

Bicycle-Body-City: Experiences of Urban Cycling in Copenhagen

Submitted in partial fulfilment of the requirements
for the degree of Master of Research (MRES)

Lucinda Libershal Casbolt (BA)

Department of Anthropology
Macquarie University
Sydney, Australia

Supervised by Dr Christopher Houston

Submitted 9 October 2015

Table of Contents

Abstract	4
Statement of Authorship	5
Acknowledgements	6
Beginnings.....	7
I. Morning Beats	7
II. Introduction	9
III. For Context.....	17
Part 1: The Bicycle-Body	22
I. Annie	22
II. Theorising the Bicycle-Body	24
III. Bicycle Classes at Røde Kors (The Red Cross).....	32
IV. Becoming a Bicycle-Body.....	35
V. Night Ride	38
VI. Cycling in Copenhagen.....	40
VII. Learning the Copenhagen Left Turn.....	44
VIII. Tinkering in Jernhesten	48
Part 2: The City	53
I. København	53
II. The Bicycle in Denmark	55
III. Interventions in the City.....	59
IV. Cycling Assemblages	66
V. Theorising the Cycling Assemblage	68
VI. The City of Cyclists	75
VII. Copenhageners	82
VIII. Enabling Place Making.....	86
IX. Freedom, Independence and Expansion	88
Conclusion: ‘det cykler derudaf’	94
References.....	100
Appendix 1: Macquarie University Human Ethics Approval.....	107

List of Figures

Figure 1 A cyclist waits to turn left at an intersection (photo by author)	44
Figure 3 Completed Cirkelbroen awaiting its opening (photo by author).....	62
Figure 4 Riding on Cykelslangen (photo by author).....	63
Figure 5 A cyclist watches as he is added to the daily tally on Dronning Louises Bro (photo by author)	65
Figure 6 Classic Bicycle Advertisement for Cycles Gladiator (Massias 1895).....	89

Abstract

This paper examines everyday experiences of urban cycling within Copenhagen, the capital of Denmark. Copenhagen is often considered to be one of the world's 'cycling capitals', with about 50% of the city's commuters choosing the bicycle every day. Bicycle use has seen a 'renaissance' in cities around the world during the past decade, yet the quantity of anthropological investigations into the bicycle remains low. This ethnography draws upon three and a half months of participant observation fieldwork in Copenhagen to investigate individuals' experiences cycling in the self-titled 'City of Cyclists'. What is it like to cycle in a city that is actively restructuring its built environment in order to encourage cycling? How does urban cycling in this context play out in residents' lives? In order to address these questions, this research incorporates the phenomenological framework developed in particular by Merleau-Ponty (1945) to prioritise corporeal-sensual experiences of cycling, as well as the horizons that inform these experiences. This approach enables an examination of experiences of urban cycling in Copenhagen in a way that keeps focus on the interplay between the bicycle, body and city in the moment of cycling.

Statement of Authorship

This is to certify that the following thesis is all my own work, except where acknowledgement has been made to the work or ideas of others. It has not been submitted for a higher degree to any other university or institution.

Signed: .....

Lucinda Libershal Casbolt

Acknowledgements

I wish to extend my deepest gratitude to all those I met in Copenhagen for generously sharing with me your time, perspectives and opinions, and making this research possible. Special thanks to Anicka and the Øresundsvej household for making me welcome, and Thomas, Jette and their family for the incredible friendship and kindness you have shown me.

I would also like to thank the organisations and individuals who shared their practical and professional knowledge with me. Particular thanks go to Jesper Pørksen and Karen Lilleør of Cyklistforbundet, and the volunteers at Copenhagen University's Jernhesten.

A very sincere thank you to my supervisor Dr Christopher Houston, for your guidance, insight and patience.

Thank you to the staff members of Macquarie University's Anthropology Department, who have been so influential during my studies.

On a more personal note, my heartfelt thanks go to my fellow MRes Anthropology cohort for your friendship and encouragement, and to the friends and family who have supported me throughout this research. I owe an immense debt to my parents Helena and Llewellyn, and to Sofia and Alexander.

Beginnings

I. Morning Beats

The morning bicycle commute in Copenhagen is a wonderful thing to watch: a study in flow and balance. Every morning and afternoon, Copenhagen's residents cruise along the city's streets and bicycle lanes. The streets become the busy passageways of well-dressed women and men rushing to work, parents dropping children at school, students making their way to class – Copenhageners going about the business of everyday life. Watching the morning commute reveals a cross section of Copenhagen's population, a group as diverse as the array of bicycles carrying them to their destinations.

Major bicycle routes in the city are wide enough to allow multiple people to ride side-by-side in the lane at once, but peak hour traffic pushes this to its limits, with three, four, or even five people riding abreast, jostling for space. Similarly busy lanes are full on the other side of the road. Despite the crowding, the movement is smooth. The goal on the road is to maintain the 'flow' (Freudendal-Pedersen 2015: 45), and Copenhagen's cyclists have the skill and embodied understanding of cycling movements to achieve it. Cyclists will stay in the part of the lane that best fits their speed – except, of course, when a break in the traffic to their left presents a quick opportunity to overtake the frustrating cyclist ahead who has been slowing them down. For an ordinary moment, the commute has great rhythm.

Most cyclists focus on the path ahead, though some look around to enjoy the view. The tidy streets of Copenhagen are wide and open. In summer, light fills the breezy thoroughfares, lined with trees, flowers, and pleasant, well-maintained four or five storey buildings, visually similar and attractively designed. The composition of the city emphasises both natural and constructed beauty. Copenhagen's urban landscape is ordered and peaceful, an attitude mirrored in the cyclists' flow and the rhythmic ticking of spinning wheels.

II. Introduction

Copenhagen, the capital city of Denmark, is a small city home to 520,000 people¹, about half of whom cycle to work or school every day (Cykelvalg.dk 2015). In spite of a multitude of accessible transport options, cycling has remained a popular transport choice for Copenhageners since the introduction of the 'safety-bicycle' in the mid-1890s (Larsen and Nilsson 1984: 146). Today, Copenhageners collectively cycle over 1.2 million kilometres every day on at least 486km of the world's 'best practice' bicycle lanes (Carstensen et al. 2015: 5, The City of Copenhagen 2013a: 3). Perhaps unsurprisingly, Copenhagen was rated as the world's most bicycle-friendly city for 2015 (Copenhagenize Design Company 2015). This status comes a decade into the city's concerted effort renovating the urban infrastructure of Copenhagen with the aim of transforming it into the uncontested best cycling city in the world (The City of Copenhagen 2011). Cycling in Copenhagen is widespread, easy, cheap and fast. Children are often on bicycles before they can walk and many elderly residents still choose to cycle to get around the city.

I visited the self-titled 'City of Cyclists' for three months of fieldwork at the beginning of 2015 in an attempt to understand how cycling is experienced in this northern city and the affect it has on urban life in Copenhagen. Most of my participant observation entailed daily experiences in the city. I lived in Copenhagen, spent time with those who lived in the city and cycled as my

¹ 1.2 million live in Greater Copenhagen, but only 520,000 of this number reside in the smaller Municipality of Copenhagen.

primary mode of transport. Although I learnt to ride a bicycle as a child it has not been a skill I have frequently practiced. I quickly discovered that despite the idiom, riding a bike in Copenhagen is surprisingly not 'just like riding a bike'. There is technique to learn and adaptation required in every new experience. As such, the process itself of learning how to cycle in Copenhagen proved a valuable source of data, as this experience is a common one for new residents.

While I conducted a number of formal semi-structured interviews with individuals I had come to know well, I discovered throughout fieldwork that the most revealing insights came from everyday, unplanned occurrences and observations in the city. In my experience, Copenhageners are generally very friendly people. I frequently had conversations with strangers who had two cents (at least) to contribute to my research. These off-the-cuff, unmediated responses gave significant insight into how Copenhageners perceive and think about cycling; insights that I could then compare with my observations on the streets and 'make sense of' through in-depth conversations with my close informants.

I was also fortunate to volunteer with two organisations that helped broaden my knowledge of the cycling culture in Copenhagen. Dansk Cyklistforbundet (The Danish Cyclists' Federation) is a member-based cycling lobby and interest group founded in 1905 to promote the rights of cyclists across Denmark (Cyklistforbundet 2015). I provided online research assistance for one of Cyklistforbundet's cycling tourism projects.

The second organisation I worked with is Jernhesten ('The Iron Horse'), Danish slang for the bicycle. Jernhesten is a student-run volunteer bicycle repair workshop on one of Copenhagen University's campuses, in operation since 2012 (Jernhesten Bicycle Workshop 2015). I learned a great deal attending these sessions, although I was little help to the students since I initially knew nothing about bike maintenance.

Along with my 13 weeks in Copenhagen at the start of the year, I returned to the city for two weeks at the end of July 2015 to see how the city and its cycling differ between the winter and summer months.

All of my research was conducted in English out of necessity. Most of my informants were happy to communicate with me in English since they all speak the language fluently, but I remain aware that several felt less articulate in what was their second or third language. Around half of my close informants were Danish, while the other half had moved to Copenhagen, permanently or for shorter periods, from an array of countries including Australia, Turkey, Slovakia and Germany. Most of my close informants fitted a fairly similar demographic: from middle-class, Western backgrounds, 20-30 years old, and university educated. I fit this demographic too. My initial informants were friends I made at different places where I was living (a hostel and shared apartments) and at public social gatherings, as well as through cycling organisations. Further contacts were made through these friends as my social network in Copenhagen grew. Although the demographics of my informants are limited, this is representative of the ways in which new residents usually gain their early social

relationships upon moving to a city. Given the short fieldwork timeframe, I hesitate to offer 'conclusions'. Instead, I offer tentative understandings and ideas based upon my personal interactions in the field. Any inaccuracies and incorrect interpretations are my own.

As is often the case with anthropological research, my informants made it clear to me just how mundane they thought my research to be. As I sat down to interview Willy, an 80-year-old Danish man, he remarked that he was happy to be interviewed. "But not," he clarified, "because the topic is interesting." On the contrary, what he found intriguing was the absurdity of the idea that anyone could find cycling in Copenhagen worthy of sustained curiosity. "What you need to understand," he said, "is that for us cycling just isn't remarkable. We don't ever think about it, we just take it for granted."

Willy was no exception. Despite its omnipresence in everyday life, residents frequently and casually disregard the importance of the bicycle in Copenhagen. Perhaps it was the very "ordinariness of the bicycle that can actually render it invisible" (Cox 2015: 7), allowing it to be backgrounded? Copenhagen is unimaginable without its bikes.

These 'ordinary' aspects of life are often highly revealing. Anthropological investigation into everyday urban life gained momentum with Michel de Certeau's *The Practice of Everyday Life* (1984). De Certeau calls for an emphasis on these unremarkable "ways of operating" in an effort to understand how we "reappropriate the space organized by techniques of sociocultural production",

rather than studying sociocultural production itself (de Certeau 1984: xiv). Although by nature ‘ordinary’, everyday practices are creative, synthesising countless considerations into a single action. Even walking can be a “long poem” (de Certeau 1984: 101).

This thesis similarly sees urban cycling in Copenhagen as ‘poetry in motion’: as a particularly rhythmic verse that enunciates volumes about Copenhageners’ lives. What becomes clear is that while cycling may be mundane, it is incorporated into everyday life in an exceptionally bodily way, and comes to act not just in the realm of transport, but also in areas as important as equality, migration, and identity-construction. In the following sections I consider urban cycling in Copenhagen through the phenomenological lens moulded by Husserl, Merleau-Ponty and other writers. I define urban cycling to be bicycling taking place within the city with transport as its primary purpose and objective. I aim to understand both the experience of urban cycling and its function in Copenhagen in a way that prioritises the immediate physical-sensual experience, as well as the horizons that encompass each of its moments. How do Copenhageners experience cycling, and what horizons envelope and inform those sensations?

The term ‘horizons’, coined by Edmund Husserl, refers to all that is not attentively present in a given moment, but that informs the shape, colour, and texture of the experience (Merleau-Ponty 1962: 67-69). When investigating an experience, we must acknowledge that “every experience has its own horizon,” the fringes on the edge of conscious perception (Husserl 1973: 32, in Casey 1996: 17). As such, an experience cannot be understood in its complexity

without acknowledging the myriad contexts and forces that enable it. The notion of horizons allows us to consider the ways that different spatial and temporal 'layers' generate and influence the cycling experience. By emphasising these horizons we can apprehend what shapes Copenhageners' cycling experiences, in turn understanding the experiences themselves.

Two overarching organising themes emerge. The first addresses the lived and corporeal-sensuous experience of cycling. For many of my informants, cycling was already an embodied skill and form of mobility, though for others (myself included) cycling in Copenhagen was a novel and exciting or challenging experience. Thus the first half of this work attends to these disparate experiences, first theorising the body, as the body is frequently referred to as the 'first horizon' of experience. I offer that we may think of the body in the moment of cycling as a 'bicycle-body assemblage' composed of technology and subject connecting through practice. I discuss my informants differing experiences learning bicycle skills in Copenhagen in order to understand how the bicycle-body is generated.

After starting with the body as phenomenology insists, this thesis expands outwards, considering different horizons that are variously backgrounded and foregrounded in the moment of cycling. The incredible impact that the built environment of Copenhagen has on individuals' cycling experiences quickly became apparent during fieldwork. In a 2007 publication, 'Eco-Metropole: Our Vision for Copenhagen 2015', the Municipality of Copenhagen outlined its goal to become "the world's best city for cycles" (Municipality of Copenhagen 2007: 8).

This campaign has extended into many areas of life in Copenhagen, perhaps most noticeably the major infrastructural investments on the streets and public spaces of the city to improve cycling conditions. Many aspects of my informants' experiences cycling were dependent upon the specificities of Copenhagen's urban landscape. These interactions form the second half of this thesis, as I contextualise the bicycle-body within the city that 'meets' with the bicycle-body to form a more integrated 'cycling assemblage' composed of bicycle, body and city. Cycling experiences emerge within the tensions and collaborations between these three interacting parts.

Experiences are fleeting, malleable, highly complex, contextual and individual moments. I acknowledge the impossibility of offering a complete description or analysis of any experience. Instead I offer what may only be fragmented understandings gleaned through fieldwork with the help of my informants, attempting to capture some sense of what cycling means and how it is experienced for some individuals in Copenhagen. I describe and analyse these cycling horizons in what I am calling similarly fragmented 'snapshots' rather than chapters, divided between and progressively revealing two vectors of mobility: the bicycle-body and the city.

We may think that the order of snapshots offered here is loosely reminiscent of what might present itself while riding and moving through Copenhagen, with stops, starts, and different priorities pushing themselves into one's attention. Just as cyclists aspire to fluidity in their riding, so do I in my writing, but we cannot do either without acknowledging that movement exists within structures

and stoppages. While necessarily fragmented, I hope these snapshots generate a depth of field when considered together.

III. For Context

Urban cycling has seen a “renaissance” in the past decade in many regions around the world, matched by a boom in research into urban cycling and cycling mobility (Pucher et al. 2011). As the density of urbanization increases around the world amidst dire environmental concerns in the form of energy sustainability and climate change, many communities are debating what is to be done in order to sustainably grow into the future. One major strategy is dethroning the ‘reign’ of the automobile in favour of more sustainable options, since “transport is responsible for one third of carbon emissions, and 60 percent of oil consumption” (Northcott 2008: 217).

For many, “cycling has increasingly been positioned within the field of transport geography as a panacea to the ills created by automobility” (Spinney 2009: 820). As Vivanco similarly describes, an increasing amount of the interest in urban cycling is due its practice as a truly ‘green’ form of transport, “the wave of the future for car-choked, financially-strapped, obese, and sustainability-sensitive urban areas” (2013: xx). Researchers are thus understandably motivated to investigate the reasons activating the bicycle renaissance as well as ways to further it.

While “a more nuanced approach is emerging” over the past five years (Spinney 2009: 820), Oosterhuis correctly sums up the focus and concerns of the majority of research into urban cycling of the past decade: “why people use or don’t use the bicycle for utilitarian purposes and, consequently, how cycling can be

promoted” (Oosterhuis 2014: 20, in Cox 2015: 203). The urban and transport planning fields have been busy engaged in identifying the main promoters of utilitarian cycling - with well executed bicycle infrastructure high on the list (for example, see Basu and Vasudevan 2013, Buehler 2012, Clayton and Musselwhite 2013, Koglin 2015, Pucher et al. 2010) – as well as investigating the major obstacles to it (most often safety and weather concerns), and ways to mitigate them (as demonstrated by Amiri and Sadeghpour 2015, Chataway et al. 2014, Chen 2015, Kaplan et al. 2014, Saneinejad et al. 2012, Strauss et al. 2015).

Nevertheless, as Horton et al. (2007: 1) point out, ‘cycling’ is a singular term used for “many different kinds of cycling”. Urban cycling is vastly different from bicycle touring, racing, couriering, cycling for leisure or all of the many other things that people can do with bikes. Research in the social sciences has produced interesting work on all these topics, yet here I focus exclusively on urban cycling: the cycling that occurs primarily as transport in everyday life in urban spaces.

According to Freudendal-Pedersen, “despite the centrality of cycling in Denmark, little research has been conducted on the meaning and significance of cycling as part of everyday mobility” (2015: 31). Vivanco laments a “pittance” of anthropological research on the bicycle more broadly, surprising, he says, considering the discipline’s deep interest in “appreciating the diverse ways human movement and travel are structured and experienced” (2013: 10). The anthropological (or more frequently sociological) research that is focused on the bicycle often does so in tandem with the “mobility turn” or “new mobilities

paradigm” (Urry 2007: 6-7). Contemporary transport and communication technologies mean that we are living in an increasingly mobile world, altering “economic, social and political relationships” through new and complex forms of mobility and “processes of flow” (Urry 2007: 6). Cycling research often positions itself within this mobility paradigm, studying the particularities and effects of cycling motility.

While there may be a “pittance” of anthropological research on the bicycle and urban cycling, a growing body of work seeks to explore the specificities of experiences of urban cycling, or “the ‘immaterial’ embodied and sensory aspects of mobility” (Spinney 2009: 817). Let me briefly highlight certain dimensions of works that address urban cycling with this sensuous or embodied approach, a number of which focus on cycling experiences in Copenhagen.

Jones’ (2012: 646) analysis of commuter cycling in Birmingham suggests that urban cycling provides an interaction with less regulated and disciplined ‘sensespaces’ than the “increasingly managed, deodorised and commodified” sensespaces of western middle-class urbanity. Cycling in the city is an immersive experience in an environment that can be pleasurable or dangerous depending on one’s capacities to deal with the varying levels of ‘affective intensity.’

Larsen (2014: 60) draws on Jones’ consideration of affective intensities and capacities in his ‘autoethnography’ of urban cycling “in-a-new-way” (long distance rather than short distance commuting) and “in-a-new-place” (from Copenhagen to London). He artfully describes the often-ignored diversity of

experiences and meanings of urban cycling, and how embodied mobility habits develop and change over time. His work attends to individual and contextualised particularities of cycling experiences, rather than presenting 'urban cycling' to be a singular or homogenous experience.

In a similar consideration of habitual cycling, Freudendal-Pedersen's (2015: 31) recent publication addresses urban cycling in Copenhagen as part of residents' everyday lives, paying particular attention to the "structural stories" used to explain everyday actions as "universal truths". Her analysis helps emphasise how ethnographers can appreciate the ways in which people understand their own practices and habits.

While many researchers have approached the question of the effects of urban cycling (often in terms of health, increased physical mobility, and improved environmental factors) a handful of works are less pedestrian (so to speak) in their approach, resulting in far more intriguing analyses. Jensen (2013: 280) frames her account of everyday cycling in Copenhagen in terms of Foucauldian governmentality. Jensen argues that the governments of Denmark and Copenhagen "shape bike mobility as a hypermodern practice" seeking to foster particular kinds of urban subjectivities "through orchestrating the construction of people's own construction of urban selves". This rather cynical notion of the State's shaping of particular kinds of urban 'practice identities' through encouraging cycling has been significant throughout my own research, and is discussed in Parts 1 and 2.

Bicycle research, and in particular anthropological studies of sensuous, embodied urban cycling experiences, has traditionally been a fairly limited and specific field (Vivanco 2013: 9). However, due to the recent revitalisation of or return to the bicycle as a realistic and practical form of mobility – at least in a western, middle-class context – research has increased and diversified in its approach. My own research fits into this lineage. However, my interest lies specifically in approaching urban cycling ‘from the ground up’: analysing how cycling is learned, embodied and woven into mundane and routine everyday experiences in Copenhagen, as well as the broader horizons that shape these habitual moments, the most significant of which lies in the reorganisation of Copenhagen’s physical environment.

Part 1: The Bicycle-Body

I. Annie

Annie is a quick-witted 24-year-old Slovakian masters student studying in Copenhagen, whom I met early in my time in the city and came to know well. Over a meal in the exceptionally small kitchen of her apartment, Annie told me the story of how she first got a bike in Copenhagen. Although she had spent time researching second-hand bicycle shops before her move, she had been lucky to instead find a bicycle abandoned on a side street in the city after only a few days of moving to Copenhagen. It needed some repairs and did not run as smoothly or as quickly as she would have liked, but she was happy to save the money that she had anticipated she would have to spend on a bike. Besides, adopting and repairing an abandoned bike makes for a great story.

Like many people, Annie complained about her bike's defects. Although she was satisfied with it overall and would often speak of it with affection, she knew bikes could be faster, or lighter, or have a larger and more comfortable frame, and she often wished that hers did. It was not until it properly broke down that Annie realised just how much she was dependent upon it.

I feel trapped! I don't know the public transportation system at all and it's so expensive, so unless I absolutely *have* to go somewhere I just sit at home now. Sometimes I'll forget that it's broken so I'll be wanting to go meet some friends but then I realise – oh, I'd have to get the bus! It's horrible! I feel so trapped without my shitty bike! – Annie

While we might usually describe a bicycle as a tool or a vehicle, Annie's predicament suggests that these terms do not adequately describe how we *experience* a bicycle. It becomes clear that to describe the body's experience in the moment of cycling we must quickly incorporate the bicycle into our discussions.

II. Theorising the Bicycle-Body

How might we think about the body as we experience it and as it enables perception and experience? And what of the body in the moment of cycling, that is, the cycling body or bicycle-body assemblage?

Of course, on a very basic level, we cannot cycle without a bicycle. The action is necessarily dependent upon the existence of a bicycle, as Annie discovered when her bike broke down. We might describe her loss simply as someone missing her mode of transport, but experientially it seems the interaction between bicycle and self is more complex. Merleau-Ponty sees 'things' as "not merely pure extended objects in the Cartesian manner" but much more significantly as present in an interaction with the body (Moran 2000: 408). As such, in my theorising of the body I focus on the interaction and connection between the bicycle and the body.

Much Western philosophical thought has traditionally emphasised a dualist divide between the self and the external world, between subjects and objects, and between the mind and the body. However, post-Enlightenment social theory has frequently critiqued this model, emphasising that the way we experience the world is more integrated than this dualism suggests. Merleau-Ponty (1962, first published 1945) opposed these dualist notions in the development of his phenomenology. Differently to Husserl, who privileged 'consciousness' in human engagement with the phenomenal world through our constituting intentions

towards it, Merleau-Ponty stresses the inherent inseparability of body and mind in our 'being-in-the-world' (Moran 2000: 403).

Perception and experience start, as Merleau-Ponty shows us, with the body (1962). "The body is our general medium for having a world," our way of existing in and having intentionality towards the world (Merleau-Ponty 1962: 146). All of our active, cognitive, and perceptual potential (including our cycling potential) is enabled through embodiment, the nature of having, or rather *being*, a body: indeed, "To be is to have a body that constantly perceives the world through sight, touch, smell and so on" (Carel 2008: 21-22). As the "seat and *sine qua non* of human experience", the body becomes the first horizon of experience (Carel 2008: 21).

For Merleau-Ponty, dualist divisions of the mind and body disregard our experiences of them. Mental thoughts and physical actions are always the workings of the mind and the body integrated as one, necessarily occurring through interaction with the world beyond the self. Both Husserl and Merleau-Ponty explain the task of phenomenology as a "return to things themselves," by prioritising understandings of how we perceive and experience within and as a part of the world (Merleau-Ponty 1962: ix).

Rather than seeing the ego as "an absolute source of truth separate from the world" like Descartes, Kant or even Husserl, detaching it from the world while pronouncing it as its origin (Moran 2000: 404), Merleau-Ponty argues that "there is no inner man, man is in the world, and only in the world does he know

himself" (Merleau-Ponty 1962: xi). For Merleau-Ponty, "The real is a closely woven fabric," and as such the task of phenomenology is one of understanding lived perception and experience in our state of being *interwoven* with the world (Merleau-Ponty 1962: x). Merleau-Ponty advocates addressing our experience and perception as they function in our context within the world, rather than only looking at how we make cognitive sense of them. As such, I approach cycling in Copenhagen as my informants and I experienced it: as embodied subjects in an integrated place-world, rather than through the often dualist frameworks we use to conceptualise or make sense of our experiences.

As Annie's broken bicycle showed her, her bike was not as separate from herself as we may normally assume. After Annie had become comfortable with her bike, she gradually started to become less aware of it as she rode. Her focus was not turned towards her bike but moved *through* her bike. Her attention was not on how she was going, but where. Annie's bicycle started to slip from her view, as it became a less novel and more ordinary part of her life and mobility, at least until it broke down.

The altered and extended motility that her bike provided had become a part of Annie's understanding of her self. She embodied the sensation of moving at a certain speed and with a certain level of ease as given by her bicycle through her months of cycling. Her bicycle also changed her physically. Annie told me about how her thigh muscles had grown since she started riding ("but not as much as I'd hoped!" she said), and how she had started to notice knee pain caused, she believed, by a low bike saddle that she could not readjust. But more significantly

was how her bicycle altered the way she moved through Copenhagen as cycling became her main mode of transport. Through this process, her bicycle had become essential for her normal feeling of motility. Thus, when her bike broke down she experienced its loss as something much deeper: the sudden, drastic limiting of her own mobility in Copenhagen.

The bicycle had become enveloped into her bodily space, in a way that we may call a prosthetic. A prosthetic is something other to the body that becomes attached to or a part of the body as “an ‘addition’ or a ‘replacement,’... an extension, an augmentation, and an enhancement” (Smith and Morra 2006: 2). Regardless of whether it acts as a replacement for a missing or defective part of the body or as an extending addition to it, perhaps the defining characteristic of the prosthetic is that it adds to or increases the body’s capacities. In the case of the bicycle, the efficiency and speed of movement it affords provided an incredible and liberating alteration to Annie’s motility, as well as to her mobility. This increase becomes a normalised part of the individual’s experience and understanding of her own place-world as she gradually becomes accustomed to the sensation.

As such, when we speak of the body during the act of cycling we can instead speak of a ‘bicycle-body assemblage’. The two are separate yet integrally connected, unavoidably working together to produce the action of cycling. Without a bicycle a person is not a cyclist, just as “without the human rider, the object is not yet fully a bicycle” (Vivanco 2013: 43). While Annie can detach from her bicycle more easily than one may detach from other kinds of prosthetics

(such as a pacemaker), as she learned when her bicycle broke down, the prosthetic sensation or effect of a bicycle lingers.

Barratt (2011) discovered a similar effect in his research on rock climbing practices in the UK. Rock climbers, the technology they use (like specialised climbing shoes and crash mats) and the rock wall itself all interact to produce each climb. Barratt terms this interaction a ‘climbing assemblage’ to “conceptualise how the corporeal is inherently integrated with the technological through climbing” (2011: 398). Climbers and their shoes, like cyclists and their bicycles, are “relational, produced through and with others” (Barratt 2011: 398). These active practices are reliant upon many factors, or ‘actants’ as might be said in an Actor Network Theory approach². Climbing shoes allow a rock climber to attempt harder and different kinds of climbs, extending the capabilities of the climbing body, but in turn also limiting the sensations of the feet (due to their tightness) ultimately altering the feet physically over time (Barratt 2011: 403-404).

A prosthetic inherently both “inhibits and expands capacities” (Barratt 2011: 404). The boost to the body’s capacities comes at a price. Because of the “transcendence of the natural body and the *extension of human agency through the forms of technology that supplement it*”, we see a double logic to the prosthetic, as it functions simultaneously “as self-extension and [also] as self-mutilation or even self-cancelling” of human agency (Seltzer 1992: 157, in Jain

² For an in depth discussion of Actor Network Theory, see Bruno Latour’s (2005) *Reassembling the Social: An Introduction to Actor-Network-Theory*

1999: 34 italics in original). In Annie's case, her bicycle had vastly extended her motility, yet in doing so that motility was not located wholly within herself.

The intermingling between bicycle and body and the functioning of bicycle as prosthesis meant that when Annie's bicycle broke down, she experienced not merely the breaking of a tool, but far more profoundly a *bodily* breakdown. Carel describes bodily breakdown (or illness) as a division between the normally harmonious "biological body" (the physical functioning of "the body as object"), and what we expect of our body's capacities, the "body as lived" (2008: 26). In this state, the body's abilities and actions no longer match our expectations, and as such the body "ceases to be an invisible background enabling some project and becomes a stubborn saboteur instead" (Carel 2008: 26). In the frustrating state of bodily breakdown, our bodies cannot do what we normally take for granted, and so we must spend our energy focusing on developing workarounds. To further understand Annie's bodily breakdown I turn again to Husserl and Merleau-Ponty.

Although she did not think of it in these terms, Annie's (bicycle-)bodily breakdown potentially sets her on the path towards undertaking a phenomenological investigation of her cycling experiences. The breakdown gave her a moment outside of her 'normal' and unconscious way of experiencing cycling. Most of our experiences, Merleau-Ponty tells us, are pre-reflexive, embodied and sensual: "My field of perception is constantly filled with a play of colours, noises and fleeting tactile sensations which I cannot relate precisely to the context of my clearly perceived world, yet which I nevertheless immediately

'place' in the world" (Merleau-Ponty 1962: x). This idea of our usual pre-reflexive experiential way of being in the world mirrors Husserl's idea of the 'natural attitude', "our normal, taken for granted way of approaching the world" (Moran 2000: 144). For Husserl, phenomenological investigation necessitates a break from the natural, taken for granted or non-reflexive attitude, so that one can examine and understand more of the reality of an experience as well as its horizons.

Husserl calls this break the 'phenomenological reduction,' which can occur in different forms but whose "essential feature is always to effect an alteration or 'change of attitude'" (Moran 2000: 144). Although Husserl saw a complete reduction as the way into true internal (conscious) and subjective experience, Merleau-Ponty argues that "the most important lesson which the reduction teaches us is the impossibility of a complete reduction" (Merleau-Ponty 1962: xiv). There is no reduction that can *remove* us from the world. Nevertheless, undergoing the phenomenological reduction allows us to shift perspective, step back and examine how we *intend* towards the world in the state of our natural attitude.

The breakdown of Annie's bike allowed her to experience such a reduction, as she shifted her perspective from the natural attitude and reflected on her perception of the experience of cycling, rather than her experiential apprehension of it. In Annie's case, the bicycle breakdown meant a severe limiting of her now embodied sense of extended motility. Although Annie's body and her bicycle are physically distinct, she felt the breakdown of her bicycle so

intensely because it had become a prosthetic part of this invisible, enabling background, a fact she could only recognise after the reduction.

In sum, when cycling, Annie's tactile sense extends through the bicycle. Annie would say that she "feels the pavement" when cycling, rather than that she "feels the tyres touching the pavement", just as Merleau-Ponty's "blind man is rather aware of [his stick] through the position of objects than of the position of objects through it" (Merleau-Ponty 1962: 143). To learn to ride a bicycle or "To get used to a hat, a car or a stick is to be transplanted into them, or conversely, to incorporate them into the bulk of our own body" (Merleau-Ponty 1962: 143). A prosthetic extends my reach (what I may grasp as well as where I may move in the city) as I incorporate it into myself. A bicycle is, experientially speaking, prosthetic, and as such when we speak of the body during cycling we ought instead to think of a bicycle-body assemblage.

III. Bicycle Classes at Røde Kors (The Red Cross)

Learning how to ride a bicycle is not an easy task. Yet once learned, the difficult process of learning to ride a bike is often forgotten. How does this learning process function, and what exactly is involved in learning 'how to ride a bike'?

The Danish Red Cross (Røde Kors) runs a program in five different locations across Copenhagen during spring and autumn teaching people how to ride a bike. As part of the Red Cross' integration program, volunteers have taught thousands of individuals how to ride a bike as well as Copenhagen's road rules since the program's commencement. The classes are free to the public and open to all individuals, most frequently attracting immigrant women. Students at all levels of experience come to the classes, from those starting completely from scratch, to those who have ridden a bike before but want a 'refresher course', to those confident in their bike skills but who feel uncomfortable riding in Copenhagen without having learned the road rules. I would have made many less mistakes early on in my time in Copenhagen had I been able to attend these classes when I first arrived.

The first class back from summer break was held in the concreted playground of a school in a northern suburb of Copenhagen on a fresh, sunny morning in early August. Three volunteers ran the class: a Danish man and woman and a younger Brazilian woman who had moved to Copenhagen a number of years ago. Slowly the students began to arrive, six women in total today (myself included). Two of the women had been to the classes before; the volunteers greeted them warmly

and spoke about how well they had been progressing. The other three women had not attended the classes before, so the volunteers' first task was to determine their level of skill. For two of them it was their very first time on a bike, so the volunteers would need to teach them right from the very beginning. The third, Fulya, had only recently learned to ride a bike, and was still quite shaky.

New students write their names down on a sheet with columns describing the different skills they will eventually be tested on:

1. Køre ligeud sikkert (Safely riding in a straight line)
2. Dreje kontrolleret til højre og venstre (Controlled turns to the right and left)
3. Sætte i gang og bremse på commando (Push off and break on command)
4. Give tegn (Give signals)
5. Se sig bagud og til siderne (Look to the back and sides)

After the students have spent several classes learning and practicing these skills, the volunteers test them (when they are ready) to prove that they can safely and confidently handle these five skills. Once they have successfully completed each test, the volunteers take students out to train in the traffic, going for 30-40 minute rides through different types of bicycle lanes and traffic situations. If students can complete all five technical skills and five in-traffic rides, they will receive a cycling diploma, proving that they can safely ride on the streets of Copenhagen. Morten (one of the volunteers) told me that while many people do this for their own satisfaction, some participants go through the program

because some occupations (like some social workers) require proof of your ability to cycle.

The students I spoke to enjoyed the classes, which made the challenging learning experience feel safer and easier to tackle. The volunteers made an effort to make the classes relaxed, comfortable and social. Morten even brought out fresh strawberries, homemade Danish biscuits and traditional homemade hyldeblomst (elderflower) cordial for the students to enjoy during a morning tea break. The women in this class had different specific reasons for wanting to learn how to cycle, but all of their reasons related to wanting to become a part of this aspect of mobility in Copenhagen.

IV. Becoming a Bicycle-Body

How can we understand what these women experienced going through the program? How did each of them change from being completely inexperienced with a bike to moving comfortably through Copenhagen as a bicycle-body assemblage? I suggest that through learning how to cycle, the women at the Red Cross program altered their selves to come to 'know' the bicycle-body assemblage as a modified self. As they learned to cycle in Copenhagen, these individuals were further transformed by their interactions with the city. These learning 'moments' result in a self or practice identity that in time may become what we might call a 'cycling Copenhagener'.

As similarly explained by Merleau-Ponty, "learning is viewed as the process of incorporating and absorbing new competencies and understandings into our bodily schema" (Yakhlef 2010: 409). Like everything else, learning is bodily, since all things must happen through the body. Learning is also a constant dimension to human life because each person is, as Tim Ingold phrases it, "a singular locus of creative growth within a continually unfolding field of relationships" (Ingold 2011: 4-5). Learning is a necessary and continuous feature of human life: we are always 'becoming', continually enveloping new experiences, new sensations and new knowledge into our thinking, bodily selves. Our inherent capacity for growth is what enables us to expand ourselves into bicycle-body assemblages. As we age our becoming may become a diminishment, a more constrained relation of our bodies to the affordances of the environment.

Skill acquisition is a particular kind of learning since it requires deliberate effort on our part to learn a new set of actions, processes or thoughts. This effort takes the form of practice. Like all skills, and physical skills in particular, an individual must *do* cycling in order to learn it; “there is no substitute for practice when learning a trade or playing a sport” (Marchand 2010: S104). A practical skill like cycling “develops *in* bodily practice: *in* repetition and rehearsal” since it is only through the gradual building up and layering of similar experiences that an individual can incrementally alter her bodily knowledge to encompass a new skill (Marchand 2010: S104).

This learning in activity is of course always also cognitive by nature. Trevor Marchand describes how, in demonstration, “skilled activities... are available to, and act upon, the motor cognition of an observing audience” (Marchand 2010: S101). The ability to refine motor skills through observation as well as physical practice is possible because of the nature of embodiment. Our actions and thoughts are not physical *or* cognitive but always both; they are one and the same.

The process of learning through practice and gradual progress was what the women experienced through the Red Cross program. Fatima, one of the women who was learning to cycle for the first time, had to constantly practice pushing off her bike as she first learned. Most often the bicycle would very quickly topple to one side as her balance was thrown, however every so often her start would be more successful and she would be able to cycle some distance before stopping. Each of these attempted iterations of the same action allowed Fatima

to slowly learn the minute differences between a push off that would be successful and a push off that would fail. As Marchand writes, “The more experience one has of an activity, the finer the detailed ‘noticed’ and grasped” (Marchand 2010: S104). Fatima was a very fast learner; we might say that her habitus and bodily schema already included movements that were similar enough to cycling that they could aid her learning process (Bourdieu 1977). Within half an hour of repeating this push off motion, Fatima was able to push off successfully more frequently than unsuccessfully, and she could begin the next step of learning to keep her bicycle upright for longer. Her elation was clear and well deserved.

As Fatima learned this skill she was incorporating it into her bodily schema. Over time, the ability to push off on a bicycle and start cycling will become an action that will not require conscious thought or consideration. Instead, the action will become embodied: an aspect of what she intuitively knows she can do since herself has transformed to encompass this skill. “A movement is learned when the body has understood it, that is, when it has incorporated it into its ‘world’” (Merleau-Ponty 1962: 139). Fatima will gradually incorporate even more cycling skills into her bodily schema, and her self will over time include the marker of ‘cyclist’. “Learning,” writes Yakhlef, “involves the construction of identities... It is a process of forging an identity in activity” (Yakhlef 2010: 412). Through learning to cycle at the Red Cross, Fatima’s self expands to encompass the bicycle-body assemblage.

V. Night Ride

It is sometime after 2am on a Sunday morning. Brian and Thomas are cycling just up ahead, looking fantastically Copenhagen-ish with their matching dark blond hair, stylish camel-coloured coats and slim black pants on their sleek black bikes. They weave between each other with ease up the lanes of Amagerbrogade, the wide, dark street free of car traffic but surprisingly busy with partygoers heading home or on their way out for the night. Those walking down the street are bundled up against the biting, early March weather and infamous Amager wind, but for us, already a few drinks down, the cold wind is refreshing more than anything else.

We approach the crossing from the island of Amager onto Christianshavn and glimpse Stadsgraven Lake next to us. Thomas and Brian are chatting in Danish and laughing with good-humoured drunken bravado. I can't understand a word of what they're saying but the tone is unmistakable – it's great fun to be young, attractive, and free on a Saturday night in a cosmopolitan city.

I keep myself behind them on the road. I've become more confident on my bike in the last few weeks but I know how limited my skills are and don't feel the need to embarrass myself. Regardless, it's a wonderful ride tonight; cycling has started to feel blissful and even effortless at times. The sensation of cycling, I've discovered, is exhilarating.

Throughout the ride Thomas and Brian have been turning their heads to check on me, as they always do when we are out cycling. It seems Thomas is impressed with my increasing ability. Stopped at a red light, he switches from Danish to English and speaks to me –

‘You’re doing quite well, you know,’ he says.

I laugh and thank him. The light turns green and we push off again. Grinning, Thomas extends his hand behind him, offering a high five in congratulations. I speed up to meet him but take my hand off the handlebars at just the wrong moment in my wobbly start. I miss the high five, lose my already precarious balance and crash down across the middle of the intersection. Quite well, indeed...

VI. Cycling in Copenhagen

Just as everything a person does happens through her body, all things must happen in place (Casey 1996). By learning to cycle in Copenhagen, the women at the Red Cross are not learning an anonymous, commodity-like skill devoid of context. Instead, these women are learning how to cycle in *Copenhagen*: they are learning a skill within a specific context or setting. The two are inseparable, or as Merleau-Ponty writes, “I am not in space and time, nor do I conceive space and time; I belong to them, my body combines with them and includes them” (1962: 140). One must learn cycling in context as we are necessarily already *of* context.

As Dreyfus explains, “The student needs not only the facts but also an understanding of the context in which that information makes sense” (Dreyfus 2004: 177). In Dreyfus and Dreyfus’ five-stage model of skill acquisition, learning progression is largely reliant upon a learner’s gradually increasing familiarity and understanding of the context, “situation or domain” in which the skill takes place (Dreyfus 2004: 178).

Informants who had not been raised in Copenhagen but already knew how to ride a bike frequently spoke about needing to learn new specific skills upon moving to Copenhagen. When Fulya decided to move from Istanbul to Copenhagen for work, she resolved that she would teach herself how to ride a bicycle beforehand so that she could more easily adjust to life in this new city. Yet when she made the move, she discovered that her newly embodied skills were not nearly adequate. Between other cyclists whizzing past, fast cars barely

a few metres from her, the infamously changeable Copenhagen weather, and knowing when to signal, when to stop, where in the lane to position herself, and so much more, Fulya found this new context and the 'affective intensities' that the streets of Copenhagen threw at her far too much to handle (Jones 2012). Although Larsen might describe the 'affective capacities' one requires to combat the 'affective intensities' of Copenhagen as "low", for someone who has recently learned to cycle there is much capacity to develop (Larsen 2014: 64).

Jones describes a body's 'affective capacities' as "the extent to which it can have an impact on the world around it while absorbing what the world throws at it" (2012: 648). Fulya wanted to attend the Red Cross program to help her develop these affective capacities, so that she could feel confident in her bodily capabilities in what she found to be the confronting sensory experience of cycling in Copenhagen. She thought the Red Cross program was incredibly helpful for her, particularly the 'ride along' sessions, since they helped her feel safer on the street, boosting her affective capacities.

Annie, on the other hand, found the affective intensities of Copenhagen's streets less abrasive. Annie learned how to ride a bicycle as a child, and used to enjoy spending time riding mountain bikes on the weekend with her family when she was younger. Although she had experience cycling, she had never cycled as a form of commuting, and she had never visited Copenhagen before she moved there for her studies. Annie had the embodied skills she needed to manoeuvre a bicycle but, as she learned, each new cycling situation or context requires a new learning experience.

After Annie found her bike by the side of the road, she was told that there was one more hurdle to overcome before she could set about conquering Copenhagen by bike. Beáta, her friend from Bratislava with whom Annie was living, refused to let Annie ride without first teaching her how to ride in the city.

Beáta taught me signalling, mostly, and how to be aware of the cars and how to handle biking in between people. Not biking itself, of course, I could bike since I was five or six years old, but she taught me how to deal with the traffic situation... I can understand that people who have never been or have very rarely been in real traffic – in car traffic – would be scared to actually ride a bike, but for me it was kind of natural. I was a bit shaky on the bike at first because it was a city bike, you know, where the handlebars are concave? I'd only ever ridden mountain bikes before where the handlebars are straight. So at first my hands were like 'I don't know how to go straight on this bike!' but I got used to it really quickly in like one or two days, seriously. It took me one to two days to get used to it and then I had no problem with anything. – Annie

Annie drew on her embodied knowledge of riding mountain bikes to help her transition to riding city bikes, even as she encountered the initial difficulty of a differently constructed bike. She also found that her long-term experience of driving in Bratislava equipped her quite well to understand how to manoeuvre through traffic. Copenhagen's affective intensities were less harsh for her because of her previous experiences mountain biking and driving in traffic. In other words, Annie's habitus supported her well in her move to Copenhagen. However, she still had a significant learning experience to work her way through, with her friend Beáta as a guide.

The most substantial skill-set that Annie learned (what she referred to as "the traffic situation") relates partly to the specific ways people cycle in Copenhagen.

The ways Copenhageners cycle are governed by laws and regulations, colloquial rules and agreed behaviours, individual choices, and situational improvisation. Understanding all of these governing schemata is reliant upon the learner being 'in place' (Casey 1996). While the Red Cross students can be taught the rules of the road, the meaningfulness of signalling or certain road rules like the 'Copenhagen Left Turn' exist because of the context. Beyond the confines of the school's playground, the streets of Copenhagen provide the contextual meaning for different rules or practices. In fact, they cannot have meaning without their context, as activities are "always already" meaningful (Heidegger, in Moe 2004: 219).

VII. Learning the Copenhagen Left Turn



Figure 1 A cyclist waits to turn left at an intersection (photo by author)

To turn left across an intersection in Copenhagen on a bike, you do not simply turn left with car traffic. Instead, you must do what is known as a ‘Copenhagen Left Turn’ or a box or hook turn. Moving through the intersection, you keep to the right and slow down, signalling your intention to stop. At the other side of the intersection you turn sharply to the left before stopping so that you are facing the way of your turn behind the curb and just ahead of the waiting traffic. Then, when the light turns green you may go straight ahead through the intersection.

This Copenhagen Left Turn is practiced as it keeps cyclists always to the right of the road (where bicycle lanes are located) and out of car traffic. It is considered

to be the safest way to turn left on a bicycle through an intersection (although this notion is contested, see Hembrow 2010 for example) and has now become the required left turn in other areas around the world.

However, if you reach an intersection at which you are turning left just as the light turns red, you must wait all the way through that red light, then cross the intersection only to wait for another full cycle of the lights before continuing on your way. Although safe, in some situations the Copenhagen Left Turn adds more time to a ride than may be desirable.

Unsurprisingly, once new cyclists become more familiar with the streets they learn another form of left turn that some cyclists choose to make in this situation. When reaching the intersection at which you are turning left, if the light turns red, that means that the pedestrian light is green. Cyclists may choose to dismount their bikes and walk left across the pedestrian crossing (riding a bike across a pedestrian crossing is illegal) and wait at the intersection for the light to turn. As the cyclists still in the lane you have left behind go straight ahead at the green light you can walk straight across the intersection in the same direction, and on the other side of the road turn left, remount your bike and continue on your way having cut out the second red light.

The first time I performed this colloquial left turn I was following a San Franciscan exchange student, Ben, from Jernhesten one cold evening in March to meet friends at a community dinner. Ben rode quickly on the dark streets, weaving swiftly between cyclists with an ease and casualness I could not mimic.

Copenhageners are known for being law-abiding on the streets, and having developed my cycling habits in this manner I had no practice being assertive enough to match Ben's San Francisco moulded cycling practices³. But doing my best to keep up with him paid off: I learnt an easy way to shorten the time of my rides.

The Copenhagen Left Turn and this colloquial way of turning left make sense on the streets of Copenhagen. A cyclist can come to understand when to choose one system over the other only by being in place and gradually increasing one's familiarity with the city. Otherwise stated, the cyclist comes to know or feel over time when deviating from the regulated way to turn left is right.

But learning in place and with increasing familiarity in Copenhagen is not just the action of a subject upon a passive place. Instead, subjects and places "interanimate" each other (Casey 1996: 24). While not active subjects, places can be "'actants' of sorts", with the agency to affect and act upon the subjects within them (Latour 1993 in Navaro-Yashin 2009: 8). For instance, climbing a mountain "involves an engagement between the identity of the walker and the being of the mountain" (Northcott 2008: 229, discussing Arne Naess 1989). Through a

³ One Chicagoan told me during a ride in the snow in January (as he swapped quickly between cycling on the bike lanes and road) that he found cycling in Copenhagen "astronomically boring" because everyone obeyed the rules. "It makes cycling like driving a car, why would I want to do that?" he asked me. I often noticed many differences in cycling habits between locals and foreigners in Copenhagen who were used to cycling in other cities. Copenhagen's bicycle laws are easy to follow and take away much of the battle for the road that cyclists in other cities enjoy or endure (see for example Jones 2012). Although this may make cycling less attractive for some, it certainly makes it a more mainstream and accessible transport option for the majority.

heightened realisation of her emplacement, the climber “becomes aware that in this embodied relation her identity is in part constructed by the mountain” (*ibid*). By nature of being in place, identities are always “extended beyond the self so that the frame of self-identity *includes*” place (*ibid*), or in Casey’s terminology, “we are not only *in* places but *of* them” (Casey 1996: 19). These concepts of course draw upon Merleau-Ponty’s emphasis on the inseparability of self and world.

While Part 2 further explores aspects of being in place in relation to urban cycling, here I emphasise that this transformative process of learning to cycle alters the self by incorporating the new subjectivity or practice-identity of the ‘cyclist’. And since this learning happens in the place of Copenhagen, and as we are all *of* as well as *in* place, the learner becomes not just a cyclist but, over time, a cycling Copenhagener.

VIII. Tinkering in Jernhesten

In old whitewashed converted stables, a group of mostly male university students are tinkering on their bikes. Each one has their bike suspended mid-air on a bright blue bicycle stand, with an array of tools spread next to them on the ground. The local youth radio station is pumping out of speakers inside the room that makes up the repair shop proper while one of the women, unscrewing the bolts that hold her back wheel in place, bobs her head along to the beat. Inside the workshop, a man inspects a wall covered in tools, each held up by hooks and outlined with black marker. After scrutinising several differently sized hex keys, he picks the one for the job and heads back to his bike. By the entrance to the stables, four students huddle around a rusty, red road bike that's proving a challenge to repair. The students mutter between themselves, pointing to different parts of the bike and testing out different components to try and find the fault. They regularly go to the wall of tools and back to the bike, pulling different mechanisms apart to test out their ideas of how to fix it.

There is a relaxed, focused atmosphere in the repair shop. Everyone here is preoccupied with the intricate work they are doing, but for the most part the work is enjoyable. Other than a handful of students who have dropped by to urgently repair something on their bikes, most of the people here come regularly to tinker, work on a longer-term project to improve their bikes, or even just hang around for the more social element.

Suddenly the group of students by the entrance cheer – they’ve finally figured out how to fix the problem with the road bike. A couple of them pat each other on the back before heading back to their own bicycles to finish up for the evening.

There is something immensely satisfying about ‘tinkering’ with a bike. With a little trial and error, a wrench, some grease and your own ten fingers, you can pull a bike apart and see how it works. A bicycle is relatively simple and comprehensible; unlike so much of the technology we use everyday. Although a technically brilliant machine, a bicycle will reveal its mechanics to you if you inspect it closely. Turning the pedals rotates the gears, pulls the chain and turns the wheel, propelling the bike forwards. In its essence, this is how a bicycle works, and while you can spend years becoming an expert, learning a relatively small set of skills to repair or improve your bicycle is an achievable task, and one that is exceptionally empowering.

The scene above took place at Jernhesten (‘the iron horse’, slang for the bicycle), a student volunteer run bicycle repair workshop housed on a university campus in Copenhagen. Copenhagen University agreed to fund and support Jernhesten after students proposed the idea since while the vast majority of students in Copenhagen have a bicycle, very few have the tools to fix it themselves and bicycle repair shops services can be expensive. Thus, since 2012, every Tuesday and Thursday evening during semester students from the university come to the shop to repair their bikes, receiving help from the group of volunteers if they need it.

Many of Jernhesten's volunteers started volunteering after using the shop to fix their bikes. For instance, Magnus (a 'born-and-bred' Copenhagener) first went to Jernhesten a couple of years ago when his bike was broken "in so many ways" that he could not afford to have it repaired in a professional shop. He had intended to research how to fix the problems himself and simply borrow tools from friends, but he struggled to find all the tools he needed. Jernhesten, however, has all the equipment you need, and with money from the university they continue to make new purchases. As Magnus begun to use Jernhesten more frequently, he signed up as a volunteer so that he would have access to the shop outside of its opening hours and could spend more time working on his bike.

Magnus kept coming back to Jernhesten after he found that he enjoyed practicing and using his newfound maintenance skills. As Luce Giard discovered through learning how to cook, practical skills carry with them an incredible joy "of manipulating raw material, of organizing, combining, modifying, and inventing" (Giard 1998: 153). These practical skills are indeed a form of intelligence, "a subtle intelligence full of nuances and strokes of genius, a light and lively intelligence that can be perceived without exhibiting itself, in short, *a very ordinary intelligence*" (Giard 1998: 158, italics in original). The everyday intelligences involved in bicycle maintenance are similarly profound in this 'very ordinary' way, altering one's cycling experience and even boosting the independence or empowerment to be found in routine urban cycling. One is never thereafter afraid of a puncture, and its puncturing of plans and schedules.

Learning bicycle maintenance skills is a transformative process of incorporating new abilities into one's self, just as the women at the Red Cross cycling program experienced. In coming to know the mechanisms of the bicycle while tinkering at Jernhesten, the person can better comprehend its function, and the experience of interacting with the bicycle shifts. The students at Jernhesten feel this altering of the bicycle-body assemblage as an empowering experience, as their individual capacities are extended and independence increases.

For example, Magnus found that learning how to 'tinker' strengthened the connection he felt to his bicycle. Magnus always relied strongly upon his bicycle since his family never owned a car when he was growing up. However, he also said that it was not until he began to spend time at Jernhesten that he began to feel interested in his bike. Through tinkering with it his understanding grew, and as a result of this so did his connection. Magnus explained that most of the bicycle maintenance skills he learned were gained through "trial and error", a process that became easier with experience. During an interview, Magnus explained how he learns how to fix his bike:

When you get the *feel* for the bike, when you have been working on it for some time, you start to go "oh, this is wrong now, it must be something along the lines of this and this and that." So I think by now it's more just a matter of experience, of trial and error.

After learning maintenance skills, Magnus begun to "feel" minute changes in his bicycle that he never could previously. Now when he cycles, the adjustments that he has made to his bicycle are part of his experience, he is continuously *feeling*

out its performance. He has significantly boosted the extent to which he 'knows' the bicycle component of his bicycle-body assemblage.

These maintenance skills and newfound ability to feel the performance of his bicycle have further led to Magnus developing a keen interest in other forms of bicycles and cycling. When I asked him if he enjoyed working on his bicycle, he responded:

Yes, I do. It was actually something that really spurred me onto spending more time on it, playing around on my bike. And now I want to ride my bike more, I want to watch bicycle races. It's really actually quite strange, because I never really did it a lot but now it's just... I think this, uh, this fascination with the machine, and the way things are working, I really caught onto it, so I've been spending a lot of time also on bikes in other parts of my everyday routines. Maybe I just realised that I needed something to concentrate on... a hobby (*laughs*).

'Playing' on or with his bike is a fun learning experience for Magnus. Learning and skill acquisition often involves a level of playfulness (Dreyfus 2004). But as well as enjoyment, Magnus gains an increased understanding of how his bicycle functions and an expanded sense of independence as his mobility becomes less dependent upon factors he cannot control.

Part 2: The City

I. København

København, or Copenhagen, translates to the 'Merchant's Harbour', as Copenhagen was originally a fishing and trading village as early as 900 AD (Andersen and Jørgensen 1995: 14). Archbishop Absalon 'founded' and fortified the city in 1167, and some of inner Copenhagen's streets still trace the roads from these early days (Andersen and Jørgensen 1995: 14). Much of the city was destroyed and rebuilt after several large fires in the 18th and 19th centuries (Wishard 1986: 543), resulting in a Scandinavian city filled with architecture dating from many different periods.

Despite Copenhagen's long history, the planning of the city is largely based around a design created in 1947 known as the 'Finger Plan' (Næss 2006: 38-39). The intention of the Finger Plan has been to promote measured urban growth in Copenhagen while maintaining important green space. The Finger Plan places inner Copenhagen as the palm of a hand, with five major roads and railways as fingers extending outwards to form the shape of a hand (Andersen and Jørgensen 1995: 16). Green spaces of "farmland and forests" are preserved between the fingers, so that even in spite of some more recent development between the fingers, Copenhagen's residents are always close to the natural environment (Næss 2006: 38). This basic plan has been maintained since its conception and acts as the overarching blueprint for the city.

The desire to maintain closeness with the natural environment within the confines of the city is further emphasised in the City of Copenhagen's goal to ensure that "90% of all Copenhageners must be able to walk to a park, a beach or a sea swimming-pool in under 15 minutes" (Municipality of Copenhagen 2007: 15). The priority given to green (and blue) space is felt throughout Copenhagen, and combined with the city's efforts to reduce road traffic means that much of the city carries with it a sense of the peace and beauty (and air quality) of the natural environment. Even the bright green rubbish bins that line Copenhagen's public spaces as part of an anti-littering campaign called "REN kærlighed til KBH" ('Pure love for Copenhagen', 'ren' carries the additional meaning of 'clean') promote the connection between urban environmentalism and pride or love for Copenhagen.

Copenhagen is often presented as a small but important cosmopolitan European city with an international focus. It is spoken of as a city large enough to be vibrant but small enough to be cosy (or the Danish 'hyggelig'). Copenhagen is positioned as progressive, green, the meeting point between Europe and Scandinavia, and the 'most dynamic' city in the region.

II. The Bicycle in Denmark

Cycling has held an important role in Denmark since its worldwide boom in the late 19th Century and early 20th Century. The bicycle even figures into narratives about the German invasion of Denmark on April 9, 1940, one of the country's most important national stories of the last century. The stories paint a heroic and humble image of Danish troops cycling out to meet the invading forces during the brief campaign that led to five years of Nazi occupation. Copenhagen received its first official bicycle path in 1905 as the result of lobbying by Cyklistforbundet, the Danish Cyclists' Federation (Carstensen et al. 2015: 8). Just more than a century later, Copenhagen's bicycle network is nearly 500km in length, and part of the reason why Copenhagen is considered one of the world's bicycle capitals.

The bicycle is presented as emblematic of Copenhagen and Denmark more broadly. The Municipality writes that from the 1920s "The bicycle [has been] praised... as the utmost symbol of a healthy, natural, everyday existence in Copenhagen" (The City of Copenhagen 2013a: 8). Most Danish tourism campaigns feature images of cycling, urban Copenhageners, and government websites discuss how few things are as Danish as the bicycle. Not only is Copenhagen a city of high cycling rates, the bicycle is representative of what are seen to be traditionally 'Danish' values.

In Denmark, the bicycle is thought of as an equaliser, as something 'for everyone'. Although some are restricted from bicycle riding (particularly those with

disabilities) it is true that the vast majority of people can learn to ride a bicycle, and in Copenhagen, most take advantage of this regardless of income or social class. I frequently heard Danes quite proudly proclaim that the richest and the poorest in society ride bikes in Denmark, and indeed the bicycle paths of Copenhagen present a broad cross section of society.

When cycling, everyone is pushed onto the street together, preventing the “impenetrable borders between social groups” that differing access to forms of urban mobility can create (Jirón 2009: 127). Northcott argues that the “speed devices” of contemporary urban life (motorised transport and communication technologies) “[create] a hierarchy which privileges an elite who enjoy the power it confers at the expense of others who live life in the ‘slow lane’” (Illich 1974 and Virilio 1986 in Northcott 2008: 216). By reducing the speed at which citizens are moving through bicycle transport (which ironically usually offers the shortest travel time), cycling in Copenhagen reduces the urban inequality caused and reflected by “differentiated use of mobility systems” (Jirón 2009: 127). Through promoting an accessible and affordable form of transport, Copenhagen helps lessen the impact that wealth and class can have on mobility, reducing inequality by providing the same opportunity for ‘place enlargement’ for residents, regardless of income (Jirón 2009).

Similarly, although there is of course a large difference between high quality and low quality bicycles, possessing a bicycle on either end of the spectrum makes little difference to your level of mobility in Copenhagen, given the ease of travelling on the city’s very flat roads. Bicycles can, of course, be read as status-

markers, however few in Copenhagen seem to consider bicycles in this manner. Bikes can be exceptionally cheap in Copenhagen, particularly when purchased second-hand. I visited one second-hand bicycle reseller on Amager (the island that makes up the southern section of Copenhagen) that sold all of its bicycles for 400DKK (around \$AUD84, as of October 2015). Sofie, a German masters student studying in Copenhagen, found an excellent bicycle here that she fell in love with and eventually took back to Berlin with her after her semester was over. Given Denmark's low poverty level, 400DKK is affordable for the vast majority of people.

Denmark is considered to be one of the most egalitarian societies in the world. In different studies, Denmark is regularly found to be a nation with one of the lowest levels of inequality (AFP/The Local 2015) and corruption (Transparency International 2014), and a country with one of the highest levels of environmentalism (Tamanini 2014) and 'freedom' (including the highest level of personal freedom) (Vásquez and Porčnik 2015). Denmark is often referred to as one of the 'happiest' nations too (Helliwell et al. 2015), with strong "social trust" in others (Svendsen et al. 2012). Denmark prioritises its citizens, and it seems that the bicycle (by nature of being accessible to many people) is an important part of this prioritising as a way to reduce inequality.

Denmark's prioritisation of its citizens is also part of what drives its interest in environmental sustainability. A healthy environment benefits the people who live within it, and Denmark accordingly is greatly investing in sustainability and the environment (Denmark.dk 2015). Promoting the bicycle in Copenhagen is an

important aspect of this since it reduces reliance on polluting transport forms. Although Copenhagen was heavily car reliant in the 1960s with the growing rise of automobile ownership, a number of factors in the early 1970s triggered a push away from car use back towards the bicycle (Carstensen et al. 2015: 9-10). The early 1970s saw the highest rate of cyclist fatalities in Denmark and Copenhagen as cars and bicycles struggled to find space on the busy roads, and groups like Cyklistforbundet organised in protest of the deaths and the concurrent introduction of motorways in Copenhagen (*ibid*). The 1973 oil crisis signalled a turning point; car-free Sundays were introduced and a range of measures forced Denmark to consider other avenues (*ibid*). While a complex and contentious process, Copenhagen has gradually mobilised to control the car and to liberate the bicycle. Since the 1970s, levels of government, interest groups, and the public more generally have worked hard to increase cycling rates. This push has manifested in Copenhagen's urban environment, as the city invests in reconfiguring its streets and public spaces to prioritise bicycle transport and gradually reduce car use. This mass intervention and change to the form of the city is the subject of the following sections.

Recently, research calculated that every kilometre driven costs Denmark 6.59DKK, but every kilometre cycled earns the country 3.65DKK (The City of Copenhagen 2011: 9). The fact that this kind of research is funded and publicised indicates the importance Denmark is placing in cycling promotion. The bicycle is valued in Denmark because it is environmentally friendly, beneficial for health, increases sociality, and reduces inequality in a society.

III. Interventions in the City

Nørrebrogade, the main road through the diverse and popular neighbourhood Nørrebro in the north of Copenhagen, is a major cycling thoroughfare in the city and typifies the kind and scale of changes that Copenhagen is making to its physical landscape. Despite being a main route from outer Copenhagen to the city centre, Nørrebrogade has never been a wide street, and as such has always had notoriously bad car and bicycle traffic (Colville-Andersen 2008). In 2008, work commenced to ease traffic, converting the street to its current, bicycle-friendly state. Traffic lanes were removed (leaving a single car lane in each direction) to allow for the bicycle lanes to be widened to 3m in some areas (The City of Copenhagen 2013b: 12). Parts of the road were shut to private car traffic, leaving space just for buses and taxis. The Green Wave (described below) had already been implemented on Nørrebrogade, but its efficacy increased with the widened bike lanes. While it was a major overhaul, the area has now adjusted to the massive changes, just as the next stage of work on the street commences to extend and improve the alterations further north.

The intervention on Nørrebrogade received surprising support. Klaus Bondham, the former Traffic Minister who proposed the changes (and now heads Cyklistforbundet), enjoyed a majority support from the council for what could have been a highly controversial proposal (Colville-Andersen 2008). Some of the major concerns were that the renovation would simply shift car drivers onto side streets (causing even greater traffic issues) and that reduced car traffic would

diminish the popularity of the street and cause small business closures. Colville-Andersen reported a few years after the renovations that the changes had in fact triggered a reduction in car traffic throughout Nørrebro and that, despite fears, the business closure rate around Nørrebrogade did not exceed that of the rest of the city (Colville-Andersen 2013). In fact, the increase of pedestrian and bicycle traffic might suggest that business in the area has improved. Nørrebrogade reduces car traffic, increases bicycle traffic by making cycling the fastest transport option, boosts pedestrianism, and promotes social interactions in the street. The changes to the street have drastically altered the physicality of the space, as well as the economic and social interactions that occur there. Nørrebrogade is now as popular and vibrant an area as the rest of the neighbourhood.

Nørrebrogade is in no way the only example of the bicycle intervention or renovation of Copenhagen. While Copenhagen is implementing numerous infrastructural changes to promote cycling, here I focus on some of the most significant that exemplify the macro and micro scales at which the city is operating. These changes undeniably affect my informants' experiences of cycling, however we must remember that how this plays out is never clear-cut.

Carstensen et al. (2015: 2) map the growth of Copenhagen's bicycle infrastructure, defined as "all different dedicated designs for cycling, including bicycle paths, lanes, tracks and routes, all of which place cycling segregated or next to car driving." They find that in the century between 1912 and 2013, Copenhagen's bicycle infrastructure expanded from 35km in length to 486km,

with the greatest periods of growth between 1975 and 1985 (immediately after the oil crisis) and very recently between 2001 and 2013 (Carstensen et al. 2015: 5). Copenhagen's bike lanes are standardly wide and separated from the footpath and car lanes by kerbs. The model is considered best practice, one of the few forms promoted for implementation around the world. While there are several other styles of bike lanes in Copenhagen, Carstensen et al. (2015) note that the uniformity of bicycle infrastructure in the city leads to a clarity and ease of use that benefits cyclists.

One of the long-term bicycle infrastructure goals in Copenhagen is to alter other major roads towards the style of Nørrebrogade – that is, gradually increasing and widening cycling lanes and reducing or completely removing car traffic. This is a massive undertaking, and although the plan is not uncontroversial (Kjær 2015), it receives broad support and demonstrates the commitment of the Municipality to retrofit bicycle infrastructure into the city.

Recent years have seen an emphasis on improving the city's connectivity through bicycle lanes. 'Bicycle super highways,' that "focus on long distance commuting," are bike paths along major highways that connect the outer suburbs of Copenhagen with the inner city (The City of Copenhagen 2013b: 16). Magnus (from Jernhesten) uses a super highway to commute to and from his work in the north of the city, and while he thinks that "you could find a nicer bike route in Copenhagen" (being connected to highways it is not aesthetically ideal), he appreciates being able to ride to work quickly and avoid the stops and starts that intersections necessitate.

Another major way Copenhagen is connecting through bicycle lanes is through the construction of additional bicycle bridges over the city's many waterways. During my return trip in July and August I saw the completed Cirkelbroen, 'the circle bridge', that helps connect small islands in the middle of Copenhagen together. Exclusively a bridge for bicycle traffic, it can swivel aside to allow boat traffic through, and has been praised for its design resembling the masts of ships. Another recent bridge, Cykelslangen or the 'bicycle snake', opened in 2014 to much acclaim, functioning as an exceptionally beneficial connection. Bicycle bridges extend the intervention in Copenhagen beyond the land and across the waterways of the city.



Figure 2 Completed Cirkelbroen awaiting its opening (photo by author)



Figure 3 Riding on Cykelslangen (photo by author)

But Copenhagen's bicycle retrofit is not limited to building large-scale bicycle infrastructure. Other interventions like the 'Green Wave' demonstrate the detail of the urban overhaul. On several major bicycle corridors in the city (like Nørrebrogade), traffic lights are synchronised during commuter hours so that cyclists heading into the city (for morning traffic) or out of the city (for evening traffic) hit continuous green lights when riding at 20km/h. This makes commuting much easier and faster for cyclists, clearing up the bicycle lanes during their busiest times and functioning as an encouragement for some to cycle to work or school. Sofie found that her ride to university was significantly shorter if she caught the Green Wave. Its implementation reduces the need to avoid peak hour traffic.

More minor infrastructural changes also reflect the push to increase cycling. Most medium and large intersections have separate bicycle traffic lights that give cyclists a 'pre-green' light to prioritise bicycle traffic. At some traffic lights the city has also installed combined handrail and footrests on the right-hand side of the cycling lane for cyclists to hold onto or rest their foot on. It is common practice to prop your foot up on the curb while waiting for the lights, or hold onto a pole if one is available, and the city has responded to this practice by implementing infrastructure to enable it (Colville-Andersen 2010b). The handrail-footrests read "Hej cyklist! Hvil foden her... og tak fordi du cykler i byen!" ("Hi cyclist! Rest your foot here... and thank you for cycling in the city!")

Finally, next to two of the major bicycle traffic corridors in the city (Dronning Louises Bro and H.C. Andersens Boulevard) are bicycle counters that count and display the number of cyclists passing every day (also displaying the total for that year). The bicycle counters are considered to help cyclists feel like they are part of a bigger picture, a whole community of people increasing cycling rates for the benefit of the community and the environment. As the Municipality proclaims: 'every cyclist counts'. Sofie remarked to me that she liked riding past the counters because "they make me feel counted, it can be quite inspiring to see the numbers actually, like 'wow!'" While these are small infrastructural changes, the "simple idea... makes a tiny fraction of the day a little bit easier" (Colville-Andersen 2010b).



Figure 4 A cyclist watches as he is added to the daily tally on Dronning Louises Bro (photo by author)

IV. Cycling Assemblages

The environment in which cycling takes place is hugely important in moulding cyclists' experiences. So many aspects of my informants' experiences cycling were intimately tied to being in Copenhagen. Sofie spoke about how much she loved cycling around the Lakes in the centre of Copenhagen, the independence Thomas loved about his bike came about because of how accessible Copenhagen is by bike, and even Fulya's uncertainty while cycling was due to the specific affective intensities of Copenhagen. Although I emphasised the notion of the bicycle-body assemblage in Part 1, throughout Part 2 I widen the scope to address broader horizons and include the bicycle-body's setting (that is, Copenhagen) and the influence of that setting. Repositioning the bicycle-body assemblage into place offers us what I term the complete 'cycling assemblage': the interaction between the bicycle-body and the city that enables its specific cycling experiences. Lugo similarly theorises the "bicycling assemblage" of "bikes, bodies and public space" (Lugo 2015: 313). The concept of the 'cycling assemblage' emphasises that the experiences of the bicycle-body are dependent upon being in place (Casey 1996).

Each aspect of the cycling assemblage (bicycle, body and city) influences and affects the others in the process of generating an experience. The technology of the bicycle and the physicality of Copenhagen create my cycling body, moulding me into a particular *kind* of cyclist by determining my specific affective capacities and pushing me to develop certain cycling skills and practices (while others remain unknown to me). In turn, the way I use my bicycle and the environment

in which I use it act upon my bike, wearing it in a certain way. Thomas for example had been so forceful with his handlebars that they were now permanently loose (a change which further alters the way he rides). And finally, the way I ride my bicycle in Copenhagen changes the city, contributing to the affect and experience of place in Copenhagen (Adey 2013). My cycling actions, along with all other cyclists in the city, physically change the city, from narrowing footpaths as our bikes pile up parked alongside them, to more gradual (but permanent) changes as the Municipality changes infrastructure.

These three factors (persons, bicycles and the city) all alter and become altered, limit and enable each other; “bodies, technologies and places become interlinked” (Barratt 2011: 402). We form a network as actants, coproducing each other as each part is modified. We work together as a cycling assemblage, enabling me as the cycling body with specific affordances.

V. Theorising the Cycling Assemblage

In putting the bicycle-body back in place in the city, how should we consider the way the city contributes to the cycling assemblage, affecting the cycling experience? The term “affordances” was first coined by Gibson in 1979, referring to the possibilities and constraints offered to an animal by the environment. “The *affordances* of the environment are what it *offers* the animal, what it *provides or furnishes*, either for good or ill” with specific relation to the context and the properties of the animal itself (Gibson 1986: 127, italics in original). In perceiving an object or part of the environment we note that it is “graspable” if it is small and solid, or if a particular ‘terrestrial surface’ is “climb-on-able or fall-off-able or get-under-able or bump-into-able relative to the animal” (Gibson 1986: 128). For example, an apple affords eating, or grasping, throwing or juggling, but does not afford writing or folding. Affordances are “possibilities for action” or “opportunities for action” (Franchak et al. 2010: 2758, Hirose 2002: 290).

Gibson emphasises that affordances are relational and relative. What a thing may afford one person may not offer the same affordance to another. For instance, while an apple may afford eating to me, it does not afford eating to someone with no teeth (unless it is cooked and mashed, perhaps). This relationality is reminiscent of Jones’ (2012) idea of affective capacities. My affective capacities will be different to another’s, determining whether or not we will be comfortable in a certain affective situation. “An affordance points both ways, to the environment and to the observer,” revealing both (Gibson 1986: 129). In

Gibson's model we could say that the built environment of Copenhagen, with its wide bicycle lanes and flat landscape, affords safe and easy cycling experiences for many residents.

The concept of affordances can easily be seen to posit a form of environmental determinism, so it must be emphasised that although the environment offers affordances, these neither simply produce nor limit the actions or practices that can take place there. While the physicality of Copenhagen affords a particularly cycle-able environment, the cycling practices that occur there are the result of cycling assemblages – the interactions between individuals, bicycles, and the city.

Gibson's model for understanding how we interact with the environment is far from complete. The concept of affordances might consider how the environment around us provides opportunities for and limits action, but it ignores how the environment got there to begin with, how its affordances are shaped and created, as well as the meanings they confer. Gibson's model of affordances is apolitical and naturalistic, and so while it helps us contemplate the interaction between the environment and its inhabitants, we must not do so without considering the political nature of the environment as well as its affordances.

The city of Copenhagen is an urban, built environment. With building comes intention. The environments people live in are shaped and drastically altered in accordance with ideas and assumptions about what constitutes an ideal (or acceptable) environment. Thus while we might look at the "opportunities for action" provided by the environment and how these shape experiences, we also

need to discern the ideas and actors that shape the environment itself. This enables us to see the city's horizons that interweave with the cycling experience in association with so many other factors.

The discourse around shaping the environment to promote cycling in Copenhagen is politically charged. The Municipality describes its "stated objectives aimed at increasing the share of Copenhageners that cycle" as "high political aspirations" (The City of Copenhagen 2013b: 5). In order to realise these aspirations, Niels Tørsløv, the Director of the City of Copenhagen's Traffic Department, emphasises that cycling infrastructure must be prioritised at all times (The City of Copenhagen 2013b: 5). The Mayor of the Technical and Environmental Administration writes that "cycling is not a goal in itself but rather a highly prioritised political tool for creating a more liveable city" (The City of Copenhagen 2011: 5). The underlying assumption in these statements is that altering the built environment to prioritise cycling will shift residents' habits and practices and in effect enact social change.

The spatial intervention in Copenhagen is thus reminiscent of Holston's (1989) analysis of modernist architecture and planning in Brasilia. There Holston investigates the influence of the work of Le Corbusier and the manifestos of the Congrès Internationaux d'Architecture Moderne (CIAM), "the most important forum for the international exchange of ideas on modern architecture" from 1928 until the mid-1960s (1989: 31). Holston says that modernist architecture and planning sought to "create new forms of collective association, personal habit, and daily life" through architecture and urban design (1989: 31). The

envisioned route to this goal was through intervention in the urban landscape, reimagining the city in its entirety in order to deliver the city from the “tragic denaturing of human labor” and “the urban and social crises attributed to the unbridled domination of private interests in the public realm of the city” (1989: 41).

Perhaps ironically, CIAM proposed that the salvation of cities destroyed by industrialisation or the “first machine age (1730-1930)” resided in the working of the ‘machine’ itself which, according to the avant-garde movements, could equalise and liberate if properly utilised (Holston 1989: 40). For modernist planning, the city as machine was not meant to signify simply as a metaphor. The intention was to reconceive the nature of a city as a machine, presenting planners and architects as analogous to engineers designing an industrial product. The end goal was to reorder the social practices of city inhabitants through total planning of the machine-city, systematically reorganising and reconceptualising the city’s processes and functions in an effort to “transform society” (1989: 51-52). Modernist architecture is thus environmentally deterministic, as it “views the relationship between architecture and society as transitive: change the architecture and society will be forced to follow the program of social change that the architecture embodies” (1989: 57).

While the modernist planning project in its entirety was only rarely put into operation, its echoes can be heard in the city council’s intervention in Copenhagen’s streets – that changing the built environment can affect change in inhabitants’ core social relationships. Might the city’s dedication to expanding its

bicycle infrastructure (at the expense of existing car roadways) be seen as reflecting a similar behaviourism, with the transformation of the urban environment intended to alter and constrain peoples' habits and social practices? Further, considering that urban cycling is represented as "a panacea to the ills created by automobility" (Spinney 2009: 820), might it be that the desired social transformation goes beyond just transport, as urban cycling becomes a saviour to the industrialised world's denaturation and alienation?

While we must not ignore the political and socially transformative intentions at the heart of the city's physical reorganisation, in practice the relationship between the city and the practices of citizens is more nuanced than that imagined by the classical political project of modern urbanism. The built environment of cities is always in flux. Creative destruction is a constant in cities: buildings and spaces that are not being reshaped or conserved are always changing through processes of neglect and decay (Brand 1995). Although certain (usually government) bodies exert power, bicycle infrastructure and urban cycling practices are not simply constructed and enforced from above in order to manipulate the practices of a malleable, amorphous public. The use of space is contentious and negotiated, contested between design intentions, environmental affordances (social production) and lived uses (social construction) (Low 1996).

This interaction between spatial design and its practical appropriation is so severe that Tschumi uses the metaphor of violence to describe what he calls "the intensity of a relationship between individuals and their surrounding spaces" (Tschumi 1996: 122). Although architecture is designed for use, Tschumi notes

how by even entering the architectural space human bodies violate its controlled order: “Any relationship between a building and its users is one of violence, for any use means the intrusion of a human body into a given space, the intrusion of one order into another” (Tshumi 1996: 122). There is never ending tension between built spaces and the actions, events or movements that occur within them.

The ‘violence’ Tshumi describes is not one-way. Instead, “spaces are qualified by actions just as actions are qualified by spaces” (Tshumi 1996: 130). Although Tshumi stresses that the two “exist independently” and thus do not *form* each other, “when they intersect... they affect one another” (Tshumi 1996: 130). Tshumi’s conceptualisation of the interaction between the built environment and users’ experiences is more in the model of Merleau-Ponty, who speaks of our capacity for “double sensation” as when we touch our two hands together (Merleau-Ponty 1962: 93). When we clasp our hands together the sensation is ambiguous as both hand simultaneously has the role of touching and being touched (*ibid*). Viewing the manipulation of space as formative of certain actions or practices is thus not an accurate model; the relationship between the two is more nuanced and conflicted as they play the double roles of affected and affecting.

When discussing the ways the built environment of Copenhagen affects cycling experiences in the city, we should resist thinking of the environment as producing specific experiences as dictated by an organizing power. Copenhagen’s physical transformation is not simplistically hegemonic; the push

for increased cycle-ability comes from the public as much as the government, just as its opponents include both citizens and officials. The construction, organization, use and manipulation of Copenhagen's physical space are frictionally generated, not systematically imposed from governmental forces. Cycling experiences are formed in the friction of horizons.

VI. The City of Cyclists

Understanding that practices in a city emerge through the friction between the city and its inhabitants lends support for increased anthropological research into urban cycling. As much cycling research is focused on how alterations in urban design can affect peoples' cycling practices, an anthropological approach is beneficial since it values the 'local, lived perspective'. Even the built environment of authoritarian planning is subject to negotiation by its users, transgressed by events, and vulnerable to transformation by serial programs (as Tshumi demonstrates). Thus, to credit architectural power in the city as the key to spatial use is insufficient. We need to see how people adapt their surroundings to understand the intense encounter between action and space. We must consider it as two hands touching, each affecting and being affected by the other.

Furthermore, modernist planning conceives of space differently to the attitudes revealed by Copenhagen's restructure. In order for the organisation of society to be controlled, the environment of the modernist city must be engineered in its entirety. Holston notes that "one of the most distinctive and original features of modernist architecture is that it refuses any accommodation whatsoever to existing urban and social conditions" (1989: 53). The desired "absolute" break with the past results in the "total decontextualization... evident in *any* modernist building project" (*ibid*). Holston describes how in several modernist plans "an enormous area of the city has simply been levelled to make room for the insertion of a new and complete environment" (*ibid*). The existing landscape was irrelevant to the planning project.

On the other hand, the Municipality of Copenhagen constantly emphasises the city's cycling history as a legitimising basis to its cycling promotion. Copenhagen does not seek to break with its past but to build on it, recognising the significance and impact of what already exists.

While the modernists saw the environment of the city as 'space', Copenhagen seems to understand its environment as 'place'. Casey describes 'space' as a way of thinking about the environment as "empty", "neutral, [a] pre-given medium, a tabula rasa onto which the particularities of culture and history come to be inscribed" (Casey 1996: 14). Since modernist planning sought to engineer a new society through architecture, it viewed the environment as something neutral where its meanings could be controlled.

Conversely, 'place' is defined as the cultural, lived, affective and meaningful experience of the environment (Casey 1996). Casey (1996) considers the rational or Enlightenment model of physicality to prioritise space as prior, but argues that this idea is flawed. Abstract space cannot be experienced; the world is always meaningful from the moment of perception. Accordingly, place is "the first of all things" (Casey 1996: 16). Unlike the approach of modernist planning, the spatial intervention in Copenhagen reveals a more realistic and phenomenologically coherent relationship with the urban environment and the practices that unfold within it.

This is not to say, however, that we can ignore the intentions behind the drastic changes to Copenhagen, particularly as they are so explicitly political. What are the intentions behind making Copenhagen more bicycle friendly? Here the language the Municipality uses to promote and emphasise the benefits of the changes is useful. What emerges is an emphasis on the pragmatic benefits cycling confers to individuals, as well as the presentation of cycling as a mode of transport that is inherently environmentally friendly and metropolitan. These benefits are seen to flow through the bicycle into the city.

Cycling organisations, like Cyklistforbundet or Copenhagenize Design Company, frequently emphasise that the most effective marketing strategy to increase cycling rates is through what Copenhagenize calls “A2Bism” – that cycling is often the fastest or most direct mode of transport in a city (Colville-Andersen 2010a). Copenhagen’s current bicycle strategy document echoes the view that “Copenhageners choose the bicycle because it’s the fastest and easiest way to get around. Period.” (The City of Copenhagen 2011: 7). My informants referred to this important aspect of cycling in Copenhagen, telling me that one of the main reasons why they cycled was because it was faster. Thomas told me that “cycling is the quickest option, or it ought to be at least.” With the major alterations to Copenhagen, cycling is indeed the fastest transport choice for many trips, a situation less common in most other cities.

However, this common sense concept obscures other significant ideas about cycling implicit in the way it is promoted. The discourse of cycling promotion in Copenhagen frequently links cycling together with environmentalism and

metropolitanism. In her analysis of the Municipality of Copenhagen's cycling strategy documents, Jensen finds that the Municipality "imagines the future Copenhagen as being part of a global elite of green metropolitan cities with a healthy, economically strong, climate-friendly urban environment" (Jensen 2013: 279). In its official bicycle strategy document 'Good, Better, Best: The City of Copenhagen's Bicycle Strategy 2011-2025', the Municipality writes that cycling promotion helps "brand Copenhagen as a liveable, innovative, sustainable and democratic city with a political will to lead the way in the battle for an improved quality of life for the citizens" (The City of Copenhagen 2011: 6). Another publication refers to the city's cycling promotion as "an integral part of the vision to make Copenhagen an eco-metropolis" (The City of Copenhagen 2013b). While the Municipality reports that 56% of Copenhageners say that they choose the bicycle because it is faster, the connection between the bicycle, environmentalism and metropolitanism is a constant underlying (and often overt) element of the way cycling is considered and promoted in Copenhagen (The City of Copenhagen 2013a: 3).

Engaging in and encouraging cycling helps situate Copenhageners and the city itself within this environmental and metropolitan framework. Cycling promotion in Copenhagen frequently utilises language to emphasise that cycling is an inherent quality of Copenhagen and Copenhageners. Even the common tagline for Copenhagen, 'The City of Cyclists', gestures towards the notion that to be part of Copenhagen is to cycle. The following is taken from the introductory statement for the Municipality's 2013 publication 'The City of Cyclists: Copenhagen Bicycle Life', which offers statistics, information and tips for

foreigners about cycling in Copenhagen and summarises the city's current bicycle strategy:

Our greatest monument is motion. It is a massive, constant, rhythmic and life-sized legacy.

This never-ending flow of Copenhageners on bicycles has been forty years in the making. In the 1960s, this city was just as car-clogged as anywhere else. Visionary decisions were made and the result can be seen all around you. The vast network of safe, segregated bike lanes crisscrossing the city has encouraged us to choose the bicycle.

The people who make up this organic monument are from all walks of life. From every age and wage bracket. We don't have cyclists in Copenhagen, we merely have people who happen to ride their bicycles. Cycling in Copenhagen brings us closer to the life of the city and the people who inhabit it. Your fellow citizens are right there next to you, propelling themselves effortlessly through the urban landscape. We are one with our town on our bicycles. (The City of Copenhagen 2013a: 2)

Copenhagen's bicycle use is an innovative and monumental legacy worthy of pride and admiration, according to the Municipality. These themes are common in Municipality documents, as identified by Gössling (2013: 201). The use of inclusive language ("we", "our", "your") suggests that the monument of Copenhagen's cycling is composed of all residents, and the images used in publications frequently show mass numbers of cyclists from a wide range of demographics. The message is clear: all people cycle in Copenhagen, and to be a Copenhageners is to cycle.

However, to suggest that this message is simply absorbed and replicated by the city's inhabitants is simplistic. I doubt any of my informants read or had even heard of any of these government publications. While these conceptualisations of cycling as environmentally beneficial and metropolitan are certainly present in

the city and implicitly known by residents, so too are many other concerns and representations that may be more relevant at any given moment. The reasons individuals choose the bicycle at any point are always manifold. Some may be more visible to the individual at the time while others are more unconscious, yet the motivations behind cycling are, like the experience of cycling itself, formed in a vast and shifting field of horizons, within which one is constantly foregrounding and backgrounding different concepts and experiences.

As constitutive of the 'city of cyclists,' the Municipality portrays Copenhageners as "urban people who desire a highly mobile lifestyle and working life, and crave movement in and around local neighborhoods, active everyday lives... and for whom the bike is a naturalized element of daily life" (Jensen 2013: 280). The bicycle is essential in the particular construct of city and selves fostered by the Municipality. In 'Eco-Metropole: Our Vision for Copenhagen 2015', the Municipality explicitly writes that the "amazing number of cycles... constitutes an important part of Copenhagen's identity" (Municipality of Copenhagen 2007: 8), one that is as environmentally-friendly as it is metropolitan.

By framing the city and its residents with these particular characteristics, Jensen argues that the Municipality is engaging in Foucauldian governmentality, where "the logic – the mentality – of governing has extended into the population", such that the power of the state extends to "orchestrating the construction of people's own construction of urban selves" (Jensen 2013: 280). While the Municipality may well encourage an association between these characteristics and a Copenhagen identity, this does not mean that people's construction of self is

solely generated by government intervention, space or council discourse. Indeed, for Jackson the “mutability and multiplicity of our self-states” is a striking experiential reality of our being-in-the-world (Jackson 2015: 300). Here at least, claims of Foucauldian governmentality and its construction of selves overestimate the power of space and discourse to constitute identity. Individuals are always “[loci] of creative growth” within frictious horizons of their manifold selves (Ingold 2011: 4).

Nevertheless, as one of the most important symbols of contemporary, sustainable urbanism in what Jensen refers to as “(hyper)modern cities,” the bicycle is undeniably essential in this imaginary of a Copenhagener (Jensen 2013: 281). Bicycles provide autonomous, fluid, flexible and active mobility that ‘treads lightly’ on the environment and keeps residents interacting in the streetscape. As the Municipality writes in ‘The City of Cyclists’, “cycling in Copenhagen brings us closer to the life of the city and the people who inhabit it. Your fellow citizens are right there next to you” (The City of Copenhagen 2013a: 2). Considering these qualities of the bicycle, it is little wonder that the bicycle is so integral to this promulgation of a Copenhagener imaginary. The bicycle is a frequently backgrounded aspect of ‘being a Copenhagener’ but provides an easy way of developing this subjectivity for those who might find other aspects of social life in Copenhagen less accessible.

VII. Copenhageners

Don't bother learning Danish when you go to Copenhagen – just get a bike!

Many of my non-Danish friends and informants in Copenhagen heard this remark when they moved to Copenhagen. At the surface it speaks to the infamous difficulty of the Danish language, a language spoken by little more than five million people. A Danish friend and informant, Thomas, once told me very seriously, “oh no, don’t learn Danish, it’s useless! Do something better with your time!” As well as referring to the very high proficiency of English in Denmark, the quip above is certainly a joke at the expense of Danish.

More importantly, however, this phrase speaks volumes about the importance of the bicycle in migrants’ integration processes. One of Sofie’s favourite things about cycling in Copenhagen is that she finds it to be a great way to “feel a bit like the Danes,” and an Australian, Mark, told me jokingly but proudly how “now I’m a real Copenhagenener”, once he bought himself a second-hand bike. My migrant informants almost always listed that “everyone cycles here” as one of their top motivators to start cycling when they came to the city. Upon moving to Copenhagen, many migrants find that they can utilise the connection between the bicycle and ‘Copenhagenness’ (a connection actively promoted by the government) in order to benefit their own sense of self during their move; the faster they can get out on the roads on their bikes, the faster they can feel a part of Copenhagen society. Cycling becomes the means toward an accessible practice-identity that discriminates not on country of birth, class, language, age

or gender, but on cycling ability. While the Municipality promotes a particular construction of Copenhagener imaginary, the ways in which it is realised and utilised in the cityscape are unpredictable and emerge through complex interactions.

Although he was born in Melbourne, Australia, 22-year-old Thomas grew up in Kolding, a medium sized city in Jutland ('Jylland' in Danish), the peninsula or mainland section of Denmark. He moved to Copenhagen two years ago, after six months in Berlin and a stint in another part of Denmark. We had spoken many times about his close ties to these different cities and so during one interview I asked him if he still called Kolding home more than the other cities.

I make an effort not to... Copenhagen is a city that appeals to me more. I'm pretty keen on Copenhagen and I'd like to blend in and be – well, I won't be a Copenhagener but... I'd rather be that than someone from Kolding. – Thomas

After he moved to Copenhagen, Thomas made a real effort to try to adopt what he saw as a local attitude, which he thought was much more fitting to his personality.

I am very much a city person, and I'd like to be a city person and living in Copenhagen... I think what it is is that I don't want to be called out as someone who doesn't belong here, and I can kind of feel that my accent – well, actually that's changed a bit since I've moved here. And I've never sounded that Jutlandish. But a few times I've been called out as someone not from Copenhagen from my pronunciation, and that's got on my nerves because it means that I haven't succeeded yet in blending in. But for the most part it's kind of reached the point now where often either people will forget – not necessarily that I'm not from Copenhagen, but that I didn't grow up around Copenhagen. Or they'll be surprised when I tell them where I'm from. And that I take as a compliment. – Thomas

For Thomas, passing as a Copenhagener was integral to feeling like he belonged in the city he was making his new home. Of course, as he pointed out to me “there are many ways to be a Copenhagener”, but there certainly are a number of characteristics that are seen or constructed as inherently ‘Copenhagen’: being metropolitan, active, independent and progressive. It must be acknowledged that this ‘imaginary’ is much easier to attain for someone young, middle class and to a degree Caucasian, as were the majority of my informants. However, the significance of these markers lessened when on the city’s bicycle lanes, as non-Copenhageners’ cycling practices offered them an accessible way to feel this imaginary as part of their subjectivity.

Thomas told me once, while in many cities you might get “coolness points” for riding a bicycle, in Copenhagen “you’re not special if you go by bike.” Locals frequently deny that their bicycle is important to them, except for as a mundane mode of transport. Yet the bicycle is integral to the commonplace conceptualisation of a Copenhagener. Rather than contributing to an identity of difference or minority, in Copenhagen cycling is a part of the ‘mainstream’ Copenhagener imaginary.

Thomas enjoyed passing as a Copenhagener, but for many of my other informants who had moved to Copenhagen, passing was not that easy. As my cycling ability increased and I became more comfortable on the road, I enjoyed feeling like I could ‘put on’ a Copenhagener identity. It felt thrilling, like I was getting away with a disguise, although that sensation vanished when I hopped off my bike and was instantly ‘outed’ the moment I was asked a question in Danish.

Annie, my Slovakian friend, did not care as much as I did about passing as a Copenhagener, and usually enjoyed just being considered as a foreigner. Most of the time, the Municipality's promotion of the 'cycling Copenhagener' identity was not significant to Annie. However, sometimes when Annie was on her bike in traffic, handling herself well and feeling part of the flow, she could feel like a Copenhagener. While she did not care for it all the time, she enjoyed these brief moments of feeling like a local.

For migrants and refugees in Copenhagen, the bicycle affords a 'way in' to city society that can become a familiar and embodied part of the self far faster than learning the language or feeling comfortable in an environment with potentially very different social customs, rituals or etiquette. The association between cycling and 'Copenhagenness' can be appropriated as a tactic to ease the difficulties of migration and the exclusion of the migrant. While 'just a mode of transport', cycling has the potential to be truly significant through the skilful sense of similarity it affords.

VIII. Enabling Place Making

Iben grew up in one of Denmark's largest cities, and lived in several other cities before moving to Copenhagen. She's an excellent cyclist, and tries to make sure that she cycles in every city she stays in. One of her main reasons for this, she explained to me, is that it helps her quickly get to know a city better:

When you catch public transport you just go underground and then pop up in another spot. So if I have to just catch public transport in a city I only ever get to know the areas around the places I catch public transport to. I can never get to know a city as a whole. But when I bike around I think it helps me learn a city faster. Rather than just knowing little bits I can actually form a map of a whole city much more easily, and much faster.

Now that she lives in Copenhagen, cycling affords Iben the ability to 'make place' in this way of learning or getting to know a city (Casey 1996). Perhaps this is better phrased as the *cycling assemblage* enabling place making, as it is the interactions between the urban environment, Iben, and her bicycle that afford specific ways for her to be emplaced in the physicality of the city. The particular characteristics of the city, bicycle and body relative to one another afford specific cycling experiences, and thus specific place making actions.

Cycling enables the sort of relationships we can have with places. For my own experience, as cycling for transport became embodied into my sense of motility and mobility, parts of the city become known to me as different *kinds* of places through my interaction with them on my bicycle. As Casey describes, there is not one 'kind of' place; places can be many things, but by nature of their indefiniteness can, in a way, be grouped laterally into 'kinds of' places

themselves (Casey 1996: 26-27). I found that as cycling became my usual way of travelling through Copenhagen, I started to think about parts of the city as certain kinds of places because of how easily or how difficult I found cycling there, or how well I knew the patterning of traffic lights at significant intersections, or how exposed that section of the path might be to the weather. The city became an overlapping and ever-changing conglomerate of easy-to-reach places, hard-to-reach places, easy-to-ride places, difficult-to-ride places, enjoyable places or disagreeable places. I felt all of these places with particular emotional connections. In turn, this emotional knowledge of the city formed a horizon that came to the fore at other times, like when deciding a cycling route.

Cycling provided a unique, affective and effective way of making place, contracting Copenhagen into a smaller place (or a series of smaller places) by making it more accessible through my increased mobility. This place making aspect of the cycling experience is certainly not something that could be predicted by a 'top-down' or deterministic model of the effects of interventions in the urban environment, that necessarily sees the environment as 'space' devoid of meaning until meaning is created (further suggesting that meaning is controllable). Yet place making is a constant aspect of experience, as "Bodies not only perceive but *know* places" (Casey 1996: 34). Cycling affords us the opportunity to come to know much of the place (or places) of Copenhagen in specific ways.

IX. Freedom, Independence and Expansion

The last few days of my main fieldwork period were beautifully sunny, right at the beginning of spring. Copenhagen was just beginning to become green on the tips of its branches, and little purple flowers were spreading across the grass. The city became busier as everyone came out to enjoy some of the first proper sunshine of the year. I spent my last full day in Copenhagen cycling around the city, enjoying the warmth and fresh air, with a plan to revisit different spots in the city that I had grown particularly fond of and knew I would miss after I left. But as soon as I made it to a certain park or building or part of the city and got off my bike to enjoy it, I kept itching to get 'back in the saddle'. I very quickly abandoned my plan of revisiting places and was content to just ride past them for a quick glance instead. I realised that what I was anticipating missing most was not certain buildings or streets, but the sensation of riding my bike in this environment.

Many describe the sensation of cycling to be like flying: soaring through the air with your feet off the ground and the wind in your face. There is something in the smoothness or flow of cycling that is particularly exhilarating. Everyday urban cycling in Copenhagen is not like professional cycling that necessitates physical discipline and punishment (Gilley 2006), nor is it a battle against the city like cycling in less bicycle-friendly cities (Jones 2012) or as a bicycle courier (Fincham 2007). Urban cycling in Copenhagen is for the most part safe and easy. It does not require skills, fitness or clothing that are considered out of the

ordinary, in fact Copenhageners cycling in everyday fashion inspired the ‘cycle chic’ movement (Colville-Andersen 2015a).

It might be merely convenient transport (Colville-Andersen 2010a), but cycling in Copenhagen allows for a very unique physical sensation of movement that my informants often emphasised when speaking with me. Of course, on days with less than ideal conditions (like cycling in wind, rain, uphill, while running late or with a bad mood) that moment might not click into place, but when it does it is delightful. Thomas loved the sensation, “not of flying, but gliding elegantly” as he put it. “It’s the thing of feeling light,” he told me, “that sensation of flying through or hovering just above the ground.” Beáta (Annie’s friend) described it as “wonderful, thrilling,” like “being a movie camera zooming through a city”.



Figure 5 Classic Bicycle Advertisement for Cycles Gladiator (Massias 1895)

The idea of cycling feeling like flying is a common trope. Colville-Andersen describes the association of cycling and flying in early advertisements for the bicycle (like the example above; Colville-Andersen 2015b). In the same vein, one of the few souvenirs I bought myself during my fieldwork was a t-shirt featuring a hand-printed drawing of a girl riding her bike through the stars, her hair and dress flying out behind her.

This connection between cycling and flying is indicative of something more. Just like flying, cycling inspires a feeling of freedom and independence, of being 'as free as a bird'. In cities more aggressive towards cyclists like London or Sydney this sensation must be fought for, but it is easily accessible in Copenhagen. In a city with provisions for cycling, the feeling of freedom and independence comes easily, and is often one of the most significant reasons why people enjoy cycling.

First of all, when I started biking, every single time I got on a bike it made me somehow happy. I don't know why, I felt this happy, thrilling feeling, of "yeah I'm on a bike". I don't know why, I don't know what happened, suddenly I just felt happy. – Annie

It's a very independent thing and um... yeah, it's a bit of a feeling like... freedom? Yeah, freedom. I have so many positive feelings while biking I don't know how to say it! ... I just really like this feeling to be independent. – Sofie

Perhaps the most significant affordance of the cycling assemblage is the remarkable sense of freedom and independence it offers. My informants always expressed how much they loved that cycling meant that they could travel wherever they wanted to, whenever they wanted to, without ever relying on anyone else. Thomas liked the flexibility provided by his bike:

To me it makes a big difference. If I'm going by public transport I know, "right, so in five minutes I *have* to catch the bus, otherwise if I don't catch this one I won't make it on time." Whereas, with a bike I always think "well, I'm a few minutes late but if I go like hell I'll still make it." And having, I don't know, always having that in mind, having that sometimes wrong sense of security makes a difference. – Thomas

Annie loved that she could travel freely even when her work cut her shifts and she was running low on money; "it's expensive to ride here in public transportation... [cycling is] the cheapest way to get around the city." Sofie loved that she could change her mind halfway through her journey and go somewhere completely different, or stop quickly to look at something:

A lot of times I'm going by bike and looking around a lot. I think that's very dangerous, actually, because I'm riding and I'm like "oh that house is very nice!" And yeah you can make quick decisions, you can change your way quickly." – Sofie

Informants also found a convenience and assurance in cycling that they greatly appreciated:

During the night you can leave a party whenever you want and you don't have to look on your watch and think about "okay, are there still buses going back or...?" – Sofie

Just *exactly* straight from your home to *exactly* the place where you need to be. You don't need to get off the bus and walk and change, no. Just bike, everywhere, directly. And you can also just put the bike right next door wherever you're going, work or school; you have your means of transport right there. Right in front of you. – Annie

Bicycles are cheap and have very minimal ongoing costs. Copenhagen is small and flat. The long history of cycling and the exceptional cycling infrastructure of Copenhagen (increasing through spatial intervention) mean that the affective intensities of the streetscape are manageable for many people. So many factors

played into how my informants experienced cycling. We must stress, of course, that my informants were never simply acted upon by these horizons. Instead, they are “active participants in a process of bringing the world into being” (Jackson 2015: 296).

This interaction and process of bringing the world into being results in a cycling experience that is a relatively easy practice with potentially powerful benefits. The gradual accumulation and embodiment of cycling skills and knowledge was massively empowering for my informants. In their words it provides a sense of independence and freedom that is so impactful upon their lives it stands out even after years (or decades) of cycling. Yet such a sense also gradually fades into the background, as it becomes so everyday it feels unremarkable.

Still, all of my informants reflected upon how much cycling positively impacted their lives. Annie, who was still new to cycling for transport, summed up what cycling meant for her when I asked her if it had started to feel commonplace:

No, not really. For me it is always something special that actually I *can* get on a bike and get around the city. And it's available everywhere, anywhere you want to go you can just bike there. I find this amazing, this way of transportation around a city, I find it the best. The best, the quickest, it's really safe. So yeah I don't find it as an everyday thing, I find it as really positive and convenient and good that it exists... I can't say that it changed my life completely of course, but it really definitely made it easier and better and I really wish that it was in all the cities that it was that available, that you could bike everywhere. – Annie

While Annie spoke enthusiastically, it often took a great deal of reflection for long time cyclists to consider how their cycling practices impacted their lives. As

Willy, the 80-year-old Dane I referenced in the introduction who was puzzled by my interest in Copenhagen cycling practices told me, “we just take it for granted.” But for all cycling residents of Copenhagen, the bicycle seemed to add an exceptionally beneficial yet very ordinary form of independence to their lives.

Conclusion: 'det cykler derudaf'

On a surprisingly warm afternoon in late March, Thomas, some friends and I rode to Amagerstrand (Amager beach) at the end of one of the first sunny days of the year. The sun hung low in the sky, casting striking red hues across the horizon to the east ahead of us as we pedalled our way to the beach. Thomas cruised next to me as he tried to explain a Danish phrase that he thought would be relevant to my research:

'Det cykler derudaf' doesn't translate well to English, I'm afraid. It's like "it's going perfectly" or "it's going swimmingly", but it refers to cycling. It's like right now, actually. Here we are all on our bikes, going off into the sunset, and all is well!

I went to Copenhagen to investigate experiences of urban cycling in the City of Cyclists, and to understand how it interacts with broader horizons of lifeworlds and the urban environment. What quickly emerged was that research attention must be focused at many levels to accommodate the contradictions and tensions inherent in cyclists' perceptual horizons.

In this research I draw upon the lineage of anthropological research that incorporates theories of phenomenology. Phenomenological perspectives enable nuanced analyses of experiences by prioritising notions of embodiment and horizons. Although experience is by nature subjective, our experiences happen in a world that is already there, and already meaningful (Merleau-Ponty 1962). Phenomenology helps us bridge the assumed divide between the objectivity of

the world and the subjectivity of experience by seeing perception as pre-objective as well as reliant upon a world that does exist. My potential and ability to experience comes from my nature as a thinking, sensing, enminded body; a body that always has a habitus to structure my experiences, and is already “interwoven” in a world made meaningful through its horizons (Bourdieu 1977, Merleau-Ponty 1962: x).

It is through this interweaving that we can transcend the divides between individuals, the self and the other. While I hesitate to find generalisations in my research, experiences are at once individual *and* collective. Jackson suggests that the case for phenomenological anthropology lies in the fact that while each experience appears unique to the individual, the ‘same’ experience can occur or be felt in a multitude of ways, and that “experience, though always in some sense felt to be uniquely one’s own, is linked to the experience of others” (2015: 298). Although my analysis of cycling in Copenhagen is drawn from the experiences of a select number of locals and myself, by nature of being individual and collective, experiences can be shared.

I begin this paper by focusing on the body in the moment of cycling, as all of our potential for action is enabled through the body: our most immediate yet easily forgettable horizon. Annie taught me that we do not experience a bicycle as a tool or vehicle, but as an integrated part of our functioning selves, like a prosthetic extending our capacities. The concept of the bicycle-body assemblage allows us to attend to the inseparability of these two parts in the cycling moment. In fact, here is the true source of the phrase ‘it’s like riding a bike’. Once

the skill is embodied – once we have extended our selves through the bicycle – it never disappears entirely from our habitus. Instead, it waits for activation as a horizon.

We are continually learning, changing, and incorporating new abilities and knowledge into our bodily schemata. Doing so is adaptive, but also an integral part of life, revealing our nature as more multiple than unitary (Jackson 2015: 300). Through the multiplicity of the self generated in action, I can oscillate between being a migrant and a Copenhagener as I hop off and on my bicycle. “Learning involves the construction of identities”, and so through learning how to ride a bike or learning how to repair it, my informants were expanding themselves by embodying new identities (Yakhlef 2010: 412). Migrant informants, like the women at the Red Cross cycling class, took advantage of this connection between the bicycle and ‘Copenhagennes’, demonstrating the potential that accessible cycling has as a highly inclusive form of mobility.

After addressing the cycling experience in relation to embodiment, my focus radiated outwards towards the horizons. Experiences involve the interplay between many influencing factors in the world that exist at the fringes of my conscious apprehension. To understand experiences we must therefore understand them within the context of their horizons. Yet I cannot step out of the world to apprehend my experiences in all their complexity through a complete phenomenological reduction, since I am always *of* the world. Still, these slippery horizons are key to understanding perception and experience. “What is critical about experience”, Jackson (2015: 294) writes, “is that it is at once determined

by historically located or socially constituted pre-understandings and at the same time never reducible to such pre-givens.” We must address the horizons that give shape and colour to our experiences, while recognising that our analysis will never be complete.

The horizons surrounding cycling experiences ceaselessly and imperceptibly shift, moving in and out of focus as we weave through the neat streets of Copenhagen. What we see depends on where we are on the road, where our attention is directed, and what demands to be seen, especially as intended by urban planners. A turn at any intersection changes our surroundings, our horizons and our experience.

While I detached the bicycle-body assemblage from the city at some moments in Part 1, this is a false separation. My informants’ cycling experiences cannot be separated from the place(s) in which they happen. Cycling practices and meanings are reliant upon being in place, and are produced through the collaboration and tension between bicycle, body and city, what I term the ‘cycling assemblage’ in the manner of Lugo’s ‘bicycling assemblage’ (2015) and Barratt’s ‘climbing assemblage’ (2011).

The political push to promote cycling manifests on Copenhagen’s streets. The restructuring of Copenhagen is of course a political action, and certainly aims to affect residents’ behaviours in particular ways. However, that does not mean it is a malicious act, restricting citizens’ lives or forcing certain practices. Indeed, in the case of my informants, the restructure enables expansions. By being able to

cycle easily, safely, quickly and independently through the city, my informants' place-worlds enlarged. Copenhagen and 'Copenhagennes' became more accessible to them (both physically and through the empowering feeling that nowhere is too far away), and by extension so too did the potential for experiences and interactions in the city. The way cycling functions in Copenhagen reduces inequalities and the divisions between people, and contributes to a conception of Copenhagen as an 'eco-metropolis'.

Cycling mobility in Copenhagen is thus not an experience of everyday resistance against the oppressive order of a car-dominated city, or a systematic manipulation of social practices. Instead, it is a commonplace enjoyment of an urban environment that seeks to enable and expand the mobility and potential of individuals.

Keeping analytical attention concentrated on embodied cycling experiences and the horizons at their fringes allows for a richer and more phenomenologically consistent understanding of how Copenhagen's residents experience urban cycling in everyday life. The phenomenological lens I have utilised has resulted in theorising cycling experiences within a framework I term the bicycle-body and cycling assemblages. A focus on how the interactions between the bicycle, body and city produce cycling experiences may similarly benefit urban planners, researchers and city organisers. The bicycle renaissance continues to gain momentum as global cities iteratively retrofit their built environments to favour cycling for all of its environmental, social and individual benefits. Within this setting, embracing the interdependencies between the fundamental elements of

bicycle, body and city in the execution of urban interventions may help prioritise cyclists' embodied and emplaced experiences.

References

- Adey, P. 2013. 'Air/Atmospheres of the Megacity'. *Theory Culture Society*, 30(7/8): 291-308.
- AFP/The Local. 2015. Denmark has OECD's lowest inequality. *The Local*, 21 May 2015. [Online]. Available from: <http://www.thelocal.dk/20150521/denmark-has-lowest-inequality-among-oecd-nations> [Accessed 15 September 2015]
- Amiri, M. & Sadeghpour, F. 2015. 'Cycling characteristics in cities with cold weather'. *Sustainable Cities and Society*, 14: 397-403.
- Andersen, H. T. & Jørgensen, J. 1995. 'City Profile: Copenhagen'. *Cities*, 12(1): 13-22.
- Barratt, P. 2011. 'Vertical worlds: technology, hybridity and the climbing body'. *Social & Cultural Geography*, 12(4): 397-412.
- Basu, S. & Vasudevan, V. 2013. 'Effect of Bicycle Friendly Roadway Infrastructure on Bicycling Activities in Urban India'. *Procedia - Social and Behavioral Sciences*, 104: 1139-1148.
- Bourdieu, P. 1977. *Outline of a Theory of Practice*, Cambridge, Cambridge University Press.
- Brand, S. 1995. *How Buildings Learn: What Happens After They're Built*, New York, Penguin.
- Buehler, R. 2012. 'Determinants of bicycle commuting in the Washington, DC region: The role of bicycle parking, cyclist showers, and free car parking at work'. *Transportation Research Part D: Transport and Environment*, 17(7): 525-531.
- Carel, H. 2008. *Illness: Cry of the Flesh*, Stocksfield, Acumen.
- Carstensen, T. A., Olafsson, A. S., Bech, N. M., Poulsen, T. S. & Zhao, C. 2015. 'The spatio-temporal development of Copenhagen's bicycle infrastructure 1912-2013'. *Geografisk Tidsskrift-Danish Journal of Geography*: 1-14.
- Casey, E. S. 1996. 'How to Get from Space to Place in a Fairly Short Stretch of Time: Phenomenological Prolegomena'. In: Feld, S. & Basso, K. (eds.) *Senses of Place*. Santa Fe: School of American Research Press.
- Chataway, E. S., Kaplan, S., Nielsen, T. a. S. & Prato, C. G. 2014. 'Safety perceptions and reported behavior related to cycling in mixed traffic: A comparison between Brisbane and Copenhagen'. *Transportation Research Part F: Traffic Psychology and Behaviour*, 23: 32-43.

- Chen, P. 2015. 'Built environment factors in explaining the automobile-involved bicycle crash frequencies: A spatial statistic approach'. *Safety Science*, 79: 336-343.
- Clayton, W. & Musselwhite, C. 2013. 'Exploring changes to cycle infrastructure to improve the experience of cycling for families'. *Journal of Transport Geography*, 33: 54-61.
- Colville-Andersen, M. 2008. The Drastic Measures of Visionaries. *Copenhagenize.com* [Online]. Available from: <http://www.copenhagenize.com/2008/01/drastic-measures-of-visionaries.html> [Accessed 20 September 2015].
- Colville-Andersen, M. 2010a. Cycling Isn't 'Fun', It's Transport. *Copenhagenize.com* [Online]. Available from: <http://www.copenhagenize.com/2010/05/cycling-isnt-fun-its-transport.html> [Accessed 25 September 2015].
- Colville-Andersen, M. 2010b. Holding On to Cyclists in Copenhagen. *Copenhagenize.com* [Online]. Available from: <http://www.copenhagenize.com/2010/01/holding-on-to-cyclists-in-copenhagen.html> [Accessed 20 September 2015].
- Colville-Andersen, M. 2013. Nørrebrogade: a Car-Free(ish) Success. *Copenhagenize.com* [Online]. Available from: <http://www.copenhagenize.com/2013/02/nrrebrogade-car-freeish-success.html> [Accessed 18 September 2015].
- Colville-Andersen, M. 2015a. Cycle Chic. *Cycle Chic* [Online]. Available from: <http://www.copenhagencyclechic.com/> [Accessed 27 September 2015].
- Colville-Andersen, M. 2015b. Learning from Historical Bicycle Posters. *Copenhagenize.com* [Online]. Available from: <http://www.copenhagenize.com/2015/02/learning-from-historical-bicycle-posters.html> [Accessed 27 September 2015].
- Copenhagenize Design Company. 2015. *The 2015 Copenhagenize Index, Bicycle-Friendly Cities* [Online]. Available from: <http://copenhagenize.eu/index/index.html> [Accessed 17 June 2015].
- Cox, P. 2015. *Cycling Cultures*, Chester, University of Chester Press.
- Cykelvalg.Dk. 2015. *Bike City Copenhagen - infographic about the many bikes in Copenhagen* [Online]. Available from: <http://www.cykelvalg.dk/bike-city-copenhagen/> [Accessed 1 July 2015].
- Cyklistforbundet. 2015. *Organiseringen* [Online]. Available from: <https://www.cyklistforbundet.dk/Om-os/Om-organisationen/Organiseringen> [Accessed 23 June 2015].

- De Certeau, M. 1984. *The Practice of Everyday Life*, Berkeley, Los Angeles, London, University of California Press.
- Denmark.Dk. 2015. *Green Living: Bicycle Culture* [Online]. Available from: <http://denmark.dk/en/green-living/bicycle-culture/> [Accessed 17 June 2015].
- Dreyfus, S. E. 2004. 'The Five-Stage Model of Adult Skill Acquisition'. *Bulletin of Science, Technology and Society*, 24(3): 177-181.
- Fincham, B. 2007. "Generally speaking people are in it for the cycling and the beer': Bicycle couriers, subculture and enjoyment'. *The Sociological Review*, 55(2): 189-202.
- Franchak, J. M., Van Der Zalm, D. J. & Adolph, K. E. 2010. 'Learning by doing: action performance facilitates affordance perception'. *Vision Res*, 50(24): 2758-65.
- Freudendal-Pedersen, M. 2015. 'Cyclists as Part of the City's Organism: Structural Stories on Cycling in Copenhagen'. *City & Society*, 27(1): 30-50.
- Giard, L. 1998. 'Doing-Cooking'. In: De Certeau, M., Giard, L. & Mayol, P. (eds.) *The Practice of Everyday Life, Volume 2: Living & Cooking*. Minneapolis: University of Minnesota Press.
- Gibson, J. J. 1986. 'The Theory of Affordances'. *The Ecological Approach to Visual Perception*. New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.
- Gilley, B. 2006. 'Cyclist Subjectivity: Corporeal Management and the Inscription of Suffering'. *Anthropological Notebooks*, 12(2): 53-64.
- Gössling, S. 2013. 'Urban transport transitions: Copenhagen, City of Cyclists'. *Journal of Transport Geography*, 33: 196-206.
- Helliwell, J. F., Layard, R. & Sachs, J. E. 2015. World Happiness Report 2015. New York: Sustainable Development Solutions Network. [Online]. Available from: http://worldhappiness.report/wp-content/uploads/sites/2/2015/04/WHR15_Sep15.pdf [Accessed 12 August 2015].
- Hembrow, D. 2010. The "Copenhagen Left" and merging of cyclists with cars turning right: Dangerous and inconvenient junction design in Denmark. *A view from the cycle path...* [Online]. Available from: <http://www.aviewfromthecyclepath.com/2010/07/not-really-so-great-cycle-path-design.html> [Accessed 2 September 2015].
- Hirose, N. 2002. 'An ecological approach to embodiment and cognition'. *Cognitive Systems Research*, 3(2002): 289-299.
- Holston, J. 1989. 'Blueprint Utopia'. *The Modernist City: An Anthropological Critique of Brasilia*. The University of Chicago Press.

- Horton, D., Cox, P. & Rosen, P. 2007. 'Introduction: Cycling and Society'. In: Horton, D., Cox, P. & Rosen, P. (eds.) *Cycling and Society*. Hampshire and Burlington: Ashgate.
- Ingold, T. 2011. 'General Introduction'. *The Perception of the Environment: Essays on livelihood, dwelling and skill*. London and New York: Routledge.
- Jackson, M. 2015. 'Afterword'. In: Ram, K. & Houston, C. (eds.) *Phenomenology in anthropology : a sense of perspective*. Bloomington, Indiana: Indiana University Press.
- Jain, S. S. 1999. 'The Prosthetic Imagination: Enabling and Disabling the Prosthesis Trope'. *Science, Technology, & Human Values*, 24(1): 31-54.
- Jensen, A. 2013. 'The Power of Urban Mobility: Shaping Experiences, Emotions, and Selves on a Bike'. In: Witzgall, S., Vogl, G. & Kesselring, S. (eds.) *New Mobilities Regimes in Art and Social Sciences*. Surrey and Burlington: Ashgate.
- Jernhesten Bicycle Workshop. 2015. *Facebook Community Page: Cykelværksted 'Jernhesten'* [Online]. Facebook. Available from: <https://www.facebook.com/CykelvaerkstedJernhesten> [Accessed 23 June 2015].
- Jirón, P. 2009. 'Immobile Mobility in Daily Travel Experiences in Santiago de Chile'. In: Vannini, P. (ed.) *Cultures of Alternative Mobilities: Routes Less Traveled*. Burlington, VT: Ashgate Publishing.
- Jones, P. 2012. 'Sensory indiscipline and affect: a study of commuter cycling'. *Social & Cultural Geography*, 13(6): 645-658.
- Kaplan, S., Vavatsoulas, K. & Prato, C. G. 2014. 'Aggravating and mitigating factors associated with cyclist injury severity in Denmark'. *Journal of Safety Research*, 50: 75-82.
- Kjær, S. J. 2015. Bredere stier på vej til Københavns cyklister. *Politiken*, 31 August 2015.
- Koglin, T. 2015. 'Organisation does matter – planning for cycling in Stockholm and Copenhagen'. *Transport Policy*, 39: 55-62.
- Larsen, H. K. & Nilsson, C.-A. 1984. 'Consumption and production of bicycles in Denmark 1890–1980'. *Scandinavian Economic History Review*, 32(3): 143-158.
- Larsen, J. 2014. '(Auto)Ethnography and cycling'. *International journal of social research methodology*, 17(1): 59-71.
- Latour, B. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*, Oxford, Oxford University Press.

- Low, S. M. 1996. 'Spatializing Culture: the Social Production and Social Construction of Public Space in Costa Rica'. *America Ethnologist*, 23(4): 861-879.
- Lugo, A., E. 2015. 'Can Human Infrastructure Combat Green Gentrification?'. In: Isenhour, C., McDonogh, G. & Checker, M. (eds.) *Sustainability in the Global City: Myth and Practice*. New York: Cambridge University Press.
- Marchand, T. 2010. 'Embodied cognition and communication: studies with British fine woodworkers'. *Journal of Royal Anthropological Institute*, 16: S100-S120.
- Massias, G. 1895. *Cycles Gladiator Advertisement (Image Used Only)* [Online]. Cycles Gladiator, via Wikimedia Commons. Available from: https://commons.wikimedia.org/wiki/File:Cycles_gladiator.png [Accessed 12 September 2015].
- Merleau-Ponty, M. 1962. *Phenomenology of Perception*, London & Henley, Routledge & Kegan Paul.
- Moe, V. F. 2004. 'How to Understand Skill Acquisition in Sport'. *Bulletin of Science, Technology and Society*, 24(3): 213-224.
- Moran, D. 2000. *Introduction to Phenomenology*, London and New York, Routledge.
- Municipality of Copenhagen. 2007. *Eco-Metropole: Our Vision for Copenhagen 2015* [Online]. Copenhagen. Available from: http://www.bondam.dk/files/7/miljoeadspil_brochure_engelsk.pdf [Accessed 16 August 2015].
- Næss, P. 2006. *Urban Structure Matters: Residential location, car dependence and travel behaviour*, Oxfordshire, UK, Routledge.
- Navaro-Yashin, Y. 2009. 'Affective spaces, melancholic objects: ruination and the production of anthropological knowledge'. *Journal of the Royal Anthropological Institute*, 15(1): 1-18.
- Northcott, M. 2008. 'The Desire for Speed and the Rhythm of the Earth'. In: Sager, S. B. T. (ed.) *The Ethics of Mobilities: Rethinking Place, Exclusion, Freedom and Environment*. Hampshire and Burlington: Ashgate.
- Pucher, J., Buehler, R. & Seinen, M. 2011. 'Bicycling renaissance in North America? An update and re-appraisal of cycling trends and policies'. *Transportation Research Part A: Policy and Practice*, 45(6): 451-475.
- Pucher, J., Dill, J. & Handy, S. 2010. 'Infrastructure, programs, and policies to increase bicycling: an international review'. *Prev Med*, 50 Suppl 1: S106-25.

- Saneinejad, S., Roorda, M. J. & Kennedy, C. 2012. 'Modelling the impact of weather conditions on active transportation travel behaviour'. *Transportation Research Part D: Transport and Environment*, 17(2): 129-137.
- Smith, M. & Morra, J. 2006. *The Prosthetic Impulse: From a Posthuman Present to a Biocultural Future*, Cambridge and London, The MIT Press.
- Spinney, J. 2009. 'Cycling the City: Movement, Meaning and Method'. *Geography Compass*, 3(2): 817-835.
- Strauss, J., Miranda-Moreno, L. F. & Morency, P. 2015. 'Mapping cyclist activity and injury risk in a network combining smartphone GPS data and bicycle counts'. *Accident Analysis & Prevention*, 83: 132-142.
- Svendsen, G. L. H., Svendsen, G. T. & Graeff, P. 2012. 'Explaining the Emergence of Social Trust: Denmark and Germany'. *Historical Social Research / Historische Sozialforschung*, 37(3(141)): 351-367.
- Tamanini, J. 2014. The Global Green Economy Index GGEI 2014: Measuring National Performance in the Green Economy. 4th - October 2014 ed.: Dual Citizen LLC. [Online]. Available from: <http://dualcitizeninc.com/GGEI-Report2014.pdf> [Accessed 20 August 2015].
- The City of Copenhagen 2011. Good, Better, Best: The City of Copenhagen's Bicycle Strategy 2011-2025. In: Technical and Environmental Administration Traffic Department (ed.). Copenhagen, Denmark: The City of Copenhagen.
- The City of Copenhagen 2013a. The City of Cyclists: Copenhagen Bicycle Life. In: Technical and Environmental Administration Traffic Department (ed.). Copenhagen: The City of Copenhagen.
- The City of Copenhagen 2013b. Focus on Cycling: Copenhagen Guidelines for the Design of Road Projects. In: Technical and Environmental Administration Traffic Department (ed.). Copenhagen: City of Copenhagen.
- Transparency International 2014. Corruption Perceptions Index 2014 Brochure. In: International, T. (ed.).
- Tshumi, B. 1996. 'Violence of Architecture'. *Architecture and Disjunction*. Boston: The MIT Press.
- Urry, J. 2007. *Mobilities*, Cambridge and Malden, MA, Polity Press.
- Vásquez, I. & Porčnik, T. 2015. The Human Freedom Index: A Global Measurement of Personal, Civil, and Economic Freedom. Washington, Vancouver, Berlin: Fraser Institute. [Online]. Available from: <http://object.cato.org/sites/cato.org/files/human-freedom-index-files/human-freedom-index-2015.pdf> [Accessed 19 September 2015].

- Vivanco, L. A. 2013. *Reconsidering the Bicycle: An Anthropological Perspective on a New (Old) Thing*, New York, Routledge.
- Wishard, D. 1986. 'Copenhagen: Its delights are no fairytale'. *Canadian Medical Association Journal*, Sept 1 135(5): 542-543 545-546.
- Yakhlef, A. 2010. 'The corporeality of practice-based learning'. *Organization Studies*, 31(04): 409-430.

Appendix 1: Macquarie University Human Ethics Approval

Faculty of Arts Research Office artsro@mq.edu.au

10 November 2014 at 15:19

To: Associate Professor Chris Houston chris.houston@mq.edu.au

Cc: Faculty of Arts Research Office artsro@mq.edu.au, Miss Lucinda Libershal Casbolt
lucinda.casbolt@students.mq.edu.au

Subject: Ethics Application Ref: (5201400901) - Final Approval

Dear Dr Houston,

Re: 'Cycling in the City: an ethnography of Copenhagen's cycling culture'

Thank you for your recent correspondence. Your response has addressed the issues raised by the Faculty of Arts Human Research Ethics Committee. Approval of the above application has been granted, effective 10/11/2014. This email constitutes ethical approval only.

Please note that the Committee recommends collection of written consent (rather than just verbal) for any photographs that will be identifying of the participant(s). Verbal consent (recorded in research journal) is acceptable for non-identifying images.

If you intend to conduct research out of Australia you may require extra insurance and/or local ethics approval. Please contact Maggie Feng, Tax and Insurance Officer from OFS Business Services, on x1683 to advise further.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Dr Chris Houston
Miss Lucinda Libershal Casbolt

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 10/11/15
Progress Report 2 Due: 10/11/16
Progress Report 3 Due: 10/11/17
Progress Report 4 Due: 10/11/18
Final Report Due: 10/11/19

NB: If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the

project.

Progress reports and Final Reports are available at the following website:
http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

<http://www.mq.edu.au/policy/>

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of approval to an external organisation as evidence that you have approval, please do not hesitate to contact the Faculty of Arts Research Office at ArtsRO@mq.edu.au

Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely

Dr Mianna Lotz
Chair, Faculty of Arts Human Research Ethics Committee
Level 7, W6A Building
Macquarie University
Balaclava Rd
NSW 2109 Australia
Mianna.Lotz@mq.edu.au