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"We are only asking for the basics." Poor and low-income residents' lived experiences and discontentment with urban infrastructures in the Metropolitan Region of Recife, Brazil

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1 Introduction

Brazil is a vast and heterogeneous amalgamation shaped by a prolific and tumultuous history, whose people have lived through colonization and military dictatorship. Overcoming both of them while maintaining a culture of appreciation for life and joy. Today, the process of urbanization has had a wide impact on the country and is ballooning its urban centers. Through an open ethnographic approach, this thesis aimed to explore research partners' heterogeneous lived experiences as well as their desires and struggles in contemporary urban Brazil. On the one hand, it serves as an in-depth case study that contributes to the understanding of the social complexities and diversity of the urban space in the particular context of the Metropolitan Region of Recife, Brazil, and on the other hand, it offers "new perspectives on 'traditional' urban anthropological concerns" (Jaffe & de Koning 2023, 14), such as urban inequality, since, as one of my research partners stated, "Meu pai morreu com as mesmas reclamações" [My father died with the same complaints.] (int-Nor 13.01.2024, p. 25).

As the title "We are only asking for the basics" suggests, poor and low-income residents in peripheral yet urban regions of the Metropolitan Region of Recife do not consider that some of their basic needs are adequately met. During the field research, accounts of discontentment with urban infrastructures came to the fore. Therefore, this thesis shows a variety of perspectives of poor and low-income residents and their diverse lived experiences.

Indeed, spatial and social segregation, division, and inequality continue to be a problem in Brazilian cities (Gledhill and Hita 2012 in Hita and Gledhill 2019, 283). Low (2019, 2) uses the term 'precarious city' for such contemporary cities. In the precarious city, "a substantial portion of urban residents are impoverished by structural systems of oppression and racism that benefit a small professional and elite class" (ibid.). This is especially true in the Brazilian Northeast, where many Afro-Brazilians live. Also, the majority of my research partners are part of this population group (more on that in Chapter 1.3 "Research partners") rendering them especially vulnerable to the persisting consequences of colonialism and slavery because even one "century after the last slave was freed, the legacy of slavery is still seen in continuing poverty of many descendants of slaves and in ongoing prejudice against Afro-Brazilians" (Klein and Luna 2010, 319). Nowadays, many urban poor residents struggle with various urban issues, especially infrastructures, which are a typical concern in people's lives since they provide basic goods to survive to the households, such as water, food, gasoline, natural gas, electricity, and sanitation (Gupta 2018, 66). Infrastructure is not only used to procure goods and commodities, but can also include infrastructure for housing, roads, waste management, and security. In Greater Recife, infrastructures are noticed as 'problems' because of their insufficient functioning. Living in a Global South country's fringe areas of urban space confronts people with specific and often difficult life realities that they have to cope with. Therefore, certain issues are particularly important for their lived realities, since they also cannot be avoided. Additionally, the identified issues are systemic infrastructural issues that cannot be changed by individuals but require broader involvement from political and other powerful actors.

In addition to the significance of highlighting structural injustices, first and foremost, the topics of this thesis are important because they are relevant to my research partners. For instance, Tiago, a resident of Paulista, voiced this by saying, "Eu sofro com todos os problemas da cidade" [I suffer from all the city's problems.] (fn 20.01.2024, p. 86). Thereby, he refers, for

example, to inadequate health centers or public transport, muddy streets, lack of regulatory controls, and corruption, among others (ibid.).

Hence, this thesis aims to answer the following research question. What different issues and lived experiences can be identified among poor and low-income residents in peripheral areas within the Metropolitan Region of Recife? Generally speaking, it can be said that this thesis aims to find out what some of Brazil's main challenges currently are.

Interestingly, in the course of online research, I came across a participatory questionnaire (URL 1) for Brazilians where the government wants to find out similar, namely, what challenges and opportunities exist in contemporary Brazil. Therefore, that endeavor reminded me of this thesis, especially looking at the ninth out of twelve questions, where the aim is to find out what the five main challenges that Brazil currently faces are. The questionnaire already lists 18 challenges, from which respondents can select multiple or expand the list per write-in. The most frequently mentioned challenges mentioned by my research partners, namely housing, infrastructure, and violence, are also included in this list, which underlines the importance of this research. In contrast to a short questionnaire with mainly closed questions, this qualitative ethnographic research offers a much deeper insight into people's lived experiences, from which decision-makers can derive political measures.

Before giving more details and context about the research, it should be mentioned that the original focus of this research endeavor was on climate change, namely, people's thoughts on climate change, the associated problems and challenges, as well as what measures they are taking to confront climate change. Indeed, a sub-question was whether they are even thinking about climate change, or if there are more pressing issues they are faced with. In this sense, the new focus of the thesis was already apparent in advance. However, in the course of the field stay, it became evident to me that climate change is not a very present and tangible issue in my research partners' lives. Instead, they are more concerned with aspects that noticeably directly affect their daily lives, such as roads, waste management, water supply, basic sanitation, security, fear of violence, and access to decent housing, that is, systemic infrastructural issues. After noticing this, I refocused by concentrating on the issues my research partners deemed most vital and pressing.

1.1 Details about the research

Before offering more information about the context of the field and the research partners, I want to clarify some general details about the research, such as duration, language, and financing.

1.1.1 Duration

Traditionally, anthropologists spend a lot of time in the field, as the following quote demonstrates.

"Anthropological field research traditionally takes a year or more because it takes that long to get a feel for the full round of people's lives. It can take

that long just to settle in, learn a new language, gain rapport, and be in a position to ask good questions and get good answers." (Bernard 2011, 261)

Realistically speaking, it is not feasible to spend a year in the field for a master's thesis. According to my study plan, the entire master's thesis should be completed within six months. Personally, I preferred to stay in the field for longer, of course, within the framework set by the university. Therefore, I aimed to stay at least two months. Also, Bernard (2011, 261) says that "[a] lot of participant observation studies, however, are done in a matter of weeks or a few months." My own field stay in Brazil was 59 days, roughly two months, from the 5th of December 2023 to the 1st of February 2024. Of course, I clarified in advance with my research partners, especially with Luciane, in whose household I stayed in, whether this period and duration were okay for them. Moreover, the fact that a scholarship (short-term grants abroad, KWA) for two months was granted to me ultimately helped me decide to spend two months in the field.

1.1.2 Language

"The most important thing you can do to stop being a freak is to speak the language of the people you're studying – and speak it well." (Bernard 2011, 270)

I took this quote very much to heart because one of the reasons I wanted to do research in Brazil was that I already spoke Brazilian Portuguese. I started learning the language during my bachelor's degree in Romance studies. At that point, I already knew another Romance language, namely Spanish, which helped me immensely to quickly advance in the study of Portuguese. Apart from university classes, I continued to learn Portuguese by myself with workbooks and by consuming Brazilian movies as well as music, and with friends, implementing the method of tandem language learning, which, in addition, aided me in developing an increased intercultural awareness. Due to my good language skills, I had almost no communication problems during the field research. Nevertheless, I was able to expand my vocabulary while I was there. Moreover, I learned more about the peculiarities of the regional variety of Brazilian Portuguese, which linguistically is called 'Português Nordestino' or, more specifically, concerning the city of Recife, 'Recifense'. By observing people, I also learned more about their gestures and nonverbal cues. Indeed, Bernard (2011, 272) advises that when studying the language of one's research partners do not only learn the grammar and vocabulary "but also the intonation, the use of your hands, and other nonverbal cues that show you are really, really serious about the language and are trying to look and sound as much like a native as possible." When entering the field, I was still unaware of such details, which in one case led to a peculiar situation during Mariluz's birthday party. I, as the only foreigner at the party, was sitting on a chair next to several Brazilian women, including Luciane, Norah, Dália, and Victoria, while another party guest was standing behind me asking the group, "Ela é rica? Ela é gringa?" [Is she rich? Is she a foreigner?] (fn 10.12.2023, p. 17). She must have thought that I do not speak nor understand Portuguese. Luciane immediately told her that I do understand the language, and the woman looked a little embarrassed for a brief moment and walked away to avoid the situation. I wondered why she thought I did not speak the language. Perhaps because I was just sitting around barely talking to anyone, as I was still adapting to the music, which I

perceived as extremely loud, and I did not use the same gestures and nonverbal cues as the other party guests.

1.1.3 Financing

It is important to me to write about the financing of my research trip, as I would generally like to see more transparency in academia on this topic, and when planning research, one should not forget that such research – especially if it takes place on another continent – always entails a certain financial outlay. Fortunately, I received a short-term grant abroad (KWA) of 2.200 €. I paid 1.500 € for the flights. The agreement with the members of the private household I lived in was that I would pay them 100 € per month, which included accommodation and food. To put this number in relation, monthly spending on food and beverages ranges from an ideal Brazilian average of 432 R\$ in April 2025 (URL 2) to 625 R\$ directly in Recife in February 2025 (URL 3). The figures correspond approximately to a value of 68 and 98 in euros (conversion made on 11 August 2025). This amount relates to basic foodstuffs; anything I needed or wanted that went beyond that, I bought myself. Since I was traveling a lot with my research partners in the greater Recife area, we often had to use ride-hailing services. The agreement made in advance was that I would cover these costs. We had to rely on such rides because of insufficiencies in the public transportation system. Indeed, a lot of people in this region use ride-hailing services – either by car or by motorcycle – because it is almost always and everywhere available and also affordable. Another agreement was that if the members of the household and I visited a beach for leisure time and had lunch there, we would split the costs. In contrast, if we went somewhere in the course of 'contrived go-alongs' (see Chapter 2.2.3 "Ethnography on foot"), such as museums, but also restaurants, I would pay. Another one-off expense of 50 € was the donation to the environmental movement Salve Maria Farinha. Additionally, I had several private expenses such as museum entries, souvenirs, gifts, books, clothes, hairdressers, etc., that were paid for by my private budget. All expenses considered, I used the entire scholarship budget plus an additional 700 € of my private savings to cover all the costs.

On the one hand, due to ethical considerations, it was imperative for me to pay the research partners in whose house I was living in during these two months. I did not want them to incur additional costs because of me. On the other hand, ideally, I would have liked to be able to pay all research partners. However, I was not able to compensate all of them financially for their collaboration in the research. For this, I would have needed another grant because, as a full-time student without any income, I did not have the financial means for that.

Lastly, I would like to mention that I had insurance with my credit card, which is very important in case of an emergency. However, luckily, it was not needed.

1.2 Context of the field

Given the fact that I conducted research in an urban setting, the difficulty in delineating the field arose. According to Jaffe and de Koning (2023, 15-16), "One of the most obvious issues that urban anthropologists face is how to define and delineate the field."

The starting point of this research was a particular neighborhood in coastal Paulista (Pernambuco, Brazil), since I stayed there with my host family and research partners, Luciane and

Palina. From there, a (geographically) larger field opened up to me. That is, the research field gradually took shape as I followed my research partners to places they had to go anyway or wanted to introduce me to certain places and people because they considered them relevant to the research. Moreover, I asked my research partners to visit certain places together that had piqued my interest. Ultimately, the (geographical) field turned out to be the Metropolitan Region of Recife, which includes the capital city of Pernambuco, Recife, and 13 other municipalities, among them Paulista, Olinda, Ilha de Itamaracá, Jaboatão dos Guararapes, and Igarassu. Even though I did not spend time in all 14 municipalities that comprise the Metropolitan Region of Recife, I visited the aforementioned six. Therefore, when writing 'Metropolitan Region of Recife' or 'Greater Recife', this always refers to these six municipalities with the specific localities I visited. Nevertheless, I mostly spent time in specific neighborhoods in the cities of Paulista and Recife. Also, I visited some localities only once or a few times, and other places very frequently.

Before giving more information about Paulista and Recife, I want to elaborate on the reasons for choosing this field location. Besides the already mentioned reasons why this research is important, the fact that I already knew the region and some research partners from a three-week vacation in 2018 influenced my choice of conducting field work in Greater Recife. Back then, I visited my now research partners together with my uncle and aunt. In Chapter 2.1.1 "Positionality", I reflect in detail about the implications that this familial tie with my research partners has.

The field, that is, the Metropolitan Region of Recife, or Greater Recife, is located in the Brazilian Northeast in the state of Pernambuco. 3.7 million people reside in this area according to the 2022 census of the Brazilian Institute of Geography and Statistics (IBGE) (URL 4).

Recife, the capital city of Pernambuco, has an estimated population of 1.6 million people as of 2024 (URL 5). The city is densely populated with 6.803,60 inhabitants per square kilometer (ibid.). Of the city's total area of 218 km², 143 km² are urbanized (ibid.). 206.761 people are deemed exposed to risks of natural disasters such as landslides and flooding (ibid.). Official data on the racial distribution in Recife states that in 2022, 722.555 people were 'parda' (mixed), 182.546 'preta' (Black), 578.413 'branca' (white), 2.703 'amarela' (Asian), and 2.656 'indígena' (Indigenous) (URL 6).

The city I stayed in is called Paulista. In 2022, it had a population of 342.167 people on an area of 97 km², out of which 48 km² are urbanized (URL 7). Paulista is not as densely populated as Recife, with only 3.529,97 inhabitants per square kilometer (ibid.). Here, 41.733 people are deemed exposed to risks of natural disasters (ibid.). Paulista is characterized by its 14-kilometer-long coastline (Maciel et al. 2024, 3). Moreover, 29 % of its territory is forest and 4 % is mangrove (ibid.). Here, the racial layout in 2022 was 183.579 'parda', 46.571 'preta', 110.884 'branca', 418 'amarela', and 711 'indígena' (URL 8).

In Brazil, two-thirds of the population lives in cities, and the urban population grew significantly, partly due to rural-to-urban migration (Spangler 2005, 112). Yet, Brazil's population generally grew substantially during the second half of the 20th century, leading to an increased urbanization (Paim et al. 2011, 1779). During that time, the total urbanization rate rose from 56 % to 80 % (ibid.).

The house I lived in is located in a coastal neighborhood of Paulista. The neighborhood is mostly residential, that is, there are mostly one-family houses and a few 3 to maximum 5-story residential buildings. Moreover, there are a few schools; small stores, bars, and restaurants in people's houses; small squares with recreational areas; and churches. Some small supermarkets are within walking distance. The majority of the streets there are not paved. All houses are surrounded by walls or fences due to security concerns. Initially, it was not easy for me to adapt to this situation because I felt restricted in my freedom of movement – even locked-in. However, over time, I adapted to the situation, and in general, I always acted carefully when having been out in public space, taking people's safety concerns seriously (more on that is discussed in Chapter 4.2.3 "Public (in)security and concerns about violence").

One of the most frequently spent times in the field was inside the house I lived in; therefore, providing a general description of it should foster an understanding of the general surrounding conditions of this field research. In the single-story multi-generational household, there are four bedrooms, two of which have a private small bathroom. The house has an additional shared bathroom and a larger common room that includes the kitchen with a dining table and a living room. Next to the kitchen, there is a small service area with a washing machine and sink. The house is simply furnished with only the most necessary furniture and a big TV screen in the living room. The kitchen is also simply equipped with a small gas stove, a sink, some kitchen cabinets, and a small work surface, but with a relatively large refrigerator including a freezer compartment. The gas bottle is right in the kitchen next to the stove. Outside the house but inside the walled plot is the garden. Even though the house is surrounded by a relatively large garden, there are very few plants and no flowers. There is only one perennial and a papaya plant, which, however, bore fruit. Nonetheless, since some of the neighbors' trees grow over the wall, we were able to collect some fresh fruit.

Besides security concerns, another initial challenge for me was to adapt to the climatic conditions in the field since it was always very hot, both day and night. After all, I was there during the Brazilian summer. Walking outside, I protected myself from the sun, and often, we would only leave the house either in the morning or in the afternoon. Moreover, mosquitoes stung me a lot, especially at night. At one point, Luciane and Palina intervened and suggested closing my bedroom window during the night to keep the insects out. In addition, I bought a potent insect repellent spray at the pharmacy and sprayed myself thoroughly before going to bed.

I also frequently spent time in the neighborhood of Ibura/Cohab at the fringe of Recife since many research partners lived there. I refer to the neighborhood as 'Ibura/Cohab' since my research partners mostly refer to their home district as 'Ibura', as that is its old name, even though it is now officially called 'Cohab'. Ibura is the neighborhood right next to Cohab. This neighborhood is characterized by its position on a hill, and indeed, the slopes of the hill are also densely populated. Generally, the hills of Recife are densely built with one- to two-story houses, most of which were built by the poorer population themselves and usually without official permission (Kirsch-Soriano da Silva 2010, 133). In Ibura/Cohab, the flat part on top of the hill is characterized by houses built by the government. In the late 1970s and early 1980s, numerous housing projects were built on the urban periphery of Recife to provide housing for the poorer population (Kirsch-Soriano da Silva 2010, 31). These large-scale housing programs were originally initiated by the military dictatorship ruling Brazil, planned by the Companhia de Habitação Pernambuco (COHAB), and implemented by private construction companies

(ibid.). These buildings are located quite far from the urban center and are equipped with poor infrastructure (ibid.). Moreover, in this residential area, the houses are usually built directly next to each other to make the best use of the reduced space on the hill. Many private houses were modified to be able to open up a shop; that is, residents created their own job opportunities in this peripheral region of Recife. As for the streets, most are asphalted or, especially in the older parts of the zone, also paved with cobblestones.

In Ibura/Cohab, it was Dália's house that I visited frequently since she and her sister Luciane, together with their siblings, grew up there, and the family still considers this house 'casa da avó' (grandmother's house), even though said grandmother already passed away, yet still serving as the center of family gatherings and celebrations. Dália's house has four bedrooms; however, none of which have windows facing outside, since the houses are built wall to wall. Moreover, the house has one bathroom with a toilet and a shower cubicle, and the kitchen is equipped with a sink, a gas stove, and a refrigerator. In the rear of the house, there is a very small courtyard with a water tank. Three little shops owned by family members who sell their products and offer services, and street-facing storage rooms are part of the same complex that has been built over at least three generations. Where there was originally a garden, there is now a covered and tiled common room used for large family gatherings.

1.3 Research partners

The research partners I first knew are Luciane and Palina. Luciane picked me up from the airport in Recife, and we took a ride-hailing service to get to her house in Paulista, where I lived during the field research. Over time, I got to know further research partners through the snow-ball sampling method, that is, my initial research partners referred me to other research partners. Through this method, on the one hand, I got to know many people from Luciane's extended family. Luciane, a retiree in her late 60s, is the oldest of eight siblings. Most of her siblings still live in the southern part of Recife, where they grew up. I especially connected with some of Luciane's sisters, sisters-in-law, and nieces, since, as a woman, it was easier to talk to other women, despite the big age difference I had with some. In comparison, male members of Luciane's family did not turn into intimate research partners to the same extent that female relatives did. Overall, men did not seem as approachable to me as women were. Nevertheless, I had some conversations with them and once had a long conversation with Rafael. Apart from family members, I also got to know two friends of Luciane's daughter. One friend I only met once to do some sightseeing in the city center, whereas with another friend named Sara, I met up twice and once slept over at her apartment in southern Recife. Most of the people I interacted with were older than me, except for Luana, a college student a few years younger than me, and some of the younger children or babies. However, I did not engage in any conversations with children regarding the research topic.

Luciane's family is of African and mixed descent. For this thesis, the term Afro-Brazilians is used; however, the Brazilian Institute of Geography and Statistics (IBGE) currently uses the following categories for race in Brazil: 'preto/preta', 'branco/branca', 'pardo/parda', 'amarelo/amarela', and 'indígena' (URL 9). This, as already mentioned in the previous subchapter, translates to Black, white, *pardo* (mixed), yellow, meaning Asian, and Indigenous. Also, most of Luciane's brothers-in-law and sisters-in-law are of African descent, except Rafael, who is white and of Portuguese descent. In the annexed table with research partners' combined

information, the category 'race' is added solely to provide a more in-depth background understanding of the research. Nonetheless, it should be noted that with most people, I did not talk about their racial identification since this was not the focus of this research. Therefore, the categories added are my subjective interpretation and might differ from people's *de facto* identities. The list predominantly features how I read my research partners; however, it is not within my discretion to guess the racial identification of individuals. Nevertheless, some research partners mentioned how they identified, for example, Palina once said that she is '*morena clara*' (fn 29.12.2023, p. 49), which roughly translates to 'light brown', and Victoria emphasized being '*negra*', that is, Black (int-Vic 18.01.2024, p. 18). Victoria also explained that many Black people prefer to identify as *pardo/parda* to avoid prejudice (ibid.). Apart from current attributions to the terms categorizing race, racial identifications are very individual and can also change. Regarding the education level of my research partners, it can be said that older people tend to be less educated than younger people. The majority of 20 to 30-year-olds are attending or have already graduated from a university or college. In the annexed table, the categories basic, basic-higher, and higher can be found – basic meaning statutory education, and higher refers to college or university education. As far as the work situation is concerned, some have their own business, the older ones are already retired, and some younger ones with completed academic education are unemployed; while most older women had never been in formal employment, as they took or still take care of the household and the children, and they are also heavily involved in looking after their grandchildren. Often, it is even the grandmothers who have taken on the task as the main caregiver of the grandchildren, as the parents are unable to do so for personal reasons or are in full-time employment. In several families, I observed that grandparents, especially grandmothers, play a pivotal role in caring for grandchildren. This was often the case in families where the parents were separated, and if the mother was quite young when she had the baby. Overall, I encountered different relationship statuses in the field. Luciane herself is widowed, as is another of her sisters. One of her sisters is divorced, and one is still married. Her brothers are married. The relationship statuses of the next generation are also quite varied – some are married with one to three young children; others are single or in a relationship. Among these couples, I was only aware of heterosexual couple relationships. Apart from Luciane's relatives, there were occasional encounters with a few of her neighbors – especially older women. This group of research partners, and the activist Fernando, constitute the people with whom I had the most frequent contact (see appendix for contact frequency).

In the course of online research, I came across the socio-environmental movement *Salve Maria Farinha*, founded by Fernando, who is a full-time activist located in Paulista. He is very active on his website (URL 10) and social media accounts; hence, I contacted him via Instagram. The contact with Fernando turned into a fruitful collaboration.

On the other hand, I got referred to many research partners through collaborating with the activist Fernando. During the first few meetings, Luciane accompanied me to see Fernando and his contacts. We went to see a former veterinarian who is self-sufficient due to his fruit and vegetable garden and is generally interested in sustainable ideas he can implement. Furthermore, we went to visit a local artist and a local lawyer who are collaborating with Fernando. It is worth mentioning that I read these three people, as well as Fernando, as white; whereas I read the rest of Fernando's contacts as either *pardo* or Black. Since Fernando's preferred mode of transportation is the bicycle, he lent me a bike, and we visited most of the

contacts this way. One day, at low tide, we rode the bicycles on the beach in Paulista. There, Fernando, his roommate, and I had conversations with a restaurant owner, an elderly local resident, a fisherman and his wife, who lived in a small house at the beach. Another day, we rode the bicycles to the neighboring town of Igarassu, crossing the river Timbó by ferry, to visit residents of the movement 'Salve Mangue Seco'. Once we arrived, we sat down with Marta to converse and ask questions. Yet another day, we took the bicycles to drive around the peninsula Maria Farinha, and finally, we met up with the 'Grupo Capoeira Maria Farinha.' The group consists mainly of Afro-Brazilian teenagers, all boys except one girl, and their adult trainer. After they had shown us a bit of their capoeira training, we sat on the floor in a circle, and the teenagers shared their thoughts on various topics. Another bike trip led us to the Janga woods, where the collective 'Força Tururu' is situated in an occupation in the woods. There, we met with a member and resident who showed us around. Moreover, Fernando organized a meeting with a governmental officer of Paulista; thus, we ordered a ride-hailing service to get to his office, which is located in the Municipal Administrative Center of Paulista. Together with Fernando and Isaac, a young local man, I also went on a hike in a steppe-like landscape in Paulista. Fernando suggested Isaac for this as he has extensive knowledge of the local flora and fauna. Ultimately, I attended the event 'Encontro de mídias independentes' on the small island Ilha de Deus in Recife. Fernando recommended this event to me. Unfortunately, he was unable to attend, so he gave me the contact details of Luca, a young student, who is involved in Salve Maria Farinha's activities from time to time. Various groups and individuals, such as journalists, residents of the island and from other neighborhoods, and university students, were present at this event. The group 'Caranguejo Uçá' hosted the event in their community space. The leader of this group, a middle-aged, tall Black man, initiated the event with a speech and moderated it. A representative and journalist of the newspaper 'A Voz da Favela' was also present. He also gave a longer speech, and during a break, I got the chance to converse with him and some other attendees.

1.4 Outline of the following chapters

After the introduction follows Chapter 2, dedicated to descriptions and reflections on the methods I applied, and ethical considerations concerning my positionality in the field, as well as decolonial research in a post- or neo-colonial field. I explain in detail how I gathered the data, analysed it, and ultimately wrote up the thesis text. Then follows the literature review, that is, Chapter 3 "Researching the urban", exploring urban anthropological sources, if possible, localized in Brazil. After that, in Chapter 4, "Main issues identified in Greater Recife", I provide a detailed account of the results of this research. The chapter starts with research partners' diverse housing situations, concerns, desires, struggles, and fights. Then follows a detailed account of research partners' dissatisfaction with and desire for better or basic infrastructure. There, first, the issue of inadequate roads and the potential for improvement in waste infrastructure is presented. Second, water issues and research partners' desire for basic sanitation are detailed. The third part is dedicated to accounts and observations of public (in)security and research partners' concerns about violence. The thesis closes with concluding remarks in Chapter 5. Moreover, at the end of the thesis, a detailed bibliography, an appendix with a table with information regarding the research partners, a list of the interview questions, and abstracts in Portuguese, German, and English can be found.

2 Ethics and research methods

Due to the given circumstances of this research, reflecting on the ethical approaches and applied research methods was particularly important for this thesis.

2.1 Ethics

Ethical considerations and reflections about one's behavior in and outside the field are pivotal in anthropological research, as the following quote illustrates.

"The biggest problem in conducting a science of human behavior is not selecting the right sample size or making the right measurement. It's doing those things ethically, so you can live with the consequences of your actions. I'm not exaggerating about this. Ethics is part of method in science, just as it is in medicine, business, or any other part of life." (Bernard 2011, 21)

However, in contemporary decolonial approaches, ethics is not primarily about making the researchers feel comfortable with their behavior – as the quote might suggest, but rather about putting the wants and needs of the research partners at the forefront.

One ethically relevant aspect arose at the beginning of the research process, where I began reflecting on my familial connection with my research partners. Of course, there were also other inherent ethical aspects, such as the fact that I, as a young, educated, white woman from the middle class of the Global North, was going to a country in the Global South marked by its colonial history to conduct research with socioeconomically weak Afro-Brazilian people. Due to that context, it is all the more important to educate myself on decolonial research.

2.1.1 Positionality

From the beginning, my position in the field was characterized by the fact that I gained access to the field through my aunt, that is, a Brazilian woman who is married to my Austrian uncle. I had asked her if her Brazilian family would be interested in me doing the research for my master's thesis with them. After I had explained more about the research to her, she passed on her family's approval to me, which made me very happy because to already know people in an intriguing field provides a great opportunity, since, as Bernard (2011, 268) succinctly put it:

"Don't try to wing it, unless you absolutely have to. There is nothing to be said for 'getting in on your own.' Use personal contacts to help you make your entry into a field site." (Bernard 2011, 268)

Early literature reveals that researchers with cultural or familial connections with their research partners might be called feminists, (semi-)native anthropologists, or halfies (Abu-Lughod 1991). For such researchers, it is especially important to reflect on their positionality since "the self is split" (ibid.: 468). Indeed, I had to deal with that because I perceived that some research partners initially viewed me only as a distant family member visiting rather than a researcher conducting ethnographic field research. Besides positionality, reflecting on

the "audience, and the power inherent in distinctions of self and other" is a crucial issue for halfies (Abu-Lughod 1991, 468).

Abu-Lughod's (1991) term 'halfie' is similar to Smith's (2012) considerations about insider research. Smith (2012, 138) explains that the major difference between insider and outsider researchers is that insiders, as well as their communities and families, have to deal with the long-term, everyday impacts of their research. Nevertheless, she adds that "[i]nsider research has to be as ethical and respectful, as reflexive and critical, as outsider research" (ibid.: 140). Both types of research have their advantages and disadvantages, making it imperative that the researcher reflects on the limitations and benefits.

I think that my research partners and I are only in an extended sense family. Nevertheless, because I am very close to my aunt and developed friendships with many research partners, I also felt a very big personal responsibility for my research partners. In conclusion, I can say that I am not an insider or halfie nor pretend to be one, yet I can relate to a lot of aspects about insider and halfie research.

Furthermore, identities beyond the dichotomy of an insider or an outsider researcher in anthropology are also conceivable. Narayan (1993, 671) suggests "that at this historical moment we might more profitably view each anthropologist in terms of shifting identifications amid a field of interpenetrating communities and power relations". Moreover, she states that in fact every person is bi- or multi-cultural, and this dual identity might be experienced to a different degree depending on if, for example, one is part of a minority group, a woman, or a 'white man' (ibid.: 681). I agree with Narayan's argument and also question this dichotomy, when instead we could speak of a continuum of insider and outsider research, leading me to think that maybe I am an outsider researcher with familial ties.

Nevertheless, I also see benefits in having familial connections with my research partners, namely that, due to that and the fact that they have grown dear to my heart, I will definitely stay in touch with them, even if I no longer pursue anthropological research purposes. In the future, I want to visit them again, maybe together with other family members. It might also be the case that some of the research partners will visit Austria, even though this is usually disproportionally more difficult for them, especially due to financial reasons. In no way do I want to make people feel that I have only used them to achieve some selfish academic goals, namely, obtaining a master's degree. Because "to use people one has lived with for articles and monographs, and not maintain ties through time, generates a sort of 'hit-and-run' anthropology in which engagement with vibrant individuals is flattened by the demands of a scholarly career" (Narayan 1993, 677). I think my ethical duty as an anthropologist is to leave a good feeling with the people who have shared their time and energy with me, to allow for future collaborative research projects where both parties can benefit.

2.1.2 Decolonial research

Since I did research in a country that was colonized by Portugal as well as other European countries (such as the Netherlands) and with people whose ancestors were forcefully brought from Africa to America, it was crucial for me, to engage with this colonial history, understand its current impact, and make the research process as decolonial as possible within the given parameters in which I was. The Charter of Decolonial Research Ethics describes the goals of decolonial research as follows:

"Decolonial research follows ethical codes that work to demolish the white political field and open up spaces to dismantle the teleological privilege, the privilege of ontology, the privilege of epistemic perspective and the methodological privileges that follow from these." (URL 11)

Since I had to adhere to certain guidelines from my university, I could not, for example, have my research partners define the research question because I had to put it in the research proposal to have the topic approved. Moreover, I had to have a finished proposal to be able to apply for financial support. However, I was open to altering the research question if necessary. In general, I was not able to involve my research partners to the extent necessary for decolonial approaches. On the one hand, this was due to the fact that it was the first time I had carried out such research and therefore still had a lot to learn about research in general. On the other hand, during my master's degree in anthropology, I only had one series of seminars with one professor in which decolonial research methods were taught. To put it in a nutshell, unfortunately, I was not able to make the research process as decolonial as I would have liked, that is, according to the Charter of Decolonial Research Ethics (URL 11).

Nevertheless, Abu-Lughod (1991, 473) provides three important questions to incite critical reflection on the reasons why I was able to do research in Brazil.

"We need to ask questions about the historical processes by which it came to pass that people like ourselves could be engaged in anthropological studies of people like those, about the current world situation that enables us to engage in this sort of work in this particular place, and about who has preceded us and is even now there with us (tourists, travelers, missionaries, AID consultants, Peace Corps workers)." (Abu-Lughod 1991, 473)

Concerning the first question, I think first and foremost, colonialism and the still prevalent power dynamics stemming from colonial times played a crucial role in why I was able to conduct research in Brazil. To put it in Smith's (2012, 1) words, "[f]rom the vantage point of the colonized [...] the term 'research' is inextricably linked to European imperialism and colonialism." When thinking about colonialism in the Americas, one name is particularly prevalent, namely Christopher Columbus, who "represents a huge legacy of suffering and destruction" (ibid.: 21). But he was not alone in this enterprise, there were other people as well involved which are considered to be "the 'heroes', the discoverers and adventurers, the 'fathers' of colonialism", however, Indigenous literature has an opposing view on them (ibid.). Another prominent figure is Maria Leopoldina of Austria, the first Empress of Brazil (Rinke and Schulze 2013, 67), highlighting the direct, historical, and colonial connection between Brazil and Austria. This historical period also gave rise to the inhumane practice of slavery, which was not abolished in Brazil until 1888 (ibid.: 110). Hence, Brazil was the last country in America to abolish slavery (ibid.: 108). A 35-year-old research partner recounted that their great-grandfather was born under the *Lei do Ventre Livre* – the Law of Free Birth (fn 29.12.2023, p. 50), meaning that four generations ago their ancestors were still enslaved people. That was not a long time ago – a fact that another research partner also recalled by saying the following:

"Pra o tempo de escravatura é muito pouco tempo ainda pra cá, muita coisa ainda se aprender ... a gente quer..., né, pra não, pra aquilo não pode voltar do jeitinho..., né, tem coisas que não pode voltar de jeito nenhum." [We are

not that distant from the time of slavery, there is still a lot to learn... we want..., right, not to, so that it can't come back to that..., right, there are things that can't ever come back.] (int-Vic 18.01.2024, p. 19)

The second question is, what is the current world situation that enabled me, an Austrian, to conduct research in Brazil (Abu-Lughod 1991, 473)? The current world situation is a consequence of past world situations – especially colonialism, because "[c]olonialism was, in part, an image of imperialism, a particular realization of the imperial imagination. It was also, in part, an image of the future nation it would become" (Smith 2012, 24). Unfortunately, nowadays, there is still a wide gap between the Global North and the Global South. For example, there are socioeconomic differences between Brazil and Austria, which, looking at numbers, can be exemplified through the gross domestic product (GDP) per capita, which in 2023 in Austria was 52.004 US\$ and in Brazil was 9.130 US\$ (URL 12).

Nowadays, a growing number of Western middle-class people undertake long-distance vacations to other continents, especially to those deemed 'exotic'. Therefore, on the one hand, I also felt this wish or 'need' to travel to other countries, and if it is hot there and there is a picturesque sandy beach nearby, all the better. On the other hand, it was easy for me to travel to Brazil in this day and age. As an Austrian citizen, I am allowed to stay up to 90 days in Brazil without the need for a visa (URL 13). When entering the country, I did not have to explain why I was coming to Brazil. In addition, I did not have to obtain any official legal or governmental permission to conduct research in Brazil.

Even though my family has no academic background, I benefited from the good school system in Austria, which enabled me to study at a university and thus achieve a high level of education. If I had been born into a working-class Brazilian family, maybe the path to university would have been more challenging. Many of the people I spoke to told me that they sent their children to private schools because they are better than public schools; nevertheless, this is certainly a heavy financial burden. My parents simply sent me to the nearest public school and most likely did not even think twice about its quality. My education at public schools and public universities also enabled me to learn foreign languages for free. Without this knowledge, I would not be able to communicate with people in non-German-speaking countries, hence making it difficult for me to conduct research there. If I now imagine that one of my research partners would like to implement a similar research project in Austria, I think this would be difficult due to a lack of financial resources, education, and language skills. These differences result from the historical events described and are a symptom of the current world situation and its hegemonies.

Describing and reflecting on the current world situation might seem redundant to the people living it now; however, in light of the rise of anti-democratic movements and signs of shifting paradigms, free access to do research (whether in one's home country or abroad) might be in danger. That is, what we now take for granted and consider to be self-evident might not be so in the future.

Abu-Lughod's (1991, 473) third question is, who preceded me, that is, who has done research there before me or who was there at the same time as I was. In my particular case, my uncle preceded me in the sense that I got in contact with my research partners through him. If he had not gone to Brazil as a tourist and met his wife, that is, my aunt, I would not have done this research with this particular set of people in Greater Recife. Moreover, it would not have

been that easy to be granted access to a Brazilian household. As the comportment of past anthropologists within the same field influences how people there see current and future anthropologists, so, I think, did the behavior of my uncle influence how my research partners think of Austrians or foreigners, hence also of me. I think in this case, this is especially true because a lot of people told me, after I had asked them, that they rarely have contact with foreigners.

Another crucial question in decolonial research is whether people benefit from this research. The following quote highlights the importance of reflecting on that.

"Many researchers, academics and project workers may see the benefits of their particular research projects as serving a greater good 'for mankind,' or serving a specific emancipatory goal for an oppressed community. [...] It becomes so taken for granted that many researchers simply assume that they as individuals embody this ideal and are natural representatives of it when they work with other communities." (Smith 2012, 2)

I have already thought about what benefits my research partners get out of this research. Honestly, I certainly do not think that this research is life-changing for them. I actually struggled to find an answer. Of course, I want my research to be meaningful since it means a lot to me, and I invested a lot of time in it. Still, maybe, apart from helping me to obtain my master's degree, it does not really contribute a lot to my research partners or the people whom I observed and talked to in the course of this research. Nevertheless, it must be borne in mind that "research is not an innocent or distant academic exercise but an activity that has something at stake and that occurs in a set of political and social conditions" (Smith 2012, 5). Research could potentially also worsen people's life situations, making the need for high ethical commitments even more evident. To get to the bottom of the initially stated question, I confronted one of my research partners with the fact that this relatively small research project would probably have little impact, and I asked her what she thought about that. To my surprise, she seemed to be more confident about the potential positive impacts of this research than I was. When asked if she deemed this research relevant, she answered the following:

Eu acho assim que é relevante porque você leva a gente a pensar, né? A gente para pra pensar, né? E de qualquer maneira você vai levar isso aí, é um material que você vai levar, né? Vai ser apresentado a alguém que vai ver, vai ler, vai pensar também, né? Na situação da gente, as pessoas vão pensar. E eu aprendi muito com esses dias que você tá aqui, porque eu fui pra lugares que eu nunca fui. Eu visitei muitos museus, não deixa de ser aulas, né? Você vê coisas boas, coisas bonitas. Eu nunca- moro aqui, mas nunca fui, né? Um museu, né, muito bonito aquilo ali. E esse outro, então, é inesquecível, né? [...] E eu me senti muito bem. Me senti um estudante ali. Entendesse? Aprendendo coisas novas, ideias novas." [I think it's relevant because it makes us think, right? We stop to think, right? And anyway, you're going to take this with you; it's material you're going to take with you, right? It's going to be presented to someone who will see it, read it, and think about it too, right? About our situation, people will think. And I've learned a lot

these days that you've been here, because I've been to places, I've never been. I've visited many museums, they're still lessons, right? You see good things, beautiful things. I've never- I live here, but I've never been, right? A museum, right? That one's really beautiful. And this other one, then, is unforgettable, right? [...] And I felt really good. I felt like a student there. You know? Learning new things, new ideas.] (int-Luc 30.01.2024, p. 20)

Luciane said that she herself learned a lot during our research collaboration and that she felt good about that. Indeed, Chilisa (2012, 228) writes that self-reflection is not only required by the researcher but also by the research partners in decolonial research. The two parties should reflect on "what they have learned, if it will change the way they think and do things, whether they are willing to change, how they evaluate the significance of findings, and whether the intervention proposed is appropriate based on the findings" (ibid.).

Another aspect that Luciane mentioned is that when people read this text, it makes them think and thus spreads knowledge about the lived realities of my research partners. In this regard, Narayan (1993, 682) states that "[a]dmittedly, writing cannot singlehandedly change the inequalities in today's world; yet, in bearing the potential to change the attitudes of readers, ethical and accessible writing unquestionably takes a step in the right direction." However, much research, including this one, is written in languages that are not understood by the research partners, making this research inaccessible to them. Thus, adding a Portuguese abstract is the least I can do.

2.2 Data collection

The basis of my methodology is a mix of qualitative methods. I had planned to include participant observation, semi-structured interviews, ethnography on foot, and photovoice. However, it was clear to me that the core of this mix would always be participant observation. In the case of the other methods, I had planned to be more flexible in order to be able to adapt the methodological needs to the situation in the field. During the initial phase of fieldwork, I decided not to pursue photovoice any further out of consideration for people's time resources.

In the following subchapters, I go into more detail about each method, its underlying literature, and explain how I implemented said method. Further, I reflect on how I felt using these methods and whether or not it was easy or challenging to put them into practice.

2.2.1 Participant observation

Participant observation constituted the main method for this anthropological research. Bernard (2011, 256) summarizes participant observation as such that "[i]t involves getting close to people and making them feel comfortable enough with your presence so that you can observe and record information about their lives." Subsequently, he acknowledges that this definition sounds a bit crass; however, only in accepting what the true essence of participant observation is can we also be aware of the necessity of a high ethical stance (ibid.). Nevertheless, Bernard (2011, 258) also offers another definition of participant observation.

"Participant observation involves immersing yourself in a culture and learning to remove yourself every day from that immersion so you can intellectualize what you've seen and heard, put it into perspective, and write about it convincingly." (Bernard 2011, 258)

For two months, I was immersed in a different culture than my 'Austrian' one. I lived with a family that consisted of Luciane, her daughter Palina, Palina's husband, and their little son. Gladly, a friendly and informal relationship formed between us. I hung out with them inside the house, helped with the cooking, and washed the dishes while we were having informal conversations – getting to know each other, and building rapport. Moreover, I followed my research partners if they had or wanted to go to specific places, such as the supermarket, houses of relatives, the beach, or if they had to deal with bureaucratic matters. I also spent Christmas and New Year's Eve with them, where I went to church with Luciane and to a relative's house, respectively, as I was there in December and January.

Since, together with my research partners, I moved a lot within the Metropolitan Region of Recife, I spent a lot of time on the bus and at bus terminals, which also led to a lot of observations and embodied experiences. In general, participant observation allowed me to personally experience a variety of contexts, some of which I had not experienced before; however, those often were mundane situations for my research partners. Sharing those moments with them helped me understand their lived reality better. Indeed, a research partner acknowledged this approach by telling me that because I am here, I would understand his situation as a beach-front bar owner better because I experienced it by myself, in contrast to the majority of employees in the municipality who, in his view, only sit behind their desks and seem not to want to understand the situation of the locals here (fn 04.01.2024, p. 59). This conversation showed me that people appreciate the anthropological approach of participant observation.

During and after participant observation, I took a lot of notes. Depending on the situation, I either jotted down notes immediately or took mental notes that I jotted down later and subsequently turned into descriptive field notes once I had the opportunity to do so. Fortunately, I did not encounter situations where research partners or other people voiced discomfort about the presence of my notebook. For this research I had prepared two notebooks, a big one and a small one, yet I realized that I used the smaller one more due to its easier portability. Nevertheless, I learned that it is not that easy to remember everything that happens in the course of a day. As the literature reveals, "[e]ven when we are explicitly aware of things we see, there is no guarantee that we'll remember them long enough to write them down. Building your ability to remember things you see and hear is crucial to successful participant observation research" (Bernard 2011, 274). Therefore, I preferred to write more elaborate field notes on the same day at night. Typically, I typed them directly on my laptop, sitting in front of the house or in my bed. Sometimes, especially if I woke up early, I wrote them in the morning. Often, I would sit down at the kitchen table waiting for the other members of the household to wake up and have breakfast. Once they sat down with me, I could engage them in conversations.

Ultimately, I think participant observation is often what Bernard (2011, 156-157) terms 'informal interviewing' and what he describes in the following quote summarizes pretty well my own experience doing participant observation.

"At one end there is informal interviewing, characterized by a total lack of structure or control. The researcher just tries to remember conversations heard during the course of a day in the field. This requires constant jotting and daily sessions in which you sit at a computer, typing away, unburdening your memory, and developing field notes. [...] When it comes to interviewing, never mistake the adjective 'informal' for 'lightweight.' This is hard, hard work. You have to remember a lot; you have to duck into private corners a lot (so you can jot things down); and you have to use a lot of deception (to keep people from knowing that you're really at work, studying them). Informal interviewing can get pretty tiring." (Bernard 2011, 156-157)

Indeed, this is what happened to me. I got really tired, especially at the end of my field stay. I was not able to write down everything that happened throughout the day. Some days, I only managed to write down some keywords and some half-finished sentences in the notes on my phone, hence having to write down the field notes one or two days later.

However, initially, parallel to writing about all my observations and conversations with members of the household, I had to focus on establishing contacts with more people – especially with Luciane's relatives, yet I also reached out to environmental movements from the region and dedicated time to building rapport with them.

Even though I already knew some of my research partners due to my prior visit in 2018, I still had to undergo an intense process of establishing contact and building rapport with them. I had never had a verbal conversation with any of my research partners because in 2018, I did not speak Portuguese yet, nor did we have any other language in common. Although my aunt translated a few times, I did not feel as if I really knew any of them personally. Indeed, it was an interesting experience because in 2018 I already got to know a lot of people from the family, but at the same time, now in 2023 and 2024, I was just getting to know them by having conversations with them. Hanging out, we talked about a variety of topics, and as much as I was asking, for instance, Luciane and Palina about their lives, they were asking me about my life – especially my love life and plans for the future. Indeed, that really helped in building mutual trust.

"Hanging out builds trust, or rapport, and trust results in ordinary conversation and ordinary behavior in your presence. Once you know, from hanging out, exactly what you want to know more about, and once people trust you not to betray their confidence, you'll be surprised at the direct questions you can ask." (Bernard 2011, 277)

Even though I think that I did come to the point of reciprocal trust, I also felt like I needed a lot of time to establish contact with potential research partners. I did not want to just barge into their lives, ask them about their thoughts on climate change and social difficulties, and then leave. I also wanted to get to know them personally, ask them questions about their families, their jobs, and all sorts of other topics, and ideally, I wanted them to like me.

However, with the people Fernando introduced me to, I could not establish such a relationship because I only saw them once. Fernando told me that he already knew these people; therefore, I think they might not have deemed my presence intrusive. Most of the time, I was an observer who wrote down a lot of notes during these encounters because Fernando and the

other person(s) had a lot of issues to talk about, as he visits them regularly. In addition, I could build a great rapport with Fernando, and ever since, I have followed his activist activities on social media.

2.2.2 Semi-structured interviews

Semi-structured interviews constituted an infrequent but productive method, in the sense that I could generate a lot of data with these interviews. I recorded seven semi-structured interviews, which resulted in data material of eight hours and 22 minutes. I conducted the semi-structured interviews at the end of my field stay, so I had already gained a lot of insights into the topics that I deemed relevant for the research and felt more comfortable leading these interviews. Furthermore, it was important for me to interview people with whom I had already built a relationship, so that they knew they could trust me. The interviewees already knew the reasons for my interest in the research topic from past conversations, and often we had already talked about certain matters that were discussed again during the interviews. Ultimately, I interviewed six women.

One challenging aspect of conducting these interviews was the difficulty of being alone with the person I was talking to because either there was no other room where we could have gone and sat down quietly, or the interviewees were simply more comfortable being in the common area where other people were as well – which is understandable since "[t]he home is a space marked by family togetherness. When researchers visit homes to interview key informants, they should be aware that the overriding value is family togetherness, sharing, and doing things together" (Chilisa 2012, 213). Thus, if I were to conduct a similar research again, I think it would be a pleasant and productive experience to establish talking circles which "are based on the ideal of participants' respect for each other and are an example of a focus group method derived from postcolonial indigenous worldviews" (ibid.). Nevertheless, the other people present were quite interested in these interviews and wanted to listen, which led to them adding comments now and then or to the interviewees looking at them questioningly if they did not understand what I was saying or if they did not know right away what to answer. In any case, before scheduling the interviews and also again right before starting them, I asked if it would be okay to audio-record the interview and I assured them that their names would be anonymized (more on that in Chapter 2.4 "Writing up").

Overall, I consider the interviews to have been a pleasant experience, and judging from the reactions of the interviewees, I take that they also enjoyed them. For instance, when I thanked Norah for the interview, she said, "Ah por nada minha filha. Até que é gostosão, né?" [Oh, you're welcome, my daughter. It was actually really enjoyable, wasn't it?]. And when I scheduled the time for the interviews with Luciane and Palina, they both appeared to be quite excited to get the opportunity to talk again about several topics we had already touched on during the last two months, but now they could elaborate on them in more detail. That is, during these two months, many situations arose that could be considered 'unstructured interviewing'. However, to conclude the research process, semi-structured interviews were conducted. Bernard (2011, 156) describes these types of interviews as follows:

"Unstructured interviewing goes on all the time and just about anywhere – in homes, walking along a road, weeding a millet field, hanging out in bars,

*or waiting for a bus. **Semistructured, or in-depth interviewing** is a scheduled activity. A semistructured interview is open ended, but follows a general script and covers a list of topics." (Bernard 2011, 156)*

I also used a list of questions (see appendix), which I drafted during my field stay. Semi-structured interviews are usually done when there is only one chance to interview a person (Bernard 2011, 157); however, there would have been more possibilities if I had wanted. The reasons why I did not conduct two or more semi-structured interviews with the same person were that I wanted to focus on the other methods (participant observation and ethnography on foot), and I did not want to go beyond the scope of a master's thesis. I knew that transcribing and analyzing the few interviews that I have would already generate more than enough workload, so I did not want to overburden myself. Moreover, there was no a priori set time limit for the interviews. Usually, I started the interviews with the question, 'How's life in Recife/Paulista/etc?' I chose this question because it is broad and open. In general, I tried to ask mostly open questions. Once I had covered all the points on my list plus followed up on any additional topics of interest that came up, I always asked the interviewees if there were any other aspects they would like to mention. All in all, the interviews' duration was between half an hour and two hours.

Finally, it is worth noting that due to the static character of sit-down interviews and "[b]ecause people usually do not comment on 'what is going on' while acting in 'natural' environments, it is difficult to access their concurrent experiences and interpretations through a purely observational approach" (Kusenbach 2003, 459). Since the research initially focused on people's thoughts of the environment, it made sense to additionally use a more dynamic method, such as ethnography on foot. Combining participant observation, interviewing, and ethnography on foot leads to accumulated advantages (Kusenbach 2003, 465).

2.2.3 Ethnography on foot

Before describing in detail what ethnography on foot is, the following vignette gives an insight into how I implemented the method.

After having spent the whole morning and noon inside the house, I asked Luciane if we could go for a walk today, so I could get to know the city and neighborhood a little bit. She said that we could go around 4 pm because by then it wouldn't be as hot anymore. It was indeed hot. I was sweating by merely sitting around and not moving at all. So, the ventilator was constantly switched on, day and night. I asked Luciane if we could walk towards the beach and maybe see a bit of the neighborhood, so we did. The house is close to the beach, around ten minutes on foot. We walked down the long, unpaved street. It was basically a straight line, and if there were no houses on the beach, we would have been able to see the ocean already. Luciane usually walked quite slowly, so I matched her pace. I preferred to walk side by side at the same rhythm so as not to stress her out and hopefully make her feel comfortable. However, we had to cross a big road, the main road that connects Paulista with Olinda and Recife to the South. There are no pedestrian crossings on this asphalted street, and Luciane was notably stressed out when crossing the street. After the big street, there were a few blocks of houses and then the ocean. There was no sandy beach at this spot, but a small wall and big stones or pieces of

cement to mark the transition to the ocean. There were a few people close by. Two men with fishing rods, two or three other men sitting in chairs outside their house, and a woman in active wear leaving her house and heading to her car. We both enjoyed the smell of the sea. Luciane told me that around twenty years ago, this place looked different. There was still an actual sandy beach, fewer houses, and the water level wasn't as high as it is today. She was worried that the houses in the front row at the shore might be affected by the sea level rise, but the houses in the following lines might be safe. Unfortunately, we couldn't walk along the coast because there was no path. At some point, there was a pile of big stones where we would have had to climb over them. Therefore, we turned around and walked back towards the main road. I noted a wall with the words "proibido jogar lixo" written on it, which means "forbidden to throw away trash", but, ironically, in front of these letters, there was quite a lot of garbage. Not only organic waste, such as palm tree leaves, but also all sorts of plastic waste. (fn 06.12.2023, p. 8)

This vignette, which is an adapted fragment of one of my first field note entries, shows well the benefits as well as the limitations of walking as a method. Right from the beginning, I was intrigued by this method and eager to try it out myself. The walk described above was the first walk I took during my field stay in Greater Recife. I also jotted down in my field notes that this walk with Luciane was kind of a 'practice walk' for me in order to see if and how I could implement the method of walking (fn 06.12.2023, p. 8). Moreover, I could see and feel through this embodied experience that it is much easier and more relaxed to talk to someone while walking. There are no other distractions, such as the TV, other people, and so on, and one can talk about visual stimuli from the surroundings, such as the flora, animals, buildings, people, and so on.

When we walk in physical co-presence, we not only share the same visual field, but we also walk in the same direction. We also share the same rhythm, and according to Lee and Ingold (2006, 82), "sharing a rhythm of movement is the basis for shared understanding of each other". Walking implies little to no eye contact which makes it less confrontational than a sit-down face-to-face interview, yet walking is "a very rich way of socializing" (ibid.: 79). Walking is indeed a mundane act, that usually happens during ethnographic research even if it was not explicitly planned as a method, but I believe that for this very reason it deserves to be looked at more closely as well as to explore its benefits as an ethnographic method. During walks, nonverbal acts are equally important, because, as Amato (2004, 4) succinctly put it, "walking is talking." During the walks, I tried to find out what is being 'said' by observing people's behavior in different environments: the directions in which people walk or don't walk, or what catches their attention so that they talk about it. Moreover, a lot of personal information can be found out by walking through familiar environments.

"the environment we dwell in on a daily basis becomes a sort of personal biographer as it preserves parts of our life history. Navigating familiar environments full of personal landmarks in many ways resembles going through the pages of a personal photo album or diary." (Kusenbach 2003, 472)

Walking through familiar places facilitates remembering and, thus, elicits narratives, that is, "[m]emories – understood as narratives of the past – are not just found in oral and written forms but are also inscribed in public space" (Palmberger 2022, 95). However, since walking is

an "embodied experience" (Lee and Ingold 2006, 69), it not only elicits memories but also spontaneous associations and thoughts about the environment one sees, feels, smells, hears, and perhaps also tastes. When we walk, we cannot help but be aware of the environment beneath our feet and around us, qualifying walking as an especially productive method for environmental research topics. Nevertheless, I want to emphasize that walking is one method among others that I used, because it complements well participant observation and interviews. Therefore, it played a pivotal role in the qualitative methods mix because it allowed me to take walks with research partners who then showed me places in their neighborhoods about which we talked. This process made the research topic more tangible and gave a lot of prompts to elicit past and present memories and narratives, as well as associations with places and environments, thus revealing narratives that would have otherwise remained hidden.

Walking as an ethnographic method received several different denominations, such as 'go-alongs' (Kusenbach 2003), 'memory-guided city walks' (Palmberger 2022), 'talking whilst walking' (Anderson 2004), and 'ethnography on foot' (Lee & Ingold 2008). To describe my version of these methods, I will use Lee and Ingold's term, even though I adapted their and the aforementioned scholars' methods insofar as they fit the purpose and circumstances of my research.

There are also subcategories of this method. Kusenbach (2003, 464) describes walk-alongs (on foot) and ride-alongs (on wheels) as modes of go-alongs; however, there are certainly mixtures that involve different modes of transportation. Moreover, she also divides go-alongs into natural go-alongs and contrived or experimental go-alongs, because walking also stimulates narratives in unfamiliar places (ibid: 463-463).

During my research, I experienced natural as well as contrived or experimental go-alongs. For example, on the one hand, I accompanied Luciane as she went about her routines, even though she stated that this might be boring for me. On the other hand, I asked several of my research partners, such as Luciane, Norah, Mariluz, and Palina, to take a walk with me. Even though the majority of them used to say that they don't like going for walks, during a conversation with Norah, she suggested walking herself because she wanted me to show the *barreiras* (slopes) in the neighborhood where landslides frequently happen. Another case of contrived go-alongs was when I asked Luciane and Palina to visit museums, parks, and beaches together. They would not have gone to these places by themselves, and even though these visits resulted in appealing data, Kusenbach (2003, 464) argues the data is "not of the kind that would greatly enhance our understanding of the subjects' authentic practices and interpretations." However, I think that this data offers valuable additional insights. Therefore, an important learning with this method was that it can be fruitful in manifold places, not only the circumjacent neighborhood.

I also experienced ride-alongs during the field stay. Fernando, the activist, lent me one of his bicycles, and we went to a number of places. While riding the bikes, we talked a lot, and he explained to me a lot about the places we passed by. Indeed, the higher pace of the mode of transportation sometimes did not allow for the same in-depth explanations as walking would have.

Moreover, Kusenbach (2003, 455) "examine[s] five themes which go-alongs are particularly suited to explore: environmental perception, spatial practices, biographies, social architecture and social realms." During the two months, I particularly walked a lot with Luciane, and during

these walks, we often talked about her life biography. I felt that way it was easier than, for example, sitting on the couch in the living room. Furthermore, conversations about people also arose during the walks.

"Moving around their natural environments encourages informants to talk about the people who live right here or over there; and about the particular person they just passed. With many of such details in hand, ethnographers can over time piece together a mosaic of the invisible social architecture of their setting." (Kusenbach 2003, 474)

For example, when walking with Luciane, we passed by some neighbors with whom she chatted a bit. However, at the beginning of my field stay, I had asked her if she knew some people in the neighborhood who might be willing to talk to me in the course of my research project, and she answered that she did not know them very well, or at least it seemed as though she was reluctant to grant me access to them. After all, neighbors did not turn into research partners. In conclusion, it can be said that "go-alongs ultimately point to the fundamental reflexivity of human engagement with the world" (Kusenbach 2003, 478).

Another positive aspect of walking was that it helped me to establish contacts and build rapport with other people who subsequently became research partners. Had I just sat down with them the first time we met, I think the conversations would not have been as open and comfortable as they were at the end of my field stay.

Overall, the walks were similar to how I had imagined them beforehand; however, I did not consider the security worries that made it difficult to leave the house in the first place. However, judging from the positive reactions from my research partners, I take that they enjoyed our walks, even though walking merely for pleasure does not constitute a constant in their daily lives. But if walking really "establishes intimate contact with place" as Amato (2004, 276) states, then introducing the habit of going for walks in one's life could ultimately contribute to people wanting to protect their environment more because of their deeper connection to it.

Of course, I wondered why people did not like to go for walks. Maybe it has something to do with the aftermath of historical structures, because historically there were hierarchical differences between those who had to walk and those who could afford to ride or sit (Amato 2004, 10). Perhaps this aspect still has an impact today and partly explains why, among my research partners, walking as a leisure activity – as in taking a walk, strolling, etc. – was not very common, if not nonexistent. I think the fact that walking is still permeated by hierarchies, combined with poor infrastructure, such as small, overgrown by plants, or no sidewalks, influences why my research partners do not consider walking to be a pleasant leisure activity. Moreover, there is the aspect that it is usually too hot to walk during the day, and the constant fear of being robbed or assaulted while walking outside.

Finally, the question arises as to how and when to take field notes using the walking method. It is difficult to remember everything that was said during ethnography on foot; therefore, it is recommended to make jottings during the walks (Kusenbach 2003, 465). If this is not possible, Kusenbach (ibid.) advises writing down what had happened and what was said as soon as possible into descriptive fieldnotes. In my case, it was either not possible or I consciously chose

not to take out my notebook or smartphone during the walks, on the one hand because I did not want to create discomfort by writing down everything my walking partner had said, and on the other hand, often I did not carry my smartphone with me due to security reasons. My research partners repeatedly warned me to use my smartphone when walking in the city. I used to write down fieldnotes as soon as possible after the walk, that is, when I was back home, where I could type them on my laptop. However, often I would walk with Luciane to the bus stop to go to Recife, and during these short walks, we often talked about interesting aspects of daily life. In these cases, I wrote down some notes on my smartphone once we were on the bus.

2.3 Data analysis

This chapter is dedicated to describing how I made sense of the data I collected, that is, the analysis process. "Analysis is the search for patterns in data and for ideas that help explain why those patterns are there in the first place" (Bernard 2011, 338). On the one hand, I was searching for patterns, but on the other hand, I was also commenting on and interpreting the cases that do not fit in with these patterns.

"In addition to focusing on the performance of routine actions and rituals, analysis must also, of course, give attention to unusual, deviant and problematic events and situations. [...] [These] cases are important in helping us to understand the limits of the normal and the unremarkable, and in mapping the types and variety of actions in any given social setting." (Hammersley and Atkinson 2007, 169)

In general, interpreting is a crucial exercise when analyzing one's data. Bernard (2011, 339) states, "[i]nterpretation – telling us what findings mean, linking your findings to the findings of other research – starts with ideas in your head and comes out in words on paper. It's a pretty qualitative exercise."

My analysis and interpretation approach for this research is inspired by the grounded theory method. Bernard (2011, 435) describes the usefulness of the grounded theory method as follows:

*"Human experience is endlessly interesting because it is endlessly unique. On the other hand, we also know that human experience is patterned. Discovering pattern in human experience requires close, inductive examination of unique cases plus the application of deductive reasoning. **Grounded-theory** is a set of systematic techniques for doing this." (Bernard 2011, 435)*

Moreover, Bernard (2011, 435) states that in order to use "a true grounded-theory study, begin coding with the first interview and use theoretical sampling to select informants", however, he adds that "[a] lot of research today that flies under the banner of grounded theory is actually the application of the method after a set of texts has been collected and does not involve theoretical sampling" (ibid.). This last statement was also true for my research since I did not have time to undertake the process of theoretical sampling due to the comparatively short amount of time I spent in the field, and since it was not part of my method. Instead, a grounded approach allowed me primarily to keep an open mind during the whole research

process, especially regarding an alterable research question, preventing me from making fixed assumptions in advance.

Since I base my data analysis process only on certain aspects of grounded theory, I will describe my concrete approach below. This is indeed very common since the one grounded theory method does not exist. Hammersley and Atkinson (2007, 166) emphasize that the 'discoverers' of grounded theory, Glaser and Strauss, "were not advocating a rigid set of procedures intended to be used as a template for any and every project." In fact, Glaser and Strauss only published one book about the grounded theory method together in 1967, with the title *The Discovery of Grounded Theory: Strategies for Qualitative Research*.

Before I describe the procedure of my data analysis, I would like to mention that I opted to use the computer-assisted qualitative data analysis software (CAQDAS) MAXQDA to facilitate the analysis process of the qualitative data; therefore, I paid 20 € to get a license from the University of Vienna. The primary advantages of this software were the clear presentation of the data, the possibility of easy revision (deleting codes, merging them, etc.), and filtering by individual coded segments.

So, how did I analyze the data? First of all, after having returned from the field, I had to organize my data. I went through my field notes and field diary, which were in a Word format, and made some adaptations to be able to convert them into a PDF format. I also typed my handwritten field notes on the computer, adding them to the same file. Moreover, I transcribed the recorded interviews and also converted these files into PDFs. I uploaded all the PDF files to the software program and started the coding process. At first, I did open coding, which means that I read the text and immediately dragged codes that I had just created onto certain paragraphs. In total, I went through the entire data twice in chronological order, and several times in no specific order; however, over time, the codes became more and more specific. I also realized that it made sense to look at 'big' codes, that is, codes with a high number of coded segments, and create more subcodes. For example, there were a lot of coded segments within the category of 'housing', which I subdivided into subcategories such as 'houses at beach' or 'real estate business', among many others. The coding process inevitably provoked further memories of the data collection phase, that is, the field stay. Since I often did not have time to write down all the details while in the field, I added some data during this step.

Regarding the meaning of the word 'code', Bernard (2011, 302) states that there are three different ones, namely 'encryption device', 'measurement device', and 'indexing device'. For the purposes of this research, the latter meaning applies because basically, the codes helped me to quickly find certain parts of my field notes. Also, Hoek (2014, 107) recommends making an index of one's fieldnotes by saying that "an index makes your notes searchable and gives you an immediate overview of the mention of persons, organizations, concepts or places".

Nevertheless, over time and after having put a significant amount of work into coding, I could see how a few overarching themes, that is patterns, emerged out of the data. Ultimately, these biggest themes became the main chapters within the analysis chapter (see Chapter 4 "Main issues identified in Greater Recife").

Furthermore, I commented on many parts of the field notes by adding notes or memos to them. Conveniently, the software program includes the function to define different types of notes. During the coding process, I mostly added analytical notes (AN) in comparison to observational notes (ON) that I frequently used during participant observation. However, I also

defined methodological notes (M), general notes, as well as notes concerning reflections (R) and the research question (RQ).

Moreover, during the iterative process of data analysis, I realized that I had to change my research question since the data I had collected alluded to a different research problem than the one I had initially formulated. Hammersley and Atkinson (2007, 160) describe this thought process as follows:

"Over time the research problem needs to be developed, and may need to be transformed; and eventually its scope must be clarified and delimited, and its internal structure explored. In this sense, it is frequently well into the process of inquiry that one discovers what the research is really about; and not uncommonly it turns out to be about something rather different from the initial foreshadowed problems." (Hammersley and Atkinson 2007, 160)

In addition to the software-aided analysis device, I resorted to analysis tools that involved pen and paper, drawing various maps and clusters to organize and visualize the data, as well as my thoughts and ideas on paper.

Finally, it should be added that ethnographic work usually leads to producing a text (Hammersley and Atkinson 2007, 190). This is to say that "ethnographic analysis is not just a cognitive activity but a form of writing" (ibid.). Therefore, the next subchapter engages with the process of writing up the research.

2.4 Writing up

The aim of writing up this research is, on the one hand, "to make sense of lived reality" (Harries 2014, 119), but on the other hand, also to take the readership along, that is, to write in a reader-friendly and understandable way. However, writing up is not easy, as the following quote illustrates, because as anthropologists, we are writing about real people, which entails great ethical responsibility.

"Writing up is difficult. It is difficult for a good reason. It is difficult because you are trying to say something about something. Furthermore, that something which you are writing about is real. It exists beyond the words on the page. It even exists beyond your authorial imagination and the experience of the researcher." (Harries 2014, 118)

Therefore, Abu-Lughod (1991, 473) poses the important question of whether there are "ways to write about lives so as to constitute others as less other." Frankly, I do not have the answer to this question nor the solution to the following problem in anthropology.

"[Anthropology] is a discipline built on the historically constructed divide between the West and the non-West. It has been and continues to be primarily the study of the non-Western other by the Western self, even if in its new guise it seeks explicitly to give voice to the Other or to present a dialogue between the self and other, either textually or through an explication of the fieldwork encounter [...]." (Abu-Lughod 1991, 467)

Since words are powerful and create realities, I intended to overcome this historical divide as much as possible by using the term 'research partner' instead of, for example, 'participant' or 'interlocutor' in the text I wrote up. The term highlights the collaborative and grounded approach of this research.

During the process of writing up, the readership should be kept in mind. While the primary readership of this thesis will most likely be from academia, anthropological texts have different audiences, which may include our research partners (Hammersley and Atkinson 2007, 202). Even if research partners now will not read this thesis due to the language barrier, maybe future generations will if they are on the search to find out more about the lived realities of their ancestors. While writing up, my principle was to be as thoughtful as possible, in the sense that I do not reveal information about my research partners that they have not consented to, that might be embarrassing for them, or that would even violate their dignity. In order to anonymize my research partners' identities, I used pseudonyms for them. I did so for all research partners, except for the activist. He explicitly permitted me to use his real name, and since his website is cited in this thesis, I deemed this decision reasonable. However, in some accounts where his role as an activist was not at the fore, I also used a pseudonym for him. Moreover, since this master's thesis also deals with sensitive topics, such as violence, it is, according to Jaffe and de Koning (2023, 175), of utmost importance to guarantee the anonymity of the respective research partners. However, I am aware that using pseudonyms is not always the most useful thing to do regarding "a postcolonial indigenous perspective, [because] information or stories told by participants lose their power if the storyteller is not known" (Chilisa 2012, 207). Looking back, I would have liked to have asked my research partners personally whether they wanted to be named in this research by their real names or by a pseudonym. Unfortunately, I did not do that because I was firmly convinced that anonymizing research partners was an essential part of anthropological research. Since this is my first more expansive ethnographic account, it seems more sensible to use pseudonyms this time, keeping in mind, as Bernard (2011, 302) puts it, "You never know what seemingly innocuous information might embarrass or hurt someone if your data fall into the wrong hands."

Besides my research partners, I am also included in this thesis, which by no means makes it an autoethnography, yet it was inevitable not to mention my own experiences. Recent anthropological developments deem the role of the researchers to be more and more important; therefore, they should not be excluded from the final ethnographic writings. Nevertheless, I tried not to make myself too dominant in the text, but to leave the most space for the research partners. However, I opted to include a few short vignettes that are written from my point of view as I observed and experienced situations in the field. I think by including vignettes, the contents of the analysis will be more approachable for readers, making the lived realities of my research partners better understandable. That is, it grants readers insights into them because it is more difficult to grasp lived realities through only one form of text. Hammersley and Atkinson (2007, 196) explain the appeal of implementing vignettes in ethnographic writing by saying "that there is a constant interplay between the concrete and the abstract, the local and the generic, the substantive and the theoretical." And according to Narayan (1993, 681), "Analysis itself is most effective when it builds directly from cases evoked through narrative," which, in my opinion, can be achieved through vignettes that bring the people of the

text closer to the reader. That is also because the goal of this thesis is not to create a general theory of poor and low-income residents of the periphery of Greater Recife, but rather narrative ethnographies of the particular, that is, "telling stories about particular individuals in time and place" (Abu-Lughod 1991, 475).

To contribute further to a more narrative and engaging writing style, I opted to include several direct quotes from my research partners. Doing this was particularly important to me since Narayan (1993, 681) urges anthropologists to "acknowledge that it is *people* and not theoretical puppets who populate our texts, and that we allow these people to speak out from our writings." I added English translations to the direct quotes to aid understanding for readers who do not understand Portuguese. All translations are my own if not otherwise stated. It should be noted that sometimes it was challenging to find an adequate translation that conveys the same information as the Portuguese original. Moreover, I put the translations in square brackets as an indication that something has been added.

3 Researching the urban

This chapter engages with researching the urban, that is, research in cities and of urban topics, as well as the current themes in urban anthropology. The subchapters provide academic context on the issues I identified during my field research in Brazil: housing, road, waste infrastructure, water infrastructure, security and violence. These issues are, however, only some examples of a range of diverse urban issues in this region and are discussed in this chapter because they turned out to be particularly relevant for my research partners.

While urban anthropology is concerned with studying the urban, Jaffe and de Koning (2023, 1) argue that anthropological research conducted in cities is not automatically urban anthropology, but an "explicit reflection on the implications of the urban context in which these [social] phenomena occur," renders such research urban anthropology. However, this view is contrary to some other scholars (ibid.). In any case, urban anthropology is increasingly becoming more important within anthropology (ibid.). In the book *Introducing Urban Anthropology*, Jaffe and de Koning (2023) offer the following definition of urban anthropology:

"In this book, we define 'urban anthropology' as anthropology that engages explicitly with the question of how social life is structured by and experienced within urban contexts. Such urban contexts are characterized by specific features such as size, density, heterogeneity, anonymity and inequality [...]."
(Jaffe and de Koning 2023, 3–4)

That is, urban anthropologists' focus is on the mundane life in the city, and they look at the ways people live together in diverse and unequal cities, and how they adapt to constant change in their surroundings (Jaffe and de Koning 2023, 5). They also study how life in cities is changing, how city spaces affect people, and what a city really is in today's globalized world (ibid.: 1).

Urban anthropology as a subfield emerged due to the growth of cities as well as rapid urbanization across the globe, and a general shift within anthropology (Jaffe and de Koning 2023, 2). Increasing social problems, such as ethnic conflict, pollution, crowding, and criminal violence, 'sparked' anthropologists' interest in conducting research in cities (ibid.: 3). Also, for example, the move towards decoloniality led many anthropologists to conduct research 'at home', often on urban topics (ibid.).

Urban anthropology is highly interdisciplinary (Jaffe and de Koning 2023, 3), which is why concerns of critical urban studies are also relevant to urban anthropologists. Scholars of critical urban studies address questions such as how capitalism and urbanization processes are systemically and historically intersected, what contradictions or crises there are in cities, and what more progressive, emancipatory, just, and sustainable formations of urban life are (Brenner, Marcuse, and Mayer 2012, 5). Intending to expose marginalizations and injustices, they also aim to find out who is excluded or marginalized in a city, and who is treated with injustice because of class, race, gender, ethnicity, sexuality, etc. (ibid.). Urban issues are very diverse, which also becomes evident in the book *The Routledge Handbook of Anthropology and the City*, edited by Low (2019, 21), which deals with topics such as citizenship, rights and social justice; security and insecurity; precarity; built environment and spatial governance; environment and sustainability; heritage preservation and cultural expression; financialization and

privatization; and displacement and mobility. In their introductory book, Jaffe and de Koning (2023, 13) also present key topics in contemporary urban anthropology, that is, in part I, "urban space, place and the built environment," part II focuses on "urban production and consumption," and part III is about "urban power, politics and governance." Specifically, these are the topics of 21st century urban anthropology: lived experience of economic change; urban solidarity, inequality, and social difference; migration across nation states; global popular culture; mobility; social interaction in public spaces, e.g. parks, streets, or squares; the impact of political transformations on urban public life; cultural representation and urban imagination; urban economies and deindustrialization of cities; neoliberalism and its novel forms of inequality; urban planning and urban infrastructure; citizenship; social movements and democratization movements; the return of far-right groups; and urban problems such as security and violence (ibid.: 13-14). 'Traditional' urban anthropology concerns such as crime, poverty, and social diversity are also studied, however, viewing them from new perspectives, often in relation to the state's protective role of the population (ibid.: 14). Moreover, contemporary urban anthropology studies social, environmental, and urban sustainability since cities have an especially pronounced impact on environmental degradation and have always had to deal with shortages and issues concerning water, clean air, waste, energy, space, and food (Low 2019, 13). Nowadays these issues are increasingly discussed in connection with the Anthropocene and climate change (ibid.). The Anthropocene refers to "a geological epoch marked by human impacts on global ecosystems" (Mathews 2020, 67). Despite a certain usefulness of the term 'Anthropocene' in drawing attention to the climate crisis, it also receives criticism (ibid.). For instance, the term overemphasizes human influence and portrays all humans as equally contributing to climate change and other contemporary catastrophes, when in fact some are more responsible for causing them than others (ibid.). The scholars in Low's (2019, 21) collection also illustrate future imaginaries of cities where, on the one hand, many ethnographies paint a dark and dystopic image of the urban future, but on the other hand, there are also optimistic ethnographies, giving examples of tactics to take back the city and fighting for rights to the city and equity. Concluding, Low (2019, 21) argues that engaged urban anthropologists should not only document and publish urban struggles but should actively take part in these fights through ethnographic work. Moreover, she states that "engaged urban anthropologists need to be more outspoken about their social values and judgments, more pointed in their claims and more militant in their ethnographic practice," in order to significantly influence urban scholars outside anthropology as well as a wider public in general, and to effectively convey the importance of anthropological findings (ibid.: 4).

Furthermore, who do urban anthropologists study and where do these studies take place? Urban anthropologists typically focus more on marginalized people since "cities are sites where social inequalities are a highly visible part of everyday life" (Jaffe and de Koning 2023, 15). However, in cities anthropologists usually have to deal with a wide range of people with different social roles (ibid.: 16). Nowadays urban anthropologists increasingly study middle class people, urban elites, and people in power, yet 'studying up' is often connected to difficulties accessing the field (ibid.: 18). Moreover, due to the more fleeting nature of urban contacts among people, it is more difficult for urban anthropologists to make long-term connections with research partners in the field (ibid.: 16).

Concerning the field of urban anthropological research, it should be taken into account that urban anthropologists face the difficulty of delineating the field in an urban setting (Jaffe and de Koning 2023, 15). Jaffe and de Koning (2023, 16) say that aspects that shape the field "depend on the theme or phenomenon that she [the researcher] wants to study, which also determines what methods are most appropriate." Concrete examples of urban fields include researchers following their research partners as they move from one location to another; or they stay in one neighborhood and spend a lot of time with people there; or they might speak to government officials or politicians, which requires going to the corresponding government buildings (ibid.).

Different methods are available to conduct studies in cities, and while there are no exclusive methods for urban anthropology, some have proven to be more suitable for urban contexts (Jaffe and de Koning 2023, 17). Research in urban spheres often involves including statistical data, analyses of online media, documents, or political debates (ibid.). Digital methods are also very common, and new approaches have been developed to adapt to urban needs (ibid.). Other methods are sensory and participatory visual ones (ibid.). Nevertheless, for urban anthropologists, participant observation constitutes the main methodological tool (ibid.: 5). Jaffe and de Koning (2023, 5) describe the perks of this method as follows:

"Participant observation provides access to hidden aspects or segments of urban life, to intimate, informal and illegal processes. It allows researchers to map tacit knowledge that cannot easily be verbalized and can shed light on the many less obvious routines that structure social life in the city." (Jaffe and de Koning 2023, 5)

For example, in the article *Stadtethnographisch Forschen. Ein qualitativer Zugang zu städtischen Alltagspraktiken*, the authors describe the advantages of ethnographic research, with participant observation at its core, for an interdisciplinary readership (Rogojanu and Wolfmayr 2024).

Due to urban residents' high mobility within the city and its surroundings, 'mobile methods' are particularly suitable for research projects in urban contexts, which often simply means following research partners as they move through the city while observing them (Jaffe and de Koning 2023, 19). Walking, in particular, has proven to have special potential as an urban method (Muhr, Gartner, and Scherhauser 2024).

Anthropologists' interest in the causes of social inequalities also led to the increased implementation of collaborative research methods (Jaffe and de Koning 2023, 15). By collaborating, activists, artists, designers, civil servants, and scientists become 'epistemic partners' (Sánchez Criado and Estalella 2018). This 'epistemic collaboration' enables experimental contributions to ethnography (ibid.). For example, Sánchez Criado and Estalella (2018) collaborated with a mathematician/wheelchair user, an architect, and an activist/anthropologist/craftsman to design and build an open-source wheelchair kit, including a portable wheelchair ramp that is suitable for use in urban Barcelona, Spain (ibid.).

Kirsch-Soriano da Silva (2024, 208) points out a critique of the term participation, which inherently means that someone is in a position of power, while others are only part of the endeavor. Therefore, she looks at emancipatory ways for urban research and development that also aid in democratizing the city (ibid.). Emancipatory urban research aims to encourage people to actively shape their living environment (ibid.: 210).

3.1 Commitment to equitable cities

Before I go into the academic classification of the main issues identified in this master's thesis in more detail, it is relevant to question why cities are studied in general. For Low (2019, 3), it is crucial to reflect on why anthropologists study cities. Contemporary cities face increasing difficulties in solving social, political, technological, and economic challenges, as well as rapid urbanization due to increased population growth in cities (ibid.). There are also many social inequities in cities, for example, in housing (ibid.). Low (2019, 3) personally evolved from describing and analyzing urban issues to speaking out and offering solutions to injustices she came across through her research. Similarly, in their book *Cities for people, not for profit*, Brenner and colleagues (2012, 2) appeal for precisely this, as they identify the urgent importance of building cities that respond to the social needs of the population and not of spatial isolation or the capitalist thinking of profit maximization as a political priority. Nevertheless, it remains to be contested how this can be achieved in times of pervasive neoliberalism.

In summary, anthropological studies of cities offer the chance to ignite positive change by supporting people in their endeavors to fight for more just cities.

3.2 Housing in the city

Housing in the urban sphere is a struggle for many people around the world – especially for people with limited to no financial resources. Therefore, people have to find different ways to access housing in the city, such as squatting, autoconstruction, modifying a relative's house, or public housing, in addition to renting or buying.

Squatter settlements have played a key role in shaping cities across the Global South (Murphy 2019, 278). Since the mid-twentieth century, numerous such settlements have undergone processes of consolidation, gaining permanence across various regions of the world (ibid.). Murphy (2019, 279) points out that "[s]quatter movements take part in relational, dialectical processes, in which activism, contradiction, and visions of transformation each need to be taken into account." According to Abrams (1964, 12), "squatting is part of a desperate contest for shelter and land. Of all forms of illegal seizure, squatting is the most condonable." Moreover, he analyzes that squatting usually occurs "wherever there has been a mass movement of people to cities and insufficient shelter" (ibid.: 13). Thus, the causes of squatting are multiple, including forced migration, poverty, and lack of rural opportunities (ibid.: 14). Yet it is primarily driven by urban housing shortages and landlessness, leading migrants to occupy land – often public, due to the lower risk of eviction (ibid.).

The appearance of squatting units varies and depends on factors such as which building materials are available, the prospects of staying there, and the financial resources of squatters (Abrams 1964, 14). Many Latin American squatter settlements were initially built out of adobe and scrap (ibid.). Moreover, squatter settlements are characterized by the lack of water supply, sewage system, and paved streets (ibid.).

However, the example of the 1960s in Venezuela leads Abrams (1964, 18) to think that living in a squatter settlement is not always out of poverty but often out of housing shortage in cities, since some of the residents there had televisions, refrigerators, and some even had cars. Moreover, even though the Venezuelan government had given land to 42.100 families and had installed electricity and basic sanitation in some squatter settlements, the rapid

population growth posed a struggle for cities and the state to provide sufficient decent housing (Abrams 1964, 18-19).

Yet in general, living in a squatter settlement usually implies safety and health hazards due to overcrowded living spaces, unsafe foundations of the houses, and accidental fires, as well as malicious arson since the value of the land rises with no squatters on it (Abrams 1964, 22). In order to decrease the discontent of residents of squatter settlements, providing better housing, a more pleasant environment, job opportunities, and hope would be necessary (ibid.: 21). Moore, Eiró and Koster (2022, 1) highlight the importance of hope by exploring "the illegal practice of autoconstruction as a material expression of hope." Many impoverished residents in Latin American countries have no alternative but to break the law and build houses illegally in order to find shelter in the form of a house because there is not enough affordable housing to satisfy people's basic needs for housing (ibid.: 1-2). For example, in Brazil, it is not uncommon for private construction initiatives to establish themselves around public housing projects and thus contribute to the modification of residential areas (Kirsch-Soriano da Silva 2010, 33). The construction of informal structures is facilitated by the lack of official controls, and legal property boundaries and ownership are often disregarded (ibid.: 79). For example, in Greater Recife, many settlements established by the state were left to their own devices after the dissolution of the public housing company (*Companhia de Habitação Popular*, COHAB) (ibid.). Regarding the illegal practice of building their own houses, Moore, Eiró and Koster (2022, 21) state that this must be viewed from the perspective of the people who are thereby expressing their vision of the future. They hope to obtain permanent residence in the city in the future (ibid.). The role of the state here is that, on the one hand, it promises residents a future in the city, but on the other hand, it neglects and threatens them (ibid.).

Residents who already own a house frequently modify it due to diverse reasons. For example, residents make structural modifications due to large families and the associated need for more living space, but this decision depends largely on the financial resources available (Kirsch-Soriano da Silva 2010, 90). Residents also change their living space according to their individual subjective taste and sometimes to increase the market value (ibid.: 117). Kirsch-Soriano da Silva (2010, 127) identifies the following three mutation-determining factors for the modification of housing: social factors, local factors, and architectural potential. However, these factors depend on the following desires for change and potential: need, capital, opportunity, and scarcity (ibid.).

Generally, urban interventions – especially of a public or large-scale nature – have huge impacts on people's lives. "[U]rban planning interventions are recurrent and high-impact events in the lives of marginalized, yet agentive, city residents" (Koster 2020, 185). Also, urban planning "aims at ensuring a regulated and formalized development and management of urban spaces and populations" (ibid.: 186). In the article *An Ethnographic Perspective on Urban Planning in Brazil: Temporality, Diversity and Critical Urban Theory*, Koster (2020, 185) describes three ways in which putting marginalized slum residents' perspective at the fore, "contributes to current critical urban theory". First, he focuses on 'people's time' in the context of urban planning (ibid.). Second, he considers the different residents, and the diverse consequences urban planning has on their lives (ibid.). Third, he describes how urban interventions have equal impacts in the lives of the urban poor as e.g. marriage, childbirth, or death (ibid.). From an instrumental perspective, urban planning is intended to solve problems, but it can also lead

to the demolition of informal settlements, which is why urban planning can also reproduce inequalities (ibid.: 186-186). If a state government plans to undertake 'slum clearances', substitute housing should be built in advance (Abrams 1964, 127). Indeed, in recent decades, the focus in Brazil has been on improving the living conditions of the urban poor (Koster 2020, 186). Some residents of precarious housing received substitute housing, and participatory urban planning programs have been implemented, for example, in Recife and Porto Alegre, to strengthen democracy on the one hand and promote social inclusion on the other (ibid.). In 1987 in Recife, pro-poor politics resulted in a system of laws that guaranteed the legalization of certain slums and their provision with infrastructure (ibid.: 189). These laws valued user rights higher than property rights, therefore prioritizing shelter, social inclusion, and avoiding land speculation (ibid.). This example showed that urban development can serve to improve the living conditions of poor and low-income residents (ibid.). Even though residents have no land titles, at least their dwellings are legally protected by these laws (ibid.: 483). These laws not only protect some of the urban poor's dwellings, but residents in some neighborhoods also benefit from governmental urban infrastructure such as roads, sanitation, drainage, and electrification (ibid.). As Koster (2020, 196) succinctly put it, "Urban planning brought benefits to some, problems to others, and often combinations of both to most people." While some people benefited by receiving monetary housing aid or renting out living space, some did not receive substitute housing at all (ibid.). Koster (ibid.) tells of people who were separated from their former friends and neighbors through urban interventions – disrupting their social ties. Other reasons why public housing might not always be the only solution are that some residents do not want to become renters, but owners, or they do not deem the location of the new apartment convenient for example because of job opportunities (Abrams 1964, 127). Indeed, subletting and sharing public housing space may be necessary for many residents in low-income countries to being able to cover the costs (ibid.: 129).

In conclusion, for poor city residents, urban interventions are usually quite intrusive and disruptive (Koster 2020, 196). The urban poor usually do not have the privilege of spatial stability due to, for instance, eviction, gentrification, or uncertainty about whether their houses are at risk of being demolished (ibid.: 196-197). Moreover, Koster (2020, 197) emphasizes that urban planning projects framed as contributing to development and social inclusion, "often end up accumulating wealth for those in the richest brackets of the population." Therefore, he advises decision makers to "take people's life histories, needs and aspirations more seriously" and to be transparent with information regarding urban interventions (ibid.: 197-198).

In summary, this section explained that squatter settlements occur due to various factors, but mostly due to a lack of access to (affordable) housing. Land occupations are a reaction to the fundamental human need for shelter and a place to call home, where and with which basic needs can be met. However, squatter settlements are usually, yet not always, characterized by a lack of infrastructures. Autoconstruction often occurs on occupied land, frequently near public housing units, due to people's desire for their own home and hope to be recognized as valid residents. Additionally, privately owned houses are frequently modified to adapt to the current living situation and family size. Despite privately built interventions, state interventions in cities can have huge impacts on people's lives, especially among low-income residents and the urban poor. Usually, urban interventions have positive as well as negative aspects for different urban residents. Lastly, owning a house is frequently associated with

more stability and is often deemed the ultimate housing goal, which can be illustrated by the following example, which is situated in the Latin American country of Chile. Murphy (2019, 271) did anthropological research with low-income residents and former squatters in Chile, who generally voiced joy and pride after having been able to own a house for the first time. For them, owning a house not only means better living conditions but also personal development, a more dignified life, and overcoming denigration and exclusion (ibid.: 271-272).

3.3 Urban infrastructures

Infrastructures, both material and immaterial, are central to the contemporary world (Knox and Gambino 2023). Infrastructures encompass, for example, roads, pipelines, airports, railways, logistics centers, fiber optics cables, and railways, as well as flows of data, software, and capital (ibid.). The meaning of 'infra' is 'below,' "which highlights infrastructure's role as the 'underlying structure' that allows a system to function" (ibid.). However, there is no uniform definition of infrastructure (ibid.). Gupta (2018, 62), for example, conceives "infrastructure as a process, not a thing," that is, something that requires constant repair on its inevitable way to becoming a ruin. By focusing on bureaucracy, the procedural aspect of infrastructures becomes clearer (ibid.: 65). Infrastructures grow gradually over time (Appel, Anand, and Gupta 2018, 13), hence they can be deemed an 'operating assemblage' and not so much a static object (Gupta 2018, 65). Moreover, infrastructures serve to think in huge scales, such as planetary epochs, as well as in small, intimate scales such as individual acts (Appel, Anand, Gupta 2018, 20).

Currently, the anthropology of infrastructure is a growing subfield within anthropology (Rippa 2023, 2). Yet, until recently, anthropologists did not study infrastructures explicitly, even though infrastructures have not only become ubiquitous in everyday life but have also become essential to many aspects of human existence (Knox and Gambino 2023). However, the connection between infrastructure, modernity, and environment has always been an interest in anthropology (Appel, Anand, and Gupta 2018, 7). That is, anthropologists and other scientists have long been interested in how infrastructures redistribute resources, have political effects, and form polities (ibid.: 10). Indeed, infrastructure – especially 'hard' one such as roads, bridges, water pipes, electrical wires, oil rigs, and payment systems – is a classical anthropological subject, yet it has only recently emerged as a new ethnographic object (ibid.: 4). Referring to a few other scholars, Rippa (2023, 4) says that the "field of infrastructure studies has emerged from a confluence of various disciplines to interrogate the ways politics, societies, and subjectivities are bound up in material infrastructural forms." The developing comparative field of studying infrastructure connects science and technology studies (STS), economic and political anthropology, the anthropology of the state, and material culture studies, as well as history, geography, urban studies, political sciences, and sociology – rendering the field inherently interdisciplinary (Knox and Gambino 2023).

Thus, how is infrastructure studied in anthropology and other disciplines? Anthropology of infrastructure "is not defined by studying a particular class of things generally called 'infrastructure' but it studies the relationships whereby some things take on the quality of being 'infrastructural'" (Knox and Gambino 2023). The main focus of anthropology of infrastructure is on analyzing "the interactions with and consequences of technical systems on social and

cultural lives" (Rippa 2023, 8). Scholars ask questions, such as "what infrastructures are, how they come to be, and the role that they are playing in contemporary social life" (Knox and Gambino 2023). They also ask, "What do infrastructures promise? What do infrastructures do? And what does attention to their lives—their construction, use, maintenance, and breakdown; their poetics, aesthetics, and form—reveal?" (Appel, Anand, Gupta 2018, 4), but they also pose "questions about the role of materiality, object agency, process, and form in processes of social and political change" (Knox and Gambino 2023). Studying infrastructures also allows for a reengagement with race, class, gender, postcoloniality, and colonialism since such forms of inequality and power are reproduced or destabilized on infrastructural sites (Appel, Anand, Gupta 2018, 14).

As has been outlined so far, there is no single anthropology of infrastructure, instead, the anthropological study of infrastructure has given rise to new debates and perspectives on the state, the environment, politics, as well as space and time (Knox and Gambino 2023). The following sections provide more details about these discussions.

The more intensive study of infrastructures has also led to a reconsideration of time and temporality within social sciences (Knox and Gambino 2023).

Anthropologists study the state through the lens of infrastructure because large infrastructure projects are closely intertwined with the nation state, which sets the legal framework and is usually also responsible for financing (Knox and Gambino 2023). States can exercise their power through infrastructure, enact laws, and enforce them (*ibid.*), that is, infrastructures play a central role in government (Appel, Anand, Gupta 2018, 5). Knox and Gambino (2023) conclude that "ethnographies of infrastructure propose new ways to understand how state power is formed and maintained, and the shapes states take within different historical moments." Moreover, infrastructure is often associated with a liberal form of government, but this freedom for some must be understood through the oppression and colonization of others (Appel, Anand, and Gupta 2018, 5). According to Appel, Anand, and Gupta (2018, 5), "liberal modernity has (partly) shifted to neoliberal postmodernity." The neoliberal view is that certain infrastructures are required for capitalism, and in order to ensure labor and capital flows (*ibid.*). Especially countries of the Global South have invested in massive infrastructure projects since many governments of the Global South consider infrastructures as pivotal to integrate into the global economy (*ibid.*).

Infrastructure is never politically neutral (Gupta 2018: 66), which, for example, gets evident in 'green' urbanism, that is, when urban infrastructural interventions promoted as 'environmentally friendly' in fact lead to exclusion and eviction of marginalized residents (Rippa 2023, 5). However, "marginalized others constantly make claims on and form infrastructures beyond those controlled by the state" (Appel, Anand, Gupta 2018, 11). Infrastructures, as channels for essential resources, often become contested spaces where uneven governance is negotiated (*ibid.*: 20-21). While states and corporations present infrastructure as a driver of economic growth and public benefit, such as provision of jobs and safety, many communities experience neglect and instead use these systems to assert political demands (*ibid.*: 3). Thus, more recently, anthropologists also focus their attention on "dynamics of resistance, repurposing, and reappropriation of infrastructures by both local and international communities of citizens and activists" (Knox and Gambino 2023). Anthropologists "have shown how infrastructures are sites of political struggle, on-going negotiation, and social and cultural creativity" (*ibid.*).

Recent studies have also shown how people manage to alter infrastructures in such a way as to find "alternative anticolonial trajectories of imagining possible futures" (ibid.).

Another perspective on infrastructure considers, for example, forests, insects, waves, and sand as infrastructure (Knox and Gambino 2023). The fact that these environmental forms possess infrastructuring qualities is becoming increasingly apparent due to climate change, environmental pollution, and destruction (ibid.). Environmental and infrastructure anthropologists have highlighted the importance of non-human life forms in the preservation of human lifeworlds, thus demonstrating the interconnectedness of the two (ibid.). Anthropological studies of infrastructure are based on the assumption that nature is not simply the substrate for human affairs (Knox and Gambino 2023). Instead, they assume that the environment is inherently infrastructural, which in turn points to the inherently political status of 'nature' (ibid.). Furthermore, these studies demonstrate, on the one hand, how the environment has been created to function as the infrastructure of capitalism and consumerism, and, on the other hand, they illuminate the impacts of engineered infrastructures on the environment (ibid.). Recent studies show that infrastructures are increasingly taking on 'cybernetic qualities' (ibid.). Today, infrastructure is not a purely static form, but is responsive and can learn, for example, through the enhancement with sensors, artificial intelligence, and digital communication (ibid.). Due to these developments, some scientists argue that infrastructures are therefore becoming 'environmental' (ibid.). Seeing the environment as shaped through infrastructure helps understand how human politics connect with the natural world and how the built environment influences that relationship (Rippa 2023, 8). Rippa (2023, 12) further argues that the Anthropocene is a premeditated extension of colonial logic with a violent and exploitative undertone, which anthropologists should focus more on.

Another current debate in infrastructure studies is about whether to broaden the concept of infrastructure and whether, at the same time, this might lead to a weakening of the term (Knox and Gambino 2023). While this debate is still ongoing, anthropological research on humans and non-humans continues through the lens of infrastructure (ibid.). Finally, Knox and Gambino (2023) highlight the importance of the contributions of anthropology of infrastructure by emphasizing that "[i]ts goal of tracing and creating alternative ways of seeing, being, and organising life is all the more important in the face of challenges to come." One such challenge is climate change. Appel, Anand, and Gupta (2018, 30) argue that we need to use infrastructures differently, since their use was responsible for climate change in the first place by allowing resource extraction and energy consumption. Hence, it could be infrastructures that avert the bad effects of climate change by re-making them (ibid.). The scholars further suggest that ethnographic work "can help redeem the promise of infrastructure by making more visible, and indeed more political, the formative role of infrastructures in the ways we think, build, and inhabit our shared futures" (ibid.).

Indeed, as Appel, Anand, and Gupta (2018, 27) succinctly put it, "New infrastructures are promises made in the present about our future." Moreover, infrastructure "is built in anticipation of a not-yet-achieved future," revealing a lot about social futures (Gupta 2018, 63). For many people of the Global South, "infrastructures are [...] the go-to promise for a better future" (Harvey 2018, 80) even though some projects take decades to be finished (ibid.: 82). Therefore, these hopes take a long time to materialize or may never come true within a person's lifetime. Nevertheless, societies hope for more economic growth and the well-being of

the citizens (Gupta 2018, 63). Contemporary infrastructures imply a modern notion of how the future could be, namely, a changed and improved time and space (Harvey 2018, 80). State-of-the-art infrastructure is often seen as a symbol of a developed and modern nation-state, representing progress and modernity (Gupta 2018, 64). A large portion of the population often supports aspirations toward a modern future, even though many prestigious projects rarely benefit the poorer segment of the population (Appel, Anand, and Gupta 2018, 19). Large infrastructure projects, such as glamorous airports, usually serve only an elite minority but are supported by the state because the implicit message is that the country is advanced and modern (ibid.). In contrast, relatively little or no investment is made in less prestigious infrastructure projects that would primarily benefit the poorer segment of the population (ibid.). Already in 1999, James Ferguson (in Appel, Anand, and Gupta 2018, 14) asked how anthropologists could "take seriously the developmentalist fantasies and desires for modern infrastructure, often articulated by marginalized subjects themselves." Although infrastructure projects are intended to create a stable future, they often stand for the opposite (Harvey 2018, 99). Hope can never outdo the uncertainty, and the promise of infrastructure leads to fear and desire (ibid.: 82). Moreover, infrastructure is mostly noticed when it ceases to work as intended (ibid.: 84).

In addition, infrastructures yield several negative aspects, for example, people being displaced during the construction of canals, that is, unfavorable consequences from infrastructures for many to benefit an elite few (Appel, Anand, and Gupta 2018, 10). Although, the lack of, or inadequate infrastructures can result in people considering themselves as marginalized (ibid.: 11). Moreover, there are also severe long-term negative consequences of infrastructures, such as nuclear waste that will still be a problem after the extinction of humans, as well as several future generations having to deal with the impacts of infrastructures based on fossil fuels (ibid.: 19).

Having analyzed a range of disciplines' different engagement with infrastructure, Rippa (2023, 8) warns of "a reproduction of a dichotomy between the human world of infrastructure and the non-human world of nature." He (2023, 8) also points out the socio-ecological violence inherent in infrastructures. To conclude, literature on water infrastructure has shown "that infrastructure is a terrain of power and contestation" (Appel, Anand, and Gupta 2018, 2). There must be negotiations about who is getting which resources and from whom they will be taken away, and what will be a private good and what will be a public good (ibid.). Another form of potential violence is war, during which infrastructures can be targeted, rendering places "a zone of infrastructural warfare" (ibid.: 3). Lastly, it should be mentioned that corruption is often present in large public construction projects (Harvey and Knox 2015, 203).

In summary, this section dealt with general aspects of infrastructure. It was said that there is no single definition of infrastructure, but rather different attempts from scholars to provide a possible definition. In contemporary anthropology of infrastructure, anthropologists use a focus on infrastructures to find out more about various aspects of social life. Also, nowadays, the state is often studied through the lens of infrastructure since infrastructure can be used to exercise power, but it can also be used to contest various struggles and fights. Infrastructure is not just static but can be enhanced, for example, by artificial intelligence. Moreover, infrastructure is inherently political and can reveal social inequality. There are positive as well as negative aspects of infrastructures. People, especially socioeconomically weaker people,

often wish for infrastructural development even when they mostly do not directly benefit from it. Infrastructures also allude to an imagined future and imply certain promises, such as a better future, which, however, does not have to be the case for all people.

3.3.1 Anthropological study of roads and waste

As mentioned in the previous section, infrastructures embody specific desires for the future, which also become apparent in roads. Many people have an incredible longing for roads (Harvey and Knox 2015, 7), since road infrastructure projects, especially in the Global South, offer the possibility to dream of different, easier, less precarious futures (Harvey 2018, 87). The prospects of new roads can spark excitement among (geographically) marginalized residents since roads provide access to urban centers (Harvey and Knox 2015, 3). That is also due to the fact that "in many developing countries [sic!], roads have meanings that go well beyond their physical functionality" (ibid.: 7), for instance, roads can symbolize that the state government cares for its citizens by constructing them (Harvey 2018, 86). Or, for example, from a governmental perspective, roads are often viewed as "technologies of social integration, economic development, and modernization" (Harvey and Knox 2015, 7). From a perspective of state repression, roads also serve to send police and military more quickly into 'insurgency regions' to exercise power there. Moreover, roads facilitate the movement of goods, workers, and services, providing essential support for modern life (Harvey and Knox 2015, 7). Therefore, many governments, in collaboration with private financiers and, for example, the World Bank, invested in infrastructural projects hoping to create not only short-term jobs but also long-term economic growth (ibid.: 4). However, scholars are also aware of infrastructure's vulnerability requiring constant maintenance (ibid.: 4-5). Unmaintained roads can lead to accidents and deaths, which can be interpreted by citizens as isolation and abandonment of the state (Harvey 2018, 86). Furthermore, road construction can be significantly delayed by corruption, material problems, social issues, or legal complications (ibid.: 88). Due to all these aspects, roads are an interesting way to think about state presence, since roads are also a materialization of the state, yet they can also surpass the state by turning into a mundane aspect of people's lives (Harvey and Knox 2015, 186). Roads also manifest the political, since they are able to rearrange mundane everyday spaces (ibid.: 7-8). However, "in spite of their transformative ambitions, roads often fail to address the historically entrenched inequalities and injustices that render livelihoods so hard to come by and lives so precarious" (ibid.: 7). Unfortunately, many new road projects end up with the same negative social consequences as previous projects (ibid.).

In summary, roads offer an interesting angle to look at states. Roads serve the state in a myriad of ways, for example, to connect rural residents to urban centers, to transport goods, or to better control marginalized residents. Regarding the research question, low-income peripheral residents may express the desire for (better) roads since the lack and bad state thereof affects their lived experiences negatively and constitutes a problem in their daily lives. By constructing roads, the state shows residents that it cares for them. However, roads do not always fulfill these hopes for modernization.

Regarding the study of waste, the author of the entry on waste in *The Open Encyclopedia of Anthropology*, O'Hare (2023), notes that "[w]aste does not exist in the singular, and indeed it can be the combining of substances and things in particular spaces that leads to their classification as waste." Waste is increasingly noticed by the public and also renders necessary the need for environmental and political action (ibid.). Waste is also an important issue, since globally it is a growing concern due to its rapidly rising quantities (ibid.). Especially one type of waste, namely carbon emissions, has a huge impact on life on earth since it contributes to global warming (ibid.). Since these issues are more and more discussed by politicians, activists, and diverse communities, anthropologists and other social scientists also focus more on this issue (ibid.). 'Discard studies' emerged as an interdisciplinary subfield as more and more researchers got interested in the study of waste, both in social sciences, including anthropology, and humanities (ibid.). O'Hare (2023) succinctly describes the anthropology of discards as a sub-discipline that "highlights how diverse waste's materialities and representations really are, and helps to challenge taken-for-granted associations between waste, stigma, and an absence of value." Similarly, anthropology of waste is a relatively young subdiscipline, as early anthropologists did not encounter quantities of waste in the field, as is commonplace today in a consumer-oriented world (ibid.). While past anthropological studies focused on pollution, such as menstruation, death, or waste pickers, contemporary studies are more interested in "how humans and waste constitute one another" (ibid.). Current attention is also put on "global flows of problematic, indeterminate matter that challenge binaries along the sacred-profane or waste-value axes" (ibid.). Anthropology of waste is diverse, and O'Hare (ibid.) presents three different approaches to study waste from an anthropological perspective: a symbolic-structuralist approach, an economic-materialist approach, and an intersubjective-posthuman approach.

The early anthropological symbolic-structuralist approach to studying waste seeks to find the reasons for culturally differing views on what waste is (O'Hare 2023). This is due to different classificatory systems depending on the culturally specific context (ibid.). Here, waste is deemed relational and social, with some early anthropological studies focusing on "polluted people rather than the things that polluted them," such as menstruating women or people whose jobs were concerned with death (ibid.).

Through an economic-materialist approach, scholars "have focused on the materiality of waste within broader political and economic structures that act to shape how and where it appears" (O'Hare 2023). Economic anthropology, for instance, added the binary 'waste and value' and 'rubbish' was introduced as a new category to the anthropological study of waste (ibid.). Here, waste is also viewed through a global approach, highlighting the connection between households and global industry, which has also shown that domestic waste only makes up a minimal part of the global waste stream (ibid.).

An intersubjective-posthuman approach "concentrates on the subjects that waste and various forms of wastework engender" (O'Hare 2023). That is, this approach focuses on people whose work and identities are closely linked to waste, such as waste pickers, people's everyday encounters with waste, such as when sorting waste at home, or unexpected encounters with garbage, for example, on the street (ibid.). It also points to the agency of waste, as in the case of household recycling, which has often become an embodied and routine practice (ibid.). Furthermore, anthropologists also study waste linked to imperial and colonial structures, resulting in terms such as 'waste colonialism' and 'garbage imperialism' which refers to the

practice of rich countries bringing their, often contaminated, waste to poorer countries for final storage (ibid.).

To conclude, O'Hare eloquently captures the essence of the anthropology of waste as follows:

"By getting its hands dirty, the anthropology of waste contributes to an epistemology of the ever-more complex and voluminous materials that humans and non-humans produce, consume, discard, and digest in our Anthropogenic present." (O'Hare 2023)

In summary, waste is a growing concern in today's globalized world. Waste is very noticeable, and under certain circumstances, materials are deemed waste, especially if they appear in great quantities, which is happening more and more often. However, currently, a form of gaseous waste is especially problematic to life on Earth, namely carbon emissions. Historically, anthropologists did not study waste since they did not encounter huge quantities thereof in the field. Whereas nowadays this is very common. Therefore, subfields such as the anthropology of waste and the interdisciplinary field of discard studies emerged, and now anthropologists study, for instance, the relationship between humans and waste.

Regarding the research question, low-income residents may have to deal with an ever-growing quantity of waste, including encountering unexpectedly huge amounts of waste on the roadside, especially because many countries of the Global North ship their waste to the Global South. Moreover, waste in such amounts can create economic ecosystems with jobs associated with waste and directly in contact with it.

3.3.2 Anthropological study of water

Anthropologists study water in relation to religion; health and wealth; power and control; infrastructure and conflict; water ownership; as well as current water issues in the Anthropocene (Strang 2023). Humankind acknowledges that water is essential to life, well-being, and health, which often leads to water being used in religious rituals, viewing it as 'living water' (ibid.). This understanding that water is vital for all biological organisms underpins the concept of water as a freely accessible and freely available common good (ibid.). Despite this fundamental concept, many people still lack access to clean water and sanitation (ibid.). Moreover, anthropologists study water-related issues such as "its centrality to modes of production; its influence on how societies organise themselves socially and spatially; its role in leisure activities and the enjoyment of its aesthetic qualities" (ibid.). More recently, anthropologists have focused on water ownership and the right to access water (ibid.). There is also an increased interest in water infrastructures (ibid.). Water issues are inevitably linked to questions about climate change and the unpredictability of water flows (ibid.). This gave rise to a new focus, not only on human water rights, but also on the water rights of non-humans (ibid.). A more in-depth study of water per se has therefore emerged in anthropology (ibid.). This was due to an intensified interest in the connection between political power and water control, as well as the establishment of environmental anthropology as a distinct subfield (ibid.). Strang (2023) summarizes that "the anthropology of water extends from its multiple uses in everyday life to the major issues that all societies urgently need to address."

One such issue is the lack of access to clean water which is caused by "the overuse of limited local resources; disruption of rural lifeways; economic imperatives to migrate to marginal and poorly served urban areas; and insufficient fiscal or technical capacities to create infrastructures for water supply" (Strang 2023). Further reasons for an inconsistent water supply in cities in the Global South might be effects of annual water cycles, leaks in pipes, and demographic and social factors of the population (Anand 2018, 165). Strang (*ibid.*) locates this injustice in the political sphere by saying that "lack of access to clean water is a key indicator of governmental capacities to provide for people's most basic needs, and of the deep inequalities existing both within and between societies." Alves and Rabelo (2018, 296), referring to several other authors, also analyze that water rationing and scarcity in urban areas are clearly the consequence of past economic and political decisions, and they deem it curious that this topic has only recently become apparent nationwide in Brazil. There, many low-income families have problems accessing water, which is widely known, but the history of policy measures in this area does not offer any hope for positive change (*ibid.*: 296). On average, 87.3 percent of households in Brazil have daily access to water (*ibid.*: 292). In contrast, in Northeastern Brazil, the figure is only 66.6 percent, and 16.3 percent of households in the Northeast have access to water only one to three times a week (*ibid.*). Moreover, it is estimated that six in every ten years are water-deficient in the Northeast, highlighting a cyclical recurrence of water crises (Ballesterio 2019, 147).

Urban water regimes in countries with a colonial history are influenced by colonial administrators' reluctance to provide urban public water infrastructure (Anand 2018, 159). Current difficulties in accessing water are therefore partly due to historical factors. However, Alves and Rabelo (2018) also deem some contemporary systemic phenomena responsible. The scholars (*ibid.*: 287) say that drinking water scarcity is associated with the current capitalist model as well as its system of consumption. Capitalism is not only based on the exploitation of the environment but is also responsible for political and social inequalities, which is why an analysis of water scarcity must be combined with a critical view of the contradictions of capitalism (*ibid.*: 296). Therefore, water scarcity highlights social issues (*ibid.*: 289). During elections, politicians may promise to solve the water scarcity problem in cities, but often citizens repeatedly have to demand that these get fulfilled afterward (Anand 2018, 164). People may demand their right to water, especially piped water in cities, because water pipes can symbolize the promise of permanent urban belonging in the future (*ibid.*: 161, 168). Anand (*ibid.*: 168) analyzed that by demanding water, it is both its quality as a good and as a political matter that comes to the fore. Nonetheless, political promises to provide universal access to water often mean privatizing water (*ibid.*: 169). The privatization of water carries the risk that companies will see water only as a commodity to increase profits and will not contribute to its conservation (Alves and Rabelo 2019, 288). While large corporations in Brazil profit economically from a privatized water market, the poorest population suffers from the consequences of their restriction to the right to water (*ibid.*: 296). Despite the negative consequences of privatizing water, Ballesterio (2019, 149) recounted that in the case of the Brazilian state of Ceará, the commodification of water ultimately aided the provision of water, and thus contributed to the observance of the human right, since it helped in raising the financial means necessary for the universal accessibility of water in the region. Indeed, access to clean water is a human right which has been recognized by the UN in 2010 (URL 14). Nonetheless, the lack of access to water is still a problem in Brazil, especially among the poorest segments of the

population, which cannot be solved by emergency measures, which is why the issue is slowly finding its way into Brazilian social policy (Alves and Rabelo 2018, 292). Finally, Alves and Ravelo (ibid.: 296) raise the question of how access to water should be regulated, especially in urban areas where demand is particularly high. Due to the importance of food production, new territories are constantly being used, which, on the one hand, leads to increased water consumption and, on the other hand, primarily impacts local populations such as Indigenous groups, farmers, and quilombolas¹ (ibid.). The answer to this question is that there is no short-term solution (ibid.). Yet, Ballesterio (2019, 147) describes the Brazilian government's view to use infrastructure development as the primary 'solution' to the water problem – at least in the state of Ceará, where the Cedro Reservoir was built in response to a severe drought at the end of the 19th century. The reservoir became a symbol of government action in the face of water shortages (ibid.). This symbolism of large infrastructure projects overshadowed the underlying structural causes of droughts, which, as a result, are receiving very little attention (ibid.).

Lastly, Alves and Rabelo (2018, 296) call on not trivializing the environmental crisis and criticize that the current environmental policy in Brazil preserves historical privileges and even reinforces them through the capitalist mode of production. Thus, the scholars conclude, by expressing a critique of the capital system according to Marx, the crisis does not exist in the 'natural' system, but in the capital system, whose increasingly exploitative dynamics are at the expense of workers and nature (ibid.: 296-297).

In short, this chapter offered insights into the anthropological study of water. Anthropology of water studies small, mundane aspects of water as well as major global issues related to water. Due to water's vitality to human and non-human life, central anthropological topics are the right to access water and the lack of water. These issues especially affect poor and low-income residents in peripheral areas since their lived experience is often characterized by water scarcity. Water scarcity is a social issue and often also a political one. Lack of access to clean water is due to different reasons, but often due to a lack of adequate political measures. It is also due to historical factors – often rooted in colonialism and the contemporary capital model. There is no quick and easy solution to solving the unequal access to water, especially in urban regions with high demands for water. Infrastructure development is often deemed the solution to the water problem, whereby the underlying problems are often ignored. While waiting for such solutions, it is the poorest residents who are mostly affected by the lack of access to water. Moreover, this chapter showed how politicians may view privatizing water as the solution to ending water scarcity.

3.3.3 Anthropological study of crime and violence

In many contemporary cities, violence – whether armed robbery, sexual abuse, terrorist attacks, or urban warfare – is a growing concern (Jaffe and de Koning 2023, 173). Urban social order is negotiated by the interplay between violence, security, and social control (ibid.).

¹ Quilombolas are inhabitants of a quilombo, a self-ruling community founded mostly by escaped enslaved people and sometimes also Indigenous people (Rinke and Schulze 2013, 33). The first quilombos emerged in the late 16th and during the 17th centuries in the hinterland of Brazil (ibid.: 24).

Violence, on the one hand, disrupts urban order and, on the other hand, can serve to maintain a certain kind of order to protect a certain group of people (ibid.).

Anthropologists study the myriad ways in which violence affects urban life. In particular, they research "how violence – and specifically, *fear* of violence – shapes narratives about urban space and influences people's trajectories through the city" (Jaffe and de Koning 2023, 173). Moreover, anthropologists study criminal as well as ethno-religious and political violence, and the anthropological study of violence has shifted from studies of gangs towards individual responses to (the fear of) everyday violence among urban residents (ibid.: 175). Furthermore, anthropologists reflect on the ethical dilemmas involved in studying violence (ibid.).

Violence and especially the fear thereof affect urban life on a daily basis. Jaffe and de Koning describe everyday violence as follows:

"Everyday violence involves the normalization and 'invisibilization' of suffering through institutionalized processes and discourses, which produce social indifference to violence that would otherwise be seen as shocking and unacceptable. " (Jaffe and de Koning 2023, 174)

Hence, how do urban residents make sense of everyday violence? How do they react to everyday violence and fear thereof? By recounting narratives of crime, people try to establish order and meaning in surroundings where violence seems to be omnipresent and disruptive (Caldeira 2000, 20). Caldeira (2000) terms this process 'talk of crime' in her classic work *City of Walls, on crime and segregation in São Paulo*. Talk of crime encompasses "everyday conversations, commentaries, discussions, narratives, and jokes that have crime and fear as their subject" (ibid.: 19). Caldeira finds that the talk of crime is contagious, thus people talk a lot about crime and repeat a lot of histories and narratives, which, however, only leads to an increased fear of crime and danger (ibid.).

"The repetition of histories, however, only serves to reinforce people's feelings of danger, insecurity, and turmoil. Thus the talk of crime feeds a circle in which fear is both dealt with and reproduced, and violence is both counteracted and magnified." (Caldeira 2000, 19)

That is, the talk of crime aggravates violence since it leads to the legitimization of illegal and private reactions to the fear of crime and violence without being able to rely on public institutions of order (Caldeira 2000, 20).

In addition to narratives of crime and violence, Caldeira (2000, 1) analyzes built interventions in the urban environment as a reaction to the fear of violence, especially among the upper classes. That is, residents not only develop socio-spatial narratives but also adapt the built environment to make sense of the daily fear of violence as well as to enhance security (Jaffe and de Koning 2023, 176). Architectural styles in neighborhoods and houses can be seen as a response to incidents of violence and insecurity (ibid.: 180). People build walls around their houses and decide to use windows and doors with metal grilles to deter people with criminal intentions from entering the houses; that is, they implement defensive architecture, which limits interaction with outsiders (ibid.).

According to Caldeira (2000, 2), the atmosphere of crime and fear generates discrimination, namely on the one hand, through the privatization of security, and on the other hand, through the upper and middle class secluding into private and fortified enclaves within the city. This

new model of organizing social differences in cities serves to segregate the upper and middle classes from the lower classes (ibid.: 4).

Elites in São Paulo increasingly retreat into such fortified enclaves, that is, condominiums surrounded by walls and fences to not only live there but also to work there, go shopping, go to schools, hospitals, and to spend their leisure time within these private spaces (Caldeira 2000, 258). These practices "emphasize the value of what is private and restricted at the same time that they devalue what is public and open in the city" (ibid.). These structural interventions are impacting how people perceive and use public space (ibid.: 297). For example, residents walk less, especially at night or when they are alone on the street (ibid.).

Moreover, Caldeira (2000, 291-292) describes how elements of security, such as fences, bars, and walls, have become a status symbol, which she calls the 'aesthetics of security.' She (ibid.: 295) recounts that "the more ostensibly secure and enclosed the property, the higher its status," and continues by saying that residents "are making their houses into prisons, but their prisons make statements about their social position."

"Walls, fences, and bars speak of taste, style, and distinction, but their aesthetic intentions cannot distract us from their main message of fear, suspicion, and segregation. These elements, together with the valorization of isolation and enclosure and the new practices of classification and exclusion, are creating a city in which separateness comes to the forefront and in which the quality of public space and the possibility of social encounters have already changed considerably." (Caldeira 2000, 296)

These developments have the effect of reducing the number of public spaces where people from different social groups can meet, and this also leads to many public spaces in São Paulo being populated exclusively by homeless and poor people (Caldeira 2000, 297). Anthropologists also study how the urban poor cope with fear and insecurity (Jaffe and de Koning 2023, 180). Indeed, people of all social classes are building protective measures, such as walls (Caldeira 2000, 297). One example of the urban poor asserting agency over their demand for protection took place in 2001 when activists installed gates and cameras in the Rio de Janeiro favela Jacarezinho (Vargas 2008, 121). The result was a 'favela-condominium' with similar security devices as middle- and upper-class condominiums, which, however, elicited intense negative reactions from the media, politicians, police, and non-favela residents (ibid.). The discourses following the favela-condominium "connected Afro-Brazilians to crime and corruption and depicted the favelas as likely to produce future generations of dangerous Blacks who would continue to terrorize nonfavela people" (ibid.: 122). The installation of security devices disrupted the prevailing understanding of racialized urban spaces and called into question who is worthy of protection and political agency (ibid.: 123).

If residents from all social classes feel the need to implement built interventions of private security measures, then who are they protecting themselves from? What are the narratives of who is deemed criminal, and among which people do these narratives circulate? According to Jaffe and de Koning (2023, 177), "residents try to make sense of a scary city by distinguishing between 'good' and 'bad' neighborhoods and people." They speak of "spatial and ethnic 'othering' within the city" in this context (ibid.).

Roth-Gordon (2017, 99) argues in her book *Race and the Brazilian Body, Blackness, Whiteness, and Everyday Language in Rio De Janeiro* that often middle-class residents in Rio de Janeiro

still make the connection between "blackness and danger and whiteness and civility." However, they usually do so by avoiding explicitly mentioning race (ibid.). Nevertheless, in attempting to ensure personal safety they watch out for signs of blackness when out in public spaces (ibid.: 97). While middle- and upper-class residents of Rio de Janeiro usually say that "people *do morro*", that is, residents of favelas, constitute the criminals (ibid.: 101), elites in São Paulo usually refer to *nordestinos*, that is, people from the Northeast of Brazil, to being the criminals (Caldeira 2000, 31). In their narratives of crime, elites in São Paulo reproduce stereotypes by characterizing *nordestinos* "as ignorant, lazy, dirty, promiscuous, immoral" (ibid.). However, Caldeira (ibid.) points out that using the figure of the *nordestino* in these narratives is "meant to symbolize evil and explain crime," which certainly affects social relations. The author also affirmed that none of her interviewees made an explicit connection between Black people and criminals (ibid.: 88). Caldeira (ibid.: 90) also asked poor residents in São Paulo about their picture of a criminal. The scholar recounted that poor people usually emphatically highlighted their distance from criminals, and generally, honest working people's distance from criminals (ibid.).

In summary, anthropologists studying violence in cities focus on the following questions. How does (everyday) violence affect urban life? How do people react to (the fear of) violence? In order to deal with the omnipresent daily (fear of) violence, narratives about violence often emerge. However, talking about crime usually increases the fear of violence. Especially upper classes implement built interventions and defensive architecture to protect themselves from violence, but this is also common among lower classes. These practices lead to enhanced segregation between the rich and the poor and discrimination against the lower classes. Due to this development, there are fewer public places in Brazil where people of different socioeconomic backgrounds meet. People try to make sense of the constant fear of crime in the city by implementing spatial and ethnic 'othering'. Studies of elite residents in Brazil have shown that they deem people of color to be potential criminals, however, without explicitly mentioning the factor of race to the researchers. Whereas poor and working-class residents clearly highlight their distance from criminals.

Lastly, studying violence implicates certain ethical dilemmas that anthropologists have to reflect on.

4 Main issues identified in Greater Recife

This chapter provides insights into the issues I identified as primary regarding the lived experiences of my research partners. The most pressing issues that became evident during the field research concern infrastructures in general, roads, waste, water, violence and public security, and housing in particular. Other issues, such as health, jobs, education, extreme weather, and environmental protection, were also mentioned, however, to a lesser extent, which is why they are not discussed in detail here. To put it in grounded theory terminology, these main issues 'emerged' from my research partners by observing them and conversing with them. Thus, it is important to bear in mind that the data I gathered for this study stem from a particular place and time, and do not represent general truths (Hoek 2014, 105). Additionally, the inputs and lived realities of some research partners are represented more in this written-up research, as I spent more time with them and engaged in more in-depth conversations. In the annexed table (see 7.2 "Table of research partners"), differing relational contact frequencies are added. High contact frequency refers to people I lived with or saw on average at least once a week. Some people I only saw once or twice, and if contact was more often than that, it was marked as medium contact frequency. This does not mean that the identified issues are not important for research partners with whom I spent less time. It just means that the main issues could have differed if I had been in contact with them most often instead.

Housing emerged as a central issue among research partners, and since descriptions of people's housing situations also provide essential information about the field environment, it comprises the first part. The second part regards accounts of dissatisfaction with and desire for better urban infrastructures. There, the following issues are highlighted: streets and waste, water and basic sanitation, and public (in)security and concerns about violence.

4.1 Desire for decent housing, and challenges of living in precarious houses and irregular settlements

Many research partners mentioned housing to be a crucial issue for people in Greater Recife (e.g., fn 18.01.2024, p. 82). On the one hand, research partners spoke about the poor living situations of other people in Greater Recife, and on the other hand, they recounted stories of their own living situations. The majority of my closest research partners live in multigenerational households. This situation is also associated with childcare since many grandmothers take care of their grandchildren. Most young grandchildren I interacted with during the field research permanently live with their grandparents, in some cases without their parents. Joelma describes the living situation of some research partners as follows, emphasizing the difficulty for young people to afford their own home.

"A gente é tipo assim, – os filhos morando na casa dos pais, aí já vêm netos, também morando na casa dos pais. Fica só aquele conglomerado, né, de gente, entendeu, no mesmo ambiente e ninguém consegue se estruturar e comprar uma casa – cada um em ter sua casa, não tem." [We are like this – children living in their parents' house, and then grandchildren come along, also living in their parents' house. There is just this conglomeration, you

know, of people, in the same environment and no one can get established and buy a house – each one having their own house, there is no way.] (int-Joe 18.01.2024, p. 17)

Research partners form intergenerational alliances to benefit from and help each other in changing life situations. For example, since Joelma and her husband have a toddler and probably plan to expand their family further, they want to move to her parents' house, which was under construction at the time of the research (int-Vic 18.01.2024, p. 4). Similarly, Luciane is very open to continuing living with her daughter, her son-in-law, and her grandchild (int-Luc 30.01.2024, p. 5). In the past, Luciane had already adapted her living situation depending on the number of family members living together. When it was only her and her daughter, they lived in a small, rented apartment, and at the same time rented Luciane's house to another family. However, when her daughter married and had a child, they moved back to their house, which offered more space for them than the apartment. By now, Luciane wants to continue living in the house she lives in at the moment; however, this also depends on financial as well as social factors (int-Luc 30.01.2024, pp. 3-5). Hence, for many low-income residents of Greater Recife, housing is a constant factor of uncertainty and must always be renegotiated because it cannot be taken for granted. These struggles also apply to residents of irregular settlements as well as coastal dwellers, whose different issues concerning housing are expanded upon within the following subchapters.

4.1.1 Housing difficulties

"Só mora aqui mesmo quem não pode comprar, ter uma moradia melhor" [Only those who can't afford to buy a better home live here.] (int-Nor 13.01.2024, p. 1). This statement stems from Norah, who lives in a peripheral, low-income neighborhood in the south of Recife, referring to her own living situation. I think this sentence is also telling about the realities of the lives of other research partners, because even though they love many aspects of their neighborhoods, they might live somewhere else or in better houses if they could afford it financially. Victoria, who is in her 50s and already owns a house in Ibura/Cohab with her husband, talked about the fact that many people are not able to find housing, since she sees many people living on the streets in Recife (int-Vic 18.01.2024, p. 20).

Therefore, more accessible and affordable housing should be available not only for the low-income residents but for the urban poor in general, as was expressed by Norah (int-Nor 13.01.2024, p. 18). She observed that many expensive apartment buildings are being constructed; however, these are never intended for the poor population (ibid.).

"Não, nunca é pra pobre ... nunca é – nunca pra a gente ter acesso, tudo o que é feito hoje em dia é pra rico. O pobre está lá para servir os ricos. Ai eles fazem prédios, eles fazem assim shopping e faz muita coisa, mas não é pra você, pra o pobre mesmo ir trabalhar é o único acesso que o pobre tem."
[No, it's never for the poor... it's never – never for us to have access, everything that's done nowadays is for the rich. The poor are there to serve the rich. So they build buildings, they build shopping malls and do a lot of things, but it's not for you, for the poor, going to work is the only access the poor have.] (int-Nor 13.01.2024, p. 18)

Joelma recounted a similar observation, that huge apartment buildings are constructed, highlighting the stark disparity between buildings, namely between buildings where the rich and where the poor live in Recife (int-Joe 18.01.2024, p. 15). Indeed, many poor people in Recife live in *palafitas* (stilt houses) that can be seen on the riverbanks throughout the city (int-Pal 30.01.2024, p. 50).

As Victoria noted, the majority of people prefer living in a house that they own (int-Vic 18.01.2024, p. 20). Also, for Luciane, living in a house has more benefits than living in an apartment. At first, she lived in a rented apartment, but over time she preferred to move into a house that she owned, "Mas eu tinha vontade de ir pra casa por segurança, ter a minha casa própria, porque é uma segurança, né, ainda mais sendo brasileiro" [But I wanted to go to a house for security, to have my own house, because it's a stability, right, especially being Brazilian.] (int-Luc 30.01.2024, p. 3-4). Moreover, it is important for Luciane that her youngest daughter continues being able to live in a house, "Mesmo que seja pequena, mas seja uma casa" [Even if it's small, but it's a house.] (int-Luc 30.01.2024, p. 4). When asked if people also want a better quality of their houses, Luciane answered me that people do not worry about the quality of their houses as long as they have a safe house with some minimal requirements.

"O povo não está preocupado com as qualidades. Ele quer uma casa segura. Ele não faz questão que a casa seja de laje. Ele quer o quê? O povo, né? Ele quer que a casa tenha dois quartos, uma sala, uma cozinha e coberta pelo menos de telha. Novinha, direitinha, com água encanada. Entendeu? Com infraestruturas. E que tenha um ônibus perto para ele ir para o trabalho. Ele quer isso. Não está preocupado que a casa tem que ser assim, tem que ser aquilo. Ele quer isso. Ele quer a moradia." [People are not concerned with the qualities. They want a safe house. They don't care if the house is just made of slabs. What do they want? The people, right? They want the house to have two bedrooms, a living room, a kitchen and a roof at least made of tiles. New, tidy, with running water. Got it? With infrastructure. And that there is a bus nearby so they can go to work. They want that. They are not concerned that the house has to be like this, has to be like that. They want this. They want housing.] (int-Luc 30.01.2024, p. 17)

Even if those are minimal requirements for a house, many people in low-income neighborhoods are not able to have this due to a limited amount of space per house, which is noticeable there. Rafael described this situation of people living in a confined and small space as, "Parece um formigueiro aqui" [it is like an anthill here] (fn 18.01.2024, p. 84). He referred to Ibura/Co-hab, where the houses are built extremely close to each other, and residents usually do not have gardens because there is no space left. Nevertheless, in the past almost every house used to have a garden with at least one tree, such as a mango tree, coconut palm, or avocado tree, that is, people had fruits to eat, but over time they got rid of their gardens in order to build more rooms or entire houses for children and their own families to accommodate all children in growing families (fn 18.01.2024, p. 84; int-Joe 18.01.2024, p. 17; fn 09.12.2023, pp. 12-13; int-Luc 30.01.2024, p. 4). "Hoje em dia você não vê uma casa com uma árvore porque você fez a casa do seu filho," [Nowadays you don't see a house with a tree because you built your child's house.] stated Norah (int-Nor 13.01.2024, p. 14). However, having a fruit tree turned out to be very helpful during the Covid-19 pandemic since a lot of people depended

on this source of food, as was explained by Tiago and Gustavo (fn 09.12.2023, pp. 12-13). For those who had no trees, it was more difficult, but sometimes neighbors helped each other (ibid.). This was especially true for poor(er) people, "*pretos e pardos*" (people of color), and people from the periphery (ibid.). On the one hand, fruit trees can contribute positively to people's livelihoods by providing free food, and on the other hand, they provide shade and cool the environment around them. Luciane and I experienced such a cool microclimate in Gustavo's garden. Luciane was amazed by this sensation and said that she would not have thought that this was possible in the hot temperatures of Greater Recife (fn 09.12.2023, p. 12). Adding at least one tree to one's house would already make a big difference in the quality of life. However, having a tree requires caring for it, such as removing leaves from the ground. Norah mentions that she does not like her house getting dirty with lots of leaves (int-Nor 13.01.2024, p. 15). Indeed, Luciane is thinking about planting more flowers and maybe even trees around her house in Paulista; however, due to financial reasons, she has not done that yet (int-Luc 30.01.2024, p. 5).

In general, as Norah recounted, people always aim at having an improved living situation, "A tendência sempre é melhorar, né?" [The tendency is always to improve, right?] as was the case with her grandson, who, after graduating from university, moved from his grandmother's house to his girlfriend's house, which is located in a 'better' neighborhood and which they are now adapting to their needs and wants (int-Nor 13.01.2024, pp. 7-8). Norah's second grandchild, who lives with her, has a similar wish, "Luana já quer sair daqui hoje [...] ela quer já se estabilizar, comprar o apartamento dela" [Luana wants to leave here today [...] she wants to settle down and buy her own apartment.] (int-Nor 13.01.2024, p. 27).

Concluding, I want to refer to the initial quote of this subchapter from Norah, namely that only people live here who cannot afford better housing (int-Nor 13.01.2024, p. 1). This statement might be true for other lived realities as well, because if people had the financial means, they would probably choose to live in areas that are not prone to life-threatening landslides or flooding, which will be explained in the following subchapter, and that are less violent as well as less densely populated. Nevertheless, another factor has to be considered, namely, that many research partners stated that they love living in their neighborhoods due to the great community they have there (int-Vic 18.01.2024, p. 2; int-Nor 13.01.2024, p. 2). They think their neighbors are awesome and appreciate that family members live close by (ibid.). If people move, there is a high probability that they will miss their usual social environment. Indeed, Victoria recounted that some people who started having more money moved away from her neighborhood, Ibura/Cohab, to live in a 'better' neighborhood, but shortly after, they came back, with no financial need to do so, but because they realized that they liked living here (int-Vic 18.01.2024, p. 3). Moreover, Victoria emphasized the great community there is in Ibura/Cohab and that people participate in society here by communicating and talking to each other (ibid.: pp. 3-4).

Research partners recounted that the Cohab neighborhood started with the Cohab-program (*Companhia de Habitação Popular*, Public Housing Company) in the south of Recife. Luciane explained, "Tudo foi casa chamada 'da Cohab', era com a mão do governo" [All the houses were called 'from Cohab', they were built with the government's hand.] (int-Luc 30.01.2024, p. 4). Many people got houses with the help of the government (ibid.). These houses were not free but affordable for people such as Luciane's parents (ibid.). She recounted that her parents had to pay a monthly amount of money for these houses (ibid.).

Probably influenced by these policies, Luciane said that nowadays people want free houses from the government or at least they want the government to implement the necessary steps to make houses more affordable for poor and low-income urban residents, for example, by lowering taxes (int-Luc 30.01.2024, p. 17). However, Joelma stated that she does not see the government doing much in order to improve the housing issues in Greater Recife, unless it is election time (int-Joe 18.01.2024, p. 17).

In order to be able to afford housing, some might consider moving further away from the center of Recife, as was the case with Luciane. For example, housing in Paulista is cheaper than housing in Recife, "Aqui, a região metropolitana, aí é mais barato de qualquer maneira, né, e aqui, onde tá se fazendo Paulista" [Here, the metropolitan region, it's cheaper anyway, right, and here, where Paulista is growing.] (int-Luc 30.01.2024, p. 2). Around 30 years ago, Luciane and her husband bought a plot of land in Paulista to build their own house (ibid.: p. 1). At that time, the coastal area of Paulista was sparsely populated, and some people deemed them crazy for moving there, especially because they sold their current house to only buy land (ibid.). It took them a lot of effort and money to be able to finish building their house (ibid.: p. 2). When their firstborn child was older, she contributed the money she earned from work to help pay off the loan for the building materials (ibid.).

However, building a house was the exception among my research partners. Most expanded their parents' home or bought a house. Norah had a house near her parents' home, but she sold it and moved to a cheaper house in another, more dangerous neighborhood, because she needed the money to pay back debts (int-Nor 13.01.2024, p. 21). The owner before her had invaded this area and built the house there illegally (ibid.). However, when Norah bought the house, it had already acquired legal status and was no longer considered an illegal invasion (ibid.). Moreover, Norah recounted that where she lives now used to be a forest where one could find alligators and snakes (ibid.: p. 8). When asked about people's relationship with nature here, Norah laughed loudly and said, "A natureza é muito pouco. É porque assim, aqui a gente não tem nem floresta. Quando veem uma floresta aqui quer derrubar e fazer uma casa" [There is very little nature. It's because, here, we don't even have forests. When they see a forest here, they want to cut it down and build a house.] (int-Nor 13.01.2024, p. 8).

4.1.2 Irregular settlements

Due to the high demand for housing, people in Greater Recife not only invaded woods and other green areas, but they were also willing, or rather, forced to construct their houses in areas of extreme risk, such as steep hills. The danger of such a location is that heavy rain often leads to landslides, sweeping away entire houses. Many research partners named this process of illegal settlement '*invasão*' (invasion) and '*ocupação*' (occupation), that is, first land is invaded to subsequently occupy it, by squatting or building houses on a piece of land.

None of my research partners lived on a piece of land at extreme risk of landslides; however, just a few blocks away from where Dália lives, houses were built on steep hills, prone to landslides. Residents of these houses had to make their houses there because they could not afford a safe building site. In conclusion, poor people are most affected by environmental catastrophes such as landslides, which in the past already caused deaths in Greater Recife (int-Nor 13.01.2024, p. 19).

Even though I did not personally talk to people affected by landslides, my research partners were very concerned about those living situations and talked a lot about it, for example, Luciane, "E você andou comigo, você viu. As casas por aí ... muito inseguras as casas, né? Com essas barreiras. Quando chove, não sei como é que o povo dorme. Então habitação aqui é difícil" [And you walked with me, you saw. The houses around there... the houses are very unsafe, right? With those slopes. When it rains, I don't know how people sleep. So housing here is difficult.] (int-Luc 30.01.2024, pp. 16-17).

Some research partners live close to slopes, especially in Ibura/Cohab, Recife, because the neighborhood is located on a hill. However, most houses are on the flat area on top of the hill. That is also where the government started the Cohab-project (*Companhia de Habitação Popular*, Public Housing Company), but as the neighborhood grew, people occupied as much space as possible due to the high demand for housing, thus also peripheral zones such as the slopes. Norah explained that this happened due to financial reasons, "É o dinheiro porque uma casa na barreira é a metade de um preço numa casa no lugar plano" [It's the money because a house on the slope is half the price of a house on the flat place.] (int-Nor 13.01.2024, p. 20). Despite the cheap price of houses on steep hills, Norah resolutely said that she would never move to a house on a slope because she would not be able to live with the constant fear of a landslide sweeping away her house (ibid.).

"Eu nunca fui por uma barreira, porque eu sempre tive medo. E agora tenho uma barreira de grande ou pequena, eu não vou ... porque eu morro de medo, ou se eu estiver numa barreira, começar a chover, eu não durmo, porque ... o risco é grande, né? Aí eu nunca morei em lateral não, moro sempre em lugar plano, pronto." [I've never went to live on a slope, because I've always been afraid. And now if there is a slope, big or small, I won't go... because I'm scared to death, or if I'm on a slope and it starts to rain, I won't sleep, because... the risk is big, right? So I've never lived on the side of a hill, I always live on flat places, that's it.] (int-Nor 13.01.2024, p. 20)

Victoria summarizes the process of people settling, often through invasions, in high-risk zones of landslides in Greater Recife. She said that due to housing difficulties, "as pessoas terminam fazendo casas em locais inadequados" [people end up building houses in unsuitable places] (int-Vic 18.01.2024, p. 17). Moreover, she explains which houses are affected by landslides, "Não é a vila antiga, que foi feita pelo estado, ... geralmente são casas feitas depois que pegaram aquela área que não deveria" [It's not the old village, which was built by the state, ... usually it is the houses built after they took over that area that shouldn't have been built on.] (ibid.). Spaces on the fringe of the hill were never intended to have houses built there because it is too dangerous. Nevertheless, houses were built there.

"Faz um bairro até aqui, aí tem um espaçozinho pra cá que não, não foi feito, aí alguém vem, invade aquela área e começa a fazer ali uma nova vila, é aí onde tá dando maiores problemas, porque na vila mesmo, a vila mesmo ... não tem, foi tudo feito no local certo, entendeu?" [Make a neighborhood up to here, then there is a little space over here that wasn't built on, then someone comes, invades that area and starts building a new village there, that's where the biggest problems are, because in the village itself, the

village proper... there are no problems, everything was built in the right place, do you understand?] (int-Vic 18.01.2024, p. 17)

One indication of the housing shortage in Greater Recife is that people who have already been affected by landslides are returning to build a new house on the same piece of land. "Aí muitas casas já caíram, aí o povo volta quem sobrevive, e faz uma casa de novo," [Many houses have already fallen, and then the people who survive return and build a new house.] Norah said (int-Nor 13.01.2024, p. 19). Moreover, after a landslide, a huge black tarpaulin is usually placed over the affected area (ibid.). This measure is characteristic of the landscape in certain neighborhoods in Greater Recife. Lastly, Norah criticizes that the measures implemented by the government are not enough to help the affected people long-term (int-Nor 13.01.2024, p. 20).

In the Recife Metropolitan Region, other forms of squatter settlements can also be found in different (in that case, flat) locations. During my field stay, I visited two *ocupações* in Greater Recife, Salve Mangue Seco (SMS) in Igarassu, and the Coletivo Força Tururu in Janga, Paulista. Colloquially, some people used the term *invasão* to talk about these two settlements. Indeed, SMS started as an invasion, but now has a different status (fn 20.01.2024, p. 86). Usually, people understand invasions as territory that is invaded to build houses there (fn 18.01.2024, p. 83).

Tururu talks about themselves as being a 'forest occupation' (*ocupação floresta*) (URL 15). It seems as if the term *invasão* has a more negative connotation than the term *ocupação*, which is illustrated by the following quote from the well-established Brazilian movement Movimento dos(as) Trabalhadores(as) Sem-Teto (MTST).

"Ocupações, ao contrário de invasões, adotam uma postura de preservação do patrimônio, coexistindo pacificamente com a comunidade e o meio ambiente e buscando soluções através de negociações. Invasões, por outro lado, podem envolver atos de vandalismo, destruição do patrimônio e uso da força para impor agendas específicas." [Occupations, unlike invasions, adopt a heritage preservation stance, coexisting peacefully with the community and the environment, and seeking solutions through negotiation. Invasions, on the other hand, can involve acts of vandalism, destruction of heritage, and the use of force to impose specific agendas.] (URL 16)

According to Luciane, *invasões* consist of illegally built houses in poor condition, where entire families live in impoverished conditions (fn 27.12.2023, p. 47). Usually, there is one room and a toilet; however, in the past and nowadays at the beginning of the building process, there were and are no toilets (ibid.). Sometimes the police would remove such an *invasão* and push people away, but often *invasões* remain for several years without anyone intervening (ibid.).

The following two subchapters provide an overview of the two occupations I visited once during the field research. The accounts offer insights into residents' lived experiences in communal, autoconstructed, and often illegal settlements. It also shows some of the hopes and struggles of people living in these communities.

4.1.2.1 Salve Mangue Seco

The *ocupação* Salve Mangue Seco (SMS) in Igarassu began as an invasion (fn 20.01.2024, p. 86) and at some point, around 1000 people were living there, with approximately 500 houses; however, some have been demolished and nowadays there are around 130 houses built with donated wood (fn 20.01.2024, p. 85). The settlement is organized by having a president (ibid.). Besides gaining the right to housing, SMS also aims at protecting nature (ibid.: p. 86). All houses have private gardens in the backyard in addition to a big common garden where so-called *agricultura familiar* (family farming) is practiced (ibid.: p. 87). Moreover, some residents do paid work, for example, in a bar, separating waste, or as fisher (ibid.).

Residents of SMS demarcate the plots of each person or family by planting trees around the houses, ensuring that every plot is the same size to prevent conflicts among residents (fn 20.01.2024, p. 86). Moreover, the community forbids selling territory because "isso tira a legitimidade do projeto" [that takes away the legitimacy of the project] (ibid.: p. 87).

The question of land ownership also came up in connection with an awareness of the indigenous past of this territory. During the conversation with Fernando (activist) and Marta (resident), Fernando stated that "tudo isso era indígena" [all of this was indigenous], to which Marta added that the names of many locations, such as cities and islands (e. g. Igarassu, Itamaracá), stem from languages spoken by Indigenous people who were living here (fn 20.01.2024, p. 87). They further highlighted the historical role of this locality, since the first Portuguese ship arrived here, and the first Christian church (that still exists) is located in Igarassu (ibid.). Such factors help the occupation to legitimize its right of residence. Nevertheless, residents face different struggles and difficulties, such as repeatedly dealing with a cut-off water supply (fn 20.01.2024, p. 86). Another huge problem concerns the area between the *ocupação* and the ocean. The owner sold this area, and parking lots were created; however, there are plans to turn them into condominiums, meaning that this area will be turned into a privileged and private space (fn 20.01.2024, p. 86).

4.1.2.2 Tururu

Similar to SMS, Tururu also aims to protect nature. When Fernando and I walked through the Tururu *ocupação floresta* with one of their residents, Fernando's first reaction was to comment on how wonderful it was here with all the trees and contact with nature (fn 12.01.2024, p. 70). Tururu has existed for three years and consists of approximately 50 people (ibid.).

Good organization is crucial for an occupation to function as a residential area. Out of the two occupations I visited, Salve Mangue Seco appeared to be better organized than Tururu; however, the latter has not existed for as long as the former (fn 20.01.2024, p. 86).

While we were there, Fernando gave tips to residents of Tururu on how to improve their living conditions and coexistence among residents, for example, by starting a garden and by demarcating the plots so that everyone is the same size to avoid conflicts (fn 12.01.2024, p. 70). He further advised that a *horta comunitária* (community garden) could help to rely less on money and to be more self-sufficient, especially for an occupation where people usually do not have a lot of money and many might be jobless (ibid.). Fernando told residents from Tururu about his friend Gustavo, who has a garden and lives almost autarkically there because he can harvest many fruits and vegetables (ibid.).

In general, the possibility of turning into a favela remains, if an *ocupação* is not well organized and does not solve arguments among residents (fn 20.01.2024, p. 86). Currently, there is also the problem of a lack of infrastructure, since there is no basic sanitation, including toilets, in the *ocupação* (ibid.). Access to electricity is also challenging (ibid.).

Another issue is the criminalization of people who live in *ocupações*, but as Fernando highlighted, we have seen that those residents are regular people who try to find a way to live, are nice and help each other (fn 12.01.2024, p. 70). He criticized society where each individual always tries to be better than the others, which, in his opinion, is bad, and it would be better to help each other like this collective does (ibid.). I indeed saw a person with an electronic ankle monitor. Maybe other communities would not accept this person, but there they were included, participating in daily tasks and communal work, thus getting a chance to be reintegrated into society after being processed by the legal system.

4.1.3 Coastal dwellers

Another group of people who constantly have to fight for their right to housing in Greater Recife are low-income coastal dwellers, that is, people who own a small house at the beachfront, mostly fisher, bar and restaurant owners, or other low-income residents. These communities face a range of challenges, tied to both social and environmental pressures. Private landowners increasingly restrict access to the shore by fencing off their properties and building walls around parking lots. At the same time, public beach space gets even more limited with luxury high-rise developments encroaching ever closer to the coastline. The construction of seawalls has further complicated the living conditions for low-income coastal dwellers and beachgoers. Additionally, residents face diverse climate change vulnerabilities, such as sea level rise and erosion. Indeed, Maciel et al. (2024, 2), in their study conducted in Paulista, found that "[c]limate change has been intensifying the vulnerability of coastal environments".

4.1.3.1 Restricted beach access

In Maria Farinha, a coastal neighborhood in Paulista, low-income residents face growing challenges due to restricted beach access, resulting, on the one hand, from an iron wall next to the main street, and on the other hand, from the construction of seawalls next to or instead of the sandy beach. These barriers not only obstruct pathways to the coast but also isolate houses during high tide, which is the case for an elderly coastal resident who can only exit his home through the front door at low tide (fn 04.01.2024, p. 58). Once at high tide, I observed that the sea reached within approximately five meters of a residential wall, showing how the combination of high tide and houses built too close to the ocean leads to the reduction and even disappearance of public space, that is, the beach (fn 07.01.2024, p. 66). A local fisher described the lack of access to the beach as his primary concern (fn 04.01.2024, p. 60), while another resident forms part of a local group fighting for street access and the right to remain in the area (ibid.: p. 58).

Access constraints also disrupt local economies. For instance, a bar owner had to transport supplies manually with a pushcart due to a lack of vehicular access (fn 04.01.2024, p. 59), and visitors encounter difficulties reaching beachfront establishments, which now cater mainly to apartment residents with exclusive beach access (ibid.: p. 60). This reduced foot traffic has also made it harder for local fishers to sell fresh fish directly from their homes (ibid.).

Moreover, the cement company Votorantim is at the center of ongoing disputes. Residents reported that Votorantim has closed off multiple beach exits by building iron walls to fence their private property, yet without listening to local residents who lost direct access to the beach where their houses are (fn 04.01.2024, p. 59). Fernando said that the cement company tries to make the locals tired of their lives at the beachfront and that they want to push them away by making their lives harder by removing their access to the beach (ibid.). Three coastal houses had already been demolished by the municipality because the owners had left their houses, and once they were empty for a while, they were torn down (ibid.). Additionally, the local water park Veneza has closed one access to the beach in order to make a huge parking lot for cars, not even leaving a small path to get to the beach (ibid.). According to the Brazilian Coastal Management Plan, public access to beaches has to be guaranteed every 250 meters, but in Maria Farinha, people have to walk up to 1.5 kilometers to reach a certain site (URL 17). Despite these inhumane practices and numerous accusations of environmental pollution, such as improperly draining the water from the open-pit mine into the river Timbó to allow for the extraction of more raw materials, the city government of Paulista allegedly lets Votorantim get away with a lot of things due to the company's economic importance in the city (fn 17.01.2024, p. 79). A political officer reasoned his view by saying, "O Votorantim é uma empresa que é significativa para o município, entendesse? Não queria perder essa empresa" [Votorantim is a company that is significant for the municipality, you know? I wouldn't want to lose this company.] (ibid.).

Seawalls are another factor that aggravate easy access to coastal homes and beaches. Such infrastructures, typically constructed along coastlines as protective barriers, are intended to shield properties from the advancing ocean. Indeed, especially sea level rise is at the forefront of people's minds when asked about the main problem coastal dwellers face (fn 09.12.2023, p. 13). Seawalls are often built directly on the beach or in place of it, not only significantly altering the usual dynamics of the coastal environment but also the typical picturesque image of beaches in the tropics. Palina, for instance, lamented that the coast of Pau Amarelo (Paulista) is a disgrace since it is very ugly with this huge concrete wall (fn 24.12.2023, p. 40).

In Maria Farinha and the surrounding coastal areas, seawalls have become emblematic of unequal adaptation to environmental change. High-income residents of beachfront condominiums, fearing property loss due to erosion, have funded private seawalls as protective measures (fn 04.01.2024, p. 57). Luciane confirmed this tendency, stating, "O povo pede o muro, eles pedem o muro de arrimo pro governo tomar providência" [The people ask for the wall, they ask for the retaining wall so that the government takes precautions.] (int-Luc 30.01.2024, p. 13).

However, these structures bring significant unintended consequences and can even lead to contradictory effects. While seawalls may protect individual plots of land in the short term, they tend to accelerate erosion and loss of beach, thus displacing the problem rather than solving it (fn 04.01.2024, pp. 57-58). The construction of seawalls had the consequence that further north the ocean advanced even faster, thus posing a major risk for locals, bar owners, and fishermen and their families (ibid.: p. 58). Indeed, over the years, residents have observed the rising sea level (fn 09.12.2023, p. 13; fn 08.12.2023, p. 8). Fernando, for example, recounted that at the time the abandoned hotel in Maria Farinha was being built, the ocean was way further away than it is nowadays (fn 04.01.2024, p. 58). He also mentioned that many

people are affected by environmental racism which gets evidenced by the fact that rich people, who own large houses directly on the shore, had seawalls built to prevent the water from coming closer to their homes, while poor people, such as fishers, or street vendors, could do nothing but leave the coastal area eventually finding another location to live and work (fn 09.12.2023, p. 13). In contrast to private initiatives, some seawalls, like the one in Pau Amarelo (Paulista), were funded by the municipality (fn 04.01.2024, p. 58). However, regardless of who funds them, seawalls reflect and reinforce spatial inequality. Moreover, the seawalls are not always sufficient – wet sand behind walls indicates that during high tide, even these barriers may fail (fn 21.12.2023, p. 37).

Furthermore, seawalls restrict public access to the coastline, undermining social equity. A research partner lamented, "Sempre a praia foi de graça e agora o povo tem que pagar pra entrar na praia" [The beach was always free, and now people have to pay to enter] (fn 03.01.2024, p. 60). Though not always literal, this statement reflects how privatized coastal defenses can effectively enclose public space, reserving beach access for wealthier property owners while excluding others. This sentiment is reinforced by the observation that only narrow, difficult-to-navigate paths remain between seawalls and the beach (fn 04.01.2024, p. 58). These local patterns mirror larger processes observed in the Metropolitan Region of Recife, such as the ecological impact of the Port Suape, a large and important port to the south of Recife. It is believed that the port's construction significantly altered the marine currents and ecosystems, displacing marine life and intensifying the presence and occasional attacks of sharks near beaches like Boa Viagem (int-Luc 30.01.2024, p. 14). Luciane further explains,

"O que eu vejo da notícia, né, que mudaram muito, entendeu? O ecossistema ali – mexeu com o ecossistema, aí o peixe fica louco também, ele fica sem saber onde é a casa dele, onde ele procria, onde ele vai se alimentar, ele fica perdido, entendeu?" [What I see in the news, right, is that they changed a lot, you know? The ecosystem there – it messed with the ecosystem, and then the fish [shark] goes crazy too, it doesn't know where its home is, where it breeds, where it's going to feed, it gets lost, you know?] (int-Luc 30.01.2024, p. 14).

This large-scale infrastructure, much like the seawalls, exemplifies how attempts to control the environment can disrupt ecological balances and endanger coastal communities.

4.1.3.2 Building too close to the ocean

Rapid urban expansion on the coastline can be observed in Greater Recife, especially in areas further away from the center, such as in Paulista. Large apartment complexes have increasingly been constructed near or even on the beach. This tendency has raised serious environmental and social concerns. Some research partners pointed to the problematic proximity of residential buildings to the ocean (fn 04.01.2024, p. 58), such as Luciane (int-Luc 30.01.2024, p. 12), who expressed strong criticism regarding this trend.

"Mas eu vejo assim, o povo muito em cima do mar. Eu acho que o mar avançou, mas o povo avançou mais. Porque eu acho que da pista pra lá não era pra ter casa não. A pista pra lá era pra ser praia. Aí fazem casa até na mureta da praia." [But I see it this way, people are way onto the sea. I think

the sea has advanced, but the people have advanced more. Because I think that there shouldn't be houses between the road and the sea. From the road to the sea there should be a beach. There they even build houses on the sea wall.] (int-Luc 30.01.2024, p. 12)

One of the most visible environmental impacts of these developments is the loss of natural coastal barriers, such as mangroves, as explained by Palina.

"A gente tá ocupando o lugar do mangue. [...] A gente tá ocupando o lugar da natureza. [...] Aqui era mangue, né? Os governantes venderam as terras pros empresários. Os empresários fizeram casa, venderam pros construtores, enfim, entende?" [We are occupying the place of the mangrove. [...] We are occupying the place of nature. [...] This used to be a mangrove forest, right? The government sold the land to the businessmen. The businessmen built houses, sold them to the builders, anyway, you know?] (int-Pal 30.01.2024, pp. 34-35)

Similarly, Luciane sums up her lifelong observations by saying, "Antes tudo aqui era mangue. Cadê o mangue?" [Before, everything here was mangroves. Where is the mangrove forest?] (fn 30.01.2024, p. 96). These changes are not just ecological, but they also affect everyday life and social relations. The disappearance of beaches has a negative impact on the quality of life for both residents living directly on the coast and others in the adjacent area who enjoy visiting beaches. It appears paradoxical that people desire to live as close as possible to the beach if this very proximity in the long term leads to the loss of beaches. Therefore, Luciane emphasized the importance of giving the ocean space since it is in constant movement, "Tem que ter espaço pra maré. Ela tem que ir, tem que voltar" [There has to be room for the tide. It has (to be able) to go, it has (to be able) to come back.] (int-Luc 30.01.2024, p. 13). Moreover, Luciane mentioned a few examples of beaches in Pernambuco where buildings are set further back, thus not yet facing problems concerning sea level rise (int-Luc 30.01.2024, p. 12). Therefore, Paulista could be positively inspired by those places.

Indeed, many people in Greater Recife enjoy going to the beach in their leisure time – an activity for which not only access to but also the good condition of the beaches are crucial. Maxine, for example, who lives 1-2 kilometers away from the coast in Paulista, loves the beach and uses every opportunity to go to the nearest ones (int-Max 30.01.2024, p. 1). Especially for low-income residents, going to the beach poses one of the few accessible forms of contact with nature (int-Vic 18.01.2024, p. 5). When asked about their relationship with nature, Victoria answered that she does not enjoy going to parks, only to the beach, which, according to her, is great in the hot weather that prevails most of the year (ibid.: pp. 5-6). It seems to me that the growing desire to live near the coastline is linked to the cultural development of beach-going, which historically was not always a widespread cultural practice. As Luciane observed, in the early 20th century, beaches were largely empty, and despite growing up just a few kilometers from the sea, she did not go to the beach until she was 15 years old (int-Luc 30.01.2024, p. 14).

As mentioned above, the real estate industry expands at the edges of Greater Recife, such as in Paulista, since prices there are cheaper than in Recife (int-Luc 30.01.2024, p. 2).

"As imobiliária estão crescendo muito aqui em Paulista, porque aqui tem muita área verde, aí eles ficam construindo pra você ver em toda rua que você entra praticamente tem um prédio levantand. Tem um apartamento, tem uma casa, entendeu, porque os terreno aqui é mais em conta." [The real estate agencies are growing a lot here in Paulista, because there is a lot of green space here, so they keep building so that you can see, on practically every street you enter that there is a building going up. There is an apartment, there is a house, you know, because the land here is cheaper.] (int-Luc 30.01.2024, p. 2)

While a controversial example of a beachfront apartment project intended for middle to higher classes is planned in Maria Farinha (fn 04.01.2024, p. 58), a teenager from the lower class stated that he did not see such projects as necessary, especially since affordable housing for the urban poor is even more urgently needed (fn 10.01.2024, p. 69).

Although these new apartments are marketed as desirable waterfront properties, their structural safety is questionable. Palina noted that many buildings are constructed on sandy terrain, and she even recalled one such building collapse in Janga, underscoring the risks of construction so close to the water (fn 24.12.2023, p. 40). A government official, when asked about the suitability of the soil for a new high-rise apartment building project in Maria Farinha, seemed evasive and simply stated that the soil had a lot of stones without addressing potential soil vulnerabilities (fn 17.01.2024, p. 81).

Interestingly, two research partners held mixed views on such elitist housing projects. Isaac, for example, believed private construction projects bring job opportunities during and after building – jobs such as gardeners, janitorial work, and domestic service (fn 14.01.2024, p. 74). Tiago, however, critiqued this view, arguing that people should have more prospects than work for the rich, advocating instead for expanded opportunities in education and professional advancement (ibid.).

4.2 Dissatisfaction with and desire for better urban infrastructure

This chapter addresses issues raised by research partners regarding infrastructure in the Metropolitan Region of Recife. They mainly mentioned concerns and problems with roads, waste, water, basic sanitation, public security, and fear of violence. One research partner voiced that these are basic aspects of infrastructure (int-Pal 30.01.2024, p. 19) that many research partners desire to have improved, as emerged from the discussions and observations. In this context, Palina, for instance, voiced the following:

"Você percebe que a gente não tem o básico? A gente tá falando só de coisa básica, a gente não tá falando de coisas de outro mundo, a gente tá falando de coisa básica." [Do you realize that we don't have the basics? We're just talking about basic things, we're not talking about other worldly things, we're talking about the basics.] (int-Pal 30.01.2024, p. 19)

Another research partner is positive that, generally speaking, Brazil's tendency is to continuously get better (int-Luc 30.01.2024, p. 17). Nevertheless, she thinks that in comparison to Europe, there will always be a disparity (ibid.).

"A nível de Brasil, o futuro, a tendência é melhorar. Eu não sou pessimista não, a tendência é melhorar. Mas por mais que melhore, a gente sempre fica atrás. Por exemplo, da infraestrutura da Europa, com certeza, lá vai melhorar, muito mais. E aqui, daqui que a gente enxerga como está lá, vai ficar sempre defasado. Entendesse?" [In Brazil, the future, the tendency is to improve. I'm not a pessimist, the tendency is to improve. But however much it improves, we always lag behind. For example, Europe's infrastructure will certainly improve, much more. And here, from where we see it, it's always going to be a few steps behind. Do you understand?] (int-Luc 30.01.2024, p. 17)

Some research partners mentioned Brazil's richness in the sense of natural resources and biodiversity, yet at the same time, many people live in poverty to the extent that "não tem banheiro nem torneira" [there's no bathroom nor tap] (fn 10.01.2024, p. 69), as put by one research partner. Concluding, Fernando poignantly put it, "A riqueza e a miséria ao mesmo tempo" [Wealth and misery at the same time.] (ibid.).

4.2.1 Inadequate roads and potential for improvement in waste infrastructure

The main issues mentioned about roads in Greater Recife concern their condition as paved or unpaved since the latter is linked to flooding, and the (non)existence and state of sidewalks and crosswalks. Moreover, research partners voiced issues with big avenues and smaller streets in residential neighborhoods. Regarding waste, research partners mentioned a range of issues, but also had ideas for improvement.

4.2.1.1 Unpaved roads and flooding

Many roads in Greater Recife are not paved, leading to a series of consequences that residents have to deal with. Several research partners mentioned that unpaved roads offer perfect breeding ground conditions for mosquitoes, thus leading to a higher probability of getting infected with diseases such as dengue or chikungunya (e.g., int-Pal 30.01.2024, p. 30). Unpaved streets usually do not have pluvial water drains, making them prone to flooding when it rains heavily. Due to these circumstances, several research partners mentioned that they wish to have more paved roads, especially in their neighborhoods (fn 24.12.2023, p. 40). One research partner said she would expect paved roads since Greater Recife is a highly urbanized region (int-Pal 30.01.2024, p. 19). Indeed, many research partners voiced dissatisfaction with the policies regarding paving roads, and it was even pointed out that a local municipal government asserted that certain streets were paved while residents of these streets were witness to the contrary (fn 10.01.2024, p. 69). Moreover, Luciane recounted that many residents disapproved of the current mayor of Paulista because, during the mayoral race, he had made promises that he did not keep, such as paving many more roads (int-Luc 30.01.2024, p. 18). She

further explained that people know that there is a lot of corruption among politicians (ibid.: p. 17). "Porque os governos aqui são muito corruptos. A corrupção é muito grande aqui. E as pessoas se acostumam com a corrupção. Faz parte, naturalizou" [Because the governments here are very corrupt. Corruption is very widespread here. And people get used to corruption. It's a part of [life], it's been naturalized.] (ibid.). She illustrated the corrupt politicians' approach using the example of road improvement (ibid.). When a road gets paved, the government hires a construction company (ibid.). The costs of the construction work are calculated significantly too high (ibid.). These overcosts, financed by taxes, are divided between the politicians and construction companies (ibid.). Ultimately, this money could have been used to pave many more streets if these corrupt schemes did not exist (ibid.). Luciane concludes this example as follows, "Quer dizer, todo mundo sai ganhando muito e o povo não ganha nada. E o povo está vendo que está sendo roubado" [That is, all of them win a lot and the people win nothing. And the people are seeing that they are being robbed.] (ibid.).

Many residents of Greater Recife feel that the government does not pay enough attention to their needs, such as the desire for paved roads. For example, the house Palina lives in has been inhabited for about 40 years, which means that during this period, taxes have been paid that could have been used to pave roads (int-Pal 30.01.2024, p. 19). In particular, they paid the IPTU (Imposto Predial e Territorial Urbano) (ibid.), which is a tax on urban property and land. The tax is not tied to a specific purpose, however, since it is the main source of income for municipalities (URL 18) it should be used in such a way that residents get the most benefit from it. In order to achieve this, corruption needs to stop, and people's needs and wants, as well as their safety and health, should be put at the forefront of the local political agenda, especially because unpaved roads and roads without proper water drainage pose a major risk for flooding, which consequently leads to the proliferation of mosquitoes spreading infectious diseases.

Several research partners mentioned that many floods occur in Greater Recife, on the one hand due to the lack of adequate drainage systems and due to the many unpaved streets (e.g., int-Max 30.01.2024, p. 7). On the other hand, floods happen yearly, especially during the rainy season (int-Pal 30.01.2024, p. 31) characterized by above-average rainfall. In this case, pluvial flooding "occurs when the amount of rainfall exceeds the capacity of urban storm water drainage systems or the ground to absorb it" (URL 19). Despite the heavy rainfall during this period, the temperature is still very hot (int-Nor 13.01.2024, p. 13), which also means that the soil is dry and thus unable to absorb such high quantities of water.

Another problem contributing to flooding is that if water drainages exist, they are often clogged by waste, maybe even by leaves, as mentioned by a research partner (int-Vic 18.01.2024, p. 9). There are multiple consequences from flooding, despite the danger to life in general caused by large quantities of water and mud, such as the spread of diseases, and not being able to drive or walk, isolating residents. There were even incidents of cars being washed away during floods (int-Nor 13.01.2024, p. 20).

Flooding complicates access to some houses since, due to the elevated water levels, cars and other vehicles are unable to drive on certain roads, or at least it can get very tricky to drive there (fn 24.12.2023, p. 40). Moreover, the possibilities to walk on these streets also get restricted (ibid.), leading to the isolation of these residents (int-Max 30.01.2024, p. 2) and putting those in danger who have to leave their houses during floods.

During the interview with Maxine, she recounted that the square where she works as a street vendor was not paved in the past, meaning there was a lot of mud during and after the rainy season (int-Max 30.01.2024, p. 2). She continued expressing joy that the square, that is, her workplace, is now paved (ibid.). The fact that the square is asphalted makes it easier for her to do her work even in the rainy season, because it is not financially possible for Maxine not to work in winter, although she is not making enough on rainy days, which she explains as follows (ibid.: p. 3).

"Eu tenho que vir, né? Eu pretendia não vir, né? Porque é ruim, entendeu? Muita chuva. E assim, o movimento diminui. Porque as pessoas na chuva não querem sair, né? Mas tem que vir porque é meu emprego." [I have to come, isn't it? I intended not to come, isn't it? Because it's bad, you know? Lots of rain. And so, the foot traffic decreases. Because people in the rain don't want to go out, right? But I have to come because it's my job.] (int-Max 30.01.2024, p. 3)

4.2.1.2 Sidewalks, crosswalks, and traffic lights

Regarding the muddy streets, Palina mentioned that some mud and water puddles can persist until a few months after the rainy season had ended (int-Pal 30.01.2024, p. 34; fn 28.12.2023, p. 44). Therefore, adequate sidewalks are needed to at least provide protection from mud for pedestrians. During my research stay, I saw a lot of sidewalks, and it was striking that there were no uniform sidewalks, especially in peripheral and neighborhood residential areas, since every homeowner seemed to be responsible for the sidewalk in front of their house (fn 26.12.2023, p. 43; fn 07.01.2024, p. 63). Overall, these sidewalks tended to be in rather poor condition; often they were very narrow or nonexistent, many were overgrown with plants, had holes of varying sizes, or were very steep and slippery, especially when tiled (ibid.).

In such a condition, many sidewalks do not fulfill their minimal functionality, such as protection from mud, water, dirt, and vehicles. Historically, sidewalks had the purpose of protecting pedestrians from rainwater and dirt (Lampugnani 2019, 159). With the invention of the automobile and the increase in traffic, sidewalks also served as essential protection from cars (ibid.: 160). Moreover, Lampugnani (2019, 160) recounts that at the beginning of the 18th century, Voltaire deemed sidewalks to democratize cities since they allowed the urban poor to access the city in a novel and more ample way that had only been available to rich residents who used horse-drawn carriages.

In addition, sidewalks should also allow pedestrians to walk comfortably and safely; however, this is not the case in some areas in Greater Recife, as highlighted in this chapter. Often emphasis was put on a car-friendly expansion of city streets, neglecting pedestrians' needs (Lampugnani 2019, 164). Considering the fact that cars will likely continue to play a major role, and roads will therefore be developed to meet their needs, at the same time, the distinct needs of pedestrians must not be forgotten or ignored, as they are one of the most vulnerable groups in street traffic. Moreover, poor and low-income residents usually cannot afford cars, rendering walking one of their main modes of mobility.

Another reason contributing to the increased vulnerability of pedestrians is the different use of sidewalks in Greater Recife. There, sidewalks are not only used for walking but also serve as a place for street vendors to sell their products (fn 17.01.2024, p. 79). Tiago expressed anger

about vendors selling on sidewalks because by doing so, they block the safe path for pedestrians (ibid.). Thus, pedestrians have to go around the stalls, walking for several meters on the road, where cars and motorbikes pass by rapidly, which can lead to more accidents.

Another potential cause for more accidents is the lack of street crossings and traffic lights to protect pedestrians from motorized vehicles when crossing streets. Luciane and I were often in the situation where we had to cross a big avenue in order to get to the bus stop or during walks (fn 26.12.2023, p. 43). However, there was no marked crossing nor traffic light in this section to allow for a safe and stress-free crossing of this wide street (ibid.). It was definitely a stressful situation, because every time we crossed the street, Luciane grabbed one of my arms with her fingers and pulled me along with her (ibid.).

Another observation was that even though there was a crosswalk, some research partners did not cross there because they said they knew that drivers would not stop for them; thus, they further explained that it would be safer to cross at a different point after verifying that no cars were coming (fn 26.12.2023, p. 43). On the contrary, during an outing with Palina, she seemed happy about the crosswalk that allowed us to cross the avenue safely, especially because there were also traffic lights and cars indeed stopped there (fn 28.12.2023, p. 46). Moreover, she complained that there were neither crosswalks nor traffic lights further north of the coastal area of Paulista (ibid.).

4.2.1.3 Waste as a perceived problem and irregular waste disposal

"O lixo é outra coisa bem complicada aqui também," [Waste is another very complicated thing here too.] (int-Vic 18.01.2024, p. 9) said Victoria during the interview. Maxine went in a similar direction by explaining that waste is one among many worries people in Greater Recife have at the moment (int-Max 30.01.2024, p. 7). During a conversation with Calebe, he called for more public conversations about the waste problem (fn 08.12.2023, p. 9). At that time, he was following the news about the COP in Dubai and complained that everyone was only talking about reducing carbon emissions, and he criticized that nobody was talking about reducing garbage (ibid.).

I think the reason most research partners mentioned waste to be a problem here in Greater Recife is because it is quite visible here, after all, there is a lot of garbage next to most roads (fn 08.12.2023, p. 10). Waste is a real issue for the research partners that needs to be taken seriously and improved upon, in response to requests from residents.

It should be noted that the term waste in this chapter refers to domestic waste or municipal solid waste (biodegradable and non-biodegradable), if not otherwise stated. According to a report from the 2024 United Nations Environment Programme, municipal solid waste does not account for the majority of waste generated worldwide, but industrial, agricultural, healthcare, construction, and demolition waste do (URL 20, p. 10). Fernando told me that he frequently says, "Os pobres sujam e os ricos poluem" [The poor litter and the rich pollute.] (fn 11.12.2023, p. 23), referring to the fact that "the combined emissions of the richest one percent of the global population are larger than the combined emissions of the poorest 50 percent" (URL 21), despite poor residential areas often being perceived as dirtier than rich neighborhoods due to waste lying around.

According to Victoria, the reason for illegally deposited waste in Greater Recife is that people do not have the habit of bringing trash, especially hazardous waste, to designated locations (int-Vic 18.01.2024, p. 11). "A população não tem o hábito, prefere jogar em qualquer canto" [The population does not have the habit, they prefer to throw [waste] anywhere.] (ibid.). Thus, awareness campaigns would be needed; however, when I asked Victoria about that, she said that lately there were none of them (ibid.).

Seeing waste on and next to the streets is part of the everyday life of many residents in Greater Recife, especially in poor and low-income neighborhoods. One research partner stated, "Quando vejo lixo na rua, não acho bom" [When I see trash on the street, I don't think it's good.] (fn 11.12.2023, p. 23). Another research partner commented, "Eu não jogo lixo na rua" [I don't litter.] (int-Vic 18.01.2024, p. 9), instead she collects accumulated waste in her car to later adequately dispose of it (ibid.).

Moreover, a lot of waste can be seen on empty plots of land (fn 21.12.2023, pp. 35-36), at the fringes between forests and urban areas (fn 14.01.2024, p. 73), and on the beaches (fn 15.12.2023, p. 29) in Greater Recife. Unfortunately, many beachgoers do not take sufficient care to dispose of their waste adequately (int-Max 30.01.2024, p. 1), almost inevitably leading to waste getting into the ocean. Similarly, waste ends up in the ocean through the channels in Greater Recife (fn 21.12.2023, p. 36). These are small open channels, similar to small streams, that carry rainwater and potentially sewage into the sea (ibid.). Once I stopped to observe such a channel in detail, and what I saw was dirty water of a dark color and lots of waste inside, such as plastic bottles (ibid.). Furthermore, Victoria told me that once in a while the channels get cleaned (int-Vic 18.01.2024, p. 11). Despite this endeavor, adding a net or a grid to the channels might be a supporting measure in preventing waste from getting into the ocean.

Another reason why people deposit waste illegally is due to a low level of education, thus unawareness of the issue (fn 22.12.2023, p. 36). Other research partners said it is not only poor education but also bad education, also in the sense of being rude by not respecting an environmentally friendly way of depositing one's waste (int-Max 30.01.2024, p. 5). "É um mau costume, a má educação" [It's a bad habit, bad manners.] (int-Vic 18.01.2024, p. 10). Victoria said that some people simply do not care about maintaining public spaces clean (ibid.). Interestingly, Maxine mentioned that if one person starts depositing waste in empty land, many would follow doing the same because they are certain that the garbage truck will pick up all the waste, which is not the case (int-Max 30.01.2024, p. 5). However, as I observed, there are many locations with lots of waste, and employees are not able to collect everything, including illegally deposited waste. Official, central collection points might improve the situation. The government could at least provide information for people on where they can get rid of objects such as old sofas and TVs, as well as excessive waste. Despite the government's obvious duty to ensure a functioning waste system, Victoria believes that individuals are responsible for much of the waste, not politicians (int-Vic 18.01.2024, p. 11).

"Eu acho que a questão do lixo não é muito da política pública, não, eu acho que é mais as pessoas ... algum ... um grupo de pessoas que não se preocupam, que não se incomodam, porque a prefeitura vai lá e limpa." [I think that the issue of garbage is not really a matter of public policy, no, I think it is more about people... some... a group of people who don't care, who don't

get bothered, because the city goes there and cleans it up.] (int-Vic 18.01.2024, p. 11)

Additionally, Victoria thinks that a fine would be appropriate to teach people that it is not okay to throw away waste anywhere (int-Vic 18.01.2024, p. 10). Meanwhile, a few informational measures have been implemented by some residents, organizations, and political bodies. For instance, signs or letters painted on walls saying it is forbidden to throw away trash here can be found frequently (fn 06.12.2023, p. 8). The NGO Salve Maria Farinha, for example, created a corner in a residential low-income neighborhood for residents to explicitly put their waste there instead of dumping it wherever, and in order to aid the municipal waste collection service in collecting waste (fn 09.12.2023, p. 12). Additionally, there are some nicely decorated public spaces where local plants are planted in colorful painted old car tires stacked on top of each other, trying to prevent people from depositing waste there (e.g., URL 22). Nonetheless, another problem is that people burn waste, which still happens occasionally in Greater Recife (fn 19.01.2024, p. 85), and I once observed such a fire on the fringe of a low-income neighborhood, close to a forest (fn 12.01.2024, p. 70).

4.2.1.4 Waste collection service

In order to prevent illegal waste disposal, the municipal waste collection service is of great importance, as waste management professionals use a garbage truck to pick up domestic waste. Interestingly, the garbage trucks of Paulista had the slogan "Paulista a cidade mais limpa" [Paulista the cleanest city] on them (fn 21.12.2023, p. 35; fn 30.12.2023, p. 52), which does not really coincide with statements of research partners and observations.

Nonetheless, in general, research partners are satisfied with the waste collection service in Greater Recife. For example, waste is collected daily in Ibura/Cohab (int-Vic 18.01.2024, p. 10) and three times a week in Paulista (int-Pal 30.01.2024, p. 12). Maxine voiced that she is happy that she does not have to complain about waste collection, "Pelo menos o lixo a gente não tem o que reclamar não" [At least we have nothing to complain about when it comes to waste [collection].] (int-Max 30.01.2024, p. 5).

However, in the past the waste collection service was not as good as it is nowadays, as explained by Norah, "Já passou uma época muito no passado no Ibura aqui, o lixo não tinha dia nem hora certa, hoje em dia aí não tem problema com lixo, pelo menos na minha casa, [o caminhão de lixo] todos os dias passa" [There was a time long ago in Ibura here, when garbage didn't have a set day or time, nowadays there's no problem with waste, at least in my house, [the garbage truck] passes by every day.] (int-Nor 13.01.2024, p. 28).

Nevertheless, Fernando told me that, still, despite the improvement of the waste collection service, a worry for many people is that the garbage truck does not come (fn 15.12.2023, p. 29). This worry might be fed by news reporting, such as the following (URL 23) that I watched together with the other household members. The report was about a neighborhood on the nearby island of Itamaracá where the waste collection truck did not come during the last three months, which not only led to piles of waste but also to bad smell and mosquitoes (fn 04.01.2024, p. 61).

Another frequently mentioned aspect that could cause problems with waste is that some residents do not put out their waste at the correct time, namely, when the garbage collection truck passes by (int-Vic 18.01.2024, p. 10). They might put it out too late or too early, giving

dogs and other free-roaming animals the chance to rip the garbage bags open in search of food and spread the trash all over the streets (ibid.).

It should be added that some streets and parts of beaches in Paulista are not passable for garbage trucks or are even blocked (as described in Chapter 4.1.3.1 "Restricted beach access"), adding an extra layer of difficulty to collect waste at those places (fn 17.01.2024, p. 80).

4.2.1.5 Waste separation and collection

Rafael told me that in general waste is seldom separated (fn 18.01.2024, p. 84) even though some individuals try to separate their domestic waste as well as possible (int-Vic 18.01.2024, p. 9). It is hardly possible to separate domestic waste one hundred percent if there is no municipal structure that offers selective waste collection. At the time of this fieldwork, there was only one type of garbage truck that picked up all the waste at once. Nonetheless, Joelma used to separate her waste to have an organized household, even though she did not know if, ultimately, after it had been collected from the municipality, it would also be separated (int-Joe 18.01.2024, p. 3). Indeed, she did not know what would eventually happen to the waste (ibid.). Another aspect is the need to teach children how to separate waste or at least to throw waste into trash cans as Palina does with her young child (int-Pal 30.01.2024, p. 28). Joelma said that she did not learn how to recycle or separate waste at home but had learned that in school (int-Joe 18.01.2024, p. 3). It seems as if, particularly for younger parents, it is crucial to teach their children correct waste separation. Especially because, according to Calebe, in Brazil, there is no culture of separating waste or throwing it away correctly, "Aqui não tem essa cultura" [There is no such culture here.] (fn 08.12.2023, p. 9). However, he seemed to be convinced that if the young generation learns these habits of waste separation or at least not throwing trash carelessly on the streets, this problem will be solved in the future (ibid.).

To conclude, the question remains what ultimately happens with the waste in Greater Recife. Indeed, none of the research partners could give me an answer (fn 15.12.2023, p. 29). Some even thought that the collected waste was being separated afterward, which, I think, is a very difficult endeavor because solid waste is mixed with organic waste, which generates a very bad smell (fn 17.01.2024, p. 78). Once, Fernando and I visited a small, newly inaugurated waste collection center next to a government building in Paulista (fn 15.12.2023, p. 29). There were different containers to separate materials; however, due to the center's small size, it does not provide enough space for the whole city, maybe not even for a single neighborhood (fn 17.01.2024, p. 78). According to Fernando, other than that center, there is no proper waste separation here in Paulista, even though the government says it exists, but it does not, "É uma farsa" [It's a farce.], Fernando added (fn 15.12.2023, p. 29).

During the interview with Victoria, I asked her about waste collection centers in Ibura/Cohab; however, at first, she did not know where such a center was located exactly, but she was certain that it existed (int-Vic 18.01.2024, p. 11). Also, in Paulista, I was curious to see such places, and during one of the walks, I passed by a waste collection center, which unfortunately seemed to have been permanently closed (fn 08.12.2023, p. 8)

Due to the lack of waste collection centers, environmental awareness, and education, some people even throw bulky waste directly into the channels despite the existing possibility to call someone who comes to pick up big objects to deposit them for the clients (int-Vic 18.01.2024, p. 11). I did not find out whether this service is free of charge; in any case, it would

certainly be beneficial if the municipalities offered such a pickup service for free to avoid bulky waste getting tossed wherever.

Moreover, Palina mentioned that she does not understand why it is so difficult for the municipality to install waste collection points (fn 14.01.2024, p. 75). She said that close to the nearby supermarket would be a good location because a lot of people pass by there every day (ibid.). I also think that if policymakers provide trash bins for the people, they will make use of them (ibid.).

Another crucial factor in the collection of waste is people in informal jobs, *catadores* (pickers), who walk around picking up waste to subsequently sell certain materials. These activities also contribute to urban cleanliness; however, Luciane said that this is no prestigious job, yet a very hard one because it involves walking around for hours in the heat (fn 27.12.2023, p. 47). Some impoverished people have no other choice than collecting garbage to at least earn some money to buy food (int-Joe 18.01.2024, p. 15). Once Luciane and I saw a woman picking up trash in our neighborhood who picked up waste, which she put in a big black trash bag, and she wore gloves (fn 21.12.2023, p. 35); however, Rafael told me that some people browse the trash without gloves (fn 18.01.2024, p. 84), posing a great risk for them. Luciane further recounted that people who pick up waste usually live in *invasões* (invasions), that is, illegally built houses in poor condition (fn 27.12.2023, p. 47). Often, the parents would collect waste while sending their kids to sell homemade products such as *picolé* – a kind of ice cream or frozen fruit popsicle (ibid.). For materials such as plastic and aluminum, people get around 4 R\$ per kilogram (0,63 € in 2025) (ibid.), which is also an incentive for private households to collect recyclable materials. Rafael told me that they collect beer cans in their household to sell them since they get around 5 R\$ (0,79 € in 2025) per kilogram (fn 18.01.2024, p. 84). At Mariluz's birthday party, I observed how a group of party guests had a bag under their table, and every time somebody finished a can of beer and flattened it, they quickly put it in the bag (fn 10.12.2023, p. 17).

4.2.1.6 Trash cans in public spaces

Small things in urban space, such as trash cans, say a lot about a city, such as where they are located, their distribution density or number, as well as their design or absence. The absence of trash cans became evident in the following incident. One day, while Luciane and I were taking a walk, we came across a coconut vendor and bought a coconut for each of us (fn 26.12.2023, p. 43). The vendor handed us the fruit over together with a straw wrapped in plastic (ibid.). Luciane opened the wrapper and let it glide to the ground (ibid.). I think it is not that she does not care or know about environmental pollution, but that there were no public trash cans, nor did the vendor have his own trash can at his stand (ibid.). Maybe this example shows that raising more awareness of adequate waste disposal is needed because Luciane could have put the plastic in her purse and subsequently put it in the trash can at home (ibid.). Research partners also mentioned a lack of trash cans at the beach (int-Pal 30.01.2024, p. 30), combined with the wish to have more trash cans installed by the municipality, as put by Palina, "Mas eu queria, por exemplo – que nas praias aqui de Paulista eu sinto falta lixeira" [But I wanted, for example – I am missing trash cans on the beaches here in Paulista.] (ibid.: p. 29). The NGO Salve Maria Farinha even put up four trash cans themselves because there were no trash cans at the beaches in Paulista (fn 15.12.2023, p. 30; URL 24). Fernando recounted that

this is in stark contrast to beaches in Rio de Janeiro, where lots of trash cans can be found at the beaches, which, according to him, is because there are many tourists (ibid.). In Greater Recife, the island of Itamaracá is very popular among tourists, and during a visit there, I observed that there were indeed a lot of trash cans as well as many awareness signs (fn 24.12.2023, p. 38). For example, after crossing the bridge to the island, one of the first things I noticed besides the lush green scenery was a police security post and a big sign welcoming visitors to the island and saying that it is important to keep the island clean, thus, not to leave any trash (ibid.). Also, at our final stop, there were some signs here and there saying not to throw garbage anywhere (ibid.). Concluding, on the one hand, the municipality of Itamaracá puts out lots of signs and trash cans in the tourist areas, and on the other hand, residents are left without waste collection for three months, as mentioned earlier in Chapter 4.2.1.4 "Waste collection service".

In the case of Paulista, during a visit to a government official, he justified the lack of trash cans at the beach due to the worry that they might get stolen (fn 17.01.2024, p. 80). In fact, this is not an unforeseen concern, as Fernando told me that one of the trash cans installed by Salve Maria Farinha was stolen (ibid.). Nevertheless, he suggested a solution to this problem, namely by using the same method of securing trash cans to metal poles as is the case at beaches in Rio de Janeiro (ibid.). Moreover, during the conversation with Fernando and me, the official suggested starting a pilot project which would include installing approximately 50 trash cans, probably at Conceição beach (praia da Conceição) in Paulista, to see how this endeavor would work out (fn 17.01.2024, pp. 80-81). The official asked the activist, "Tu acha que 50 vão dar?" [Do you think 50 will be enough?] to which Fernando replied, "Claro, uma já faz uma diferença, imagina 50" [Of course, one already makes a difference, imagine 50.] (ibid.). Another time when many trash cans are needed in urban spaces is during events, such as Carnival or Christmas. Fernando praised the preparations made by the city of Recife during the last Carnival, "Cada dois passos tinha uma lixeira. Foi um exemplo para Recife. A cidade ficou limpa" [Every two steps there was a trash can. It was exemplary for Recife. The city was clean.] (fn 17.01.2024, p. 80). Indeed, my own observations showed that Recife placed a lot of additional trash cans in the city center during events (ibid.). During Christmas time, when Recife offers, for example, free theatrical performances at Marco Cero, many people flock to the center, thus generating lots of waste and people taking advantage of the many additional trash cans standing around (ibid.).

To conclude, it can be said that people want more trash cans as well as more big waste containers, as suggested by Palina, who would like to have at least one such container in each street, so residents could throw their waste in there to avoid accumulating lots of waste in their houses (int-Pal 30.01.2024, p. 30).

"E grandes caçambas, é muito raro eu ver grandes caçambas. Para a população tirar o lixo de sua casa, para não ficar com o lixo em casa, porque chama traça, barata, rato, entendeu? Então, assim, se ... pelo menos em uma rua você colocasse grandes caçambas, colocar seu lixo, já melhorava. A saúde ambiental do seu lar, eu sinto essa falta, entendeu?" [And large dumpsters, it's very rare for me to see large dumpsters. For the population to take the trash out of their homes, so that they don't keep trash at home, because it attracts moths, cockroaches, rats, you know? So, if... at least on

one street you would put large dumpsters, to put your trash there, it would already improve. The environmental health of your home, I miss that, you know?] (int-Pal 30.01.2024, p. 30)

4.2.2 Water issues and desire for basic sanitation

Water was one of the first issues I was confronted with in the field. On the night of my arrival in Greater Recife, the following scene took place between me and Luciane, my research partner and host.

After Luciane had shown me around the house and my room, including the small bathroom, we went into the kitchen, where she invited me to grab a clean glass from the drying rack to drink something. A water dispenser with a large blue canister on top of it provided ice-cold water by pressing the corresponding button. After we had both filled a glass of water, the canister was empty, and Luciane prepared a new one, which was stored in the laundry room. She gave it a quick wash with a sponge and some soap. I assume it was dusty, or she cleaned it for hygienic reasons. Then she filled a saucepan with tap water and rinsed the foam off the canister. She used a knife to poke a hole in the plastic cap of the canister. I asked if I should help her, as I thought she would lift the heavy canister onto the water dispenser on her own, but she refused, as I think she was just preparing it in case it was needed, and left it on the laundry room floor for now. When she pointed to the washing machine, she said that she hadn't washed for a few days, as there was very little water left at that moment. There was quite a large water tank in the backyard; however, Luciane explained that there wasn't much water in it. There is also a water tank on the roof, from which the water is piped into the house. Before going to bed, I asked Luciane if I could take a quick shower. She said yes, but if there was no water, I should let her know. She turned on the tap in the kitchen briefly to see if there was water. There was, and she mentioned that people don't drink tap water here, whereas in Austria they do. (fn 06.12.2023, pp. 6-7)

4.2.2.1 Drinking water

Water is important in two ways: drinking water and non-drinking water coming from the taps. Research partners mentioned that they do not consume water from the tap in their households (e.g. int-Vic 18.01.2024, p. 13; fn 13.01.2024, p. 72). Norah even described it as dirty water and expressed frustration with the water quality, "é tudo desse a desejar, porque se você for analisar sua água suja, você não pode beber sua água" [Everything about it leaves something to be desired, because if you analyze your dirty water, you can't drink your water.] (int-Nor 13.01.2024, p. 25). Residents have to pay for their tap water and, in addition, have to buy drinking water (ibid.).

Nowadays, drinking water can be ordered almost any time for pickup, or it can be delivered shortly after, as there are businesses offering delivery of potable water in almost every street (int-Luc 30.01.2024, p. 9). Water usually gets delivered in 5-gallon jugs, which is approximately 20 liters. The household I lived in had a watercooler where the 5-gallon jugs had to be placed upside down onto the cooler (fn 06.12.2023, p. 7). However, other households did not have that, hence they had to pour water into small jugs and put them separately in the fridge to have cold water (fn 13.01.2024, p. 71). Either way, it is difficult to handle these heavy jugs. For

instance, I observed Luciane, who is in her late 60s, struggling to replace the drinking water jug (fn 06.12.2023, p. 7). Even though she could still hoist the canister onto the water cooler with great effort if the situation required it, she prefers to leave the task to her son-in-law. Several older research partners recounted that in their childhood, they used to drink water from their wells (fn 18.01.2024, p. 82; int-Luc 30.01.2024, p. 9; fn 17.01.2024, p. 80). One research partners stated, "Antigamente a gente tomava água do poço. Não sei quando terminou isso" [In the past, we drank water from the well. I don't know when that ended.] (fn 17.01.2024, p. 80). The reasons for this are probably due to, firstly, the water not being contaminated yet, and secondly, because companies selling drinking water did not exist or were not yet so widespread; therefore, there was no alternative to tap water (int-Luc 30.01.2024, p. 9). However, prior to running tap water in people's houses, Luciane recounted that in her early childhood, she and her family had to stand in line to get water (fn 14.12.2023, p. 24). Once they moved to Ibura/Cohab and got tap water, she said that she felt that she was rich, "Me senti rica" [I felt rich.] (ibid.). Moreover, in the past, artisanal filters made out of clay were also ubiquitous and, according to Victoria, worked very well (int-Vic 18.01.2024, p. 13). Furthermore, she recounted that her family used such a clay filter, and additionally, for small children, they also boiled the tap water (ibid.).

Tiago recounted that while he studied in Paraná a few years ago, he observed that almost everyone drank water from wells there, in contrast to Pernambuco (fn 17.01.2024, p. 80). The reason for that shift in Greater Recife could have been a connection between people stopping to consume tap water and the start of companies selling and advertising prepackaged drinking water, as well as increased pollution, rendering water from the wells unsafe to drink. Luciane recounted that around forty years ago, she first heard of companies that sold bottled drinking water (int-Luc 30.01.2024, p. 9). Nowadays, in Brazil, lots of bottled water is consumed, which is also evident at the beaches where lots of plastic bottles and caps can be found (fn 17.01.2024, p. 80). According to Fernando, drinking water companies make a lot of money in Greater Recife, especially since it is very hot, year-round – among other reasons (ibid.).

Tiago further recounts that in Paraná, almost every house has basic sanitation, and there are water treatment plants to ensure drinking water quality tap water (fn 17.01.2024, p. 80). I also talked with Palina about this topic; however, she did not seem sure if water treatment plants existed in the surrounding area (int-Pal 30.01.2024, p. 12). Consequently, if there are few to no water treatment plants, then forests become even more important because they take on the burden of purifying the water. While still in Brazil, after my field stay in the Northeast, I attended a presentation from a biologist who emphasized the role of the Atlantic Rainforest (*Mata Atlântica*) in filtering wastewater (fn 25.02.2024, p. 98). In Brazil, the Atlantic Rainforest does this for many people (ibid.). This forest stretches across almost the entire country – from north to south (ibid.). However, it used to be a much wider strip and is now almost nonexistent, especially in northeastern Brazil, including Pernambuco (ibid.). Many people are unaware of the importance of this forest, for example, São Paulo and Rio de Janeiro saved a lot of money on water treatment in the past because the intact forest took over this work (ibid.). In conclusion, if people continue to pollute, then less and less clean water will be available for humans as well as more-than-human beings to drink and use water on a daily basis. During the field stay, I met members of the predominantly Black fisher community on Ilha de Deus in Recife. Residents of the island fight for clean waters and against polluted rivers, as mentioned

by the president of the group Caranguejo Uçá during a networking and community event (fn 27.01.2024, p. 93).

4.2.2.2 Non-drinking water

This chapter concerns the water coming from taps in private households. As already mentioned, people in Greater Recife usually do not drink tap water (int-Vic 18.01.2024, p. 13). Norah explained that people here only drink tap water if they do not manage or are unable to buy drinking water; however, in such a case, they would boil the water first (int-Nor 13.01.2024, p. 25). Tiago once told me that he had no money to buy drinking water, so he consumed the water from his well, which had a yellowish color, and that he felt ill during this time (fn 18.01.2024, p. 82).

In Greater Recife, tap water either comes through pipes from the water and sewage company of Pernambuco, Compesa (Companhia Pernambucana de Saneamento), or from people's private household wells. Water coming through pipes is stored in big water tanks, which are located in the backyard, in patios, and/or on the roofs (fn 08.12.2023, p. 9). This water is mainly used for showering, washing dishes and clothes, flushing toilets, and cleaning (ibid.). Some people also use it for cooking, especially boiling (ibid.). Usually, there is a pump that pumps water into the tank on the roof in order to pressurize the water in the house (ibid.). This pump has to be operated manually, making pressure management one of the recurring household chores.

Many low-income households in Greater Recife do not have unlimited access to tap water, instead, they have to accumulate water in big water tanks and manage their water resources to have enough water until more water gets pumped to the households (fn 18.01.2024, p. 82). Luciane told me that in their case, water usually comes every nine days, and if all the tanks with their 4000 liters in total are filled up, there is enough water until the next load arrives (fn 13.12.2023, p. 20).

Yet, the next few loads of water did not arrive at Luciane's household. In fact, the entire month of December 2023 was characterized by a lack of pumped water (see Table 1). Other research partners, on the one hand, confirmed the recurring water shortages in Greater Recife. Rafael recounted that sometimes there was no water for a week (fn 18.01.2024, p. 84), and Maxine explained that it is the same every summer (int-Max 30.01.2024, p. 5).

"Olha mulher, a água aqui é um caso sério, todo verão a peleja, né? Quando eu cheguei aqui [em Paulista], existia um problema sério com água que às vezes só passaram em 15 dias, né? Passaram muito tempo sem água. Depois melhorou. Vinham normal. E alguns anos depois melhorou um pouquinho. Quando é do ano passado pra cá, começou de novo a peleja com água." [Look woman, the water here is a serious problem, every summer it's the same struggle, you know? When I arrived here [in Paulista], there was a serious problem with water, sometimes it only came every 15 days, right? There were long times without water. Then it got better. It came normally. And a few years later it got a little better. Since last year, the water struggle has started again.] (int-Max 30.01.2024, p. 5)

On the other hand, Victoria said there has never been an extreme water shortage in Greater Recife, but only an occasional and short-term lack of water, probably due to droughts, leaks, and broken pipes (int-Vic 18.01.2024, p. 13). Rather, she located the problem of not having water in the interior of Pernambuco (ibid.).

Yet, the lived reality in my household was that one morning, we had run out of water, which is illustrated in the following short vignette.

On the morning of the 7th of December 2023, when I woke up and wanted to brush my teeth, I turned on the tap, but there was no water. When I left my room, Luciane was sitting on the couch in the living room, pointed to a bucket full of water in front of my door, and said with a grin, "Água" [water]. Then she explained that the water was all used up, and it would only be filled up the next day at night. So basically, we had two days without water. Well, a little bit of water was still in the huge container in the backyard. I took the bucket and put it in the bathroom, which was adjacent to my bedroom. I asked if I could use a small plastic container from the kitchen to scoop water from the large bucket to shower and wash my hands. Who knew that this technique I learned during my first fieldwork in Mexico would come in handy for this field stay as well? At night, Luciane said that she would refill my bucket. She was surprised that the bucket was almost half full since I had tried to save as much water as possible. I said that I could carry the bucket to the backyard, but she insisted on doing it. There she opened the lid of the big water tank and started scooping water into my bucket by using a small plastic container. (fn 08.12.2023, p. 10)

The following day (08.12.2023), water did not get delivered as it was supposed to be, but on the day after next (09.12.2023), some water had finally arrived and filled up the tanks a little bit, yet not fully (fn 09.12.2023, p. 15). In the morning, I could finally shower and wash my hair (ibid.). Also, thoroughly flushing the toilet was possible again (ibid.).

The following table (Table 1) provides a quick overview of how Luciane's household struggled with the insufficient water supply and shows the measures undertaken to access water again.

DATE	WATER RELATED ISSUE
05.12.2023	little water is left in the tanks
07.12.2023	I first noticed the lack of water, no water from tap in the morning, supposed to come on next day at night
08.12.2023	did not go to beach due to lack of water → cannot take shower + wash hair, cannot flush toilet properly, water did not come
09.12.2023	some water has come, filled up tanks a little bit
10.12.2023	Luciane first mentioned hiring a <i>carro-pipa</i> to fill up the water tanks
11.12.2023	tanks did not fill up the second time in a row, went to Compesa in Janga and center of Paulista
12.12.2023	went to Compesa in Olinda
13.12.2023	Luciane informed me that there was no more water in tanks, she plans to hire a <i>carro-pipa</i> , scoop out last water from tank into bucket
14.12.2023	<i>carro-pipa</i> had come in the late afternoon and filled up all the tanks (4000 liters), Palina suggested to flush toilet with water from the well
25.12.2023	still no water from Compesa 10 days after water delivery from <i>carro-pipa</i>
26.12.2023	there has not come any new water through the pipes as should have been the case
28.12.2023	little water is left in the tanks
02.01.2024	water should have come this evening, but did not
03.01.2024	we started using the yellowish water from the well, which had to be treated with chlorine for use

Table 1: Water issue timeline in Luciane's household

The simultaneous occurrence of water shortages and occasional heavy rain in Greater Recife led me to ask why people did not collect rainwater to flush the toilet, for example. Generally,

residents do not accumulate rainwater since there is great awareness among them about the proliferation of mosquitoes (fn 06.12.2023, p. 7). However, the combination of severe water scarcity and limited financial resources can lead people to have to collect rainwater, as was the case with an elderly couple in Recife. The research partners said that due to the ongoing absence of water in their household, they had to use rainwater for their daily needs (fn 22.01.2024, p. 88). They collected rainwater in their water tanks and filtered it with a piece of fabric to remove potential dirt (ibid.). Luckily, they had enough water tanks, so even though last week it only rained once, they were able to fill up all the tanks (ibid.).

In general, the lack of a functioning water supply and basic sanitation demands a lot from people. "Já passei por poucas e boas aqui referendo ao saneamento básico," [I've been through a lot here regarding basic sanitation.] (int-Pal 30.01.2024, p. 12) said Palina. Also, Luciane repeatedly voiced discontent and complained that it was not fair that their household only got so little water (fn 10.12.2023, p. 16; fn 13.12.2023, p. 20).

4.2.2.2.1 Attempting to solve the water problem

Ultimately, Luciane decided to take matters into her own hands and solve the water problem by personally visiting the customer service department of the water company Compesa. On the 11th of December 2023, Luciane headed out to the Compesa office in Janga, and I followed her along (fn 13.12.2023, p. 19). We took the bus to Janga; however, when we arrived there, somebody told us that they had moved the office to the center of Paulista (ibid.). This location was closed; however, there was still a big tower there with an even bigger water tank on top of it (ibid.). While we were still there, Luciane ended up talking with a local man who was also searching for the water company (ibid.). I think it is telling that people have to 'search for' the water company, which can be deemed a lack of transparency.

After having found out that there is another Compesa office in the center of Paulista, the three of us went to the next bus stop to head to that location (fn 13.12.2023, pp. 19-20). Since the bus did not come for a long time and we had to wait in the hot sun, pressed against a tiled wall to get a tiny bit of shade, the man hired a ride-hailing service and invited us to go with him (ibid.).

The office in Paulista did not seem to be very big (fn 13.12.2023, p. 20). It was a small building, and there was one room with a row of tables and chairs on both sides to attend to or focus on one customer at a time (ibid.). The tables were separated by small and thin wooden walls, which seemed pretty provisional to me (ibid.). Moreover, there was air conditioning, which was a nice luxury after having to bear the heat outside (ibid.). On the wall and hanging from the ceiling were posters with information about the importance of water as a resource and how to use it sparingly (ibid.).

We had to wait a bit until we got attended (fn 13.12.2023, p. 20). It seemed that the customer service representative was not really trying to solve our problem, and afterwards, Luciane told me that he was quite unfriendly (ibid.). Anyway, he could not help us and instead said that we would have to go to the Compesa location in Igarassu, which is at least one hour away by bus from where we were at that moment (ibid.). However, at that point, we needed a break, and instead of going to Igarassu, Luciane suggested going to the mall so I could buy myself Havaianas to wear inside the house (ibid.). In the mall, Luciane first headed to the bank since she had to pay some bills, among others, the water bill, which is around 50 R\$ per month (ibid.: p. 21). She explained that she had to pay the full price even though she did not receive

the full amount of water, but she further clarified that if she did not pay the full price, the company would not even talk to her; thus, the situation would worsen (fn 12.12.2023, p. 18). Rafael recounted having the same struggle, namely having to pay the full price even though he and his family do not consume any water, as was the case at that time since they were renovating their house (fn 18.01.2024, p. 84). Furthermore, he said it should be the same as with electricity, pay only what is consumed (ibid.). Therefore, he would prefer a private water company to be responsible for the water supply in Greater Recife (ibid.). Calebe requested the same by saying that Compesa does not function as it should because it is a state-owned company, and in comparison, the company responsible for electricity is private, and the household rarely has problems with electricity (fn 13.12.2023, p. 21).

Since we had not had any success in solving the water problem so far, but were quite tired and thirsty, Luciane decided that we would go to the Compesa office in Olinda tomorrow, since today had been tiring enough (fn 13.12.2023, p. 21). The visit to the Olinda branch was a disappointment because, due to an internet outage, the employees there were unable to access the database and thus could not do anything for Luciane (fn 12.12.2023, p. 23).

Trying to resolve the problem with the water shortage was a lengthy task, that is, it took Luciane many hours and days to go to different offices from the water company, which was only possible for her to do since she was already retired and had no full-time care responsibilities (fn 23.01.2024, p. 89). However, the treatment she got in the Compesa offices was neither solution-oriented nor customer-friendly (fn 13.12.2023, p. 19). This assumption is also supported by the statement of a Paulista official, who said, "Hoje a minha relação com a Compesa é assim, uma pessoa que grita e outra que não escuta" [Today my relationship with Compesa is like this, one person who shouts and another who doesn't listen.] (fn 17.01.2024, p. 80). This suggests that there is not even a constructive channel of communication between the water company and the official level, hence it is not surprising that communication with Compesa is so difficult for regular citizens.

4.2.2.2.2 Implications of having no water

Having little to no water led to some restrictions in the household and consequently increased the potential for conflict among household members. Besides the more obvious aspects of having no water, such as not being able to flush the toilet or shower, the water shortage also led to people not wanting to leave the house since it was not possible to wash clothes, and wearing freshly washed clothes when going outside was important to research partners (fn 09.12.2023, p. 11). Moreover, having no water did not allow us to engage in leisure or field activities, such as going to the beach or meeting research partners at the beach, because afterwards we could not take a shower to wash off the sand and salt (ibid.).

There were some nights where the combination of water shortage and a power outage in the household led to people not being able to sleep due to the extreme heat, which we then perceived more explicitly since the fans stopped (fn 29.12.2023, p. 49). In my case, I did not even dare to shower during the night since so little water was left (ibid.). In general, I tried to keep my showers as quick as possible (fn 13.12.2023, p. 24). Moreover, children are also taught from an early age to use water sparingly (int-Pal 30.01.2024, p. 28).

Nevertheless, having to deal with an ongoing water shortage is quite difficult, and conflicts among household members may arise (fn 13.12.2023, p. 24). People may feel limited in their freedom of choice and powerless, especially since multiple attempts to contact the water

company have been unsuccessful (ibid.). What may add to people's frustration is that Compesa did not communicate the reasons for the water shortage; hence, affected households did not know why they were not receiving any water (int-Max 30.01.2024, p. 5). The least the company could do is to inform people about upcoming (e.g., due to maintenance work) and unforeseen (e.g., due to droughts or broken pipes) water shortages. None of the research partners could tell the exact reasons for the water shortages; they only voiced assumptions. For example, Maxine speculated whether it is due to Compesa closing the pipelines frequently, hence saving water.

"E eu tô vendo até pessoas pedindo carro-pipa, mulher. Então tá, o negócio tá sério. A escassez de água. Aí assim, eu não sei exatamente o que é. Não sei se é porque estão fechando. Assim, né? Economizando. Eu não sei o que é que tá havendo. Mas tá tendo problema com água. Não é todo assim, no bairro não é tipo todas as ruas, entendeu? Tipo, eu venho aqui, a menina diz que tem água aqui na casa dela. Um dia sim, um dia não. Vai já na minha rua uma vez por semana. Que é aqui, ó, é perto. Aí na outra rua, não, chega assim, de manhã e de tarde. Aí eu digo, oxê! Eu não posso dizer que é o bairro inteiro, tá entendendo? Mas tem pessoas, tem ruas que até carro-pipa pede." [And I'm even seeing people asking for water trucks, woman. So, okay, things are serious. There's a water shortage. Well, I don't know exactly what it is. I don't know if it's because they're closing it down. Like, right? Economizing. I don't know what's going on. But there's a problem with water. It's not like that in the whole neighborhood, it's not like every street, you know? Like, I come here, the girl says she has water here at her house. Every other day. The water comes to my street once a week. Which is here, look, it's close. Then on the other street, no, water comes like in the morning and afternoon. So I say, gosh! I can't say it's the whole neighborhood, you know? But there are people, there are streets that even ask for water trucks.] (int-Max 30.01.2024, p. 5)

This quote illustrates well that residents do not know why they are not receiving enough or any water. There seems to be a huge intransparency regarding the issue of water supply in Greater Recife, which could be seen as a display of infrastructural power over residents.

Moreover, Maxine suggested that the situation regarding water scarcity is very serious if somebody has to pay to get water delivered via a water truck (*carro-pipa*) (int-Max 30.01.2024, p. 5), which was the case in the household I lived in.

4.2.2.2.3 Carro-pipa and well

After more than a week of the water tanks not having been filled, Luciane informed me on the 13th of December 2023 that she would hire a water truck (*carro-pipa*) to fill up all the tanks (fn 13.12.2023, p. 24), around 4000 liters in total (fn 10.12.2023, p. 16). Indeed, the next day the truck came late in the afternoon and filled up all the tanks (fn 15.12.2023, p. 27). It is worth mentioning that the price for this water was significantly higher than usual (ibid.), thus hiring a *carro-pipa* can only be an exception and cannot become routine for low-income residents in Greater Recife. Since Luciane and I were in Ibura/Cohab that day, we did not see the water

getting delivered, but Palina texted us the news, which filled Luciane with happiness; thus, she said, "Chegou a água, que alegria" [The water has arrived, what a joy.] (fn 15.12.2023, p. 28). Unfortunately, the joy did not last long, because ten days later (25.12.2023), the next water shortage in the household became apparent because no new water from Compesa came through the pipes as it should have (fn 25.12.2023, p. 42; fn 28.12.2023, p. 43). As of December 28, 2023, there was very little water left in the tanks (fn 29.12.2023, p. 48). The household's persistent lack of water was in stark contrast to the large water resources found in Greater Recife, namely a multitude of rivers, and the fact that it rains heavily, especially during the rainy season but also during the summer months (fn 09.12.2023, p. 13; int-Pal 30.01.2024, p. 12).

"Agora água ... água a gente pena. [risada] Água a gente pena. Não entendo por quê. Não sei ... Nós temos muitos rios. Apesar de ser Nordeste, chove muito, principalmente aqui no litoral. Chove muito." [laughs] Water we suffer. I don't understand why. I don't know... We have a lot of rivers. Even though it's the Northeast, it rains a lot, especially here on the coast. It rains a lot.] (int-Pal 30.01.2024, p. 12)

Indeed, many people, among them Gustavo, stated that they think Brazil is rich, namely rich in resources, yet the majority of the people are poor (fn 09.12.2023, p. 13). Hence, there seems to be an issue of providing equal access to these resources for all residents, especially to poor and low-income residents.

During the interview, Palina and I talked about the recurring problem of water scarcity in the region, and I asked her if people protest to complain about this situation. Her answer was as follows:

"Não. Eu não me lembro de ter visto. Eu pelo menos também nunca participei. Mas eu não me entendo [lembro] de ter visto as pessoas protestarem em grande massa por água. Eu já vi, por exemplo uma determinada rua ou duas ruas chamarem uma reportagem, dizia, olha, faz um mês que a gente tá sem água. Uma reportagem assim, aí resolve aquilo ali momentaneamente, porque a imprensa chegou, mas depois o problema [a]parece de novo, entendeu? Eu vejo assim coisas assim momentâneas, mas o aquele protesto assim eu não vejo. As pessoas mudam nem um voto, Marlene. ... Entende?" [No. I don't remember seeing any. In my case, I never took part in one either. But I don't remember seeing people protesting en masse for water. I've seen, for example, a certain street or two streets call for a news report, saying, look, we've been without water for a month. A report like that solves the problem momentarily, because the press got there, but then the problem just reappears, do you understand? I see momentary things like that, but I don't see that kind of protest. People don't even change their vote, Marlene. ... Do you understand?] (int-Pal 30.01.2024, p. 12)

According to Palina's statement, it seems as if residents affected by water shortage are not able to connect to each other enough to start demanding their right to access water, for example, by protesting in large numbers. The reason for that might be that many residents own wells; hence, they do not depend on water deliveries from Compesa. Affected households can

therefore be very dispersed across Greater Recife, which makes it difficult to form protest groups in the immediate vicinity. Indeed, Maxine confirmed that many households have their own 'unlimited' water source, namely a well dug in their gardens (int-Max 30.01.2024, p. 5).

"A maioria dos moradores tem poço pessoal e dependendo da quantidade de metros, a água sai bem limpinha. Aí um monte de pessoas tem poço, aí não sofrem porque acham água. Independente da Compesa ou não, tem água na casa, de boa qualidade. Mas não é todo mundo, inclusive eu sou uma das. Não tem [tenho] poço e sofro com a falta de água." [Most residents have their own wells and, depending on the number of meters [of depth], the water comes out very clean. A lot of people have wells and they don't suffer because they find water. Regardless of Compesa or not, they have good quality water in their homes. But not everyone does, including me. I don't have a well and I suffer from the lack of water.] (int-Max 30.01.2024, p. 5)

In fact, Luciane's household has a well; however, it has not been used for many years, and the water inside is of a yellowish color (fn 03.01.2024, p. 60), that is, it is visibly not as clean as the water from Compesa (fn 15.12.2023, p. 28). Water from wells of poor quality might stem from an insufficiently deep well, as is the case with Maxine, who actually has a well, but since it is less than twelve meters deep, the water comes out dark and with an unpleasant smell (int-Max 30.01.2024, p. 5). Nevertheless, since no new water came after the *carro-pipa* delivery, on the 3rd of January 2024, the household members decided to start using the water from their well as they saw no other solution (fn 03.01.2024, p. 60). The water has been treated with chlorine, and Luciane assured me it could be safely used for showering, washing hair, dishes, and laundry (ibid.). Despite her assurances, a wealthier household would likely have consulted an expert to come and test the water quality; this was beyond the household's means. This is emblematic of the vulnerability that poor and low-income residents face regarding water safety.

4.2.2.3 Basic sanitation

Palina considers basic sanitation as the term already suggests, as a basic factor of living, "o saneamento básico, ou seja, o básico pra viver e sobreviver" [basic sanitation, that is, the basics to live and survive] (int-Pal 30.01.2024, p. 1).

According to a government website, basic sanitation is defined as follows:

"O saneamento básico compreende os serviços de abastecimento de água; coleta e tratamento de esgotos; limpeza urbana, coleta e destinação do lixo; e drenagem e manejo da água das chuvas." [Basic sanitation includes water supply services; sewage collection and treatment; urban cleaning, garbage collection and disposal; and drainage and management of rainwater.] (URL 25)

Despite this broad definition of basic sanitation, this chapter deals with water-related issues as mentioned by research partners when they spoke of *saneamento básico*. The main focus in this section will be on the provision of water for households, the collection and treatment of their sewage, as well as public toilets at beaches.

According to governmental data from 2018, 83.6 percent of Brazilians had water supply services, 53.2 percent were connected to the sewage disposal system, and 46.3 percent had access to sewage treatment (URL 26).

Luciane recounted that in her neighborhood in Paulista, a lot of houses have sewage pits due to a lack of infrastructure (int-Luc 30.01.2024, p. 14).

"Aqui mesmo não tem infraestrutura nenhuma, nem tem calçamento, nem tem esgoto aqui não. Aí, cada um aqui tem fossas, as pessoas têm fossa. Entendeu? Se não tivesse fossa, ia ser a Europa, no ano de 1800, aí, a gente jogava os dejetos na janela, né, menina, como é que pode, né? Imaginava isso. É terrível isso." [There is no infrastructure here, no pavement, no sewage system. So, everyone here has septic tanks, people have septic tanks. Do you understand? If there were no septic tanks, it would be like Europe, in the year 1800, and then we would throw our excrements out the window, right, girl, how is that possible, right? I could only imagine that. It's terrible.] (int-Luc 30.01.2024, p. 14)

That is, there are no pipes that lead the sewage from households to a sewage treatment plant. Instead, the sewage is collected in a large tank, usually made of concrete, that is located underneath the houses (fn 24.12.2023, p. 40). Septic tanks need to be emptied every 10-20 years, depending on their size and the number of people in the household (int-Pal 30.01.2024, p. 14). The household I lived in had its septic tank emptied last year, which cost them more than 300 R\$ (47 € in 2025) (int-Pal 30.01.2024, p. 15). If septic tanks are not duly emptied, they might overflow, and thus their content starts flowing back into the house (ibid.: p. 14). However, Palina could not tell where the truck that sucked out the sewage from the septic tanks underneath the houses ultimately deposits the sewage (ibid.: p. 15). Nonetheless, over time, some get leaky, therefore removing the necessity of emptying them (fn 17.01.2024, p. 79), likely at the cost of environmental pollution.

However, Palina does not think it is fair that she has to pay for emptying the septic tank, as she has to pay fees that are actually intended for a functioning sewage system or sewer (int-Pal 30.01.2024, pp. 15-16; fn 17.01.2024, p. 80).

"Não era pra gente pagar essa taxa, porque a gente paga a taxa de esgoto. É, a gente pagou imposto do esgoto. Mas a gente não tem o esgoto público que era pra ir ... pra essa caixa que a gente tem aqui, era para ter várias na rua e os nossos dejetos irem para a rua. [...] Mas a gente paga por isso e a gente não tem esse serviço." [We aren't supposed to pay this fee, because we pay the sewage fee. Yes, we paid the sewage tax. But we don't have the public sewage that should go... to this box that we have here, there should be several on the street and our waste should go to the street. [...] But we pay for this and we don't have this service.] (int-Pal 30.01.2024, pp. 15-16)

Calebe is convinced that the government could easily implement basic sanitation, that is, sewage collection and treatment, water supply through pipes, and pluvial drainage in the street he lives on, simply by collecting the fee from the residents of this street (fn 13.12.2023, p. 21). Continuing without sewage collection and treatment can potentially lead to environmental pollution, as mentioned by Joelma when asked about natural catastrophes (int-Joe

18.01.2024, p. 11). She mentioned the fact that sewage is being led into the ocean to be an environmental catastrophe (ibid.). Indeed, in some parts of Paulista, wastewater is visibly led into the ocean due to the lack of basic sanitation (ibid.).

Another problem at beaches in Greater Recife is the lack of public toilets, which was especially noticeable in Paulista (fn 07.01.2024, p. 66). At the weekends, the beaches are packed with people, especially locals; however, there are hardly any public toilets (ibid.). The opposite is the case in the district of Nova Cruz in the neighboring town of Igarassu, where I saw public restrooms and showers at the beach (ibid.). This infrastructure seemed to be provided for the local population because it is not necessarily a very touristic place (ibid.).

Furthermore, there is also no basic sanitation in the irregular settlement Tururu in Paulista, hence there are no toilets with sewage drainage nor septic tanks (fn 20.01.2024, p. 86), potentially leading to health and environmental problems due to the inadequate disposal of feces.

In conclusion, it can be said that residents who do not have basic sanitation do wish to have it implemented (fn 24.12.2023, p. 40). Firstly, because they already pay taxes in that regard (fn 17.01.2024, p. 80), and secondly, it would be beneficial in various ways, for example, regarding the mitigation of mosquitoes (int-Pal 30.01.2024, p. 34).

4.2.3 Public (in)security and fear of violence

Many research partners mentioned violence as well as insufficient public security as a huge concern in their lives (fn 18.01.2024, p. 83; int-Pal 30.01.2024, p. 18). Due to these worries, different security measures are implemented, and certain behaviors are common. Many research partners mentioned that violence is the biggest problem for them at the moment. Luciane recounted, "Um dos problemas, eu acho, é a violência. Pra mim, tem que ir em primeiro lugar" [One of the problems, I think, is violence. For me, it has to be in first place.] (int-Luc 30.01.2024, p. 15). Victoria said, "A minha preocupação na vida é a violência em geral, eu fico preocupada com a violência em geral" [My concern in life is violence in general, I am worried about violence in general.] (int-Vic 18.01.2024, p. 20). In the following quote, Victoria described how the latent danger and growing fear of violence affect her daily life.

"Não é a violência do bairro que eu falo – é a violência em geral. Eu tenho receios ... às vezes eu quero ir para algum lugar, já não vou, digo, eu não vou – vou ter um medo. Eu não sei se é por conta da idade também que a gente mais jovem encara mais as coisas – ah eu vou sair, eu vou curtir. Eu saía muito, hoje em dia eu prefiro não sair, eu prefiro ficar em casa, eu prefiro reunir amigos em casa, a família em casa. Eu não gosto – ah vamos pá tal canto, eu não gosto, pronto, meu receio hoje em dia de vida mesmo é violência. Eu tenho muito medo da violência." [I'm not talking about the violence in the neighborhood – it's violence in general. I have fears... sometimes I want to go somewhere, but then I don't go, I say, I won't go – I'll be afraid. I don't know if it's also because of age, because younger people face things more – oh, I'll go out, I'll have fun. I used to go out a lot, but nowadays I prefer not to go out, I prefer to stay at home, I prefer to have friends over at home, family over at home. I don't like it – oh, let's go to that

place, I don't like it, that's it, my real fear in life these days is violence. I'm very afraid of violence.] (int-Vic 18.01.2024, p. 20)

4.2.3.1 Warnings about violence

Right from the beginning of the field stay, I was confronted with warnings of potential robberies and assaults. People repeatedly warned me about the possibility of crime and violence in public spaces. Luciane said that she was not proud of having to do that, but she had to because otherwise, I would not have known and not have been that careful, thus, I would have been an easy target (int-Luc 30.01.2024, p. 23). It was not easy for Luciane to say these warnings because, like every other citizen of any country, she would prefer only to say good things about her country (ibid.). "Mas falar que o Brasil tem aquilo que é ruim. É difícil. Mas eu tenho que falar, não posso deixar." [But saying that Brazil has that bad thing. It's difficult. But I have to say it, I can't leave it unsaid.] (ibid.).

Luciane and Palina also told me stories of sexual assaults and other crimes and attacks against women that they heard happened in the region (fn 12.12.2023, p. 19). During the interview Palina emphasized the aspect of violence against women, "A gente anda na rua com medo de ser assaltada, estuprada, violentada – principalmente a mulher. A mulher é a que mais sofre com a violência" [We walk down the street in fear of being assaulted, raped, violated – especially women. Women are the ones who suffer the most from violence.] (int-Pal 30.01.2024, p. 26). At the beginning of my stay, they told me these stories to make me aware of the reality that these dangers exist here, and being a woman, I am inevitably more vulnerable to them. At this point, they only told me stories they had heard, that is, what had happened to other people; they did not tell me stories about themselves yet, which is understandable, given the sensitive topic.

Also, Victoria told me that she is always careful and watchful because it is widely known that, for example, phones get stolen a lot (int-Vic 18.01.2024, p. 21). "Nunca aconteceu comigo, graças a Deus, mas a gente sabe que acontece muito, então é um medo assim, o medo entre aspas, porque você vê ou se você não vê, deu para perceber" [It has never happened to me, thank God, but we know it happens a lot, so it is a fear like that, fear in quotation marks, because you see it or if you do not see it, you can tell.] (ibid.).

Thus, many research partners felt the need to state warnings about violence and crimes because in their daily lives they almost constantly perceive the latent danger of violence around them, because they have heard stories of others, they saw reports of violent acts in the news, or they have experienced violence against themselves.

4.2.3.2 Narratives and experiences of violence

Research partners also shared stories of violence they suffered. Almost everyone had already experienced violence in public spaces. "A violência aqui ... eu já sofri um tipo de violência, né, um assalto, coisas, já sofri, faz um tempo, faz, mas eu já sofri de violência já," [The violence here... I've already suffered a type of violence, right, an assault, things, I've suffered, a while ago, but I've already suffered violence.] (int-Joe 18.01.2024, p. 13) recounted Joelma. Research partners spoke about violence that takes place in public spaces such as streets or buses. They did not mention domestic violence, which was probably due to various reasons. First, domestic violence is a very sensitive topic that was not the focus of this research; thus, I did

not ask people directly about it, nor did I observe domestic violence. Moreover, on the one hand, people might not feel comfortable sharing experiences, or, on the other hand, may not have such. Luciane told me that she and her siblings grew up with a very loving father and mother who did not hurt their children physically (fn 21.12.2023, pp. 36-37). Also, most research partners were single or in a seemingly happy marriage.

Even though stories about robberies prevailed, people also mentioned incidents of kidnapping, murder, and rape. Indeed, many shopkeepers are afraid of being kidnapped because, according to Joelma – who is a shopkeeper herself – there have already been many kidnappings and attempted kidnappings in the neighborhood where her shops are located, thus, she and her family pay special attention to live in a very safe house or apartment (int-Joe 18.01.2024, p. 13).

During one of the interviews, a research partner recounted a story of a very brutal femicide that took place in the past in the area where she lived at that time (int-Nor 13.01.2024, pp. 8-9). Indeed, violence against women happens very frequently in Brazil, and Black women are more affected than non-Black women. One study shows that 66 percent of all women murdered in Brazil were Black (Nery et al. 2024, 2). Moreover, "the literature confirms that race is an important indicator of social inequity. This group is thus more vulnerable to factors including low income, poor access to health and education services, discrimination and, consequently, violence. In this respect, violence against women and deaths resulting from assault are observed, in Brazil, to be more strongly associated with black women" (ibid.: 8). One lived experience that falls within this data stems from a research partner. When she was still underage, she suffered two attempted rapes within less than five years (fn 30.01.2024, p. 96). She emphasized that it was not her fault that that had happened to her as a teenager, but it was the perpetrators' fault, as well as the politicians' for making inadequate laws that do not protect girls and women sufficiently (ibid.). Concerning femicides in Brazil, Nery et al. (2024, 10) highlight that "deaths of women constitutes a serious, urgent social problem, which deserves attention and policies to combat it and strengthen the State's legal and public security apparatus." Adding to this, I think all other crimes and types of violence against women deserve the same attention, since, as shown in this chapter, violence is one of the biggest concerns for people in Greater Recife and significantly reduces their quality of life.

More mundane and common narratives concern stolen smartphones since nowadays most people own one. For Luciane, the biggest problem in Greater Recife is violence; therefore, one always has to watch out for thieves who assault people to steal phones, money, or entire handbags (int-Luc 30.01.2024, p. 14). Sara told me about an armed robbery on a bus where thieves took all smartphones from the passengers (fn 25.01.2024, p. 89). Luciane recounted a similar story; however, when this happened, they only took her daughter's new phone and not Luciane's old phone (fn 12.12.2023, p. 19). Later, she joked that even thieves nowadays are picky (ibid.). Moreover, it seems that crime is so commonplace that it is also a topic for small talk with strangers. A man, Luciane and I met at a bus stop in Paulista, told us that while he once hosted three anthropology students, including his niece, unfortunately, somebody broke into his house and stole countless things, including the researchers' data (fn 13.12.2023, p. 20). He said that he did not care about the loss of his possessions but about the belongings and data of the anthropologists (ibid.).

People who own cars and who do not rely on public transport cannot be carefree regarding public violence either. Victoria, who frequently uses her vehicle because she regularly travels long distances inland for family reasons, voiced fear of being stopped and assaulted on a long, quiet road (int-Vic 18.01.2024, p. 21).

Unfortunately, one day, when two of my research partners and I were on a public bus, we had to experience an assault ourselves. The following vignette, which stems from my field notes, recounts this incident.

On the 23rd of December 2023, Luciane, Palina, and I decided to go to one of the picturesque beaches on the island of Itamaracá. From there, we would take a very short boat ride to get to the sandbank Coroa do Avião. However, in order to get there, we had to take three different buses, which took us 2-2,5 hours, even though by boat we could reach the sandbank within half an hour from the tip of the peninsula Maria Farinha. Indeed, Tiago told me that on some days it is even possible to walk there through the ocean from Nova Cruz (Igarassu) due to the very shallow water (fn 20.01.2024, p. 85).

On the second bus, Palina and I were in the front of the bus, standing and talking, whereas Luciane was sitting at the back of the bus. Suddenly, a young, strong man walked to the front of the bus and started shouting something that sounded like he was begging for money to buy some bread. I could not understand everything. Palina and I were in the middle of a conversation, but she promptly stopped talking, as did everyone else on the bus, when the man started shouting. He was accompanied by two other young men. They also seemed to be physically strong; however, one was significantly smaller than the other two. Palina started searching for some money in her purse. She handed me a two-real banknote and indicated that I take it so I could give it to the men. She took another bill for herself. The smallest of the three men collected the money. Almost everyone on the bus gave them some money. After taking the money from us, the man shook our hands and said something about Jesus or God. At the next stop, the men left the bus, and a man sitting next to us looked at us and said that this was really frightening and that he was afraid. Once the three men had left, Palina looked at me seriously and said, "Foi um assalto" [That was an assault]. I did not really comprehend that it was an assault. Frequently, there are people in the bus, the majority young men, who say some words in the front of the bus and afterward beg for some money, often they also sell something, such as candy. I did perceive that this time the situation was different due to the loud volume of the man's voice and because everyone on the bus suddenly was quiet. However, I thought that, ignoring the men, they would leave us alone. During the man's speech, Palina did not look in his direction. I did not know where to look and switched between looking at Palina, the man in the front, and the small man behind us. Once we were at the bus terminal in Igarassu, I asked if somebody would call the police. Luciane and Palina answered that no one would do that because the men were only "begging" or "asking" for money and not really robbing the people. "Porque eles tão pedindo (emphasis) e não roubando" [Because they are begging (emphasis) and not robbing.]. Palina said that everyone in the bus felt the tension when the man started shouting. She also explained that he had said that they had just left prison. However, I did not understand this part earlier. She further explained that there is a law that some detainees are allowed to leave prison for Christmas and some other holidays, such as Mother's Day. (fn 24.12.2023, pp. 37-38)

4.2.3.3 Perpetrators and reasons for violence

A question I asked some of my research partners was why they think there is so much violence in Greater Recife. Luciane's answer was, "Violência, eu acho que não é pobreza não, viu? É safadeza mesmo, maldade. As pessoas viraram bicho. Viraram bicho. Não é pobreza" [Violence, I don't think it's poverty, you know? It's just meanness, evil. People have become animals. They have become animals. It's not poverty.] (int-Luc 30.01.2024, p. 15). She further mentioned that some people's intention might be to quickly get money, which in some cases may be linked to drug trafficking (ibid.). She seemed convinced that only a minority would commit an assault out of necessity (ibid.). In the case of the aforementioned vignette, the perpetrators were three young men, and it is indeed possible that they were inmates allowed to leave prison during the Christmas holidays, since according to this BBC newspaper article (URL 27) "[u]nder Brazilian law, some prisoners are allowed to spend the most important public holidays at home."

Palina criticized weak laws in Brazil in general, which, according to her, often lead to people being imprisoned, for example, for rape offenses, being quickly released (int-Pal 30.01.2024, p. 27). These practices would lead to a persistent feeling of impunity, as Palina confirmed, "A sensação de impunidade por falta de segurança é muito palpável. A gente sente todo dia." [The feeling of impunity due to lack of security is very palpable. We feel it every day.] (ibid.: p. 26.). Moreover, Palina is certain that better laws would have protected her in various violent situations, as well as perpetrators not daring to sexually assault women if the correspondingly strict laws existed (ibid.: p. 50). Nevertheless, Luciane, among other research partners, was certain that only a minority is criminal and that the majority of the people in Brazil are good and correct (int-Luc 30.01.2024, p. 23). Despite people saying that, I still identified the following paradox. On the one hand, I observed that Brazilians talk about intimate topics with people they do not know (e.g., on the bus), and, on the other hand, strangers are viewed with caution and are not immediately trusted. This was also the case with the activist and Luciane. It took some time for her to deem Fernando trustworthy enough to let me meet up with him alone, as she initially did not know him "com o coração" [with the heart] (fn 12.12.2023, p. 19).

4.2.3.4 Domestic security measures

In response to pervasive urban insecurity, many residents in Greater Recife have developed extensive private security measures to protect their homes and families from intentional harm caused by thieves, burglars, and other criminal threats. Research partners commonly expressed a wish for less violence, but as long as this is not the case on a broader societal scale, they have to protect themselves individually. Joelma, for example, was able to move to a safer neighborhood than the one in which she grew up, thus improving her personal security situation (int-Joe 18.01.2024, p. 14). However, such a step is not possible for everyone due to financial and social constraints. Therefore, many homeowners built their houses in such a way that no one can enter without permission. One of the first things I observed upon arriving in Pernambuco was the high walls around people's houses or properties. When I arrived at my host's house on this very first night, Lucine first unlocked the door to the garden, where I saw that the front of the house, including the main entrance, was surrounded by a cage-like construction (fn 06.12.2023, p. 6). Second, she unlocked the door made of iron bars before finally opening the main door leading into the house actual (ibid.). While these barriers are intended

to provide a sense of safety, initially, for me personally, they created feelings of confinement and restriction (fn 07.12.2023, p. 8).

Moreover, the presence of such walls also has a social impact. Residents are often secluded within their homes, which inhibits spontaneous neighborhood interactions. Luciane recounted that in general it is very difficult to make friends with neighbors because of the high walls (fn 19.12.2024, p. 34). While there are occasional exceptions, such as elderly people chatting on the street or children playing outside, these instances are not the norm (fn 19.12.2023, p. 33). Moreover, some women recounted feeling particularly unsafe when alone on empty streets (int-Pal 30.01.2024, p. 29). Indeed, Tiago once stated that if no one is on the streets, then they will become more dangerous (fn 30.01.2024, p. 97).

Not all neighborhoods are equally fortified. While walking toward the ocean in Paulista, some houses without high walls stood out. Luciane explained that these were older buildings, constructed before the widespread adoption of current security practices (fn 19.12.2023, p. 32). The more open design of these homes suggests that earlier generations may have felt more secure or less compelled to isolate themselves. This contrast becomes especially clear when considered alongside Luciane's reaction to Austrian architecture. During her time in Austria, she was struck by the absence of walls around houses, "Aí me impressionou as casas tudo sem muro" [There I was impressed by the houses, all without walls.] (int-Luc 30.01.2024, p. 22). I think that her astonishment underscores the normalized presence of physical barriers in Greater Recife. In addition to high walls, most houses are equipped with iron grilles covering doors and windows. People deliberately made this choice, which becomes evident in the following example. Luciane recalled that during the construction of her house, she and her husband had to decide between glass and iron for the windows and doors. They chose the latter with this justification, "Aí eu tinha medo, eu digo, não, melhor botar a grade, porque a gente acha segura, aqui ninguém entra, porque aqui a segurança é grande" [Then I was afraid, I said, no, it's better to put up the iron bars, because we think it's safe, nobody comes in here, because the security here is strong.] (int-Luc 30.01.2024, p. 2). Moreover, doors are further secured with one or multiple padlocks, and constant vigilance becomes a part of daily life, which is illustrated in the vignette below. Moreover, during a visit to an artist in a coastal neighborhood in Paulista, a discussion arose about how tourists often fail to understand the local security context, namely that one always has to watch out for potential danger and crime (fn 12.12.2023, p. 19).

All the above-mentioned layers of domestic security and behavioral caution become especially visible in everyday routines. For my research partners, entering and leaving their houses is a sensitive liminal activity, where they, for instance, leave the secure space of their private realm and go through iron doors into a commonly deemed insecure public space. I documented the process of entering and leaving the house of some research partners in Ibura/Cohab. It became apparent that a lot of steps are involved to ensure maximum security for the residents as well as for guests. The following vignette stems from my field notes, which I wrote down after Luciane and I went to her sister Dália's house since we had arranged an eyebrow appointment with Luciane's niece Raquel, another research partner who has her own beauty salon in the same house.

When we arrived in Ibura/Cohab, Raquel could not attend to us right away, so we went inside the house, where Luciane's sister Norah greeted us. She unlocked the large padlock with a key

and pushed the sliding grille gate aside. The gate was immediately pushed shut again and locked with the padlock. Norah was sitting right next to the entrance, playing a game on her smartphone. She looked like a guard protecting the house from uninvited guests. Luciane and Norah caught up on different topics, and after a while, Raquel picked me up to follow her to the salon, which was 20 meters away, around the corner. The gate was unlocked, and I followed Raquel to the tiny salon. After the treatment, she walked me back to the house. The gate was opened, I entered, Luciane left to get her eyebrows done, and the gate was shut. I sat down next to Norah, who was still playing on her phone. I asked her about the local climate, and she said that although it rained almost every day, it was still very hot. She further mentioned that there were regular floods during the rainy season, which mainly affected the houses on the edge of the hill. She came up with the idea of showing me this slope so that I could see it with my own eyes. She asked me if I would like to go there. Of course, I said yes. She was about to open the gate when she paused and said that we would wait a moment, as she saw an unfamiliar and dubious-looking man at the corner. We waited, and then Luciane also came back from her beauty treatment. Before leaving the house, Norah told me not to leave my backpack right by the gate, but on a bench in the next room, further inside the house. (fn 15.12.2023, p. 26)

In contrast to these individualized security measures described in the vignette, entering an apartment building involves a totally different process, namely asking a door attendant to be granted access (int-Joe 18.01.2024, p. 13). The presence of personnel at the building's entrance functions as a buffer between the private and public, and as a result, residents like Joelma perceive apartment living as inherently safer (ibid.).

Despite all these measures to make the private homes secure, Palina states that at times the house she lives in is still pervaded with a sensation or atmosphere of fear, especially when she is home alone with her young child for a longer period of time (int-Pal 30.01.2024, p. 28).

4.2.3.5 (Un)safe localities

The subsequent section engages with research partners' perception of safe and unsafe localities in their daily lives; thus, their own neighborhoods are at the forefront of this analysis.

When I asked Norah openly how life in her neighborhood is, her immediate response was a counterquestion, "Tá falando se é difícil, né? Em relação assim, dificuldade, assim, eu moro numa favela perigosa" ["You're talking about whether it's difficult, right? In terms of difficulty, like, I live in a dangerous favela."] (int-Nor 13.01.2024, p. 1). Although she referred to her neighborhood as dangerous, she later clarified that this reputation stems from the past (ibid.) and that nothing had happened there for the last ten years (fn 13.01.2023, p. 71). Luciane also described Norah's neighborhood as a favela but noted that for residents it is not dangerous because of their familiarity with one another (fn 21.12.2023, p. 35). Victoria shared a similar sentiment – she felt safe within her neighborhood but admitted that stepping outside this circle changes her perception of safety (int-Vic 18.01.2024, p. 2). Still, she insisted, "No bairro não tenho medo não" [No, I'm not afraid inside the neighborhood.] (ibid.: p. 21). As illustrated in the previous vignette, Victoria often sits with family members by the gate of Dália's house, resembling security guards, yet she states the following.

"Todos os dias ficamos aqui na frente, sentada, conversando, às vezes olhando no celular e tudo, então é assim, eu acho que o bairro não é muito violento, se fosse, eu nunca poria esse pessoal ali fora um minuto, e eu fico – a gente fica sentadinho ali, os vizinhos se comunicando, e a gente fica aí."
[Every day we sit here in front, talking, sometimes looking at our cell phones and everything, so it's like this, I think the neighborhood is not very violent, if it were, I would never put these people out there for a minute, and I sit – we sit there, the neighbors communicate, and we stay there.] (int-Vic 18.01.2024, p. 21)

Her remark raises an interesting contradiction – if there is truly no threat, why the need for constant presence at the gate? Sitting there probably serves as a preventive, protective measure to make sure that the neighborhood stays safe.

Maxine, too, described her neighborhood as safe, praising her "ótimos" [awesome] neighbors (int-Max 30.01.2024, p. 1). Still, she mentioned a recent incident in which someone's phone was stolen and added that in the twelve years she had lived there, she had witnessed only two robberies (ibid.: p. 7). Palina also said that her neighborhood was not dangerous, but she emphasized the subjective sensation of insecurity, mostly due to poor street lighting (int-Pal 30.01.2024, p. 1). She criticized the inadequate yellow lighting in Paulista (fn 26.12.2023, p. 43) and revealed that she had turned down job offers involving night shifts to avoid walking home in the dark (int-Pal 30.01.2024, p. 29). Maxine also identified public lighting as one of the municipality's primary concerns and shared that the street in front of her church lacked lighting for over three years after a pole caught fire and was not replaced (int-Max 30.01.2024, pp. 3-5).

During the interview with Norah, she confirmed that her neighborhood is not dangerous; however, immediately afterwards, she acknowledged drug dealing in her area but emphasized that the boys, as she called them, involved were respectful and that newcomers who tried to cause trouble would be swiftly dealt with by locals (int-Nor 13.01.2024, p. 21).

During conversations with research partners, it became evident that some localities are deemed safer than others. Norah, for example, recounted that certain relatives avoid visiting her in her neighborhood, Barro (Recife), because of its reputation, which she described as "uma fama do passado de até então já não conseguia sair" [it's a reputation from the past that couldn't be shaken off until now] (int-Nor 13.01.2024, p. 1). And at the same time, Norah does not really like them to come because she does not want to put them in danger (ibid.). Although she herself does not spend much time in her neighborhood, preferring to visit her sisters during the day, our walk through the area revealed that she was well known and warmly greeted by neighbors (ibid.).

Luciane offered another perspective when asked about going into favelas. She said that it was not dangerous to be there as long as you did not carry valuables such as cell phones and money, as well as by maintaining eye contact with others to assess if they might have bad intentions (fn 19.12.2023, pp. 32-33).

Ultimately, Joelma pointed out the security disparities across neighborhoods, which often correlate with socioeconomic differences (int-Joe 18.01.2024, p. 13). Research partners could not afford to live in a neighborhood generally considered safe. Even those who describe their neighborhoods as safe remain concerned about violence on a broader scale. As Victoria put

it, her concern is not the violence in her neighborhood but the violence in general in Brazil and the world that worries her (int-Vic 18.01.2024, pp. 21-22). Yet, she still admits that even in her neighborhood, she is always watchful (ibid.). Likewise, Palina stated, "O país de modo geral é inseguro" [The country in general is unsafe.] (int-Pal 30.01.2024, p. 2).

5 Concluding remarks

While this thesis focuses on portraying oral accounts of poor and low-income residents' struggles and discontents in the city, it also shows how they deal with different daily issues that affect their quality of life. The ethnographic accounts featured in this thesis show how poor and low-income residents' daily lived experiences are connected to and determined by larger urban structures. Due to these entanglements, research partners voiced that certain urban and infrastructural issues are a core concern for them. People mentioned various issues, yet some stood out with their urgency and conspicuousness, and because several research partners highlighted them. Therefore, the identified issues are the desire for decent housing and the challenges of living in precarious houses and irregular settlements, and the dissatisfaction with and desire for better or basic infrastructure, which includes inadequate roads and the potential for improvement in waste infrastructure, water issues and the desire for basic sanitation, and public (in)security and fear of violence. As the title of this thesis suggests, people are merely asking for basic life aspects, deploring existing inequities. The following quote from Palina sums up this prevailing sentiment pretty well.

"Não, não ajuda. Não ajudam. Mal nos dão o básico. A gente paga muito imposto. Imposto sobre tudo. E a gente tem pouquíssima, a gente sobrevive. Enquanto mais pobre você for, mais você tem a sensação de que está sobrevivendo, né? Que principalmente nesses básicos que eu te falei, porque eu sou pobre. Então eu falo do básico, entendeu isso?" [No, it doesn't help. They don't help. They barely give us the basics. We pay a lot of taxes. Taxes on everything. And we have very little, we survive. The poorer you are, the more you feel like you're surviving, right? Especially with those basics I mentioned, because I'm poor. So I'm talking about the basics, you understand?] (int-Pal 30.01.2024, p. 18)

Hence, some people only survive instead of leading a self-determined life with a high quality of life.

The following subchapters provide concluding remarks on the identified issues and summarize or add to the data presented in the previous chapter.

5.1 Concluding remarks on housing

This subchapter provides concluding remarks on the data presented in Chapter 3.2 "Housing in the city". Low-income residents in Greater Recife voiced the desire for decent housing because their lived realities are that they often live in substandard or precarious houses. Small houses in peripheral areas within the Metropolitan Region of Recife are frequently inhabited by multigenerational families since young families cannot afford their own house, apartment, or a bigger two-family house. This might be due to minimal financial resources, little social housing, or a reduced possibility for new building grounds in densely populated Greater Recife.

People in substandard housing desire to eventually live in a house that offers basic equipment and comfort. As research partners frequently mentioned, they do not ask for extraordinary things – only for the basics, to which they should have the right to access, given that they pay a lot of taxes, as they expressed.

Due to the research partners' heterogeneity, different living situations prevailed, and different issues emerged. For example, houses at the fringes of the neighborhood of my research partners in Ibura/Cohab are prone to landslides since they are located on steep slopes. During heavy rain, which happens seasonally, those autoconstructed houses are at risk of being swept away. Even though my research partners are not directly affected by this danger, they are incredibly worried about their neighbors' housing situation. This is exacerbated by the fact that many are forced to return and build a new house on the same site due to a lack of alternatives. The government should provide better support to people in such vulnerable and precarious housing situations. Measurements must include long-term solutions for affected residents, which, apart from access to safe housing, must include access to good education and secure jobs. Government support is also demanded by residents of irregular settlements whose goal is to legitimize their *ocupações*.

Looking at historical processes of landownership, it becomes apparent how inequitable current land possessions are. Land was forcefully taken away from Indigenous people by European invaders. Now it is mostly people with Indigenous ancestors, and/or ancestors who were enslaved, who do not possess any land, which makes it disproportionately more difficult for them to access free or affordable housing, that is, a place to settle down and call home. As this research has shown, there is still a great need to address historical injustices and compensate descendants. Despite the occupation-residents' efforts to legitimize their right to live on that specific piece of land by incorporating aims of environmental protection and calling out unfair historical land appropriations, they still face many difficulties, such as a lack of basic infrastructure or elitist plans to privatize the area.

However, what can be learned from *ocupações* is that a different approach to society is possible. It is possible to live within a community and to help each other instead of living in an increasingly individualistic society in which everyone only looks after themselves and is in constant competition with their fellow human beings. Moreover, judging from participant observation and looking through their social media accounts and websites, the members of the *ocupações* Salve Mangue Seco and the Coletivo Força Tururu are politically very active, not only concerning their own fights, but they also fight for human rights in general.

Similarly, coastal dwellers in Greater Recife, especially in Paulista, have to fight for their right to remain in place since they face challenges from multiple sides, such as big companies, seawalls, gentrification, and climate change. If local coastal communities get pushed away, this also implies the loss of local cultural traits, such as the unique coastal cuisine based on local fresh fish and seafood cooked and offered directly at the beach. It also means a loss of job opportunities if beachfront bars are forced to close.

The case of seawalls in Paulista illustrates how localized protective infrastructure can shift environmental vulnerabilities onto already marginalized groups. In sum, while seawalls offer immediate protection for selected properties (mostly upper classes), their broader consequences include environmental degradation, increased risk for others (mostly lower classes), and the reduction of public beach access. Research partners demanded that the right to free access to the beaches should be respected. Especially since going to the beach constitutes one

of the few commonly enjoyed and frequently practiced free-of-cost leisure activities for residents in Greater Recife, especially for poor and low-income residents.

To avoid seawalls, new buildings should not be constructed that close to the shore. As described in this thesis, buildings built on sandy ground have already collapsed in Greater Recife, sea level rise and erosion are becoming increasingly acute problems, and local, mostly poor and low-income residents are being displaced.

Therefore, poor and low-income coastal residents and squatters in Greater Recife do not possess the privilege of spatial stability since they constantly have to fight for their right to remain on this specific piece of land. That is, the risk of losing their houses through demolition or gentrification, having their social networks altered, and their livelihoods disrupted prevails.

In conclusion, the situation in coastal Maria Farinha reveals a multifaceted struggle over public space, environmental justice, and the right to remain in place. Local residents contest the privatization of the coastline and the unequal burdens imposed by development projects that disregard social principles and ecological sustainability.

Lastly, not only is better planning for coastal housing and infrastructure needed, but better coastal management in general. Moreover, locals should be involved in coastal management decisions.

5.2 Concluding remarks on infrastructures

Based on observations from this research, as laid out in Chapter 4.2 "Dissatisfaction with and desire for better urban infrastructure", it can be concluded that several vital infrastructures that contribute to a basic, let alone a higher level of living comfort, are not provided in sufficiently good quality for poor and low-income residents in the Metropolitan Region of Recife. Since the infrastructures mentioned by my research partners often do not work as intended, they are frequently noted and at the forefront of people's minds. Thus, they constantly have to think about them and find creative solutions for continuing to do daily tasks with unreliable or insufficient infrastructures.

Before coming to detailed conclusions about each of the subchapters from the previous analysis (Chapters 4.2.1-4.2.3), it is worth mentioning that infrastructures, in general, have a lot of influence and power on people's lives. Infrastructures can reproduce and reinforce social inequality and inequity and exert infrastructural power; for example, when people cannot leave their homes during heavy rain or flooding due to streets in poor and low-income neighborhoods being unpaved and without drainage, or when household water supplies are unreliable, hence people have to find 'creative', that is, costly or potentially harmful solutions to access water, while at the same time being restricted in mundane everyday activities because they cannot perform basic personal hygiene.

5.2.1 Concluding remarks on roads and waste

Research partners not only mentioned road and waste issues in Greater Recife but also proposed ways to improve the situation, which, however, requires governmental action.

Several research partners voiced a desire for paved roads and roads with pluvial water drainage since they have to deal with flooding every year, especially during the rainy season. Furthermore, it would be beneficial to assess which material is most useful to pave roads and

sidewalks. Permeable materials could be an option as they help the pluvial drainage channel absorb water into the soil. Moreover, simple grates can be installed at the entrance to the drainage to prevent clogging. These measures would also contribute to controlling the mosquito population, hence having fewer cases of infectious diseases such as dengue and chikungunya.

In combination with better and more functional streets, research partners also voiced a desire for sidewalks and crosswalks. Crosswalks are especially desired at bus stops since crossing big, busy roads poses high risks. Painted crosswalks would be an inexpensive yet easy way to facilitate pedestrians to cross busy roads. However, it is unclear if drivers will respect this safety measure, which would then require more expensive measures such as traffic lights.

Moreover, waste is an obvious issue in Greater Recife since huge amounts can be seen in many parts of this urban region. This research found that most dumped waste can be found in public or non-built-up areas, such as beaches, fringe areas between forests and the urban sphere, and on vacant lots. Moreover, a lot of waste easily ends up in the ocean due to its proximity. Similar to pluvial drainage, grates or nets can be installed in the water channels to prevent waste from being flushed into the ocean.

Although low-income residents in peripheral neighborhoods in Greater Recife are largely content with the municipal waste collection service, worries that the garbage truck would not pass on their street or neighborhood remain, since such events are not unusual; however, that entails certain problematic consequences, such as the proliferation of mosquitoes that transmit diseases and a general bad smell. Moreover, since some residents do not take out their trash at the right time, awareness campaigns or adapted garbage bins that cannot be opened by stray animals could also help. However, the latter involves higher financial expenditure and is therefore more difficult to obtain.

Another issue concerning waste collection in Greater Recife is that some places are inaccessible for garbage trucks; therefore, leading to the accumulation of waste and increased difficulty in collecting waste in these locations. The causes of this inaccessibility were already mentioned in the previous chapter and lie in unpaved streets, cyclically recurring flooded streets, and blocked access to the coast.

Research partners voiced a desire for more trash cans in public spaces, especially at the beaches. Due to incidents of trash cans getting stolen, government officials should install theft-proof trash cans. Rio de Janeiro already has experience with this; therefore, Grande Recife can learn from these strategies. Moreover, awareness signs to avoid littering can be put up in further locations within the Metropolitan Region of Recife.

As described in the previous chapter, a research partner mentioned the idea of implementing more waste collection points in the municipality where she lives. Speaking from her lived reality, she thinks having more waste collection points would help cope with the waste problem in Greater Recife. These points should be placed at strategic points, such as next to supermarkets where people frequently go anyway. This measure could have manifold advantages. On the one hand, people could easily pass by to get rid of their waste, independently of the waste collection service, or in case they accumulate too much waste to keep in the house until the next pick-up possibility. On the other hand, having more waste collection points could facilitate waste collection for the municipal service since all the waste that needs to be picked up is in one place. This idea shows that by collaborating with residents, the municipality could find great ideas to help residents cope better with their waste and potentially various other

topics. By allowing interaction among government officials and residents, great ideas can emerge that are very apt for people's life realities.

Furthermore, this research showed that some research partners would be interested in separating their household waste or already do so. However, wider waste separation systems do not yet exist in sufficient quantities and qualities, rendering these efforts useless. People might want to contribute to recycling more materials; however, as individuals, they are not able to do so just now. Structural changes from the government would be needed to implement such a new waste regime. Further educating residents, especially children, on how to take care of waste is deemed crucial by some research partners, convinced that over time, a culture of throwing waste away correctly or separating waste could emerge in Brazil.

Government action in Greater Recife should, apart from focusing on improving recycling rates, focus on reducing waste in the first place. Nevertheless, the necessary infrastructure for waste collection and recycling is needed to reduce waste in Greater Recife, especially dumped waste in urban spaces. In addition, citizens need to be educated about proper waste disposal. Although some educational measures are already in place in Greater Recife, they do not yet show sufficient effectiveness. Further, more intensive awareness campaigns would be beneficial in reducing improperly deposited waste and avoiding residents burning waste.

5.2.2 Concluding remarks on water and basic sanitation

During this research, water-related issues turned out to be among the most crucial ones, given water's essentiality to life.

Residents of poor and low-income neighborhoods in Greater Recife do not have potable tap water, making it necessary to buy drinking water in containers, usually 5-gallon jugs. As demonstrated in the previous chapter, not having drinking water from the tap makes it more difficult for older, weaker, or disabled people to access drinking water in these neighborhoods. Gaining clean and potable tap water in Greater Recife would greatly enhance people's quality of life, but would entail substantial financial resources, political effort, infrastructural extension, and environmental measures. While research partners recounted that they used to consume tap water in the past, they did not explicitly voice the wish for potable tap water. This might be because access to tap water per se is currently more urgent for low-income residents.

Members of low-income households have to manage their water resources carefully since they do not have access to an unlimited water supply. Instead, water gets pumped to their households, for example, every nine days, which is then stored in big containers. Whereas some research partners stated they did not have problems with the water supply, others recounted that the lack of water is a recurrent problem. Indeed, the water issue can vary from house to house because some residents in peripheral neighborhoods in Greater Recife have their own well next to their house, from which they source water. Probably due to this disparity in water sources, major or district-wise protests for water have not emerged yet. Therefore, people affected by a lack of water have to individually demand their right to access water. For example, the lack of water in one household entailed a lot of waiting and uncertainty, but it also forced household members to proactively demand their right to access water and to creatively look for other solutions, such as the costly option to hire a *carro-pipa* and the potentially unsafe solution to put the (old) well back into operation. Thus, regaining access to

water was both an active and passive process. However, hiring a water truck is not a sustainable solution since after 14 days, the household again faced water scarcity. During that time, the water company Compesa should have delivered certain amounts of water various times but did not. Nevertheless, people have to pay the usual water bill, because if they do not do that, Compesa might not talk to them anymore, making it impossible to solve the ongoing water shortage. Due to all these aspects, it is not surprising that people voiced discontent with the water company and even demanded the privatization of water, similar to the electricity company. Some research partners came to think that a private water company would be more reliable than a state-owned company. However, the potential dangers of privatizing and commodifying water access were never mentioned. Ongoing water shortages lead to increased discontent and frustration among the population and create a sense of powerlessness and lack of agency. These tendencies might also influence the political climate. In general, reasons for the lack of water in households in Greater Recife without their own well could be droughts, decaying infrastructure such as leaking water pipes, political abandonment, or insufficient supply from the water company. Other reasons are, of course, also conceivable. Residents with no financial resources to occasionally hire a water truck and without their own well are forced to collect rainwater as a last resort during phases of lack of water, even though this practice not only entails using potentially unsafe water but also contributes to the proliferation of mosquitoes since these use accumulated rainwater as breeding grounds.

On a larger scale, the examples shown in this thesis demonstrate how the domination of a natural resource such as water can not only lead to some people being excluded from access to that resource but also to the display of infrastructural power over residents. To put it in a nutshell, the lack of access to water cannot be solved individually but requires political will. Meanwhile, politicians and water companies should listen to the needs and struggles of poor and low-income residents and be more transparent about the system of water provision, as well as its intermittent problems.

Moreover, research partners voiced the desire for sewage systems or sewers, as many only have septic tanks beneath their houses. People recounted having to pay fees that are intended to provide functioning sewage systems or sewers, therefore deeming it unfair that they have to pay to have their septic tanks emptied every so often. Since many research partners have already spent years paying such fees, they cannot comprehend why the government has not already implemented basic sanitation in every street. This hints at intransparent governmental practices of tax use and potentially increased dissatisfaction with the government.

The difference between government action and neglect becomes evident in the provision of public restrooms. While the town of Igarassu provides public restrooms for its population at public beaches, this is not the case in the neighboring town of Paulista, even though numerous people visit those beaches daily, especially on weekends.

Lastly, as the name already suggests, basic sanitation is the minimal requirement that people desire and demand. However, people lament that in many cases, not even those are met in Greater Recife.

5.2.3 Concluding remarks on public (in)security and fear of violence

One of the biggest current issues for several research partners is the insufficient public security and the constant latent fear of violence in public spaces. Even though some research

partners stated that they had not experienced criminal and violent attacks against themselves, they are still quite careful and afraid in public spaces because they have heard so many stories of crimes and violence happening to other people.

The so-called 'talk of crime' happens very frequently among residents in Greater Recife, that is, circulating stories of certain narratives concerning violence. People talk about their own experiences as well as the stories of others. They are afraid of more 'mundane' crimes such as robberies, but also of kidnapping, murder, and rape. Black women suffer most from the consequences of violent assaults. As explained in the previous chapter, all types of crimes and violence, with a special focus on violence against women, deserve more attention from the Brazilian state to pass the necessary laws to provide more protection for people in Brazil.

The vignette in Chapter 4.2.3.2 "Narratives and experiences of violence", illustrates the lived experience of suffering an assault on public transport in the Metropolitan Region of Recife. Even though it was not a physically violent assault, people were equally afraid. This incident showed, on the one hand, the routine process of an assault since most of the people had already had similar experiences. On the other hand, it showed resignation among people concerning the hope that the perpetrators would receive their just punishment, which became evident by their not even bothering to call the police.

The lived reality for residents in Greater Recife includes a persistent feeling of impunity due to laws criticized as weak. Some research partners are certain that most criminals do not commit assaults out of poverty and think that the majority of Brazilians are good and correct people. Nevertheless, it is crucial for people to thoroughly get to know new acquaintances before trusting them entirely. Research partners did not specify who they are afraid of; thus, they did not provide explicit physical or socio-economic descriptions of how they imagine potential perpetrators. However, judging from the assault on the bus, perpetrators and victims might often stem from a similar social class. Thus, poor and low-income residents are in a difficult situation regarding their fear of crime and violence, since many times it is people from their own community or social class that they are afraid of. This renders the structural problem of social inequity in Greater Recife and Brazil even more evident.

As far as possible, low-income residents seclude themselves in private spaces due to the pervasive urban insecurity in public spaces. Domestic spaces are equipped with protective devices such as high walls, fences, padlocks, metal grilles and bars, barbed wires, etc. These security measures are intended to increase people's sense of safety. Nevertheless, these measures can also ignite a feeling of confinement. Such architectural decisions are rooted in a deep-seated fear of violence and are not taken lightheartedly. However, it remains contested if these built structures really provide unconditional safety because if criminals intend to break into a house, then they probably find ways to do so regardless of all the above-mentioned domestic security measures. Thus, if these built structures do not de facto provide one hundred percent safety, then they provide at least a sense of safety, which, however, is not felt by everyone. Hence, an enduring sense of vulnerability and fear reveals the limits of physical barriers in addressing the emotional and psychological dimensions of insecurity. Ultimately, while private security measures may mitigate immediate threats, they do not resolve the underlying conditions that give rise to violence and fear thereof. Built interventions also have the consequence of less social interaction among neighbors or pedestrians. Contributing to a less secure neighborhood since often no one is out on the streets. Furthermore, people implement private security measures in an individual search for security within an insecure state. It might also be

due to a reduced trust in the official state responsibility to provide security for every citizen, for example, through the police, and due to elites paying for private security, undermining state officials' ability to do so. Moreover, locals are conscious that they must constantly be aware of potential danger, unlike tourists who often underestimate or fail to understand the local security situation. The liminal activity of leaving the safe space of one's private house renders people especially vulnerable. Therefore, they pay special attention to the situation outside before exiting.

People are aware that their neighborhoods often have a reputation of being dangerous; however, they do not deem their immediate vicinity dangerous because they are familiar with the surroundings and the neighbors. It might be that by recounting spatial narratives of which neighborhood is safe, residents try to make sense of a violent city. By excluding their immediate environment from this sphere of violence, they can lead a life that is not constantly permeated by violence or the fear thereof. Moreover, there might be a distinction that neighborhoods further away from one's house are already less safe than one's own. Also, for residents, it is important to know and regularly talk to their neighbors, even if it is just a short hello, as a way to ensure that their neighborhood can be deemed safe. Several research partners stated with confidence that their neighborhood is not dangerous, yet they are always cautious, and family members act as security guards at the house's entrance. A subjective sensation of insecurity remains in people's neighborhoods, especially at night, because of inadequate and poor street lighting. This lack of infrastructure has a direct influence on people's mobility in the city and on their lives since jobs with nightshifts become unattractive, reducing people's job opportunities. The fear of violence that could potentially occur to people, and especially to women, deters them from walking alone at night in their neighborhood and the city in general. Violence and the fear thereof have a direct influence on where and when people move through the city. This became especially evident among women who usually refrain from moving alone through public space. This fear is reinforced by circulating narratives about violence and real experiences of violence in the public sphere. Nevertheless, better streetlights would provide a higher feeling of safety when walking at night. To conclude, built infrastructure, be it adequate streetlights or fortified private houses, is considered to facilitate the creation of safe or safer spaces within the city. For the government, some security measures, such as more and brighter streetlights, can be implemented more easily than long-term efforts such as educational initiatives aimed at fostering nonviolent behavior. Yet, that should also be prioritized, for example, in schools.

Meanwhile, people developed attainable strategies to assess whether a person is dangerous or not when in a location they deem unsafe. Usually, they look people in their eyes. This strategy speaks to an intuitive, embodied form of vigilance that many residents adopt in navigating spaces that are perceived as dangerous. Security disparities can be perceived between poor and low-income neighborhoods and rich and high-income neighborhoods in Greater Recife. Being able to afford to live in a safer area is itself a privilege, one that reinforces existing inequalities in Greater Recife. In general, research partners are not only concerned about violence in their immediate environment or city, but also on a broader scale, about violence per se, nationally and worldwide. Ultimately, safety is not simply a characteristic of a locality but is experienced in relation to familiarity, community bonds, and broader sociopolitical conditions.

5.3 General concluding remarks

Finally, these general concluding remarks refer to aspects mentioned in Chapter 4 "Main issues identified in Greater Recife" and add to them. Additionally, policy recommendations are formulated to support people's struggles identified in this research.

This research showed that poor and low-income residents in peripheral areas within the Metropolitan Region of Recife are only asking for the basics. Research partners wish for certain infrastructures they deem basic, thus a basic human necessity for a decent life in a city. Since local conditions are influenced in many ways by global circumstances, global disparities also have to be diminished in order to provide better living conditions for them. Essentially, research partners are asking for democratic access to urban experiences and goods, as is also demanded by the Brazilian National Forum for Urban Reform (Fórum Nacional de Reforma Urbana, FNRU), which states the following:

"A cidade é uma construção coletiva, é para todos e todas, portanto, é essencial construirmos cidades que permitam vivências urbanas e acesso aos bens de maneira democrática. Não podemos ter cidades construídas pelos interesses do mercado, privilegiando certo grupo e segmento social." (URL 28) [The city is a collective construction, for everyone; therefore, it is essential that we build cities that enable urban experiences and democratic access to goods. We cannot have cities built by market interests, privileging a certain group or social segment.]

In the Federative Republic of Brazil, it is largely up to decision-makers in positions of power to implement these demands. Research partners deem the state and its government responsible for improving infrastructural aspects that affect their lives, since they pay taxes and live in a democracy. Many, however, are disenchanted with politicians since they often do not provide enough improvement. Moreover, corruption is perceived as a big problem.

Therefore, I think those in power in the Metropolitan Region of Recife should take the following advice when deciding whether or not to implement infrastructural projects, urban interventions, or new laws. I adapted the following four recommendations from Koster (2020, 197-198) to this context. Politicians in power should take the residents of their municipality seriously, actively listen to them, and not ignore them. They should consider people's needs and aspirations, for example, their basic need for water or their aspiration for less violence. Politicians and company bosses should also provide clarity on issues that are of concern to people. For example, they should explain why there is no constant water supply in certain neighborhoods or why some streets are not paved even though people pay taxes for that purpose. Lastly, those in power should check how people's lives continue after projects, laws, or interventions have been implemented.

The ethnographic example of this thesis has brought to the fore certain main issues that poor and low-income, mostly Black or mixed residents in the Metropolitan Region of Recife deem most urgent for change and improvement to guarantee not only compliance with human rights but also a better quality of life. The identified issues are also part of the National Forum for Urban Reform's description of basic requirements of their desired city. In the following quote, they list ten points they deem essential for life in the city.

"A cidade que queremos

Uma cidade que respeite e garanta o direito à moradia, ao saneamento ambiental, à infraestrutura urbana, ao transporte, à saúde, à educação, à cultura, aos serviços públicos, ao trabalho e ao lazer, para as presentes e futuras gerações. Para tanto, é necessário que os governos estejam comprometidos com uma política urbana articulada com estratégias de inclusão social e de justiça ambiental, local, regional, estadual e nacionalmente." (URL 29) [The City We Want. A city that respects and guarantees the right to housing, environmental sanitation, urban infrastructure, transportation, healthcare, education, culture, public services, work, and leisure for present and future generations. To achieve this, governments must be committed to an urban policy aligned with social inclusion and environmental justice strategies at the local, regional, state, and national levels.]

Poor and low-income residents in peripheral areas within the Metropolitan Region of Recife desire more just and emancipatory ways of urban life. Thus, change is wanted to avoid future generations having to say the same sentence Norah voiced during the field research, "Meu pai morreu com as mesmas reclamações" [My father died with the same complaints.] (int-Nor 13.01.2024, p. 25). Hence, on the one hand, visible political pressure from the population is needed, for example, in the form of protests and other sociopolitical acts, and on the other hand, the political priority needs to shift in order to obtain cities that are built for the social needs of the population.

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6.3 Field data

fn 05.12.2023-25.02.2024, my field notes and diary

int-Luc 30.01.2024, interview with Lucine

int-Joe 18.01.2024, interview with Joelma

int-Pal 30.01.2024, interview with Palina

int-Nor 13.01.2024, interview with Norah

int-Max 30.01.2024, interview with Maxine

int-Vic 18.01.2024, interview with Victoria

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7 Appendix

7.1 List of questions

INTERVIEW START

General questions

- What's it like living here?
- How is life in Paulista/Recife/[name of city]?
- What was it like growing up here?
- What do you think about living in this specific neighborhood? What aspects do you like, and what aspects don't you like?

MIDDLE OF INTERVIEW

Urban issues

- What do you think about living in the city versus living in the countryside?
- Do you want to continue living here, or are you thinking about moving somewhere else?
- What do you like about the city? What do you dislike about the city?
- What do you think are people's major social challenges?
- What do you think are people's biggest problems/worries at the moment?
- How is the security situation here?
- What do you think about the poverty in Brazil? Do you see a lot of poverty here?
- What do you think about the high inequality among people in Brazil?
- Why do you think the north and the south of Brazil are so different?
- What are people's biggest concerns at the moment?
- What are your biggest concerns at the moment?
- How is the situation concerning water, electricity, street lighting, roads, garbage, etc.? What is the city government doing regarding these aspects? Are they doing enough, or do you wish for some improvement?
- What would you change if you could (regarding ...) in your city/neighborhood?
- How is the health infrastructure?

- Are there places within the city that you avoid or where you do not feel welcome?
- ...

Nature, environment, and climate change

- Do you spend time in nature? Where do you go (e.g., beach, parks, woods, etc.)?
How do you feel there?
- Do you sometimes think about climate change?
- Are you worried because of climate change? If yes, what are your worries? If not, why not?
- What do you see the city government doing against climate change? (e.g., information campaigns, etc.)
- Did natural catastrophes occur in the past? If yes, how did you/the city government confront them?

Education

- How was your education?

Racism

- What do you think about racism in Brazil?

Future

- How do you want the future to be? What do you wish for the future?
- How do you want the future of your children and grandchildren to be?

END OF INTERVIEW

- Is there anything else you want to add?

7.2 Table of research partners

It should be noted that the information provided in the table is not self-declared by the research partners.

number	research partners (pseudonym or occupation)	contact frequency	age	gender	race	city/region of residence	occupation	education	caregiver for	relationship status
1	Luciane	high	60-70	female	Black	Paulista	retired	basic	adult child, young grandchild	widowed
2	Palina	high	30s	female	parda	Paulista	housewife	basic-higher	young child	married
3	Calebe	high	40s	male	pardo	Paulista	unemployed	higher	young child	married
4	Davi	high	child	male	pardo	Paulista	student	-	-	-
5	Fernando, activist	high	30s	male	white	Paulista	activist	higher	-	-
6	Joelma	medium	30s	female	parda	Jaboatão dos Guararapes	self-employed	higher	newborn	married
7	Gustavo	medium	40s	male	white	Paulista	unemployed?, autarkic, artist	higher	-	single
8	Maxine	medium	30s	female	parda	Paulista	self-employed	basic	young children	divorced, single
9	Tiago	medium	30s	male	white	Paulista	unemployed	higher	-	in a relationship

10	Luana	medium	18-20	female	Black	Recife	uni student	higher	-	single
11	Angela	medium	30s	female	parda	Recife	self-employed	higher	young child	married
12	Dália	medium	50-60	female	Black	Recife	retired	basic	teen grandchild	widowed or divorced
13	Victoria	medium	50s	female	Black	Recife	self-employed	basic	teen grandchild	married
14	Norah	medium	60s	female	Black	Recife	retired	basic	teen grandchild	divorced, single
15	Raquel	medium	30s	female	parda	Recife	self-employed, uni student	higher	-	married
16	Kelly	medium	40s	female	Black	Recife	unemployed	basic	-	in a relationship
17	Rafael	medium	50-60	male	white	Recife	retired	basic	teen grandchild	married
18	Mariuz	medium	50s	female	Black	Recife	housewife	basic	adult child, young grandchild	married
19	Oksana	medium	30s	female	Black	Recife	employed	higher	young child	married
20	Sara	twice	40s	female	parda	Recife	housewife	basic	daughter, granddaughter	widowed, in a relationship
21	Marcelo	twice	30s	male	Black/pardo	Paulista	employed, unemployed	basic	-	in a relationship
22	artist	once	50-60	male	white	Paulista	artist	higher?	-	?
23	bar owner	once	40-50	male	parda	Paulista	self-employed	?	?	?
24	Hugo	once	50s	male	white	Paulista	self-employed	higher	?	?
25	Isaac	once	30s	male	parda	Paulista	?	?	-	?
26	fisherman	once	50s	male	parda	Paulista	self-employed	?	?	married
27	fisherwoman	once	50s	female	parda	Paulista	self-employed	?	?	married
28	leader Capoeira group	once	30-40	male	Black/pardo	Paulista	?	?	?	?
29	members of Capoeira group	once	teens	males, 1 female	Black/pardo/a	Paulista	students	-	-	?
30	Simon	once	40-50	male	white/pardo	Paulista	employed	?	?	?
31	Laura	once	40s	female	parda/white	Recife	employed	basic	teen child	divorced, single
32	Marta, representative SMS	once	40s	female	parda/Black	Igarassu	activist	?	child	?
33	Luca	once	20s	male	parda	Recife	uni student	higher	-	?
34	representative A Voz da Favela	once	40-50	male	parda	Bahía	journalist	higher?	?	?
35	representative Caranguejo Uçá	once	40-50	male	Black	Recife	?	?	child	married
36	representative Tururu	once	20-30	female	parda	Paulista	?	?	-	?
37	Martinho	once	60s	male	parda/white	Paulista	retired	?	?	?
38	Beatriz	once	60s	female	parda	Recife	self-employed	basic	?	married
39	governmental officer in Paulista	once	40s	male	parda	Paulista	employed	higher	?	?
40	Teo	low	teen	male	parda	Recife	student	-	-	-
41	Francisco	low	50s	male	Black	Recife	employed	-	young adult children	married
42	Camila	low	teen	female	parda	Recife	student	-	-	-
43	Ana	low	teen	female	parda	Recife	student	-	-	-
44	Rebeca	low	teen	female	parda	Recife	student	-	-	-
45	Aurora	low	child	female	parda	Recife	student	-	-	-

8 Abstracts

Besides the obligatory German abstract, this thesis provides an additional English abstract since the thesis is written in English, as well as a Portuguese abstract, in order to be able to share at least a summary of the written account of this research with my Portuguese-speaking research partners.

8.1 German abstract

Brasiliens pulsierendes Kulturleben und seine ungebrochene Lebensfreude prägen weiterhin die vielfältige und heterogene Gesellschaft, obwohl die Geschichte von Kolonialisierung, Diktatur und rasanter Urbanisierung nach wie vor anhaltende soziale Herausforderungen mit sich bringt. Diese Arbeit untersucht mithilfe eines offenen ethnografischen Ansatzes die unterschiedlichen Lebenserfahrungen, Hoffnungen und Auseinandersetzungen der Forschungspartner*innen in diesem dynamischen urbanen Raum. Insbesondere der Zugang zu grundlegender städtischer Infrastruktur ist für die arme Stadtbevölkerung weiterhin unzureichend. In der Metropolregion Recife, Pernambuco, wird die Infrastruktur aufgrund ihrer unzureichenden Funktionsweise als problematisch empfunden. Daher sind arme und einkommensschwache Bewohner*innen in den peripheren Stadtgebieten der Meinung, dass einige ihrer Grundbedürfnisse nicht angemessen erfüllt werden. Die Forschungspartner*innen äußerten Unzufriedenheit, Konflikt, Not, Ungerechtigkeit und strukturelle Ungleichheit, aber auch Zufriedenheit und Fortschritt durch ihre Berichte über urbane Infrastrukturanliegen, die ihr tägliches Leben betreffen – was eine Vielzahl an Perspektiven darstellt. Daher habe ich während einer zweimonatigen ethnografischen Feldforschung verschiedene Anliegen und Lebenserfahrungen von armen und einkommensschwachen Bewohner*innen in peripheren Gebieten der Metropolregion Recife untersucht. Diese Arbeit zeigt außerdem, wie diese alltäglichen Erfahrungen mit größeren urbanen Strukturen verbunden sind und von diesen bestimmt werden. Darüber hinaus sind die Bewohner*innen auch von strukturellen Systemen der Unterdrückung, räumlicher und sozialer Segregation, Ungleichheit und Rassismus betroffen. Afro-Brazilianer*innen sind von diesen Faktoren besonders betroffen. Da die Mehrheit der Forschungspartner*innen zu dieser Gruppe gehört, leiden sie am meisten unter den anhaltenden Folgen des Kolonialismus und der Sklaverei.

Allgemein lässt sich sagen, dass diese Arbeit darauf abzielt, herauszufinden, was derzeit einige der größten Herausforderungen Brasiliens sind, wobei der Fokus auf einer bestimmten Personengruppe in einem bestimmten Zeitraum und an einem bestimmten Ort liegt. Das Leben in den Randgebieten städtischer Gebiete eines Landes des Globalen Südens konfrontiert die Menschen mit besonderen und oft schwierigen Lebensrealitäten, mit denen sie zurechtkommen müssen. Daher sind bestimmte Anliegen für sie von großer Bedeutung, da sie nicht vermieden werden können. Die in dieser Forschung identifizierten Anliegen sind systemisch und infrastrukturell. Sie können nicht auf individueller Ebene verändert werden, sondern erfordern ein breiteres Engagement von politischen und anderen einflussreichen Akteur*innen. Die folgenden Kernherausforderungen wurden identifiziert: der Wunsch nach angemessenem Wohnraum und die Herausforderungen des Lebens in prekären Häusern und informellen Siedlungen, die Unzufriedenheit mit der städtischen Infrastruktur und der Wunsch nach einer

besseren Infrastruktur, einschließlich unzureichender Straßen und des Potenzials für Verbesserungen in der Abfallinfrastruktur, Wasserprobleme und der Wunsch nach grundlegender Sanitärversorgung sowie öffentliche (Un-)Sicherheit und Angst vor Gewalt. Wie diese Untersuchung zeigt, fordern die Menschen lediglich das, was sie als grundlegende Aspekte ihres Lebens betrachten, verurteilen bestehende soziale Ungerechtigkeiten und Ungleichheiten und erwarten Maßnahmen der Regierung, um diese zu verringern und ihre Lebensrealitäten zu verbessern.

8.2 Portuguese abstract

A vibrante vida cultural e o espírito de alegria persistente do Brasil continuam sendo pontos fortes que definem sua sociedade diversa e heterogênea, mesmo que seu histórico de colonização, ditadura e rápida urbanização continue a gerar desafios sociais persistentes. Utilizando uma abordagem etnográfica aberta, esta tese explora as variadas experiências de vida, aspirações e lutas dos parceiros e parceiras de pesquisa dentro dessa paisagem urbana contemporânea dinâmica. Particularmente o acesso a infraestruturas urbanas básicas continua sendo inadequado para a população urbana pobre. Na Região Metropolitana do Recife, Pernambuco, as infraestruturas são consideradas problemáticas devido ao seu funcionamento insuficiente. Portanto, as pessoas residentes pobres e de baixa renda nas regiões urbanas periféricas não consideram que algumas de suas necessidades básicas sejam adequadamente atendidas. As parceiras e os parceiros de pesquisa expressaram descontentamento, conflito, angústia, injustiça e desigualdade estrutural, mas também satisfação e progresso por meio de seus relatos sobre questões de infraestrutura urbana que afetam suas vidas cotidianas – apresentando uma variedade de perspectivas. Portanto, durante dois meses de pesquisa de campo etnográfica, explorei diferentes questões e experiências vividas entre residentes pobres e de baixa renda em áreas periféricas da Região Metropolitana do Recife. Além disso, esta tese mostra como essas experiências vividas diariamente estão conectadas e determinadas por estruturas urbanas maiores. Além disso, as pessoas residentes também são afetadas por sistemas estruturais de opressão, segregação espacial e social, desigualdade e racismo. Pessoas afro-brasileiras são especialmente afetadas por esses fatores. Sendo que a maioria das parceiras e dos parceiros de pesquisa faz parte desse grupo, elas e eles são quem mais sofrem com as consequências persistentes do colonialismo e da escravidão.

De modo geral, pode-se dizer que esta tese tem como objetivo descobrir quais são alguns dos principais desafios do Brasil atualmente, mas com foco em um grupo específico de pessoas durante um período e local específicos. Viver nas áreas urbanas periféricas de um país do Sul Global confronta as pessoas com realidades de vida específicas e muitas vezes difíceis, com as quais elas precisam lidar. Portanto, certas questões são significativas para elas, sendo que não podem ser evitadas. As questões identificadas nesta pesquisa são sistêmicas e infraestruturais. Elas não podem ser mudadas em nível individual, mas exigem um envolvimento mais amplo de pessoas políticas e outras pessoas poderosas. As questões centrais identificadas são as seguintes: o desejo por moradia digna e os desafios de viver em casas precárias e assentamentos irregulares; a insatisfação e o desejo por uma melhor infraestrutura urbana, o que inclui estradas inadequadas e o potencial de melhoria na infraestrutura de resíduos; questões hídricas e o desejo por saneamento básico; e (in)segurança pública e medo da violência. Conforme constatado nesta pesquisa, as pessoas estão apenas pedindo o que consideram

aspectos básicos para suas vidas, denunciando as desigualdades sociais existentes e esperando uma ação do governo para reduzi-las e melhorar suas realidades.

8.3 English abstract

Brazil's vibrant cultural life and enduring spirit of joy persist as defining strengths of its diverse and heterogeneous society, even as its history of colonization, dictatorship, and rapid urbanization continues to generate enduring social challenges. Using an open ethnographic approach, this thesis explores research partners' varied lived experiences, aspirations, and struggles within this dynamic contemporary urban landscape. Access to basic urban infrastructures, in particular, continues to be inadequate for the urban poor. In the Metropolitan Region of Recife, Pernambuco, infrastructures are perceived as problematic due to their insufficient functioning. Therefore, poor and low-income residents in peripheral urban regions there do not consider that some of their basic needs are adequately met. Research partners voiced discontentment, conflict, distress, inequity, and structural inequality, but also satisfaction and progress through their accounts on urban infrastructural issues that concern their everyday lives – featuring a variety of perspectives. Therefore, during two months of ethnographic field research, I explored different issues and lived experiences among poor and low-income residents in peripheral areas within the Metropolitan Region of Recife. This thesis further shows how these daily lived experiences are connected to and determined by larger urban structures. Moreover, residents are also affected by structural systems of oppression, spatial and social segregation, inequality, and racism. Afro-Brazilians are especially affected by these factors. Since the majority of research partners are part of this group, they suffer most from the persisting consequences of colonialism and slavery.

Generally speaking, it can be said that this thesis aims to find out what some of Brazil's main challenges currently are, yet by focusing on a specific set of people during a specific period of time and place. Living in a Global South country's fringe urban spaces confronts people with particular and often difficult life realities that they have to cope with. Therefore, certain issues are significant for them, since they cannot be avoided. The issues identified in this research are systemic and infrastructural. They cannot be changed on an individual level but require broader involvement from political and other powerful actors. The core issues that were identified are as follows: the desire for decent housing, and the challenges of living in precarious houses and irregular settlements; and the dissatisfaction with and desire for better urban infrastructure, which includes inadequate roads and the potential for improvement in waste infrastructure; water issues and the desire for basic sanitation; and public (in)security and fear of violence. As found in this research, people are merely asking for what they consider basic aspects to have in their lives, deploring existing social inequities and inequalities, and expecting government action in order to reduce these and improve their lived realities.