1.4. Brief description of research attempt (inc. difficulties of covid pandemic)

This study aims to follow a bottom-up approach with the goal to gain a deep understanding of the different social and structural contexts of the area in which the research takes place before diving in the analysis. This is to follow the methodological principals of feminist geographies and the concept of situated knowledge. Practically, this is reason for the first part of the research questions, and it means to give room for local perspectives and experiences. The goal is to find out how answers to Accra's traffic situation could look like from a local perspective.

The ongoing Covid-19 pandemic challenged this research attempt. Due to travel restrictions a field work at place was questionable for a long time. In the end it was possible to travel for a short time in the last months of the research process. In the meantime, the empirical basis for the research are local case studies and official planning documents. Supported by two weeks of participating observation in Accra in addition to some conversations at place with local experts and residents in Accra.

This research was planned and initiated before the outbreak of the global pandemic and in beforehand the desire was to give much more room for local voices in form of a longer and more intense fieldwork including more interviews and other forms of primary data collection to minimize the influence of my own positionality as a white male from Europe. Unfortunately, this was not possible. However, as part of the method chapter a detailed reflection about my positionality and its influence on the study is given.

Moreover, initially it was planned to have a special focus on gender differences in urban mobility and how this knowledge about gender specific mobilities is included in future urban planning for sustainable urban transportation in Accra, as gender is an important factor in urban mobility. But again, due to the insecurity around the pandemic and whether fieldwork would be possible throughout the whole research process this specific part of the research could not be followed and a more general analysis approach had to be chosen. In the end two weeks of fieldwork at place were insufficient for such a complex topic. Even though, it will not be central in the analysis I will try to make some remarks on this topic based on secondary data.

All in all, this study stands on the analysis of secondary data like local case studies and official planning documents supported by observations and conversations with local experts and people at place in Accra.

1.5. Personal motivation for the research

“In terms of transport an advanced city is not a city, where even the poor use cars, but rather one where the rich use public transport “, Enrique Penalosa (former Mayor of Bogota, Colombia)

This opening statement of the former Mayor of Colombia’s Capital Bogota in his TED-talk in 2013 has been source for continuously inspiration ever since I have heard it. In my bachelors thesis I wrote about the implementation of Bogota’s Transmilenio BRT-system and the whole idea of a more equal city that stood behind it. Enrique Penalosa is the mayor that is known as the architect behind Transmilenion and the shift of transport policies in Colombien cities towards collective forms of urban mobility. I find his idea of an advanced city where the state of modernity and advance is not equal to increased individual car transport but rather equal to collective modes of transport which include public transport but also non-motorized forms like walking and biking fascinating. Ever since working on my Bachelor thesis about the Transmilenio initiative I am highly interested in the topic of urban mobilities and transportation systems in cities in the developmental context. How can we achieve more just and equal urban development in cities of the Global South in order to ensure a general sustainable development in a more and more urbanized world?

After spending time in Arusha, Tanzania between Bachelor and Master studies I have been especially interested in the urban mobilities of African cities, which often do not have forms of state-owned public transport I am used to from European cities. I want to learn more about how people move in African cities and how urban residents in many African cities have found solutions to the failings of governments to deliver functioning public transport services in the aftermath of colonialization and in the face of rapid urbanization. Since the Geographical Department at the University of Bergen has already an African focus on Ghana, the research area was quickly set to Accra, one of the most growing cities in West Africa.

1.6. Sketch of the structure

The thesis follows a stringent order. In the next chapter I will present an overview over the theoretical concepts that build the base for the study and have inspired the research design. In the following chapter I will describe in more detail the research design and the concrete methods used. The chapter will finish with a reflection on how my positionality might have influenced the research. The fourth chapter serves as empirical chapter and will present the main findings of the data collection. Hereby, will the first two research questions be answered. The following

discussion chapter will discuss the finding and try to answer the third research question. The concluding section will summarize the main findings and analysis's of this study. So, the thesis will continue with the theory chapter on the next page.

2. Theory Chapter

In the following chapter I will present a detailed overview over the theoretical concepts that are underlying this study. The first part will present the theoretical understanding of urban mobility that inspired the study. In the second subsection I will focus on theories on gender and feminist geographies. The third subsection aims to give an overview on the theoretical concepts on urban planning and urban planning in the context of the Global South.

The chapter was written with the originally research design thus with a focus on analyzing gender differences in the urban mobilities in Accra. That is why there are additional paragraphs about theories about gender and gender and mobility. I left them in the thesis, because I think they are very relevant and were an inspiration for the study.

2.1. Theoretical perspectives on (urban) mobility

Being mobile is one of the basic activities humans engage in and always have engaged in. By commuting to work or university, going on holidays, migrating to another country or by just going for a walk to get some fresh air during home office and lock-down times, people engage in diverse forms of mobility. Because there are so many different ways in how people practice mobility it becomes quickly clear that mobility is a broad and unspecific phenomenon, Mobility in itself stands for variability and fluidity and this makes it an elusive object to study (Cresswell, 2006). And yet mobility is central for all kinds of human geographical research because it is one of the fundamental aspects of the world, we live in. Due to the broadness of the term, it is then important to present the theoretical understanding of mobility that will be used as analytical tool in this study.

2.1.1. Mobility

This study is oriented along Cresswell's (2006) three-part perspective on mobility (p.3 ff). Firstly, it can be stated that in a very general and simple sense mobility is the act of moving from point A to point B. This movement between locations can happen on a broad variety of spatial scales, for example between continents, countries or within a city between certain districts. Here mobility is a 'brute fact' (p.3) and becomes a phenomenon that it is physically observable, and which can be examined empirically, for example by counting how many people migrated from country X to Y.

Secondly, Cresswell elaborates on the perspective that there are certain ideas and meanings attached to mobility. This means that the movement between locations can go further

and involve more than just the physical displacement but rather can stand for values like for example freedom, modernity, creativity or progress. These values are culturally (re)-produced through various forms of representation in for example media (film, literature) and philosophy. Here we could take for instance the cultural meanings that are attached to owning and traveling with a private car in Ghana. According to Hart (2016) owning and travelling by a privately owned car symbolizes progress and modernity and is therefore desirable.

Thirdly, Cresswell describes mobility as an 'irreducibly embodied experience' (p.4). Quite practically he hereby means that people might experience hurting feet after walking all day in the city. Those daily experiences with being mobile are especially important when analyzing gender differences in mobility studies. For example, all over the world women make different experiences in the urban space when it comes to safety and security issues. This can include thinking about taking precautions for cases of sexual harassment, assaults, etc. Those are experiences men are not sharing.

On the other hand, this notion of embodied experience also touches the fact that the way people move can also be a way of expressing their mood and themselves. These individual experiences and expressions of mobility are then connected to the different cultural and social meanings and values attached to mobility.

Finally, Cresswell argues that it is critical in understanding the phenomenon mobility to bring together all three, the analysis of the empirically measurable movements between locations, the embodied experiences of being mobile and also the analysis of those value and meaning loaded constructions that are attached to mobilities. Salazar (2020) puts it differently by saying that mobility studies should go beyond identifying different forms of human movement and focus as well on those '(re)productions of socially shared meanings through diverse practices of mobility' (p. 2).

Concluding from the paragraphs above it can be said that there is not one kind of mobility, but rather that the meaning of mobility is (re-)produced through the spatial, cultural and historical context it is practiced and experienced in. The meaning depends on the people and their relations to the place(s) they move in as well as the reasons or the purpose for being mobile (Salazar, 2018). Therefore, it is critical to acknowledge the importance of understanding the context the study takes place.

2.1.2. Urban mobility

Urban spaces and mobility are strongly connected. While rural areas are generally seen as the stable and slowly changing spaces, urban agglomerations are often characterized as quickly changing, lively and interconnected networks (Cresswell, 2006). The everyday life in cities is fundamentally built on people moving by car, different types of collective transport strategies, bicycle or by foot through the urban space. This became extremely visible in the first half of the year 2020 when the usual movements in cities came to a stop because of lockdowns and other political measures to contain a further spreading of the Covid-19 virus. Pictures of empty urban centers and streets went around the world and became a symbol for the severe impacts of the global pandemic. Seeing those usually crowded places empty and quiet made clear that something is different and also in a way wrong.

Being an urban citizen means to be mobile in one way or another. Jensen (2009) describes urban mobility practices as a part of the 'daily identity construction of mobile urbanites' (p. 152). Furthermore, he states that urban mobility as an important everyday life practice is part in the production of meaning and culture. Here a connection to the second part of Cresswell's understanding of mobility (see above) can be drawn. In a vice versa way the everyday urban mobility practices are (re)producing the meanings and values attached to the city as space and to being an urbanite. And the other way around being urbanite is strongly connected to being mobile and taking part in those daily (re)productions of the city by moving through the city.

This perspective on urban mobility also underlines the importance of aspects of social inequalities in the urban space. Talking about urban mobility has to include immobilities and the fact that some people might have constraints to mobility. These can for example be of physical or economic nature. Some people cannot afford a private car and are dependent on public transportation or others are physically not able or limited in walking or cycling, to name a few of those constraints. Taking from above that means that people with limitations to being mobile also have limitations in taking part in the (re-)productions of meaning and culture within a city, besides the obvious economic disadvantages that are connected to immobilities. And this is also why it is so important to include those social aspects in the planning processes for new forms of sustainable urban transportation. The necessary transformations towards sustainable urban transportation systems have to go beyond environmental efficiency and 'also consider the ways in which people deal with such transformations, the impact on their daily lives, and

the fact that any intervention may exacerbate existing unevenness of mobility' (Jiron and Carrasco, 2020 p 2).

To connect the theoretical understanding of mobility and urban mobility with this research it became clear to acknowledge the importance of the spatial, cultural and historic context in which the study takes place. That is why the first part of the study will be about presenting detailed overview over the transport situation in Accra today, including a perspective on the historical developments that led to the status quo. Furthermore, I want to gain a deeper understanding of those meanings and values attached to being mobile in Accra, by learning through participant observations and interviews about the local experiences with mobilities. And the aim is then to hopefully analyze how those local perspectives are included in the planning processes in Accra for sustainable transportation systems.

2.2. Theories of feminist geographies

The original focus of this study was the analysis of gendered differences in the daily experiences of the people in Accra with being mobile. Therefore, it is important to include theoretical concepts on gender and feminist geographies in this chapter as well. I will start this section with an overview of some basic concepts on gender and feminist geographies. This section will conclude with presenting concepts which connect mobility and gender. Theories of feminist geographies are the foundation for the thesis, even though a focus on gendered differences in urban mobilities could not be followed due to the travel difficulties in the global pandemic and the short fieldwork.

2.2.1. Gender

To start this section, I will show which theoretical understanding of gender is the basis for this study. The World Health Organization's (WHO) definition states that 'Gender refers to the characteristics of women, men, girls and boys that are socially constructed. This includes norms, behaviors and roles associated with being a woman, man, girl or boy, as well as relationships with each other. As a social construct, gender varies from society to society and can change over time' (WHO, 2021).

First, we can quickly conclude that gender goes beyond the biological determination of sex. West and Zimmerman (1987) argue that it is important to distinguish between 'sex', 'sex-category' and 'gender'. From a pure biological perspective one's sex can be determined by criteria like genitalia at birth or the chromosomal typing before birth. Based on this, people are,

generally speaking, differentiated in different 'sex categories'. Those categories are (re)-produced in everyday life. For example, in media, film, literature and advertisement those categories are established and sustained by (re)-producing different images of male and female. It is important to note that it is possible that one's biological 'sex' can be very different from one's 'sex category'. This means that people can claim and display membership in one or another category despite lacking the biological criteria. Gender then goes beyond 'sex' and 'sex category' and is the social managing and reproduction of those images, expectations, behaviors, and norms which are projected on the different categories. The difference between 'sex category' and 'gender' is that 'sex category' is more related to the individual level, while 'gender' describes the (re)production of the different projections of each category in society. Like in the definition of the WHO above West and Zimmerman (1987) argue that gender is not a set of different roles or categories but rather that through human activities the meaning of gender is (re)-produced.

Cresswell (2013) puts it differently by stating that gender is what society makes of the biological category 'sex', meaningly the social construction of differences between what is called 'feminine' and 'masculine'. As this social construction gender becomes meaning because it structures everyday life, creates behavioral expectations and most importantly establishes different live experiences for the members of the different 'sex categories' (Hanson, 2010, West and Zimmerman, 1987, Cresswell, 2013). Those meanings of gender can change over time and can vary in different contexts.

The social construction of gender is deeply hierarchical and the socially constructed differences between the 'sex categories' are resulting in inequalities in many contexts. This can for example be seen in some contexts as patriarchy or the systematic exploitation and domination of women and children through gender relations. Here it is, where all feminist theories have their starting point. Namely on understanding the nature and origin of those gender differences and inequalities.

2.2.2. Feminist geographies

In the following I will give an overview on the theoretical concepts within feminist geographies or the epistemological basis for feminist geographical perspectives that I will apply in this study. Here it is best to start with introducing the main characteristics of feminist epistemologies. Megan Cope (2002) identifies 2 main aspects in feminist epistemologies. First, it is important to think about how gender influences what really counts as knowledge, how this knowledge is legitimized and how this knowledge is reproduced and represented. And

secondly, it is critical to focus on how the knowledge production in research is influenced by the socially constructed gender roles, norms and relations. Those two main aspects are built on the premise that gender relations in most cases are built on patriarchy and power hierarchies, privileges and oppression in some sort. Therefore, it is to expect that in research people have a different role in constructing and (re)-producing knowledge due to whether they are the ones oppressed or are those privileged or in power. Research based on feminist epistemologies is trying to decode those underlying structures and constructions and sees gender as the central aspect for understanding the process of knowledge production (Cope, 2002). In the center stands the aim to understand how power relations based on gender (or other social categories like race, ethnicity, sexuality, religion etc.) are influencing knowledge production in a certain context. Important is here to acknowledge that feminist research is not restricted to gender as the only important social category but includes other categories as well. This is because feminist geographers and researchers came to the point to acknowledge that a generalization of all women is inappropriate, and that rather one has to include multiple identities of every person. This is acknowledged in the theoretical concept of 'intersectionality' (Valentine, 2007), where the relationship between those different social categories or identities is theorized. 'Intersectionality' aims to understand how gender but also race, class, etc. influences women's identities, experiences, and struggles for empowerment (Davis, 2008). Important is to mention here that the concept of intersectionality has its origin in concerns about the marginalization of women of color or poor women within westernized feminist theories (ibd.). Hereby the concept of intersectionality underlines the complexity of individual identity and is meant as an answer for simple generalizations. Women of color make different experiences in everyday life than white women, and women of color with Islamic faith make other experiences than women with color with Christian faith and so forth. Any feminist research therefore has to take intersectionality into account. Moreover, it is critical to acknowledge the importance of the spatial and culture context of the study. This is because the socially constructed images of gender as well as the other social categories vary in different spatial and cultural contexts.

This brings us to another important theoretical concept of feminist geographies. The concept of situated knowledge (Haraway, 1988) argues for knowledge production that rather focuses on situatedness and contextuality of truth in its context than an aim for an overall general 'truth'. There is no one 'truth' hidden just waiting to be discovered. Haraway (1988) rather has the position that all knowledge is marked by the context in which it is produced, and this means also that the aim of research should be to understand knowledge in its context to inform policies that actually fit to this specific context. Partiality is favored over universality to

make rational knowledge claims. So, in other words the aim with this theoretical concept is not to find research results that can be applied to any other spatial context. In development plans and policies in the last decades exactly this perspective on situated knowledge and the importance of context was missing. Development strategies and programs which worked in one place were just adopted to other places with the expectation for similar results. In the critique of this way of thinking lays one base for feminist geographies and the concept of situated knowledge.

This concept is an important theoretical basis for this study and has inspired the research design. The goal is to gain a deeper understanding of the spatial, cultural and historical context of Accra in regard to its transportation situation, with a focus on local experiences and perspectives. Valentine (2007) also underlines that the research focus on lived experiences is an important tool to understand how a spatial context is influenced by its power relations and social and cultural constructions, which then increases the effect and meaning of the produced knowledge and the implication it can have on policies. In the case of this study the goal is to achieve an understanding of the specific transportation needs and gender differences in Accra to then analyze if this local and situated knowledge is included in the plans and policies for the transportation sector of Accra.

Another focus of feminist theory and especially in the concept of situated knowledge is the acknowledgement that the researcher themselves and their positionality is an important part of the knowledge production (Mullings, 1999). The assumption the researcher can be a completely objective actor that is just collecting and presenting the gained knowledge of a study is neglected. Furthermore, it is argued that the research is always affected by the intersectional identity of the researcher. This means that the whole process of a study, beginning with setting research questions and design is influenced by the researcher's values, cultural imprints and own experiences. This of course also impacts how results are analyzed and presented. To acknowledge the own positionality, it is important for the researcher to reflect and be self-critical on the personal influence on the knowledge production throughout the whole research process and this will be done in the methodology chapter of this thesis. This ensures accountability and increases validity (Moss, 2002). In this important aspect of feminist theories and part of feminist research lays a commitment to the notion that all knowledge is in a way situated in place and context but has also be reflected in regard to the person(s) that lead and structure the knowledge production. The researcher is not just a spectator but also part of the

research objective. This underlines again the aversion against the idea that there is 'one truth' to be found on the field (Haraway, 1988).

2.2.3. Gender and mobility

In the following section I will try to connect theoretical ideas about mobility with those of gender. Gender is an important social factor that impacts mobility patterns. Daily mobilities can be a different experience for women and men. For example, because of the safety factor women could feel unsafe to take certain modes of transportation or in certain cultural spaces it is prohibited for women to drive cars. In these two examples it becomes clear that gender is a factor that influences equal access to mobility and with it also access to equal opportunities (for example for jobs) in the urban space (Hanson, 2010, Cresswell, 2013). Cultural images, especially in the western societies have produced images of femininity that are strongly connected to the home and restricted movement. The image of women as caretakers of the household and the family are still widespread. Masculinity is often associated with expansive mobility, public spaces and the urban. Men are projected to be the workers that leave early in the morning and come home late and commuting to work (Hanson, 2010). And there are already several studies about different mobility behaviors between genders, which indicate that those constructed images are also empirically represented. Those studies show that women overall have lower levels of mobility, means they commute shorter ways from home to work or other places of activity and are using less private motorization, by rather taking public transportation or walk. Although those differences are decreasing today (Miralles-Guasch et al., 2016). As elaborated above it is of course important to treat those generalizations carefully, since the cultural and spatial context in which a study is conducted matters, for example in Ghana female food traders travel extensively between rural areas and the markets in urban areas. But it indicates to some important aspects in connecting mobility and gender. Namely, the straightforward fact that mobility is empowering and can be a tool to break gender inequalities (Hanson 2010). Simply said more and easier access to mobility equals more and easier access to job and income opportunities. In addition, it increases the freedom to go to places a person wants or needs to go.

But Hanson (2010) also points out that it is important to gain more knowledge whether observed mobility patterns in a particular context are result of choice or cultural/social constraints. This means that not everywhere where women have lower mobility activities than men it equals inequalities or constraints. It can also be a result of choice. This of course can often be difficult to differentiate, therefore it is so important to treat generalizations carefully.

Instead, the researcher has to look for the local meanings behind the observed mobility patterns. Miralles-Guasch et al. (2016, p. 411) highlight this by saying that there is a strong need to 'understand the social, cultural and economic factors that produce mobility at a given place' before recommending policies and plans.

Hanson (2010) theoretical questions 'How does gender shape mobility?' and reverse 'How does mobility shape gender?' inspired my ideas about gender and mobility. With the research design I want to acknowledge those theoretical concepts about feminist geographies which are all based on the notion that knowledge is produced locally and inseparably connected to its social and cultural context. Therefore, the study wants to focus on the local experiences and perspectives (as has been within the constraints of the ongoing pandemic) to achieve an understanding of the context before making analytical statements.

2.3. Theories of urban planning

The last section of the theory chapter will elaborate on theoretical concepts on urban planning. Central part of this study is to give an analytical overview of the plans for future urban transportation in Accra and to examine how local and especially feminist knowledges are included. Therefore, it is necessary at this stage of the thesis to talk about general theoretical thoughts on urban planning.

The different theoretical streams in urban planning are influenced by the different focus scholars set in talking about future urban development. Some focus on effectivity and efficiency of urban systems, some on the environmental aspects of sustainability and other have their focus on social aspects like equity and justice. What all directions in urban planning have in common is the goal to create better urban live in some way. The differences come from the diverse projections how this better live should look like.

As mentioned before coming from a feminist perspective/epistemology mainstream urban theory can be seen critically, because there is an overarching tendency to generalize in finding universal theories about urban development and sustainable urban planning. In this process the importance of the spatial and cultural contexts of the different urban areas on our planet are neglected and underestimated. The colonial and post-colonial times played a big role in urban development and planning in the last century and had critical impact on the cities of the Global South. Therefore, it is so important to keep in mind the different pre-conditions of especially cities in the European and North American Context and those in the Global South when talking about general theories in urban development and planning.

In achieving the goal of better life many planning strategies follow neoliberal concepts, which have shown to have only limited success in regard of sustainable development. That is why many critiques argue for a different focus and a more inclusive and people-oriented city planning.

Before diving in deeper in current critiques of urban planning concepts in the context of the Global South I will shortly present some current urban planning theories from which especially the third concept, the just city approach inspired this study.

2.3.1. New Urbanism

There is for example the New Urbanism approach, which is design oriented and aims to create small lively and social communities within the city (Fainstein, 2000). New Urbanists call for cities which are divided in neighborhoods in which the people have access to all their daily needs within a five-minute walk. Those communities are supposed to consist of diverse building types and specially housing for mixed income groups. Central for those neighborhoods are the public spaces, which are seen as areas for mingling and interaction between the people and thus critical for a good social live in the neighborhoods. Fainstein (2000) points out that the focus of New Urbanism lays more on the substance of the plans and not on the methods how to achieve this kind of urban development. Furthermore, she criticizes that New Urbanism assumes that social inequalities and social injustice in the urban space could be solved by creating and designing new and nicer neighborhoods. This leads her to state that New Urbanism tends to be more an ideology or an ideal but unrealistic projection of how cities could look like than suitable planning theory. But the new urbanism with its goal to create physiological nicer urban environments and thus increase the quality of urban live has the ability to create urban visions that motivates people to think about how good city life could look like.

2.3.2. The communicative model

A different approach in urban planning that focuses more on the methods in achieving better urban life is the communicative model or referred to as collaborative planning (Healey, 2003). This concept is based on two philosophical streams the American pragmatism and the theory of communicative rationality. The communicative model is highly influenced by feminist theories. It elaborates the role of planning actors between the various interest groups and stakeholders in urban planning where at the planner become the mediators in the planning process. Communicative theorists focus on deconstructing planning documents by critically

reflecting on the planner, their context, their interaction with the different actors in the planning process etc. Here we can draw the connection to feminism. Influenced by feminism, the communicative model also starts at the base with the concept of situated knowledge, meaning that knowledge is socially constructed and thus influenced by its cultural and spatial context (Healey, 1996). This is why this approach emphasizes the planner's role in mediating among the different actors in planning process to understand where different planning directions could origin from.

But Fainstein (2000) criticizes that the communicative approach fails to acknowledge that there is a need to empower those who are normally excluded from discussions and from structural position that allow influence in form of more inclusive participation methods in the planning process. Thus, that there are many contexts in which not all people have equal access to participate in planning or merely that there are many voices, stories and experiences neglected in planning processes. To create better city life for all citizens this is necessary.

2.3.3. Just city approach

An answer to this critique delivers the just city approach. Participation methods are part of the ideal of the 'just city'. Here the participation in public decision making and urban planning processes by usually powerless and marginalized groups is highly valued. Harvey, one of main scholars advocating for the just city theory emphasized the importance of the citizen's ability to participate actively in the urban political community (Harvey, 2008). Only then real social justice can be ensured (Merrifield and Swyngedouw, 1997).

In the just city theory, the main focus lays on the social aspects of urban life, meaning equity, equal access to the public space, and equal opportunities to have a good life. This is influenced by Henri Lefebvre's (1991) work on the "right to the city" where he elaborates on the fact that all citizens in a city should have the right to a good live in the urban space in form of access to employment and culture, live in a decent home, maintain personal security, obtain good education and lastly participate in urban planning and governance.

The just city approach acknowledges that there may be no universal definitions or models for a good city that can be agreed on by all, but there are criteria for judging better and worse. Just city scholars hereby take criteria concerning the above-described social aspects of urban live above other. The urban vision from this perspective then involves more pluralistic, cooperative and decentralized welfare provisions (Fainstein, 2000). Also, Parnell and Pieterse (2010) and their concept of a right-based city advocate for the just city approach and argue that this planning perspective leads to more empowering of the low- and middle-income residents

and allows for more sufficient strategies in overcoming the social problems like urban poverty and growing economic gaps in the urban society than traditional planning strategies based on neoliberal agendas.

The just city approach aims to connect practical planning theories with other theoretical concepts on marginality, identity and social justice (Sandercock, 1998) because in bringing those together there is a chance to involve a greater diversity of perspectives and voices in the planning and decision-making process. Which then led to urban developments that answer the needs of all citizens not just of those involved in the planning process.

In form of participation strategies and the involvement of civil society in the planning process urban planners and decision makers can identify the interests and needs of the citizens to then allocate resources and direct public investment in urban plans that fit accordingly. Which gives a higher chance for effective and sustainable development that goes beyond economic measures like growth (Parenell and Pieterse, 2010).

Especially the last presented just city approach has inspired this study. In accordance with the approach, I merely focus on the social aspects of urban planning as evaluation criteria. The research design is designed to focus on local experiences and knowledges with the aim to analyse how those are included in today's planning documents.

In theory those planning strategies sound good, effective and thought through. But most of those ideas rose in the context of cities in industrial countries so there some aspects one has to look critically on when implementing those in the context of the Global South.

2.3.4. Urban planning in the Global south

In the following I will now critically reflect on how urban planning theories which mainly have their origin in the Global North fit in the context of cities in the Global South.

Most countries in the global South still use urban planning strategies that were implemented by previous colonial governments or have been adopted the countries of the Global North. Old planning strategies like master planning, zoning or urban modernism are still the norm in many countries of the Global South. Many African states for example still use planning laws from the 1930s and 40s (Mahendra and Beard, 2018). Of course, those planning directions and systems were developed and implement to fit to completely other urban conditions than those we find today. Especially these planning approaches have not given much consideration to be pro-poor or inclusive (Watson, 2009). This of course is an important factor considering the existing problems like increasing wealth inequalities, rapid urbanization and

the bad conditions of basic infrastructures in many cities of the Global South. Those are challenges of the recent decades. Those old urban planning strategies based on theories from the beginning of the 20th century are not suitable anymore to answer to give answers to today's challenges. And it is shortsighted to assume that urbanization processes are universal (Robinson and Roy, 2016). Most of the planning for sustainable urban development is still formed in the Global North and there is a tendency to expect things and strategies that worked in the cities of the northern hemisphere will work in the Global South as well. This is from several perspectives the wrong approach because it neglects the historical developments that led to today's conditions. Furthermore, this approach fails to acknowledge the different cultural context, where the image of ideal urban life might differ from the image in the European or North American cultural space. Miraftab (2016) argues that there is a need for a 'mental decolonization'. With this she means that at first during the colonial era the colonial powers deployed their urban ideal on the cities of the colonies. And still today the western urban ideal is the leading urban image characterized by the neoliberal era where development and capital accumulation are in focus. This can also be understood as a critic of the assumption that all future urban plans and policies must follow the ideal of 'modernization'. The 'Western city' is projected as an object of desire (Perera, 1999 in (Miraftab, 2016), while cities of the Global South characterized by informality are projected as urban forms that are failing and in need for fixing and modernization.

The perception of informality in urban systems of the Global South is an example for how a 'western' perspective can be shortsighted. In mainstream academia urban informality is seen as symbol for failing and a phenomenon that creates chaotic conditions. By this those voices are neglecting the complexity of informal systems. Simone (2004) for example argues that informality could also be characterized as a sign for resistance against the western models of planning and urban development.

In Miraftab's (2016) view there is a need to break the notion of this universal urban ideal with its roots in the global North and open the discussion for future urban planning and development for local perspectives and knowledges. Here she proposes a form of 'insurgent planning' that critically destructs this Western urban imaginary that led to the problematic situations today. The goal of an 'insurgent planning' approach is to mentally decolonize planning imagination and to see cities in their spatial and cultural context. By this is meant to gain a deeper understanding of the individual characteristics, rules and values of a given city instead of just implying Western planning und city ideals universally. So 'insurgent planning' is a bottom-up approach that wants to enhance urban planning that fits to the affected urban

residents at place. This includes to find ways in which urban planning is not just aiming to replace informal systems but to work with and support the people in those sectors.

Today's problems in the cities of the global South like urban poverty are also the result of historically weak (sub-) national state capacities to address those issues and to put a focus on the socio-economic rights of all citizens (Parnell and Pieterse, 2010). In Parnell's and Pieterse's view the problematic situation in the urban areas of the Global South are caused by neoliberalism and this Western notion in planning and development strategies to aim for capital accumulation and economic profits. They critique that 'making cities of the South work better purely in terms of becoming economic nodes on the global systems of trade, production and consumption is not going to help the poor in those city regions' (Parnell and Pieterse, 2010 p. 269). So, strategies developed from this neoliberal perspective will not solve the existing problematic issues in those areas. Moreover, you could argue that those strategies are part of the overall structural flows that led to today's situation characterized by urban poverty, segregation and increasing gaps between the urban wealthy and urban poor.

Therefore, it is critical for sustainable urban development especially in the cities of the Global South to put the most affected and most vulnerable in the core of future planning. Mahendra and Beard (2018) argue for focusing on the 'urban underserved', which they define as the low- and middle-income residents in urban areas who struggle to have access to one or more of the basic services like housing, water, energy and transportation. Also, Parnell and Pieterse (2010) support this focus on the chronically poor and plead for a special emphasis on safety, social amenities and public transport in future planning that benefits the poor. In addition, they state that there is a need for more inclusive planning to ensure this kind of urban planning to be sufficient and effective. The goal is to include those most affected negatively by today's situation and on whom the plans should focus on.

Inclusive planning in form of participatory approaches look ideal on paper and should be a goal for future cities. But one has to acknowledge that there some questions to be raised about its suitability and effectivity in cities of the Global South today. In addition to the limitations to participatory methods I discussed above when presenting the communicative model, participation practices require strong political institutions for implementations, and as mentioned above exactly this is what many countries in Global South are missing. But not only here the suitability or effectivity of participatory approaches is to question. Those forms of active participation in planning are based on the premise to have a somehow homogenous civil society that can be defined as an active and organized actor. This assumption, however, underestimates the complexity of societies especially in cities of the global south where urban

societies are in many cases effected by more conflict and division within. This fact in addition to weak governmental institutions makes it difficult for planners to implement forms of participation.

In summary urban planning in the context of the Global South is a highly complex issue. Rapid urbanization is expected to continue in the coming years and therefore several existing challenges could become more difficult to handle. There is a need for sustainable urban planning that not only focuses on the western ideals like modernizations and strategies that are based on neoliberal growth perspectives. The just city approach (Harvey, 2008, Fainstein, 2000) and the concept of the rights based city (Prenell and Pieterse, 2010) deliver several important points for how sustainable urban development could be achieved. With a planning focus on those most affected by the ongoing problems combined with the inclusion of their perspectives in the planning process the chances for future plans to be effective and successful are increasing. Of course, there are existing limitations to those participatory approaches like weak governmental institutions and the complexity of civil society but in my opinion, those approaches to that matter are the right starting point, because they neglect the notion of a universal urban ideal and acknowledge the importance and the complexity of the individual urban context.

2.4. Concluding thoughts

Being mobile is one of the main activities of urban residents and an essential part of the urban everyday life. There is a deep connection between gender and mobility, and both impact each other, and it is critical that urban planning strategies takes this into account.

Throughout all three subsections of this chapter, it becomes clear that the notion of contextuality and the concept of situated knowledge are the basic theoretical fundament for this study. Universality and general statements have to be treated with caution. As reflected in the research questions I aim to acknowledge the importance of the cultural, historical and spatial context of this study, Accra.

3. Method Chapter

In the following chapter I will present a detailed description of my methodical research design. Hereby, I will first give an overview over the general research design and then deliver detailed explanations of each method and how they were used during the course of this study. In the end I will evaluate the quality of the data and critical reflect on my own role and my impact on the data and their interpretations.

3.1. Research Design

During the time of this research the Covid-19 pandemic hit the world and had also implications on this research due to the travel implications. For a long time traveling for fieldwork was not possible and only with a study extension it was possible to conduct a short fieldwork in the last months of the research. That is why big parts of the data used are based on existing literature, local case studies and official planning documents. As mentioned in the section about the research questions, some aspects of the original research questions shifted from a focus on gender differences in urban mobility in Accra and their implications on future planning to a more general analysis about the daily experiences with urban mobilities and how this knowledge is included in future planning.

Despite the shortened fieldwork and heavily relying on secondary data, the research tried to follow in its research design the methodological principals of feminist geographies. Namely the concept of situated knowledge (Haraway, 1988) which is described in the chapter before. The goal of the research is not mainly to make general statements about sustainable urban transport policies in African cities but to analyze the case of Ghana in a rather bottom-up approach. Meaning to understand first the specific context before going in the analysis and evaluation. With a focus on lived experiences in the research the goal is to gain a deeper understanding about how the spatial context of Accra is influenced by its power relations and social and cultural constructions. That increase according to Valentine (2007) the effect and meaning of the results of this study and the possible implications it can have on future policies.

In addition, this study follows principals of case study methodologies, meaning to mix different methods and to focus on the specific case of Accra. This methodological approach is pragmatic and flexible, and well-suited for small-scale in-depth analysis (Taylor, 2016). According to Yin (1981), the strength of the case study approach is that it makes it possible to cover a contemporary phenomenon and its spatial context. Important is however to acknowledge the difficulty to generalize the result of case studies, because the results are deeply connected to its context (Taylor, 2016). But as said before the main goal of this thesis is not to

make general statements about transportation policies in urban development but in the grounding understanding of this research it is the context that matters anyway and the goal is to gain a deeper understanding about Accra, its traffic situation and how local solutions could look like. This local knowledge can of course inform other cases especially in cities of Southern Saharan Africa due to similar colonial backgrounds and rapid urbanization problematics. However, it is critical to acknowledge that every place has its own unique context. So, in this way generalizations have to be used carefully.

Concretely this research is based on a mix of primary data collection methods and the use of secondary data. Due to the Covid-19 pandemic the first part of the research was based on the collection and analysis of relevant literature, local case studies on urban transportation and official planning documents. Towards the last phase of the research the global circumstances changed, and it became possible to travel for a short period to Accra and conduct a short fieldwork which mainly helped to gain own experiences of the situation at place, confirm results from the literature analysis and have informal conversations with local residents and experts. The fieldwork lasted in total 16 days and happened in the autumn of 2021. The shortness of the fieldwork is a result of the tight time window between the waiting time for getting the necessary Covid-19 vaccines during the summer and the deadline of the thesis in the end of the autumn semester. This was the maximum amount of time on fieldwork to also ensure sufficient time for organizing and preparing before and implementing the results in the thesis after the time in Accra.

Without the pandemic and a long fieldwork in Accra, the plan was to include more intense primary data collection, especially methods from Participatory Action Research (PAR). PAR is a research design which heavily includes those affected by the studied phenomena/process (Breitbart, 2016). The method toolbox of PAR would have fit perfectly in the research design with the goal of bottom-up knowledge production and representation of local perspectives and experiences. But unfortunately, those methods need more time at place and therefore were not an option for this thesis.

3.2. Methods used

In the following I will give a more detailed description of each method used in this research. This subsection will start with secondary data collection and primary data collection including the experiences in Accra from the fieldwork.

3.2.1. Secondary data collection and analysis

Secondary data is the basis for the research and consists mainly of academic literature about historical urban planning in Ghana, academic literature about Accra's transport sector, case studies from Accra about specific aspects of urban mobilities and official planning documents for Accra's city planning.

In approaching the secondary data and especially data in written form it is important to keep a few things in mind. As Doel (2016) summarized it is central in approaching texts to investigate who produced the text, why was the text produced, how was the text produced and for whom the text was produced. The meaning of this is to understand the context of a text and its author(s) and possible underlying discourses. Berg (2009) underlines the importance of the question in which ways the producer and the consumer of a text are positioned by the text. This is especially important with secondary data in political contexts to which urban planning in Accra counts. With this in mind, I approached the search and evaluation of literature.

A factor which was important in the literature search for me was to find academic text and case studies from local scholars from Ghana. A main source was the Ghanaian scholar Ernest Agyemang who has written several articles about urban mobilities in Accra. Through his reference lists I then I found several local and relevant literatures.

Another main sources, was the book 'Ghana on the go' by Jennifer Hart which gives a detailed description of Ghana's history with motorized transportation from the early 20th century until today. This book was especially helpful in the time it was unsure if I would be able to travel myself to Accra, due its focus on the cultural meanings behind certain aspects of motorized transportation. She for example goes beyond describing the functionalities of trotros and analysis their cultural backgrounds and their historical meaning in regard to Ghana's independence from the United Kingdom.

Official planning documents were found through internet searches. Here, I also used World Bank and UN databanks as Ghanaian government resources. In addition, I analyse a conference paper that summarized the results of a conference about Ghana's future transport planning strategy. Several development actors as government officials took part in that conference. The planning documents were used to gain a better understanding of the BRT plans in Accra and if those plans go beyond simple project planning and include existing public transport providers and non-motorized forms of transport. Especially in the analysis of those official documents I reflected on the purpose behind the documents and the motives of the authors and publishers of the documents.

3.2.2. Fieldwork

Towards autumn 2021 it became clear that a short fieldwork would be possible, after all. In preparation for the fieldwork, I first of all, familiarized as good as possible with the field environment. This included the research of customs, political issues and religious beliefs that may affect the fieldwork at place and how people could react to my project at place (Bullard, 2016).

Because the first phase of this study was characterized by intense literature work, I had a certain amount of pre-knowledge about the situation at place. In addition, I had four conversations with people from Accra, one in person and three via video calls. Those people were people I knew through university contacts. In those conversations I asked about their experiences with being mobile in Accra, their knowledges about transport policies in Accra and compared information from literature with their perspectives. Through those pre-fieldwork stages I for example already knew that transport policies can be a sensitive topic in Accra and especially the relationship between the government and private transport providers can be characterized by conflict. This information is important to keep in mind when entering the field to understand why people react to the researcher and certain questions the way they do.

Even though I felt well prepared to enter the field, not only through my work for thesis before traveling to Ghana, but also due personal experiences from traveling to Tanzania 4 years ago, the first days in Accra were quite overwhelming. No reading nor listening to personal experiences can prepare one fully to the full body experience it is to be on the streets of Accra. The streets are congested, the sound of motorized vehicles and people talking, and shouting enters the ears and, on every corner, new intense smells can appear. The amount of diverse new information that is entering the senses can be challenging and it was overwhelming in the first days for me. The experiences of being an urban resident in rather bigger European cities all my life has not prepared me at all for the lively, exciting, loud, and congested streets of Accra.

In the following I will in more detail describe the fieldwork approaches and experiences.

3.2.2.1. *Participating observations*

In the first days of my time in Accra I focused on spending time in the streets of Accra. Open eyes, open ears and nose and taking notice of much as possible. Early in the days over a map of Accra I made plans of which areas of the city to explore and then I just started walking. The areas of most interest for me were the trotro stations and markets in the city center as they are the busiest areas and important junctions for moving people in Accra. Walking several

kilometers to those destinations instead of using motorized transport modes in the first days gave the opportunity to gain a closer overview of the situation on the streets as walking is slower and thus gave me more time to observe.

Laurier (2016) defines participant observation as the practice of participation in and observation of places, practices, and people. The goal is to achieve local and contextual knowledge. It is probably the most natural method for a geographer and suits well to gain an overview of a new field. In my case I also used it to verify information and knowledge I gained before the fieldwork through literature work and the conversations with people from Accra. For example, I closely watched the interactions at trotro stations between passengers and drivers or mates and analyzed if it suited the descriptions from literature.

In the following days I also used diverse forms of motorized transport. By that I not only observed the practices but took part. One could argue that already by walking through the streets I was participating in the daily commuting practices in Accra. Another goal with participant observation is to evolve from an outsider to an insider with a changed perspective on the local world one is studying (Laurier, 2016). So, I spend at least a few hours of all my days in Accra with experiencing commuting in the city by walking and the diverse motorized transport options which included trotros, taxi, private car and state-owned busses. I hoped with this grounding practice to gain a deeper understanding of the transport situation in Accra and local perspectives that would help me in the analysis of the planning documents.

Important aspects in participant observation is the reflection on how the research is influencing the field with his/her presence and to be opened to the unexpected (Laurier, 2016). The self-reflection will be done in the end of this chapter. To ensure my openness, I was writing a field diary where I wrote down detailed descriptions of my daily experiences. Here, I tried to keep all small details even if they seemed unimportant. In addition, I took pictures of the scenery (where possible) which I revised during the diary writing. It was sometimes difficult to take pictures in the field due to the congestion and all the people on the street and without photographing people's faces. With this practice I reflected on the daily experiences and later the field diary gave orientations in the further writing process. Moreover, this openness and curiosity was part of my attitude with which I entered the field every day. I tried to be like a vacuum cleaner, absorbing the scenery in all detail.

3.2.2.2. Informal conversations with trotro station personal

The trotro stations, also called Lorry parks are central junctions of urban transport in Accra as they are starting and finish point of the trotro routes. They not only connect intraurban routes

but also intercity routes, which means they connect Accra to the rest of Ghana. As I spent a lot of time at several of those intersections to observe and participate in the transport practices, I also started talking to people working at those stations. It is not difficult to get into a conversation as especially the trotro conductors called mates are always out for new passengers. So, in fact people wanted to talk to me to offer me ride in their trotro. I used this opportunity to ask some questions to understand better the whole trotro system and to hear more about their everyday life in the transport business. Even though most of them were not really interested talking too long to me after I told them that I wasn't interested in a ride and just wanted to ask some questions I still had some longer informal conversations with trotro drivers and mates who explained me how the system works and what their daily experiences in this job look like.

In preparation for the conversations at the trotro stations I developed a very informal question guide where the questions were inspired by the readings ahead of the fieldwork and the experiences of the first days in the field. This practice of developing an informal question guide had the main purpose of reflecting on what the most important questions are to ask in a situation where it probably would be difficult to go too much into depth. So, I focused on practical questions which would validate the knowledge about the trotro-system which I gained from literature. If the situation allowed, I then would ask about their everyday experiences working in the business. And lastly, I wanted to know about how government and trotro operators collaborate and to what extent they feel included in future plannings for public transportation.

Of course, in practice I did not strictly keep to that guide but rather let the conversations flow, but to start with the functional questions about the modes of operating gave a good entry point for those informal conversations.

After the conversations I took quick notes with the most important points. In the end of the day when I was taking my general field notes I also included more detailed notes on the conversations. Recording the conversation would have been unpractical and would have destroyed the informal character of the field situation. That is why notes were the only form of saving results.

3.2.2.3. Interview with urban planning expert from academia in Accra

In addition to the perspectives of people working in the public transportation business I planned to have expert interviews from different backgrounds. Already in the early stages of this study I had two orientation conversations with people from the University of Ghana in Accra who

work in the field of urban geography. Those conversations helped in the process of formulating fitting research questions and to get an overview of the situation in the field.

For the fieldwork the plan was to talk to people in the field of urban planning in Accra from academia but also from the administrative and governmental side. Unfortunately, due to the sudden and unexpected possibility to travel, the shortness of my stay in the field and the difficulties around personal meetings in times of a pandemic I could only conduct one expert interview. This expert interview was with an expert from academia in Accra. The expert has experience from years working with and researching urban planning in Accra.

For the interview I choose to follow the principles of semi-structured interviews. Longhurst (2016) defines those as rather informal, conversational, and soft interview that follow some kind of predetermined order but gives the interviewee room to address important points the interviewer might not count for beforehand. This form of interview is characterized by its flexibility whereat the interviewer gives some kind of conversational structure, but the interviewee can fill the conversation with their perspectives and focus areas.

This form of interview suited best for my situation where I talked to a real expert in the field. The expert has much deeper knowledge about the matter than me. With a strictly structured interview I might have missed important aspects due to the limits of my knowledge of the situation in Accra.

Of course, even a semi-structured interview should follow some sort of structure. The interview took place in the last days of my fieldwork. This gave me the chance to bring in my own experiences with being mobile in Accra into the conversation. In preparation I wrote a checklist of aspects and questions I wanted to ask in the interview. Then I organized the points on the checklist in main topics to have some sort of structure. This type of interview guide gave me the chance to follow my checklist in the interview but with the flexibility to not strictly follow the order of questions. The character of the questions was open and gave opportunities for long explanations and narrations. In the interview guide I left space for notes.

The interview took place in the expert's office. The conversation atmosphere was calm and comfortable. The interview language was English. There were no interruptions of any kind and no noises or other disturbances. During the interview I took notes in my interview guide. Those were rough notes with the most important statements. Directly after the interview I took very detailed notes of everything we talked about. Later during my daily practice during fieldwork of taking fieldnotes I also went over the interview notes and added them to my fieldnotes.

Urban planning in Accra especially in regard to public transportation can be called a sensitive topic. This is mainly because of the two sides of actors. Governmental and administrative bodies on the one side and the private transport providers namely the transport unions on the other side. Due to this I decided to anonymize the expert and to not record the interview. This was to not limit the comfortable and open character of the interview. My experience of the interview was that the expert felt comfortable to openly talk about the topic and answer all my questions. It might have been different if I had recorded the interview.

3.3. Strengths and weaknesses of data

In the following I will reflect on my positionality and elaborate on the strengths and weaknesses of the data collected for this study. Here I will especially reflect on the quantity of informants.

3.3.1. Positionality

In a study based mainly on qualitative data it is important to reflect on the positionality of the researcher to ensure transparency on how their positionality might influence the research. As elaborated in the section about feminist geographies the researcher cannot be seen as completely neutral and objective (Mullings, 1999). Through the researcher's preconditions (cultural background, heritage, etc.) they are influenced in the way they see and interpret the world.

So, this is the place of this thesis where I state that I am a white male who grew up in one of the wealthiest countries in Europe and is currently studying in Norway. I have lived in big cities in Europe all my life. I am used to European city life and regarding the topic of the study I am used to formal, state-regulated public transport services in different forms. Especially in the beginning of the research process I saw the private owned and mostly informal operating transport services of African cities as a rather chaotic system. And this was because of my background and my experiences with just the transport systems of European cities. Through further readings, conversations with people that are used to African transport systems and lastly my own experiences in Ghana I have a more differentiated perspective on the transport services of Accra. I recognized my subjective perspective early in the research process and focused on taking a more objective perspective on the matter. In addition, it helped to read studies and literature from African researchers on urban transportation to widen my perspective.

Furthermore, I recognized during the research that academic literature on urban mobilities from North American and/or European researchers tend to characterize transport systems of African cities as 'chaotic' and with a notion that they need to be replaced with formal

transportation systems known in North American or European cities. Therefore, it was important to me to include African perspectives on that matter in my literature collection. Those texts helped me to gain a more neutral perspective and to decrease the impact of my cultural background on the research.

3.3.1.1. Positionality in the field

The characteristics of the researcher affect not only the way data is collected and interpreted but also practical aspects of the research (Carling et al., 2013) like how the researcher is perceived in the field. Considerations about being an insider or outsider in the field are important reflections.

Due to my background as a white male from Europe it was clear that I would be recognized immediately as an outsider in the field, a Sub-Saharan African city. This aspect was probably increased due to the global pandemic and connected travel bans in the last two years. I was mostly the only white person in my environment in Accra. So, from a completely physical standpoint I already was an outsider.

Also, above that, I saw and still see myself as a complete outsider, this is because of my heritage and cultural background, described above. Furthermore, I orientated myself in Haraway's concept of situated knowledge (1988) described in the theory chapter. Every place has its own individual context which makes the place unique to a certain degree. So, this makes me an outsider everywhere outside the places I lived for a long time. For this reason, I choose a rather bottom-up research approach with a focus to first understand the context before making analytical statements in addition to the focus on local perspectives and knowledge.

So clearly, I was an outsider in the field. Of course, the states of being an outsider or insider can be fluid (Mullings, 1999) and change during a fieldwork but in the case of this study I stayed an outsider. This is also due to the shortness of my time in the field. Being an outsider can be an advantage especially in studies in a contested field. Transport planning in Accra is as mentioned before a sensitive topic with a diverse field of actors who are competing on different levels. Being an outsider in a contested environment like that has the advantage of being more likely to be perceived neutral and more objective (Mullings, 1999). This is something I feel I especially experienced during the expert interview where the interviewee talked very openly about the matter without hesitating.

On the other hand, being an outsider can be a disadvantage when informants or interviewees have a lack of trust towards the researcher and the researcher is seen as a potential threat (Carling et al., 2013). This is also something I experienced in the field. In some trotro terminals

transport union personal hesitated or avoided talking to me when I told them the purpose of my questions. It often seemed they were especially uncomfortable talking with a stranger about the ways the transport unions operate, especially in regard to their relationship with governmental bodies. Here it would have helped to have a local interpreter or expert with me in the field to ease potential tension and increase trust in me.

All in all, I experienced both the advantages and disadvantages of being an outsider in the field. But characterizing and seeing myself as an outsider gave me an open and wide perspective on the matter. I looked at everything in the field with new eyes and all little aspects seemed important to me, because it was new to me and I think one could argue that gives my analysis and interpretations strength.

3.3.2. Quantity of informants

The Covid-19 pandemic appeared in the starting phase of this study and had majorly influenced the research process. Especially the insecurities about traveling and constantly changing situation made it difficult to plan a primary data collection. Digital data collection methods like interviews over video were considered. There was a trial phase with online interviews, but the digital setting came with a set of difficulties. Besides the limits to the general conversation atmosphere in a video call it was also difficult to get access to informants and right interviewees without being at place.

Afterall it was possible to travel to Accra and conduct fieldwork at place but due to the fluidity of the global situation it happened suddenly, and it was not possible to stay very long in the field. This made it difficult to find and arrange meetings with informants especially for the expert interviews.

All in all, I think the validity of the results of this study could be increased by a higher number of informants. However, the study takes secondary data in form of official planning documents and local case studies into account to compensate that lack. In addition, I am glad that in the end I could make my own experiences of the transportation situation in Accra, and I am convinced that because of that even this short fieldwork has enriched and increased the validity of the study.

3.4. Summary

This chapter gave an overview over the research design and the methods used for this study. Moreover, I described difficulties in the data collection and during the whole research process

caused by the global pandemic. Finally, I reflected on my own positionality and the strengths and weaknesses of the data.

4. Empirical Chapter

4.1. First sub-question: How has transportation in Accra been planned historically and how is transportation currently planned for the future?

In this first part of the empirical chapter, I will give an overview over the historical developments in Accra that led to today's situation, beginning with how the colonial history of Ghana shaped urban planning in Accra until today. The Independence of Ghana in 1957 is another important milestone that shaped the spatial context of Accra. The 1980s and 90s were characterized by policies of economic liberalization had an enormous impact on how Accra developed. In the second part of this sub-chapter, I will then describe in detail today's situation in the transportation sector in Accra and present current plans and policies for future urban transportation in Accra.

4.1.1. Historical urban planning in Accra

As described above the first part will summarize the most important historical developments in regard to urban planning and urban transportation that shaped today's situation. Hereby I will structure this part according to three main milestone eras: The colonial era in the early 1900 until independence in 1957, Independence and the following years (1957-1970s) and the era of national liberalization policies (1980s-1990s).

4.1.1.1. The colonial era (early 1900 until independence in 1957)

Originated as a coastal fishing port Accra started to become a significant urban center when the British empire relocated the headquarters for their West African colony to Accra in 1877 (Gough and Yankson, 1997). Throughout the colonial period Accra served as a trading port and terminal point of the colonial economy, while the development of manufacturing or other industries were limited by the colonial legislation. At independence, Accra's economy was mainly based on non-manufacturing and export-oriented businesses. Grant and Yankson (2003) characterize the Accra of this time as a 'warehouse city' rather than a 'factory city' (p.67). In the following Grant and Yankson (2003) summarize 4 main features in the urban planning of colonial Accra that had enormous impact on Accra's future development in the years to follow after the independence. Firstly, the British as colonial power organized the city in a rectangular-style pattern around the port that connected the 'Gold Coast' colony to England.

Secondly, closely to the port a European style central business district (CBD) was established. Here were all the main administrative institutions and headquarters of foreign

companies located. To attain a European character and atmosphere in this district a strict zoning and building codes were enforced.

Thirdly, the traditional markets and native businesses were relocated to a nearby district which from then on was called 'native town'. Urban planning or building regulations in this district were neglected by the colonial government which resulted in an unregulated district development that was characterized by a crowded and congested environment.

Meanwhile on the other side of the CBD, the colonial government established residential districts for the European workers which were consisting of luxurious residences, golf courses, tennis courts and more. In those districts the goal was on the one hand to maintain high European living standards to attract and keep skilled workers from Europe, and on the other hand, to not only spatially but also symbolically segregate the European residents above the local and indigenous residents.

The public transportation in this colonial era was delivered by a municipal bus service and it was mainly implemented to serve the European residents to commute between the CBD and the resident districts. Those buses were equipped with individual seats and little storage space, because they were designed to move mainly office workers. Because of those characteristics the public transportation system neglected the realities of many urban (and indigenous) residents of whom the most mobile were women traders that moved back and forth to the markets and who therefore needed space to transport their goods with them (Hart, 2016). So, in a way, the public transportation system was another way that actively or passively symbolized the segregation between the European and the indigenous residents.

Motorized public transportation for indigenous residents in Accra and in Ghana was delivered by so called 'mammy trucks'. Initially those trucks were officially used to transport goods, but they offered also rides for passengers. Important to mention is that those 'mammy trucks' were informally used and in fact it was not legal to use them for commercial passenger transportation under the colonial government (Hart, 2016 p. 111).

The colonial era was also the time in which driving became a profession in Ghana. Throughout the 30s and 40s more and more men became professional drivers who transported goods and people within the country. Therefore, the profession of driving remained a male occupation. Due to the physical strength needed to drive the trucks on bumpy roads and the mechanical aspects of motor transportation, driving was seen as an exclusive male occupation. In addition, driving became a symbol for modernity and progress and the drivers gained a high socio-economic status. Driving became an alternative path for young man to archive a mature status and a place in the modern world. Many men in this time left the markets and trading

activities to either become drivers or to seek success in cocoa farming, which led to women taking their places in market trading and which is the beginning of women dominating the markets and small-scale trading (Hart, 2016).

In summary the colonial era is a starting point for Accra as the urban center of Ghana. The colonial government and their segregating urban planning strategies shaped ground conditions for an unequal urban development. And this era is also the starting point for driving as a professional occupation in Ghana, where the first professional drivers were seen as 'modern men' (Hart, 2016 pp. 95 ff).

4.1.1.2. Independence and the following years (1957-1970s)

On March 6th in 1957 the Gold Coast Colony became independent and was from then on known as the country of Ghana. The time was marked by a government (led by President Kwame Nkrumah) which promoted a 'Ghanaization' of the economy. In addition, it is the time where the so called trotros emerge as the main mode of public transportation in Accra, a status they still hold on to today.

At independence Accra became the capital and the national government established the city as administrative and economic center of the country. The former European CBD serves now as the country's political and economic headquarter. This initiated more urban growth and geographical expansion of the city. More relaxed zoning policies and building regulations enhanced a more diverse urban development and brought more small business in the city center, resulting in more mixed used of space for economic and residential use. Planning in terms of land use was missing in the city center which gave room for market forces to determine land use. The local markets closely to the former CBD expanded massively which caused increasing congestion. The national governmental housing policies in Accra failed due to higher demographic growth rates coupled with rural-urban migration exceeding the buildings of new houses and putting more pressure on an already overstretched housing stock. As a response the government moved the trading port out of the city center to a new constructed port and urban center called Tema 29 km outside of Accra. Since then, it has become a satellite urban area for Accra (Grant and Yankson, 2003).

Also, the transportation sector in this time went through significant changes resulted from the independence and the initiated rapid urban growth of Accra. Around the independence in 1957 the trotros (minibuses/vans) emerged as a clear response to the official bus services which were implemented in the colonial era. They offered a service that answered the needs of

the urban local residents, a more flexible and quicker form of public transportation. Trotros were equipped with more cargo space which especially helped the women traders to transport their goods. But not only practically trotros stood in contrast to the municipal bus service, in fact trotros and their drivers were a symbol for a new vision of autonomous mobility. Operating more flexible and not on static routes and time schedules trotro stood for the 'decolonization of mobility in the former center of colonial power' (Hart, 2016 p. 112). By 1960 the former bus service was suspended from governmental funds which made trotros the exclusive form of public transportation. In 1969 all municipal and local bus operations were officially conjoined to a national bus operator called Omnibus Service Authority (OSA) which provided intraurban but also intercity transportation (Yobo, 2013). But it suffered under the competition with the trotros and could only survive until the late 1980s (Agyemang, 2015).

President Nkrumah and the national government attempted to change the gendered respectability of the driving profession. The plan was to train young women to drive and establish more women drivers. This attempt was part of 'a broader rhetoric about gendered expectations and possibilities in an independent Ghana, highlighting the country's embrace of new principles as they entered a new age of modern self-government' as Jennifer Hart (2016 p. 115) puts it. But the private drivers of trotros and trading trucks refused to train women as mates or drivers, so those attempts by the government to redefine the gender images in regard to the driving profession failed. Still today one hardly sees any women working in the trotro business. During my two weeks I saw only one woman working as a mate in one trotro.

The rapid urban growth led to an ever-increasing number of vehicles and people on the streets of Accra. The government under President Nkrumah focused infrastructural investments on the construction of new roads and the motor transportation. But the new construction could not keep pace with increasing congestion and drivers and pedestrians started to compete for space on the new roads, which resulted in a greater amount of accidents and posed a health risk for both drivers and pedestrians (Hart, 2016 p. 125).

The focus of the government on the national economy and the excluding of foreign companies and their involvement coupled with the drop of cocoa prices around the time of independence and the later years led to increasing difficulties for a young and weak economy like Ghana's. The economic crisis of the 1960s tackled the drivers and the transportation sector in form of shortages of spare parts and tires, resulting from a general shortage of internationally imported goods in the country. These shortages made it difficult for the drivers to keep their vehicles functional. While the majority of urban residents suffered under the economic crisis

trotro drivers had to increase their prices due to the difficulties to maintain the service of their vehicles. This situation initiated the decline of the positive image and status of professional drivers. They were criticized for the increase of fares, while the quality of their service decreased. The congestion on the streets prevented quick transportation and the state of the vehicles declined which decreased the level of comfort for passengers. Broader public and also political actors started a process of scapegoating entrepreneurs like especially drivers as the source of the economic crisis. Jennifer Hart (2016) argues that *'the independence and entrepreneurial success of drivers, which had once been the foundation of their respect and status as cosmopolitan, modern men, became their greatest liability during the 'era of decline' that lasted from independence through the early 1980s. Their experience highlights the degree to which entrepreneurial autonomy – long central to Ghanaian economy and society – was transformed into a national threat by postcolonial state and society'* (p. 124).

While rapid urbanization and the economic crisis continued throughout the 1960s the government failed to establish a sufficient transport service that could keep up with the passenger demand and could be an alternative to the trotros. Additionally, the critique on the high prices and poor service of trotros continued. This time can be seen as the publicly perceived starting point of Accra's transportation and traffic problematic.

4.1.1.3. The era of national liberalization policies (1980s-90s)

Starting in the 1980s the national government opened the economy for international actors and companies. The liberalization of international trade and investment shaped conditions that allowed capital and local forces to stimulate Accra's further growth and geographical expansion. The economic liberalization came in form of a structural adjustment program (SAP) which the government implemented and that contained of the decentralization of government authority, privatization of state enterprises, devaluation of currency, road and transport infrastructure investment that sought to encourage export oriented trade (Hart, 2016).

The urban planning of this time aimed to attract foreign direct investment and has been heavily infrastructure-oriented (focus on the upgrading of the international airport and trade port). At the same time planning focused exclusively on the formal economic sectors while neglecting the (semi-)informal sectors of the economy (especially in housing and public transportation).

In addition, the governmental planning institution were weak and led to a degree of uncoordinated planning (Grant and Yankson, 2003). Private developers, planning agencies and traditional landowners have all different objectives and perspectives on land-use and planning,

and due to the lack of institutional regulation areal development was uncoordinated and was not following an overall plan.

The liberalization policies triggered a boom in the service sector in the late 80s and 90s and increased the number of people moving to the Accra Region (Agyemang, 2015). The manifesting status of Accra as political, economic, and commercial center of the country attracted more and more people to the city and so the congestion of Accra's streets increased as well. More people were moving in the city, mostly between the growing outskirts and residential areas and the CBD. Public transportation was delivered by either two state owned bus companies (until the late 80s) or trotros and taxis.

In 1969 most of the local transport providers were nationalized and assembled into the state owned transport company Omnibus Service Authority (OSA), (Yobo, 2013, Burchardt, 2015). The OSA operated on the one hand intercity bus connections between the different urban centers in Ghana but also intracity bus transportation and was one form of formal urban public transportation. The company received a number of competitive advantages like state subsidies and tax incentives (Yobo, 2013, Burchardt, 2015). The goal of the government was to build a strong competitor to the trotros in urban transportation. The public image of trotro operators was still negative and the trotros as public transportation system were not fitting into the new scheme of development policies initiated by the government and international institutions like the World Bank (Hart, 2016 pp 153 ff). As mentioned, the focus of planning and development policies lay on macro-infrastructure projects that could attract foreign investment and the trotro system was not coherent with those images of development and modernization.

However, the OSA and another state-owned transport company called City Express Service (CES) could not survive the competition with the private sector and collapsed by the beginning of the 90s, despite the political support. Financial losses and mismanagement coupled with the harsh competition of the trotros led to their decline (Agyemang, 2015) which made private transport operators like trotros and taxis the only actors on the urban transportation market. Trotros became the only form of public transportation until the new century.

During this era trotro operators organized themselves in unions, which became powerful political actors. The Ghana Private Road Transport Union (GPRTU) is still today the largest Union and is controlling around 90% of the trotro sector in Ghana (Burchardt, 2015) (more on the Transport Unions in the next subsection).

By the end of the 20th century Accra was in a state of rapid urbanization. The number of vehicles and the general congestion on Accra's streets was increasing. Urban planning was in large parts uncoordinated or focused mainly on selected macro projects like the airport. The

aim to build a state regulated transportation system opposite to the trotros failed and so private transport operators were the only actors providing transport services to the people in Accra after the two state owned bus companies OSA and CES collapsed (Burchardt, 2015, Agyemang, 2015, Addo, 2002).

4.1.2. The 2000s – trotros dominating public transportation

This section will present the public transportation modes of the 21st century in Accra and it will start with a detailed description of the trotro system. This is because it is still today the main mode of public transportation even though it is not centrally planned and only partly officially regulated. So far, no state organized transport system could really compete with the trotros. To understand why it is important have a detailed overview over the trotro system and its mode of operation. In the beginning of the 21st century private transport operators, namely the transport unions, where the only provider of public transportation in form of trotros and taxis. This section will end with brief presentation of a transport provider that recently appeared in Accra, Transport Network Companies (TNC) like Uber.

4.1.2.1.

4.1.2.2. Trotros and their way of operation

First of all, it is important to state that the trotro system in Accra and the whole of Ghana is not a result of top-down or central planning. It is a self-grown bottom-up system, characterized by low degrees of governmental regulation and high degrees of independence (Stasik, 2017).



Figure 1: A typical trotro, a mini van that offers space for up to 20 passengers. Source: Fieldwork 28.09.2021

Trotros are small buses or mini vans that usually have a capacity of about 12-15 passengers (Agyemang, 2015). The trotros in Accra operate on several different routes connecting terminals called Lorry parks in different locations in the Greater Accra Metropole Area (GAMA). On route they do not stop on designated bus stops but rather pick up and release people on the side of the road after demand.

The vehicles as most motorized vehicles in Ghana are mainly second-hand cars from Europe or Asia, mainly Korea and Japan (Burchardt, 2015, Addo, 2002). Because they usually are not repainted some vehicles still have old commercials, slogans and stickers on the outside which indicate their former use in European countries, for example as a medical car or a bakery van. The trotro in figure (2) for example was apparently an ambulance car in Germany in its former life before it came to Accra.



Figure 2: Trotro with German ambulance sticker, a relic of the vehicle's former life before it became a trotro. Source: Fieldwork 21.09.2021

People who want to operate a commercial transport vehicle have to acquire a governmental license for the vehicle. In this process the vehicle is checked if it satisfies the requirements and is technical in sufficient shape to operate (Addo, 2002; 3-5).

An owner of a licensed vehicle then can decide to either drive it himself, given he (*I am using 'he' because the driving sector is still male dominated*) is certified as a professional driver, or to employ a driver, what most do (Addo, 2002; 3-5, Burchardt, 2015). The owner has to choose a route on which he wants to operate his vehicle and to apply for membership of a local branch union of the Ghana Private Road Transport Union (GPRTU), which controls most of the trotro sector (*More on transport unions in section 2.1.3.*). If he is admitted to the route his vehicle is added to the trotro pool on this particular route.

The arrangement between vehicle owner and driver is in most cases that the driver pays a fixed amount or rent to the owner, while the driver uses the daily income from passenger fares to pay for fuel, small maintenance and to pay the conductor called mate. The remaining amount is his personal salary. This payment system makes drivers wanting to maximize their income per tour, meaning he aims to always have as many passengers as possible operating (Burchardt, 2015). Empty seats mean less income. Usually the trotros operate between 5am and 10pm, (Addo, 2002) and in most cases the drivers and mates work 6 days a week.

The passengers' fares for the routes are regulated and set by the Transport Fares Review Committee, where at every half year the fares are reviewed and renegotiated. Here the price of fuel is mostly the deciding factor in setting the fares (Burchardt, 2015).

The driver is responsible for driving while the mate takes care of collecting the fares of the passengers. In addition, it is his job to watch for more passengers when the trotro starts the route from the lorry park with empty seats, so they can collect more passengers on route. The operation is characterized by the aim to maximize the daily income by encouraging actively people to board the trotro. The mate sits always close to the large side door and is watching for potential passengers through the open window. When the trotro stops on a busy crossing or on the curb of the road he opens the door, steps out of the vehicle and his actively promoting a ride to pedestrians by screaming the destination. Here, the mate often has to compete with mates of other trotros close by. The shouting of trotro mates is a typical noise on the streets of Accra.

A) The lorry parks – main arenas of urban transportation

Lorry parks are the hearts of motor transportation in Ghana. From here trotros start and finish their routes. Not only intraurban transportation operates from here, but Lorry Parks are also the gateways where intercity and intracity transportation services come together. Michael Stasik

(2017) describes in great detail the characteristics of the Neoplan station, one of Accra's most important Lorry Parks, which connects Accra interregional with other urban centers not only in Ghana but in the West African subregion at large. 700 to 2500 vehicles depart from the Neoplan station on a daily basis, while the daily passenger rates that come through the station can vary between 10 000 on quiet days like Sundays and holidays and 30 000 on busy weekdays (Stasik, 2017). Those numbers show the significance of Lorry Parks as intersections of daily flows of commuting and moving people in Accra. During the fieldwork I have been to the station as well. The Neoplan station is part of a transport hub where many different lorry parks and other bus terminals are located. From here you can find a trotro or bus to any locations that in Western and Northern direction from Accra. Between the different terminals are dozens of market stands with all kinds of products. Food, drinks, cloths, mobile phones, football jerseys and much more. I have been there in different times of the day and it is always crowded. As a pedestrian it takes several minutes to walk 50 meters due the amount of people walking between vehicles and market stands. The streets around the Neoplan station are characterized by the transport hub close by, as you can find several car shops and garages.

Lorry parks themselves are in most cases open grounds which then are organized in branches, which serve particular routes, intra and intercity (Stasik, 2017). Trotros and buses that are operating on those routes stand in line in those branches. Lorry Parks operate with a 'fill and run' system, which means passengers have to board the first trotro in line and the trotro starts when it is full. Only then passengers are allowed to board the next trotro in line (Burchardt, 2015). The reason for this system is connected with the above explained fact that every empty seat on a trotro means loss of income for the driver, which is solely dependent on the sale of tickets (Stasik, 2017; 40). While the trotros are waiting to fill up, mates and drivers go around to find potential passengers. Mostly they are standing in the entrance of the Lorry park to offer rides to all entering pedestrians.

This 'fill and run' systems comes with shortcomings. On the one hand the system can lead to long waiting times for passengers in times outside the rush hours, where it might take some time to fill up all or enough seats on a trotro for it to start the route. In some case one can wait a few hours for a trotro to fill up and to start. That is a downside in off-peak hours of a system which ensures high efficiency rates. Studies show that trotros have an average factor of 80% capacity utilization (Burchardt, 2015). Important to state here is that this is majorly the case for intercity connections or long-distance connections within Accra. Shorter routes within the city fill up quickly and sometimes also start with fewer passengers on board in the hope to pick up additional passengers on the road.

Another negative factor of the 'fill and run' system is that it gives no incentives for the drivers to hold their vehicles in a comfortable and clean state. Due to the system, there is a lack of competition for passengers in Lorry Parks, because passengers are not to choose the trotro, they are required to board the first trotro in line. This has the effect that the trotro are in poor conditions and offer only basic levels of comfort. In some Lorry Parks however exist some degree of competition due to multiple trotro lines serving the same route (Burchardt, 2015, Stasik, 2017 p 41).

In addition to the function as transport terminals Lorry Parks are also marketplaces, where street hawkers and small-scale traders have the opportunity to sell goods and food for travelers. Some of them sell their products on stands but characterizing for Lorry Parks are street hawkers that walk through the in line waiting trotros to sell their goods through the windows to passengers, that already boarded a trotro. The traders wear a large basket on the head filled with the goods. The range of products varies between snacks, drinks, to small electrical items like portable phone chargers (Stasik, 2017).

Lastly it is important to state that the characteristics and modes of operation of Lorry Parks can vary due to its location and the kind of routes they are serving (Stasik, 2017; 50). Some are serving foremost connections between Accra and other urban centers in Ghana like the Neoplan Station, and others are mainly intersections for intraurban commuting.

B) The transport unions - powerful political actors

Transport unions are influential and powerful actors in the public transportation sector. The Ghana Private Road Transport Union (GPRTU) is the largest union which had approximately 120,000 members in 2011 (Burchardt, 2015; 10). It controls around 80-90% of the private transport market (Agyemang, 2017). The transport unions organize and regulate the trotro system as well as act as an umbrella organization for the taxi sector. It controls around 80-90% of the private transport market, (Agyemang, 2017). The transport unions organize and regulate the trotro system as well as acting as an umbrella organization for the taxi sector.

As described above while unions manage the different trotro routs and are giving out permits to trotro entrepreneurs the GPRTU also controls most of the Lorry Parks. So, effectively to take part in the trotro business, entrepreneurs have to join unions to serve popular routes and to use the Lorry Parks. Non-members have to pay higher fees entering Lorry Parks. Moreover, unions act as welfare association for their members, (Burchardt, 2015; 10). There are for example financing systems in place to help individuals who want to start in the trotro business to acquire vehicles (Addo, 2002). And in general, the unions are representing their members

and their interests in communication and negotiations with the government to improve working conditions.

Since the late 1980s especially the GPRTU had a close bond with the government. In the era of liberalization policies, the government gave the private sector in transportation more independence and freedom in their operations. The Transport Policy Review Committee (TPRC) was introduced, which is built of representatives from governmental bodies like the ministry of roads and highways, the ministry of transportations and representants from the private sector like the GPRTU. Here the different actors in the transport sector had an institutional stage for communication and collaboration. Jennifer Hart (2016; ff 171) argues that the introduction of this committee meant a governmental commitment to cooperate in the coordination of the transport sector and to step away from top-down regulations and control. This closer relationship between the government and the GPRTU gave the union a powerful position. Through its newborn political influence, the union was also empowered among the drivers and gave it more authority over the private transport sector. The government improved the political support by the unions and their members and at the same time GPRTU gained more independence, authority and regulating control of the transport sector.

The regulating functions of the GPRTU become for example visible in the fact that the union introduced a police like guard force, that has the task to control the roadworthiness of the vehicles, ensuring the drivers and operators paid income taxes and union fees and to enforce better behavior of the drivers among each other and with the passengers (Hart, 2016).

The GRPTU is the largest and most influential union, but it lost its monopoly position in recent years, due to growing unions like the Progressive Transport Owners' Association (PROTOA). In 2005 for example the GRPTU lost a case against the PROTOA in court, in which the court ruled that no union can claim a monopoly over a particular route and therefore it is allowed for different unions to operate on the same routes. Before the GRPTU claimed to own certain routes and did not allow trotro operators from other unions to drive on those (Burchardt, 2015; 11).

In conclusion the private transportation sector in Ghana is mostly regulated and controlled by the transportation unions, who are the driver's representatives in communicating and negotiating with the municipal and national government. Due to the lack of a big scale and state-owned public transportation system the unions are powerful and influential actors, because they are running and controlling the most used urban transportation service (Abane, 2011). Of course, the governmental attempts of the last two decades to introduce state-owned public transportation were not warmly welcomed by the unions. The unions see a competition

for their business and a direct threat to their income (Agyemang, 2015, Burchardt, 2015, Hart, 2016). The unions want to keep all the drivers in work, therefore are critical about large buses with higher passenger capacities that could reduce the numbers of needed employed people (Burchardt, 2015).

One of the main challenges for the government in their attempts to introduce a public transportation system is to find solutions and compromises with the transport unions due to their powerful and influential position.

C) The “problematic” with trotros

When talking about trotro operations it is important to mention that there are some issues connected with their way of operation that is a reason for negative perception in media and in academia. One of the main issues concerns with safety. As described above the vehicles are mostly second-hand and come in old and often bad conditions. The limited investment resources are used to keep the vehicles roadworthy and in operation. Big upgrade investments are in most cases not possible for the trotro operators. At the same the factor of a low level of direct competition for passengers due to the ‘fill and run system’ in lorry parks as described above, gives no incentives for the operators to do more than the necessary to keep the vehicles operational. One example for the bad conditions of the vehicles in regard to safety is the fact that the big majority of vehicles do not have working seatbelts (Burchardt, 2015).

In addition to the bad state of the vehicles it is reported that also the behavior of the drivers is another factor that increases the risks for accidents. Speeding and rogue driving is reported to happen on a daily basis (Burchardt, 2015, Addo, 2002, Abane, 2011, Hart, 2016). The quicker you reached the passengers destinations; the quicker new paying passengers can board the trotro. So, it is one way to maximize profits. On the other hand many drivers are not sufficiently educated about the traffic laws and regulations, which can lead to unsafe driving (Abane, 2011). As described in the beginning of the chapter in the early years of driving as a profession, driving was perceived to be honorable profession. Jennifer Hart (2016) describes that through the liberalization policies of 1980s and 90s and the fact that more and more people entered the driving sector to become drivers and the low barriers to become driver the perception of this profession rapidly changed. Since then, anyone could become a professional driver and driving was no longer a symbol for modernity but rather it became a way to stay out of poverty and a job anyone well educated or not could do (Hart, 2016; ff 171). The low entry barriers for people to become professional drivers increases the risk for drivers that are not sufficiently educated about all traffic laws.

In the end all those factors result in the fact that minibuses are the most common cause for road accidents in Ghana (Burchardt, 2015). Also, drivers' fatigue might be another reason for the increased risk of road accidents through trotros. Many drivers work long days, up to 16 hours to increase the income (Burchardt, 2015) on six days a week (Addo, 2002). Safety is a critical issue when talking about the trotro system.

Addo (2002) lists another weakness of the trotro system, namely the inefficacy of the system regarding road congestion. A large bus with 60 passengers takes less road space than four trotros with 15 passengers each. A huge challenge for Accra is the rapid increase of vehicles on the road in recent years. With a transportation system that is based on larger busses the numbers of vehicles could be decreased.

Addo (2002) argues that also the operational costs of one large bus are smaller than of the amount of trotros one need to transport the same capacity. So, it is also a matter of cost effectiveness.

4.1.2.3. A new player on the field – Transport Network Companies

In recent years a new transportation provider arrived in cities all around the world and also in Accra. Transport Network Companies (TNC) like the well-known company Uber offer taxi-like urban transportation. Their operation is based on mobile applications which connect employed drivers with the passengers. The passenger orders a ride via an app on their mobile phone. The closest available driver will receive a notification on their phone who will then pick up the passenger at their location. The payment happens through the app and digitally. Only in few cases one pays the driver directly in cash. The fares are set by the TNCs and the passenger can see the fare before they confirm the ride. At the end of the ride passengers can rate the driver and tip the driver if they wish. The ratings of the drivers can be seen in the mobile app and passengers might not choose drivers with bad ratings. So, the rating systems is an incentive for the driver to ensure a clean, comfortable vehicle and a safe ride.

Since 2016 Uber operates in Accra (Agyemang, 2019) and already in 2018 the company had employed over 3000 active drivers in Ghana. Although the company is perceived positively by passengers and its drivers because of the quick and simple service and the new job opportunities, Uber and other TNCs have created a new conflict in the urban transport sector. Agyemang (2019) describes a conflict especially between the traditional taxi operators and the new arriving TNCs which is based on the accusation that the TNCs are enjoying competitive advantages because they operate illegally and outside of existing commercial transport regulations. In comparison to traditional taxi operators, Uber driver operate without official

permits and vehicle certifications. In their argumentation TNCs operate a regular taxi service without playing with the same rules as the traditional taxi operators. This is a conflict which is not only observed in Ghana but also in other countries. Germany and Norway for example have not allowed for TNCs like Uber to start operations, because of this conflict between TNCs and traditional taxi operators. While Uber and other TNCs are expanding their operations and gaining in popularity in Ghana, this conflict is boiling while the government to date is failing to provide legislative regulations to even the competition.

4.1.2.4. Summary - today's situation

Today Accra's streets are characterized by congestion. People, street vendors, cars, minibuses and motorcycles are filling the streets. Long traffic jams on the important road connections are a usual sight in peak hours. This congested status quo leads to long travelling times and unsafe traffic conditions. This is a result from either unequal or unregulated urban planning throughout the 20th century. In the colonial era urban planning was used to segregate between the European settlers and the indigenous residents. After the independence urban planning was not consistently regulated and did not follow an overall plan. Especially in regard to transportation several projects failed and could not compete with the trotros. Even though today there are several different modes of commercial transportation trotros are still dominating the transport market and are the most used transportation (Abane, 2011).

The goal to implement a mass transportation system to ease the congested traffic situation in Accra exists and there were a few attempts to install a BRT system, but until today none of these attempts fully succeeded. More on this in the next section.

4.1.3. A BRT system to solve Accra's urban transportation problematic? – existing plans for future transportation systems

The following section will summarize the official plans for a future mass public transport system in Accra. Starting with the in 2003 initiated BRT system. Furthermore, I will give an outlook on the plans that exist for the years to come.

During almost one decade the private transportation sector (trotros) had a quasi-monopoly, due to the collapse of the two state-owned bus companies OSA and CES in the late 1980s/early 1990s. In the beginning of the new century the government started to introduce a new state-owned bus company. In the October of 2003 the bus company Metro Mass Transit Limited (MMT) was established to provide both intracity and intercity transportation. The

government held 45% shares of the company while the surplus (55%) belonged to indigenous financial institutions (Yobo and Apau, 2015, Agyemang, 2015). Initially, a main concern was to provide an alternative to the trotros on unpopular and underserved routes, while the overall goal was to create a mass public transportation system in the long run (Burchardt, 2015; 16). To compete with the trotros the company kept the fares below usual trotro fares and offered free rides for elderly and schoolkids.

The government received international aides in the starting phase of the project. Among other those were subventions in the provisions of large buses. The Italian government for example donated 17 secondhand buses (Burchardt, 2015). The project can be seen as an international development project with the aim to improve the from congestion characterized traffic situation in Accra and by it to enhance overall sustainable urban development.

In September 2005 the MMT attempted to introduce a BRT system on a 20km long highway between Kimbu and Adenta in Accra. In the first phase the BRT system were quite successful and reported high ridership, but after only two years of operation in 2007 the BRT was replaced by a usual bus service on this route. Agyemang (2015) lists several factors for the failure of the BRT system. A main reason is perhaps the lack of legislative instruments to ensure the protection of the BRT exclusive lanes, so the busses can operate on schedule their route despite traffic congestion. Because the exclusive lanes were not respected by the other vehicles, the BRT busses were caught in traffic. The unpredictable traffic conditions then made impossible for the busses to operate on time, which resulted in delays and inefficiency regarding the occupancy of buses. Moreover, the busses' technical conditions suffered under the traffic congestion. Standing in traffic jams leads to poor fuel consumption and increased the chance for technical failures due to overheating. Those factors resulted in high operation and maintenance costs. In addition to those operational issues, Agyemang (2015) found out that passengers had a hard time to get used to the different modes of operations of holding only on designated bus stops and buying tickets in beforehand.

Although the first BRT system failed, MMT still provides public transportation with larger buses and the government has purchased several hundreds of buses over the years to expand the operation. But it is reported that the company has problems with corruption and a weak economy (Burchardt, 2015; p17).

A new attempt to introduce a BRT system was in planning since 2007 and was supported by the World Bank with 46 million dollars (WorldBank, 2015). But the project was not finished before 2015. And also, then it did not really operate as an BRT system due to lack of constant exclusive lanes for the busses. Because of this the system was renamed Quality Bus System

(QBS) (GhanaWeb, 2018) and operates few routes in Accra under the name Aayalolo. During my fieldwork I tried to use the system. The information on the internet on the system and where in Accra it operates were outdated. Only by coincidence I found one of the busstops of this system on one of my many walks through the city. The bus stop carried some information about

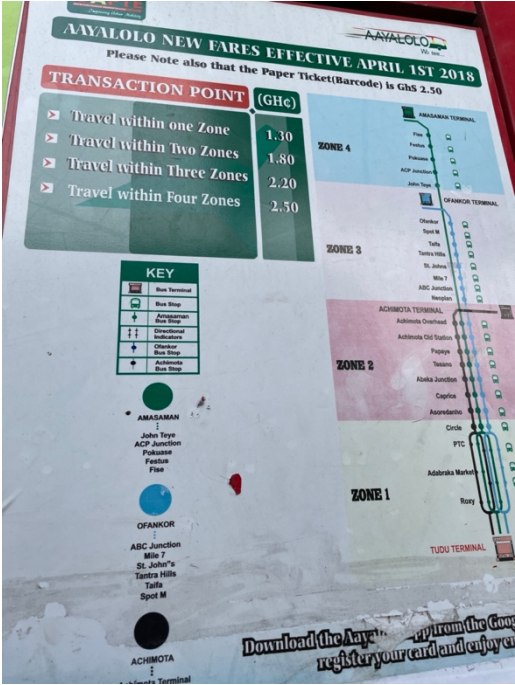


Figure 3: The information for the Aayalolo bus at one of the bus stops. Source: Fieldwork 22.09.2021

how to purchase ticket and about the route. Through this information (Figure 3) I could find the



Figure 3: One of the Aayalolo busses at the main bus terminal. Source: Fieldwork 22.09.2021

bus terminal from where the busses start the route.

The busses are modern coach busses (see figure 4) and offer a high standard of comfort and space for the passengers. They even have USB outlets on every seat to charge mobile phones. On this note the Aayalolo busses offer a very different experience for passengers than the old, uncomfortable, and small trotros. However, the way the busses operate is quite similar. When I came to the bus terminal it was difficult to find information on when the busses would go and how to purchase the ticket. In the official plans it was stated the system would operate differently to the trotros scheduled busses. Furthermore, tickets were to purchase in beforehand, this was also the information at the bus stop I discovered. Only after asking another pedestrian in the terminal, I found out that tickets would be purchased on route and that the busses gave up following a schedule and operate as trotros by running only when filled up with enough passengers. I waited more than 40 minutes for the bus to go.

On route the bus did not stop at the first bus stops which were on the route plan, it rather went with open doors and people could enter on crossings and red lights. A women conductor went around the bus to collect the fares, which was striking because one rarely sees women working in the transport business in Accra. In contrast to trotros, passengers received a paper bus ticket for the ride. The route was on one of the busiest north outbound streets in Accra and so it did not take long before the bus got stuck in traffic. At some crossings the old “BRT exclusive lane” signs could be seen, but other vehicles were also using those lanes. After a few kilometers the buss was completely filled with sitting and standing passengers.

In summary, some of the original BRT infrastructure still exists and a few busses operate but they adapt to the operating ways of the trotros. They go unscheduled and only on demand. The general information around the system is outdated not only online but also physically at the bus stops. The busses offer a higher level of comfort but are stuck in traffic as the trotros. On a sidenote I can state that during my two weeks in Accra I saw more Ayayolo busses stranded on the side of the road apparently broken down than operating in the streets, which could be due to the aspect mentioned above that the coach busses struggle with overheating in traffic jams.

To conclude this paragraph, it is important to state that to date no state-owned public transportation system could replace or even seriously compete with the private transport sector and that despite receiving competitive advantages like international funding. This is due to operational failings and insufficient implementation. In the following I will focus on current and future transportation planning in Accra.

4.1.3.1. Analysis of four different planning documents for urban transport in Accra

In this next section I will present the findings of the analysis of four current planning documents for urban transportation in Accra. Those include the Ghana National Spatial development framework for the years 2015 until 2035, a BRT project proposal paper from the Ministry of Roads and Transport of Ghana and two planning documents from non-governmental agencies about future urban development in Accra. For the research I also looked at some World Bank documents about the financing of the previous BRT projects in Accra. Those documents were very technical and focused mainly on the financial aspects of the projects. For the following content-based summary and analysis I have therefore focused on the four planning documents mentioned above.

A) The Ghana National Spatial Development Framework (2015-2035); Volume 1: Conditions and main issues:

The document was published in February 2015 by the national government of Ghana and is a collective framework for the spatial development of Ghana. It is a document with about 400 pages which deals with all aspects of future development including economy, environment, infrastructure and more. Under the section about infrastructure the document deals also with mobility and transportation in urban areas of Ghana, mainly Accra and Kumasi as biggest cities of Ghana. The plan formulates the goals to 'invest and improve public transport systems so as to cover 80% of all passengers' trips and to provide sufficient urban public transport infrastructure' (Geier et al., 2015p. 221). Moreover, the plan mentions the Ghana Urban Transport project (Geier et al., 2015 p. 222) under which the government aims to improve mobility in Accra and Kumasi by integrating urban development and transport planning for better environmental management, strengthen the capacities of ministries and investing in traffic infrastructure like street-light and bus lanes. Here the document also names the Aayalolo busses in Accra as example for a future bus system. Moreover, the plans see a BRT bus system on four corridors from the city center to the outer regions of greater Accra. The aim is to 'resolve the serious mobility problems' (Geier et al., 2015 p. 224) with the help of the BRT system.

The section about urban mobility in the plan finishes with a paragraph about a suburban railway network in Accra which is supposed to be offer commutes form the suburbs to the city center and between the suburban regions by the year 2035. However, more concrete planning details of the railway project are missing.

This development framework focuses mainly on infrastructure improvements for the urban transportation development between 2015 and 2035. There is a strong emphasis on the addition of road space for cars and a BRT system to solve the traffic problematic in Accra. There is a concrete goal to move at least 80% of all commuters with public transportation by 2035 to decrease the number of private vehicles on the road. This goal is supposed to be achieved by a BRT system and a new railway network according to the plan. The existing public transport providers namely the transport unions and their trotros are not mentioned once in the section. The plan does not address how the government plans to deal with them or in which way they could contribute to achieve that goal. Here is to question if the missing mention of the private transport operators means the government aims to replace them with the planned formal bus and railway systems.

Furthermore, the document does not talk about non-motorized forms of transport e.g. walking and biking. The paragraphs on infrastructure improvement are exclusively about motorized forms of transport.

All in all, the National Spatial Development Framework for the coming years until 2035 has a strong emphasis on big scale infrastructure investments and aims for mass-transit systems as a sole solution to solve Accra's mobility problematic

B) Accra Bus Rapid Transit Project – Ministry of Transport of Ghana (in collaboration with UNEP)

This planning document is a project proposal by the ministry of transport of Ghana in collaboration with the UNEP from the year 2016. The document explains in more detail the 4-corridor bus system for Accra mentioned in the development framework. According to the document main purpose of the project is to improve urban mobility in Accra and to reduce the greenhouse gas emission by traffic. The whole project is supposed to cost \$102 million, from which \$75 million would come from international sources like grants and loans. The project sees a BRT system as mass transit system for Accra which would operate on four corridors in and out the city center.

In contrast to the development framework this planning document mentions the existing transport providers. They are characterized as obstacle for the project if the 'current bus operators do not accept relocation of their routes and rationalization of the transport system' (Ministry of Roads and Transport, 2014p. 23). To prevent this from happening the project aims to collaborate with the transport unions throughout the whole implementation project. The plan

says the unions would be offered to actively participate in the BRT operations and that there would be an open dialogue with the unions to include them in the relocation of the routes.

Furthermore, the plan mentions that non-motorized forms of transport are included in the basic vision of the project, namely that passengers will use multi-modal approaches of commuting which includes walking and biking in combination with using the BRT system. However, the plan does not include paragraphs on how the project would improve the conditions for non-motorized travel or how those forms would be connected to the BRT system.

The document describes in more detail how the BRT project in Accra would look like. The existing transport providers are seen as an obstacle for the success of the project but forms of collaboration with the transport unions are included in the plan.

C) Policies for Sustainable Accessibility and Mobility in Urban Areas of Ghana - SSATP (Africa Transport Policy program)

The document is a policy paper on planning recommendations in regard to urban transportation in Ghana, mainly in Accra. The policy paper was published in December 2018 by the Africa Transport Policy program (SSATP) which works together with the Ministry of Transport of Ghana and is part of the World Bank group.

The document has about 80 pages and offers in the beginning a detailed analysis of the reasons for the mobility challenges in Accra and Ghana's urban centers. Here the paper mainly characterizes a lack of administrative control, regulation and accountability as the main reason for the congestion on the streets and the traffic problematic. This has led to land-use disorder, uncontrolled urban sprawls, inadequate urban infrastructures and insufficient traffic management. Another problem mentioned in the document was also a topic in the expert interview I conducted, many different administrative entities share responsibilities for transportation planning and it is often not clear who is in charge for which tasks. Moreover, the administrative bodies lack resources, financially but also human resources. This leads to weak governmental regulations and a weak link between strategies and actual implementation (SSATP, 2018 pp 40 ff). The paper also states that there is a lack of possibilities for the involvement of the civic societies, which results in a lack of accountability of the administrative entities to deliver transport projects (SSATP, 2018 pp 49 ff).

Furthermore, the policy paper identifies a weakness in the fact that most funding for transport infrastructure investments comes from international donors and foreign loans, administered by the national government. This leads to a focus on big scale projects and a

neglect of small-scale infrastructure investments. In addition are there almost no investments in the existing transport businesses, because they are private and not state-owned (SSATP, 2018 p 46).

Coming from the analysis of those weakness the paper formulates 6 priority recommendations for future urban transportation planning in Accra:

- “Strengthening the institutional framework for urban transport management
- Creating funding sources dedicated to the management of urban transport
- Promoting the effective participation of civil society in urban transport management
- Improving multi-modal planning and operation of city centers
- Improving the performance of public transport (in particular the reform of paratransit services)
- Organizing and implementing National Government assistance for the management of urban transport in secondary cities” (SSATP, 2018 p 15)

As one can see this policy paper recommends mainly improvements on the administrative level to tackle the mobility challenges in Ghana’s urban centers. Core is to gain a more sufficient urban transport and traffic management which includes participation of the civic society. Moreover, the existing transport providers are included in the priorities and shall be reformed to deliver better performance. On a later stage in the paper this reform is described in more detail and shall content of the integrated operation of trotros and state-owned bus services following a trunk and feeder principle. In addition, the trotro operations shall be formalized by implementing a legal and contractual framework for the unions, that would also include a gradually installed obligation to professionalize the drivers to ensure more road safety. It is stated that all trotro associations should be engaged in this reform process (SSATP, 2018 pp 65 ff).

Other concert planning recommendations are the establishment of an overarching National Urban Mobility Strategy which all administrative entities in the country follow; the integration of non-motorized forms of transport in the infrastructure development; the development of a mass transit system in Accra in addition to the improvement of the existing transport providers; and to promote civil society participation by formalize public participation, empower transport users to defend their rights and develop a systematic monitoring and accountability processes.

All in all, the recommendations of the SSATP are to follow a more holistic approach and to improve the administrative resources for transport planning and management along the improvement of transport services and infrastructures. In addition, the recommendations acknowledge the existing and importance of the existing public transport provider and promote an involvement of those in the future urban transportation.

D) Greater Accra Regional Spatial Development Framework – GIBB

This document was published by GIBB an Africa located infrastructure planning company in 2017. GIBB was hired by the ministry of lands and natural resources of Ghana to produce this regional spatial development framework for the greater Accra region. The framework includes a section on future urban transportation systems. Here the paper recommends a focus on infrastructure improvements and more mixed land-use planning to decrease congestion and traffic jams (GIBB, 2017 pp. 19-22). More concretely, the infrastructural improvements should content the development of a metropolitan expressway between Accra and Tema and supporting bigger roads to support the existing arterial roads. Moreover, the document recommends the implementation of a mass transit system in form of a BRT system and a commuter rail network.

In addition to the infrastructure investments the framework recommends the development of suburban market towns to relieve pressure from the city center of Accra and decrease traffic flows between center and suburbia. The framework argues that a higher mix of land-use would support the compactness and efficiency of the region (GIBB, 2017 p.20).

All in all, the recommendations of the paper follow the National Spatial Development Framework summarized above and focus on infrastructure investments in addition to improved land-use planning and management. Hereby, the paper does not go into concrete detail on how successfully implement the recommendations. Existing public transport providers are neglected as are non-motorized forms of transport.

In summary those four planning documents from the later 2010s show a variety of planning frameworks for future transport planning in Accra. The first presented document is the most relevant as it is the national planning framework. The second presented document, the BRT project paper published by the ministry of transport contents the most detailed and concrete planning details of a future mass transit system for Accra. From the two non-governmental planning documents the SSATP policy paper promotes a unique and holistic

approach to improve future urban transportation in Accra, while the development framework from GIBB follows the direction of the National development framework.

4.1.4. Summary first sub-question

This section of the empirical chapter presented in detail how historical urban planning and developments has led to today's situation in Accra, where public transportation is dominated by private operators and their transport unions. The historical perspective shows how the trotro could become the most used mode of transportation in Accra. Furthermore, the subsection gives an overview over the failed attempts by the government to initiate a mass transit system in form of a BRT system. In the end a detailed presentation of current official planning frameworks for future urban mobility and transportation was given.

4.2. Second sub-question: What are the everyday experiences with being mobile in Accra?

This section will be mainly based on my experiences and the findings of the participating observations in the streets of Accra. The section will be divided in my findings with non-motorized forms of transport, mainly walking, and motorized forms of transport. I wished to include more primary data and local perspectives in that section and not mainly my own subjective perspective, but as mentioned before the circumstances in a time impacted by a global pandemic it was difficult to organize a sufficient data collection.

A) Being a pedestrian in Accra

During my fieldwork in Accra, I walked several kilometers almost each day, mostly around areas in the city center or just outside the city center. What one quickly realizes as a pedestrian is that the city is not made for walking or any other kind of non-motorized transport. The pathways are in bad shape or in many cases there is no exclusively distributed space for pedestrians and people walk on the side of the road. Road space is almost exclusively distributed for cars and other motorized vehicles. Typical for Accra's streets are street vendors and little marked stands on the side of the road where traders sell all kinds of goods. So, in fact pedestrians often have to share the limited road space on the side with those market stands and have to walk between the traders and the driving cars. If the side of the road is not blocked by traders than with parked cars, especially in smaller roads in residential areas. Another characterizing feature of the streets in Accra are the open wastewater channels on each side of almost every road (see Figure 6). Those are 1 meter deep and about 1-meter-wide channels that are only rarely covered. They are accident hazard for pedestrians and limit the existing road space even more. One of the main observations I made was that the general quality of the road was best in the center of the road without potholes and decreased often drastically towards each side of the road, where the tarmac often had holes and was not even (see Figure 5).

In summary the road space for pedestrians is very limited and it seems that the existing road infrastructure of Accra is not at all made for non-motorized forms of transport, which is striking as many people's main mode of transport is walking. The existing road infrastructure serves almost exclusively cars and other motorized vehicles.



Figure 5: Wastewater channels that can be found on most roads in Accra. Source: Fieldwork 18.09.2021



Figure 6: Decreasing quality of the road from center towards the side. Source: Fieldwork 27.09.2021

Another challenge for pedestrians besides the limited space is the general driving behavior of the motorized vehicles. As a pedestrian one mostly feels that the majority of drivers of motorized vehicles have no respect for the pedestrians at all, as they drive close by the

pedestrians in high speed, do not respect zebra crossings and honk immediately when pedestrians cross the street and the driver has to break. In a way the neglect of pedestrian represented in the limited distributed road space is mirrored in the disrespectful and unsafe driving behavior towards pedestrians from a great majority of drivers.

All in all, walking in the streets of Accra is full body experience: the congestion of cars, people and market stands in almost every street, the noise of traffic, street vendors that try to sell their products and the smell of motor exhaust, fried food, and trash. Being a pedestrian in those streets is challenging and exhausting. One has to be on alert most of the time to avoid accidents as the majority of drivers do not take care of avoiding accidents with pedestrians. In addition, one has to be attentive to not fall on the tricky road conditions and the 1-meter-deep wastewater channel on one side. In the city center walking is a slow mode of transport as many people walk in those areas and the road space for pedestrians is occupied to a major degree by street vendors. Non-motorized forms of transport are neglected in the existing road infrastructure. Pathways for pedestrians do seldomly exist but bicycle lanes could not be observed during my fieldwork.

B) Being a passenger in motorized forms of transport

During the fieldwork I used several forms of motorized transport in Accra, those include the previously described Aayalolo bus ride, and several rides with trotros, taxis and TNCs. Which all those forms of motorized transport have in common is that one unavoidable will spend time in traffic jams, where the vehicle only moves a few meters in a minute. This accounts for all times of the day even though it is the worst in the morning and evening rush-hours. As a passenger one has no choice but to be patient and wait or embark the vehicle and walk. However, walking might not be the more comfortable or quicker option as described above.

The different forms of motorized transport offer different levels of comfort. The trotros offer the lowest level of comfort. They are often overloaded, and passengers sit closely together in the unacclimatized vehicle, where only the driving wind can offer some relief of the heat. This effect of course is limited in the traffic. But trotros are the most affordable mode of transport and offer rides for very low rates. The Aayalolo busses offer higher level of comfort but overcrowd quickly as well. Then many people stand between the seats which is very unsafe in situations where the bus has to suddenly break. Taxi and TNC vehicles offer similar levels of comfort with comfortable seats and leg space. TNC vehicles tend to be modern vehicles and

sometimes offer even air condition, which is a welcomed luxury when the car is stuck in traffic with temperatures around 26 degrees.

As a passenger in taxis and TNC vehicles I had the opportunity to observe the drivers more closely. Some of the drivers behaved as experienced as pedestrian. They speeded, did not respect zebra crossings and did not follow driving rules but the very basic regulations like stopping at a red light. In general drivers more often risk touching other cars or accidents than in my experience from European cities.

As in TNCs the fares are set by the company and not by the driver there is no fare negotiation necessary. In contrast a ride with a taxi always includes a short negotiation about the fare for the ride. This is especially the case for tourist where drivers try to maximize profits. I for example overpaid heavily my first taxi ride because I did not know the usual fares as I found out later after telling locals in my accommodation.

A trotro ride experience differ from taking a trotro from a lorry park or entering a trotro on the road. Taking a trotro from a lorry park comes with an uncertain amount of waiting time as the trotro only goes when it is full. This makes planning difficult as you can not exactly know when the trotro will start and how long the ride will take including the traffic. On main roads there are typical pick-off places for trotros, they look like bus stops and offer a little space on the side of the road where the trotros can stop. The challenge is to find the right trotro that goes to the desired destination as the mates are mostly not communicating the destination in English but in one of the native languages. Once boarded the trotro the passenger has to find a seat. A window seats offerse the luxury of a cooling stream of fresh air while other seats offer mostly slightly more leg space. One has also to keep in mind that embarking takes some time if the passenger sits in the last row at the window as there is only one door and a minimum of space for moving in and out the vehicle.

Abane (2011) states in his case study that 23% of trotro passengers found the performance of drivers to be poor. This is mainly due to speeding or not following of traffic rules. During my field work I also observed such behavior of trotro drivers, where the sudden breaking to collect additional passengers not only was safety risk for the passengers on board as for the vehicles behind the trotro. However, Abane (2011) also found out that in choosing the mode of transportation only reliability of service and safety are only minor reasons. More dominantly people choose a mode of transport for the reasons of affordability and accessibility. This might explain the continually popularity of trotro as those are the main qualities of their services. They are by far the cheapest transport mode and during my fieldwork it was very easy to find a trotro at any time as they operate nearly everywhere in Accra.

In another case study Abane (1993) found that especially women but also other vulnerable groups prefer taxis over trotros for their work trips, because they are unable to compete well with men for space and seats on trotros, especially during rush hours. Additionally, as women in Ghana tend to take care of more household chores than men in the morning, they start later their commute to work and therefore prefer faster and more predictable modes of transport. The case study is almost 30 years old so the findings might be outdated. During my fieldwork I could not observe a clear majority of male trotro riders but rather found the ridership very balanced in terms of gender. Originally in this master study I wanted to focus more on gender differences in urban mobilities unfortunately that was not possible due to the pandemic and the short time in the field. That is why I cannot go deeper in this matter at this point.

In summary the experiences of being mobile in Accra have several things in common no matter which mode of transport are used. Being mobile is challenging, on most days exhausting, time-costly and in worst cases unsafe. As a pedestrian one has to deal with a lack of sufficient road space, bad driving behavior and congestion. As a passenger in the diverse forms of motorized transport one has to deal with uncertainty about the travel time due to waiting and traffic jams.

5. Discussion Chapter

In the following chapter I will discuss the third research question: How are the local experiences, solutions, and knowledge about urban mobilities included in the plans for future urban transportation systems? I will start the chapter with a short summary of what I identified as the local experiences, solutions, and knowledge about urban mobilities to then analysis how they are included in current transportation planning in Accra.

5.1. What are the local experiences with, solutions for, and knowledge about urban mobilities?

In the previous chapter I described in detail the origin and current ways of operating of the trotro sector. The trotros emerged and cemented their status as most popular public transport providers due to the failings of state-owned bus services. They filled the void of public transportation in Accra and meet the needs of urban residents, as they are very affordable and accessible. Despite their shortcomings mainly in predictability, low levels of comfort and safety the trotros deliver a functioning and efficient transport service. Therefore, I would identify the existing trotro system as a local solution for urban mobility, which came into place when the national government could not deliver a sufficient public transport service. At the same time the trotro system gives many people a job and income possibilities, not only those working directly in the business but also all those street vendors that sell their goods to waiting passengers in the lorry parks and in road crossings.

The trotro system is working in its purpose to deliver affordable and accessible transportation. It moves thousands of people through the city every day and offers income opportunities for many people. In addition, the system is so structurally connected to the city's historical development and the people in Accra are used to the systems way of operating. That is why from a local perspective future transportation planning has to acknowledge the trotro system's performance and connection to the city. Governmental attempts to compete or even replace the system with a state-owned mass transit system so far have failed, also because the attempts were planned in singular way without integrating the existing public transport providers. Future transportation planning in Accra has to integrate the trotro system and collaborate with the transport unions to ensure their support and to learn from their expertise of providing public transportation for Accra's residents for decades.

The local experiences of passengers in public transportation can mainly be described in uncomfortable travel conditions as the trotros are mostly overcrowded and do not offer sufficient space for passengers and comfortable seats. All motorized modes of transport have in common that commuters unavoidable will spent some travel time in traffic jams. The Aayalolo busses offer more comfort as they are modern coach busses, however in the way of operation they are adopted to the trotros which results in unpredictable travel times due to waiting until the bus is fully loaded and the fact that the busses stuck in traffic as well because of missing exclusive lanes. Mass transit systems based on large coach busses can be part of the solution to solve Accra's traffic problematic as they can carry a higher amount of commuters on less space (Abane, 2011). However, for this to be a fruitful solution this bus system has to be based on exclusive lanes for busses, so that the busses do not stuck in traffic can gain an advantage in reduced travel times over private cars and thus attract more people to use busses. An administrative and regulatory framework is necessary to ensure exclusive usage of the lanes of the busses. In the failed BRT project attempts of the early 2000s the exclusive lanes were not respected by other drivers (Agyemang, 2015). Lastly the bus system has to be seen as an addition to the trotros. In an integrated system the large coach busses could operate on the main commuting corridors that connect the suburbs with the center, the trotros could then serve routes on smaller intersections. In this integrated system investments in the trotro sector are important to increase travel comfort and safety. Financial investment would be necessary to improve the vehicles and to implement a professionalization of the drivers by training programs. In addition, it is critical that the income of drivers and mates is no longer based on the amount of daily passengers but is paid hourly. This would minimize incentives to overcrowd the trotros and to work long daily hours to maximize profits. This would require a certain degree of formalization of the trotro system and financial state investment.

The local experiences as described in the second section of the empirical chapter with urban mobility are characterized by long traveling times and uncomfortable and unsafe travel conditions for both non-motorized and motorized forms of transport. But especially the local experiences of urban pedestrians are critical as pedestrians have to deal with conditions that apparently do not acknowledge their existence or significance as many people mainly walk. Only limited public road space is distributed to pedestrians and the distributed space is often in bad shape. At the same time bad driving behavior is threatening their safety. Future urban transportation has to integrate the equal distribution of space for pedestrians to ensure their safety and acknowledge the fact that many people are walking. In addition, the equal

distribution of public road space has to take into account the local knowledge that the sides of roads especially in the city center and around lorry parks are marketplaces where hundreds of small-scale traders earn their daily income. By distributing more road space for walking pedestrians but also street vendors and their stands, the travel conditions for non-motorized transport would immensely improve and become safer by decreasing the risk of accidents with motorized vehicles. This way it might motivate even more people to take non-motorized transport options which would have positive implications for road congestions and the reduction of greenhouse gas emissions.

Lastly, it became clear in the literature and also through the expert interview that the traffic problematic is not just a matter of inadequate infrastructure but also a result of decades poor or no land-use planning in GAMA. This led to an uncontrolled sprawl of residential areas in the sub urbans of Accra, while most workplaces are in the city center. This is the main reason for the extreme rush hour traffic jams in the morning towards the center and in the afternoon outside the center. The interviewee of the expert interview argued therefore that future transportation planning in Accra has to go hand in hand with more effective land-use planning and the decentralization of Accra's workplaces and services to suburban centers to decrease traffic flows in and out the city center.

5.2. How are the local experiences with, solutions for, and knowledge about urban mobilities included in future planning for urban transportation?

In the governmental planning frameworks (Ministry of Roads and Transport, 2014, Geier et al., 2015) the main emphasis is on big scale infrastructural investments in from of road upgrades and the implementation of mass transit systems. Especially, the Ghana National Spatial Development framework (2015-2035) does not mention the existing transport providers nor non-motorized forms of travel. The focus of this national development agenda lies on cars and the implementation of BRT system. By not mentioning the existing transport providers it is to expect that the framework sees the trotro system replaced by the state-owned BRT system. In addition, the developing framework sees the development of a railway commuter system by 2035 to relieve pressure of the roads. However, those plans are not in detail and there is no mention on how to finance the railway system.

The neglect of the non-motorized transport modes is striking as it is especially promoted under the SDG 11, to reduce greenhouse gas emissions. In relation to the local experiences the neglect mirrors the existing disrespect for pedestrians I observed of a great

majority of drivers. In a way, the disrespect for non-motorized transport modes starts at the governmental level that is not delivering sufficient infrastructure for pedestrians and bikes.

So, in summary the current official governmental planning framework for the years 2015-2035 contents only one of the local knowledges, identified previous. Thus, the need for a mass transit system. However, according to the planning document the transportation plans follow old flaws and do not acknowledge the existing transport providers. In the early 2000s plans for a BRT system that were designed similarly failed (Agyemang, 2015).

The other governmental document, the BRT project paper goes into more detail in the planning for a mass transit system for Accra. Hereby, the existing transport providers are though named as obstacle for the success of the BRT project but the document contents a few concrete points on how to integrate the trotro operators and the transport unions in the system. In addition, it mentions non-motorized transport modes as integral part of the BRT system. But this aspect is not explained in detail and there are no concrete actions formulated how the BRT project would benefit pedestrians and bikes. This BRT project paper aims to prevent earlier mistakes and formulates in fact that goal to integrate the existing public transport providers in the new system. Furthermore, the project sees non-motorized transport as part of the project but does not mention concrete actions.

The Greater Accra Regional Spatial Development framework published by the non-governmental company GIBB (2017) aligns with the official government planning framework but has a greater emphasis on an optimizing of land-use planning and management in GAMA as important tool to improve road congestion and redistribute commuting flows. This aligns with the identified local knowledge that future transport planning as go hand in hand with improved land-use. Moreover, the framework focuses on road infrastructure improvements for motorized vehicles while non-motorized transport modes are also here neglected. Lastly it formulated the need for a mass transit system in Accra.

Lastly the SSATP (2018) policy paper follows the most holist approach in its recommendations for future urban planning in Accra of the four analyzed planning documents. It recommends the establishment of an overarching national mobility strategy and the implementation of sufficient administrative resources for sustainable transport planning and management. It formulates concrete measures on how to integrate the existing transport providers in a future mass transit system. Lastly, it recommends the government to establish possibilities for civic society participation so that future transport planning in Accra meets the needs of the local residents, including the improvement of basic non-motorized transport infrastructure.

In summary, none of the analyzed planning documents contains all of the in this study identified local perspective on urban mobility and transportation. The policy paper from the SSTAP contains most of them. But as the SSTAP is a non-governmental organization, the paper just collects recommendations for future planning it is to question how many of those recommendations the government will take into account. Especially as it seems the government's main focus lies on big-scale road infrastructure investments for motorized vehicles and the implementation of a mass transit system.

6. Concluding thoughts

Accra's urban transportation challenge will not go away in the coming years. Recent years have shown that it is needed more than the simple implantation of new bus system to solve the traffic jams. A holistic approach is needed that takes into account the local perspectives and existing solutions. A transport planning those accounts for all commuters, those in motorized transport modes and those walking and biking. Harvey (2008) formulated equal access to public space as main feature of a just city. Right now, this equal access is not given in Accra. Increasing numbers of private vehicles with one or two passengers fill the streets while those who cannot afford private vehicles stuck in traffic in trotros or taxis or have to walk on the curb of the road in unsafe conditions. A holistic planning approach is need that starts with the basics and provides more safe space for pedestrians and bikes to move and gives room for civic society participation. During my fieldwork I discovered the online community 'trotro diaries' which is an online blog on several social media platforms where people can share their experiences from being mobile in Accra. The non-governmental organization collects those experiences and reports and brings them forward to administrative decision makers and the transport unions. This way the important actors in the transport sector hear about the residents experiences and can consider changes and improvements that fits to the needs of the people.

When I asked the interviewee in the expert interview what gives him hope that in the future Accra will be able to improve its traffic situation, the expert said it is the increasing involvement of civic society especially over social media platforms that gives hope. Because this way the people can increase the pressure for decision makers to improve the basic transport infrastructure needs instead of focusing solely on big-scale projects.

References

- ABANE, A. 1993. Mode choice for the journey to work among formal sector employees in Accra, Ghana. *Journal of Transport Geography*, 1, 219-229.
- ABANE, A. M. 2011. Travel behaviour in Ghana: empirical observations from four metropolitan areas. *Journal of Transport Geography*, 19, 313-322.
- ADDO, S. T. 2002. Provision of Urban Transport Services in Accra Available: <https://www.ssatp.org/sites/ssatp/files/publications/Presentations/UrbanTransportServices-Accra.pdf> [Accessed 5.5.2021].
- AGYEMANG, E. 2015. The bus rapid transit system in the Greater Accra Metropolitan Area, Ghana: Looking back to look forward. *Norsk Geografisk Tidsskrift - Norwegian Journal of Geography*, 69, 28-37.
- AGYEMANG, E. 2017. Mode choice for long distance trips: Evidence from the Greater Accra Metropolitan Area of Ghana. *Journal of Transport Geography*, 64, 150-157.
- AGYEMANG, E. 2019. "Uber is here to stay": Exploring the policy implications of the Uber-Local Taxis turf war in Accra, Ghana. *Case Studies on Transport Policy*, 8.
- BERG, L. D. 2009. Discourse Analysis. In: KITCHIN, R. & THRIFT, N. (eds.) *International Encyclopedia of Human Geography*. Oxford: Elsevier.
- BREITBART, M. 2016. Participatory Action Research. In: CLIFFORD, N., COPE, M., GILLESPIE, T. W. & FRENCH, S. (eds.) *Key Methods in Geography*. London: Sage.
- BULLARD, J. 2016. Health, Safety and Risk in the Field. In: CLIFFORD, N., COPE, M., GILLESPIE, T. W. & FRENCH, S. (eds.) *Key Methods in Geography*. London: Sage.
- BURCHARDT, J. 2015. Order out of Chaos - Self-management and public control of the paratransit sector: case Ghana. *International Association for the History of Transport, Traffic and Mobility (T2M) and the Cosmopolitan Network*. Santa Maria C.V. (Caserta), Italy.
- CARLING, J., ERDAL, M. & EZZATI, R. 2013. Beyond the insider-outsider divide in migration research. *Migration Studies*, 2, 36-54.
- COPE, M. 2002. Feminist epistemology in geography.
- CRESSWELL, T. 2006. *On the move : mobility in the modern Western world*, New York, Routledge.
- CRESSWELL, T. 2013. *Geographic Thought : A Critical Introduction*, Chichester, UNITED KINGDOM, John Wiley & Sons, Incorporated.

- DAVIS, K. 2008. Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist Theory*, 9, 67-85.
- DOEL, M. 2016. Textual Analysis In: CLIFFORD, N., COPE, M., GILLESPIE, T. W. & FRENCH, S. (eds.) *Key Methods in Geography* London: Sage.
- FAINSTEIN, S. S. 2000. New Directions in Planning Theory. *Urban Affairs Review*, 35, 451-478.
- GEIER, R., OWUSU-DONKOR, P., AGYEMANG, F., AMEDZRO, K., LANGE, K., AWO, A. & CHOUKRI, T. 2015. *GHANA NATIONAL SPATIAL DEVELOPMENT FRAMEWORK (2015-2035) Volume I: Conditions and Main Issues*, Accra, Republic of Ghana.
- GHANAWEB. 2018. Government to revamp BRT system. *GhanaWeb*, 05.08.2018.
- GIBB 2017 Greater Accra Regional Spatial Development Framework - Volume 3
Johannesburg: GIBB.
- GOUGH, K. V. & YANKSON, P. W. K. 1997. *Continuity and change: socio-economic and environmental consequences of urban growth in the peri-urban area of Accra, Ghana*.
- GRANT, R. & YANKSON, P. 2003. Accra. *Cities*, 20, 65-74.
- HANSON, S. 2010. Gender and mobility: new approaches for informing sustainability. *Gender, Place & Culture*, 17, 5-23.
- HARAWAY, D. 1988. Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14, 575-599.
- HART, J. 2016. *Ghana on the Go* Bloomington and Indianapolis Indiana University Press.
- HARVEY, D. 2008. The Right To The City. *New Left Review*, 53, 17.
- HEALEY, P. 1996. Planning through debate: The communicative turn in planning theory. In: CAMPBELL, S. & FAINSTEIN, S. (eds.) *Readings in planning theory* Oxford: Blackwell.
- HEALEY, P. 2003. Collaborative Planning in Perspective. *Planning Theory*, 2, 101-123.
- JENSEN, O. B. 2009. Flows of Meaning, Cultures of Movements – Urban Mobility as Meaningful Everyday Life Practice. *Mobilities*, 4, 139-158.
- JIRON, P. & CARRASCO, J. A. 2020. Understanding Daily Mobility Strategies through Ethnographic, Time Use, and Social Network Lenses. *Sustainability*, 12, 312.
- LAURIER, E. 2016. Participant and non-participant observation. In: CLIFFORD, N., COPE, M., GILLESPIE, T. W. & FRENCH, S. (eds.) *Key Methods in Geography*. London: Sage.
- LEFEBVRE, H. 1991. *The production of space*, Oxford, Blackwell.

- LONGHURST, R. 2016. Semi-structured interview and focus group. *In: CLIFFORD, N., COPE, M., GILLESPIE, T. W. & FRENCH, S. (eds.) Key Methods in Geography.* London: Sage.
- MAHENDRA, A. & BEARD, V. 2018. Achieving Sustainable Cities by Focusing on the Urban Underserved: An Action Agenda for the Global South. *In: GRIFFITH, C., MADDOX, D., SIMON, D., WATKINS, M., FRANTZESKAKI, N., ROMERO-LANKAO, P., PARNELL, S., ELMQVIST, T., MCPHEARSON, T. & BAI, X. (eds.) Urban Planet: Knowledge towards Sustainable Cities.* Cambridge: Cambridge University Press.
- MERRIFIELD, A. & SWYNGEDOUW, E. 1997. *The urbanization of injustice*, New York New York University Press.
- MINISTRY OF ROADS AND TRANSPORT 2014. NAMA Proposal: Accra Bus Rapid Transit Project - Facilitating Implementation and Readiness for Mitigation *In: GHANA, M. O. R. A. T. (ed.). Accra: National Government of Ghana.*
- MIRAFTAB, F. 2016. Insurgent Planning: Situating Radical Planning in the Global South.
- MIRALLES-GUASCH, C., MELO, M. M. & MARQUET, O. 2016. A gender analysis of everyday mobility in urban and rural territories: from challenges to sustainability. *Gender, Place & Culture, 23*, 398-417.
- MOSS, P. J. 2002. *Feminist Geography in Practice Research and Methods.*
- MULLINGS, B. 1999. Insider or outsider, both or neither: some dilemmas of interviewing in a cross-cultural setting. *Geoforum, 30*, 337-350.
- PARENELL, S. & PIETERSE, E. 2010. The 'Right to the City': Institutional Imperatives of a Developmental State. *International Journal of Urban and Regional Research, 34*, 146-162.
- ROBINSON, J. & ROY, A. 2016. Debate on Global Urbanisms and the Nature of Urban Theory. *International Journal of Urban and Regional Research, 40*, 181-186.
- SALAZAR, N. B. 2018. Theorizing mobility through concepts and figures. *Tempo Social, 30*, 153-168.
- SALAZAR, N. B. 2020. On imagination and imaginaries, mobility and immobility: Seeing the forest for the trees. *Culture & Psychology, 26*, 768-777.
- SANDERCOCK, L. 1998. *Towards cosmopolis : planning for multicultural cities.* Chichester :: John Wiley.
- SIMONE, A. 2004. *For the City Yet to Come: Changing African Life in Four Cities*, Duke University Press.

- SSATP 2018. Policies for Sustainable Accessibility and Mobility in Urban Areas of Ghana.
- STASIK, M. 2017. Roadside Involution, Or How Many People Do You Need to Run a Lorry Park?
- TAYLOR, L. 2016. Chapter 33: Case Study Methodology. *In*: CLIFFORD, N., COPE, M., GILLESPIE, T. W. & FRENCH, S. (eds.) *Key Methods in Geography*. 3rd ed. Los Angeles, California: SAGE.
- UNDP. 2019. *Goal 11: Sustainable cities and communities* [Online]. Available: <https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-11-sustainable-cities-and-communities.html> [Accessed 30.08.2019].
- VALENTINE, G. 2007. Theorizing and Researching Intersectionality: A Challenge for Feminist Geography. *The Professional Geographer*, 59, 10-21.
- WATSON, V. 2009. Seeing from the South: Refocusing Urban Planning on the Globe's Central Urban Issues. *Urban Studies*, 46, 2259-2275.
- WEST, C. & ZIMMERMAN, D. H. 1987. Doing Gender. *Gender and Society*, 1, 125-151.
- WHO. 2021. *Gender and Health* [Online]. Available: https://www.who.int/health-topics/gender#tab=tab_1 [Accessed 25.01.2021 2021].
- WORLD POPULATION REVIEW. 2022. *Accra Population 2021* [Online]. Available: <https://worldpopulationreview.com/world-cities/accra-population> [Accessed 02.01.2022 2022].
- WORLDBANK 2015. Ghana Urban Transport Project - Implementation Status & Results Report World Bank.
- YIN, R. K. 1981. The Case Study as a Serious Research Strategy. *Knowledge*, 3, 97-114.
- YOBO, E. 2013. *The Evolution of State Mass Transport in Ghana*. Accra, Ghana: University of Ghana, Accra.
- YOBO, E. & APAU, E. V. PUBLIC MANAGEMENT OF THE GHANA'S METRO MASS TRANSIT LIMITED. 2015.