Reimagining the city through art

Tactics, opportunities and limitations from
Experiment Stockholm

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Abstract

The transformation of cities is a challenge of global significance that will depend on the capacity to re-imagine the potential of cities, and thus needs more than standard technocratic urban planning approaches. Deep engagement with the arts provides one avenue for recasting the future of cities. This thesis explores the question of how ‘critical urban art interventions’ develop alternative ways of knowing urban nature, and the opportunities and limitations of using art to reimagine the future of cities. By drawing on urban political ecology and cultural geography, the thesis documents and explores the aims and tactics used in five urban art interventions to reimagine sites of urban nature in Stockholm. Qualitative interviews and participant observation were carried to explore these questions. Findings suggest that tactics used in urban art interventions promote embodied ways of knowing, and simultaneously interacting with the physical and socio-historical constructions of sites of urban natures.

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1. INTRODUCTION

The main focus of this research is to examine how urban art interventions reimagine sites of urban nature in Stockholm, examining both opportunities and limitations. The departure point for this research is that just and sustainable cities will require alternative ways of knowing and imagining human-nature relations, and urban-nature relations.

1.1 Background and context

‘To put art at the service of the urban does not mean to prettify urban space with works of art. This parody of the possible is a caricature. Rather, this means that time-spaces become works of art and that former art reconsiders itself as source and model of appropriation of space and time’ (Henri Lefebvre, 1996, cited in Loftus, 2012 p.730)

In the autumn of 2015, an experimental exhibition expanded out from the main hall of Färgfabriken (The paint factory), a centre for contemporary art, architecture and urban planning in Stockholm. Broadly addressing urban futures and the future of Stockholm, the art works were ‘urban art interventions’; they were located both within the exhibition and in the public streets and waters surrounding the old industrial paint factory. Created by nine artists and three curators, the exhibition, Experiment Stockholm, aimed to intertwine nature and culture, and to make unexpected connections between people and place, and cities and culture. It explored the everyday experience of living in the city by evoking the multiple senses with which one knows the city. The artistic exhibition was part of a much larger experimental program also called Experiment Stockholm, which consisted of urban laboratories addressing the present and future of the city of Stockholm, as well as seminars, workshops and practical experiments in the city. Based on personal experience working and participating as intern at Färgfabriken during this exhibition, this thesis uses a grounded theory approach to explore how the artworks in the exhibition reimagine sites of urban nature in Stockholm.

To contextualise the importance of studying an art exhibition that deals with urban futures and urban nature, one can first look more broadly, to the current geological age of the Anthropocene. Questioning our urban futures will be a vital task in the Anthropocene. No longer are humans only influencing and producing “nature” at local and region scales, but they are changing the very Earth systems that we rely on, with climate change the most evident, and perhaps most pressing example. Considering that more than half of the human population lives in cities, and that rapid urbanisation continues, how we know and relate to ecosystems and nature in cities on an everyday level will have implications on how we care for ecosystems both in cities and beyond. Environmental questions must address how cities can embrace environmental and social justice at the heart their viable futures (Loftus 2012 p.xxii).

Considering the scope, scales and enormity of (certain groups of1) humans impact on the biophysical systems, discussion and debate is needed about our futures (Castree 2014), both urban and beyond. We need new ways of understanding and imagining cities and

1 Considering the unequal nature of human’s impact on Earth systems, questions of similar but differentiated responsibilities are referred to here.
nature that overcome binaries of nature as subordinate to humans; instead an openness is needed that highlights the intersection of ecology, cities and justice (Millington 2012, p.291; Gandy 2006). Yet, it is in cities that we more than ever perceive that we are separate from nature, and the natural systems that support us. The reduction of people’s access to green areas and relations to the ecosystems that support us is increasing with urbanisation (Bendt et al. 2013). Scholars are noting an ‘amnesia among city peoples about their relationships to, and dependence on, diverse ecosystems’ (Bendt et al. 2013, p.19). Our daily lives are carried out separated and unaware of the socio-ecological processes that sustain our urban lives. Therefore, reconceptualising and reconnecting to the complex and multiple relations we have with ecosystems, both near and far, will be vital to create just cities and sustainable environments.

Why study the artworks of Experiment Stockholm?

Artistic practices that engage in the urban and its environments are one way of reconnecting urban inhabitants to ecosystems and nature. Artistic practice not only reflects human relations to nature, but also shapes it. Whether literary, imagery or performative, scholars from diverse fields are increasingly arguing that artistic practice has the ability to reframe socio-natural relations. One only has to look to Rachel Carson’s novel Silent Spring, largely acclaimed to have been the birth of the modern environmentalist movement in the 1960s, which placed the impact of human actions in a new light (Loftus 2012 p.xv). Another example can be found from the image of Earth sent from the Apollo 17, in which the fragility of Earth and nature became evident in the unified and seemingly small blue marble Earth (Loftus 2012 p.xv). Whilst these two examples are connected to the environmentalist movement, the point here is rather that art has the potential to shape our understandings of nature and ecosystems.

None-the-less, whilst there has been much engagement and debate centring on the role of culture in urban economic regeneration (Landry 2000 and Florida 2005 being some of the most well cited examples), less attention has been paid to artistic practices that engage in critical practices that bring into question everyday urban life and our relations to urban natures. Despite this, ample examples of artistic practices used to reimagine cities are springing up, both in exhibition form such as Experiment Stockholm, and individual art interventions across the cities of Europe.

Whilst covering a broad range of artistic interventions and practices within an urban context, the term ‘urban art interventions’ allows for discussions beyond individual artworks, to engage with the possibilities and limitations of a broad range of experimental and artistic approaches. Urban art interventions engage not only in different ways of knowing the city, but also in the political significance that arises through and from such practices. There has been a long history from both the academic, theoretical and artistic perspectives for exploring the urban through art, with radical potential perceived in the everyday. From Henri Lefebvre to the Situationists International, engaging with urban spaces through everyday and artistic practices was a means not only to study and know the city from alternative perspectives, but also to change them. In this sense, it is argued that urban art interventions not only engage in cities, but also seek to transform them (Pinder 2005).

However, the question arises: why include art in exhibitions about the future of cities? Can artistic approaches explore urban nature, as well as promote alternative ways of
interacting and knowing urban nature? What are the opportunities and limitations to using artistic approaches? Urban political ecology (henceforth UPE) provides an important lens from which these questions can be explored, as it connects the study of urban nature to social, political, and cultural structures. Within this field, scholars have been addressing the role artistic practices play in reimagining the city, as well as providing pathways ‘into thinking about political possibilities for reconfiguring urban environments’ (see for example Loftus 2012, p.40; Millington 2012; Gandy 2013). This thesis aims to contribute to this literature, by exploring how urban art interventions reimage sites of urban nature in Stockholm. Urban nature is conceived here as both material and discursive.

Yet whilst the literature connects artistic practice in the construction of urban natures, this is only done at a discursive (Gandy:1997cw ; Millington 2012) and theoretical level (Loftus 2012). This thesis therefore aims to expand the literature by studying how urban art interventions can reimage how we know nature and on a material level, and how we interact with urban nature on an everyday level. It does this by connecting the field of urban political ecology with cultural geography. Cultural geographers have studied urban art interventions, yet as an art form they provide a new an interesting terrain for urban political ecology and the study of urban natures, thus far only studied by Loftus (2012). What’s more, scholars suggest that more studies are required to address both the opportunities and limitations of urban art interventions to reimagine and transform sites in cities (Pinder 2005). This work aims to fill these gaps, with a focus on sites of urban nature.

The thesis therefore aims to expand the types of artworks thus far explored through an urban political ecology lens, as well as introduce a methodological approach to studying arts impact on urban nature. To generate a new approach in UPE, the thesis draws on methodological and conceptual approaches from cultural geography. It thus interviews the artists and curators perspectives to explore embodied ways of knowing and interactions with sites.

1.2 Purpose of the study

The purpose of this study is to explore the tactics used in the Experiment Stockholm artistic exhibition to reimagine sites of urban nature in Stockholm. The thesis brings two sets of literature into conversation: urban political ecology (UPE) literatures on ‘urban nature’ and cultural geography literature on ‘critical urban art interventions’. The thesis documents current urban art interventions in Stockholm, and explores the tactics used by drawing on the concepts of embodiment and site.

The goals of this thesis are therefore to:

• Explore the tactics used in the exhibition and artworks used to reimagine sites of urban nature, through concepts of ‘embodiment’ and ‘site’
• Document the phenomena of urban art interventions in Stockholm
• More broadly, explore the opportunities and limitations of using artworks in the exhibition of the future of the city
1.3 Research Question

The research is therefore guided by the following question:

What tactics are used in the Experiment Stockholm exhibition to reimagine sites of urban nature?

To guide this research, the following sub questions are posed to explore the following analytics:

- How did the artists aim to generate embodied ways of knowing through the artworks?
- How do the artworks interact with the sites they use?
- What are the opportunities and challenges of using artworks in the exhibition of the future of the city?

1.4 Thesis Outline

In Chapter Two the literature review firstly situates the thesis within the broad literature on urban political ecology (UPE). The thesis is positioned within post-political UPE literature that highlights the relevance of studying constructs of urban nature that emerge through cultural praxis and engage in everyday practices. Literature that has explored artistic practice and urban socio-natural relations in UPE is then reviewed, arguing that urban art interventions are relevant yet not extensively studied forms of art that interact with both the material and discursive aspects of urban nature on a practical and everyday scale. This leads on to the concepts of site and embodiment as important analytics through which to analyse cultural practices that reimagine urban natures.

Chapter Three presents the methodology section, outlining the research design, methods of data collection and analysis, as well as some limitations and ethical considerations. The methodology is based on semi-structured interviews with the artists and curators of Experiment Stockholm.

In Chapter Four, the exhibition Experiments Stockholm is introduced, as well as the five artworks. The sites that the artworks engage with are also outlined.

Chapter Five presents the discussion of results, structured by addressing each of sub-questions. The tactics used by the artists to promote embodied ways are firstly presented, before discussing the relevance of this way of knowing more broadly to how the city and sites of urban nature, and the limitations the arise from the perspective of the artists and curators. Secondly, the art works interactions with sites of urban nature are presented, exploring both physical and socio-historical constructions of sites of urban nature. Finally, the discussion moves to the opportunities and limitations of using such artworks in an exhibition about the future of the city.

Chapter Six presents the main conclusions of the thesis, as well as reflects on the methodological approach and limitations. It is argued that by engaging in everyday and
cultural practices, urban art interventions create places of possibilities; both for new ways of knowing the city and urban nature, as well as ways of interacting with and claiming spaces in the city. None-the-less, limitations are also prevalent.

2. LITERATURE REVIEW

The literature review is divided in two parts. Firstly, the thesis is situated within post-structural UPE, to argue that a diffuse notion of power allows for an understanding of urban environments as produced through the everyday, and cultural praxis, including art. I draw on the literature of ‘urban ecological imaginaries’ to explore the concept of urban nature, arguing that it is both material and discursive, constructed through multiple socio-historical and environmental processes. This brings me to a review of UPE literature that explores how art supports and or reimagines both the discursive and materiality of urban nature. The concept of ‘critical urban art interventions’ is introduced as a group of urban artworks that have recently begun to be studied from the perspective of UPE. Whilst this work explores an important theoretical connection between the construction of urban nature and the cultural praxis, it is argued that there is no critical exploration of the opportunities and limitations of such artworks on a practical level. Secondly, studies on urban art interventions from the field of cultural geography are drawn on, introducing the concepts of embodiment and site.

2.1. Situating urban political ecology: the city produced through the everyday

As cities and urban environments become ever more relevant to study, urban political ecology (UPE) has since the 1990s developed a range of approaches to address the complex, interdisciplinary and multi-scalar nature of cities. Central to UPE as a theoretical lens is the concept that cities are produced through socio-ecological processes, with attention placed on the political processes that make and remake urban environments (Heynen, et al. 2006, p.2). In particular, UPE sheds light on this by questioning binaries of nature/culture, or indeed, city/nature, which are understood as false dichotomies. Such dichotomies are considered to limit critical analysis if remained unquestioned, since they can naturalise and support crude stereotypes or hierarchies of power and race ‘as authentic expressions of what “nature intended”’ (Lawhon et al. 2013). Therefore UPE examines socio-ecological processes by asking ‘who produces what kind of socio-ecological configurations for whom’ (Heynen, et al. 2006, p.2)

Despite its strong Neo-Marxist foundation, recent UPE works have sought to diversify theoretical approaches to include post-structuralist (Gabriel 2014; Grove 2009), feminist (Truelove 2011), and African Urbanism (Lawhon et al. 2013), amongst others. Such scholars argue that the Marxist urban geographical base in UPE offers a useful, but limited analysis (Lawhon et al. 2013). In light of this, a call has been made for UPE to concomitantly retain focus on subjective, discursive and everyday dimensions that also play a role in producing urban environments (see for example Grove 2009; Millington 2012; Gabriel 2014; Lawhon et al. 2013; Loftus 2012). The broadening of scope in UPE
has resulted in both discursive and cultural practices being included into analysis, in which everyday experience of the urban and urban natures become political and substantial to study (Grove 2009). Post-structural and feminist scholars focus on possibilities for novel political activity, as well as the micro-politics of environmental discourse in diverse sites in cities (Gabriel 2014, p.40).

The methodological diversity in UPE necessitates that questions of power are addressed in different ways. Within both post-structural and feminist perspectives, the notion of power and where it resides is shifted from the materialist base of political economy. Rather, power is considered to be diffuse, ‘residing nowhere but enacted everywhere’ (Lawhon et al. 2013, p.508). The concept of power is thus expanded beyond capital accumulation and class relations, to include for example, identity, gender, knowledge claims and discursive power (Lawhon et al. 2013, p.508). This thesis focuses on examining reinterpretations of meaning, knowing, and articulations of nature produced through the everyday (Grove 2009), thus arguing that power resides also in the everyday.

The expanding notion of power and how it operates arises from a critique, arguing that capitalism is an important influence on the production of cities, yet is not the only influence. Whilst this approach doesn’t deny that economic and political systems and environmental conditions generate the context of everyday practice, it also allows room for focus on the struggles of meanings inherent within the everyday (Grove 2009). It is important to note that critiques of historical-materialist notions of power do not aim to substitute them, but rather to develop alternative framings and theoretical underpinnings (Lawhon et al. 2013).

2.1.1 The everyday and everyday practices

Drawing on the UPE outlined above, a diffuse understanding of power allows for focus to be placed on possibilities inherent in the everyday and cultural practices. Analysis of the production of imaginaries, inequalities and possibilities within the urban environment can look towards the role of everyday life. One of the most well known scholars on the everyday - Henri Lefebvre - defined the everyday as “what is left over’ after all distinct superior, specialised structured activities have been singled out for analysis’ (Loftus 2012, p.116). Loftus (2012 p.117), drawing on Lefebvre’s work, highlights that ‘if everydayness designates the homogeneity and repetitiveness of daily life, the ‘everyday’ represents the space and agency of its transformation and critique’. Such a perspective aims to highlight how everyday practice helps construct scales of the body, the household and the city (Truelove 2011, p.144), that are often overlooked in other approaches.

Fundamental to Lefebvre’s philosophy is the idea that both praxis and creativity are developed in the everyday. A philosophy of praxis proposes that progressive thought and world-changing ideas develop and emerge from everyday people and everyday acts, rather than from lofty heights of political strategists (Loftus 2012 p.xii). Henri Lefebvre’s work on cultural praxis and the everyday is perhaps one of the most well known engagements with urban transformations and art.

Whilst everyday scales alone cannot be considered sufficient to change the world, there lies none-the-less radical and creative possibility within the everyday. It is from this perspective that scholars have explored art as a means of transforming the city. As Lefebvre wrote, a ‘critique of everyday life encompasses a critique of art by the everyday
and a critique of the everyday by art’ (Loftus 2012). Lefebvre argues that culture, including philosophy and art, is conceived of as situated within the everyday. He writes: ‘The highest mission of art is not simply to express, even less to reflect, the real, nor to substitute fictions for it. These functions are reductive; while they may be part of the function of art, they do not define its highest level. The highest mission of art is to metamorphose the real. Practical actions, including techniques, modify the everyday; the art-work transfigures it’ (Lefebvre cited in Loftus 2012).

Lefebvre is none-the-less aware of critiques to the notion of art as transformative. Marxists, for example, argue that ‘art is only a distraction, a form of entertainment’ (Lefebvre cited in Loftus 2012). Lefebvre however counters this, stating that ‘great works of art deeply touch, even disturb, the roots of human existence’ (ibid.). ‘Let everyday life become a work of art!’ (ibid.).

Analysis of the everyday may address everyday practices carried out through the body, home and city scales. Yet it is far from making the assumption that the city is produced only at this scale. On the contrary, examining the everyday can also highlight how urbaniy is connected to far-flung places and natures. Indeed, cities extend with distant connections and flows; the city is understood as ‘a place of mobility, flow, and everyday practices’ (Amin & Thrift 2002). For example, everyday practices such as eating can only be understood by highlighting the flows of food from distant places. Similarly, domestic rhythms play a role in shaping the urban, for example through online shopping (Amin & Thrift 2002, p.18). Yet, as Amin and Thrift (2002, p.18) highlight ‘the everyday rhythms of domestic life have rarely counted as part of the urban, as though the city stopped at the doorstep of the home’. Yet, it is the very rhythms and tracks that constitute our everyday that formulate how we know the city, and construct discourses of the city and of nature (Amin & Thrift 2002, p.22).

2.2. What is urban nature? What is nature?

This section outlines the UPE literature on urban ecological imaginaries (hence forth urban imaginaries), to explore the concept of urban nature. Literature on urban imaginaries examines environmental discourses; on both how the urban is imagined collectively, and on material conditions (Gabriel 2014, p.40). Following Gabriel’s (2014, p.39) definition, urban ecological imaginaries are understood as ‘conceptual framing and systems of meaning related to urban environments, including assumptions about the nature of the city and the nature of nature’. Importantly, the concept of ecological imaginaries examines the diverse forces that produce “the urban” beyond the urban (Gabriel 2014, p.40). Imaginaries, and their discursive practices, are considered important in that they accompany and support the materiality of the urban (Kaika & Swyngedouw 2012).

Analysis of urban imaginaries addresses how the concept of urban nature is constructed. Historically, processes of urbanisation have been considered as an increasing distancing from nature, with cities seen as sites in which control has been gained over nature (Keil & Graham 2005). This representation of nature is understood as universalist, in which nature a singular concept, is separate from humans, and exists in its own right (Gandy 1997). In contrast to this perspective, it is argued here that the process of urbanisation is much more than simply destroying “original” or pristine nature (Gandy 2006). An urban ecology then, is no more or less natural than a national park (Ibid.). The production of urban
nature is considered to be a ‘simultaneous process of social and bio-physical change in which new kinds of spaces are created and destroyed’ (Gandy 2006, p.62). These processes are as diverse as the networks and flows that provide food to the modern city, to the new natures produced within the city (Ibid.). Defining what nature is then, can be understood in two different yet intertwined notions (Ibid.). “Nature” refers to physical things such as parks, gardens and whole ecosystems, as well as ideological and metaphorical interpretations (Ibid.).

Nature is therefore both concrete and metaphorical. As Matthew Gandy (2006, p.63) notes, both the ‘abstract and concrete elements are often interwoven’, to produce densely packed urban discourse’. In this perspective, discourse can be understood as ‘a shared way of apprehending the world’ (Dryzek 2013, p.9). A discourse is both embedded in language and practice, and as John Dryzek notes, ‘it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts’ (Dryzek 2013, p.9). Importantly, discourses define what is legitimate knowledge, construct meanings and relationships, and are thus engaged within power and political practises (Dryzek 2013, p.10).

The way urban nature is constructed develops certain categories and forms of urban landscapes, practices and subjects (Gabriel 2014, p.40). One approach to studying urban nature within UPE is to examine a global discourse on nature. Kaika and Swyngedouw (2012) have demonstrated that the current global discourse of nature has real implications for the way policy and interventions are developed. The authors argue that there is increasingly a global hegemonic discourse the constructs nature as ‘radically out-of-sync, singular, under threat and in need of saving’ (Kaika & Swyngedouw 2012, p.25). The effect of a singular conception of nature is that it effectively removes the political moment in which we address what “nature” is. By asserting there is one nature, we ignore the vital question of ‘what kind of socio-environmental arrangements do we wish to produce’ (Swyngedouw 2007, p.20). This, according to Kaika and Swyngedouw (2012), has enormous implications for the ability to construct just environments and cities. In this sense, ecological imaginaries function in such a way that renders visible or invisible certain kinds of human-nonhuman interactions (Grove 2009).

Similarly, in relation to the urban, Keil and Graham (2005) argue that discourse of urban nature are shifting, with urbanisation processes increasingly seen as building with nature, rather than against it. Yet, they argue that such contemporary discourses are contradictory. Whilst urban growth and development is carried out within discourses of environment and sustainability, the authors argue that binaries are still maintained of city and countryside; city and suburb; humans and animals. These binaries function in such a way that nature remains subordinate. Whilst the post-Fordist city is indeed seeking to reintegrate the nature and the urban, ‘imperialist urban-nature relationships’ remain unquestioned in the dominant sustainability discourse. Keil and Graham (Keil & Graham 2005, p.105) argue that in our current form of urbanisation, “nature” has become a key aspect of growth. So then, the contemporary city pretends to have it all, somehow pretending that ‘the forces of preservation and the forces of growth can be somehow resolved’ (Keil & Graham 2005). The authors conclude that despite ‘nature’ being considered an important part of cities in North America and Western Europe today, such discourses cannot be considered viable to fundamentally change the crisis in human-nature relations (Ibid.).
In contrast to this approach to studying urban nature in UPE, other scholars argue that constructs of urban nature arise through everyday practices, highlighting instead the micro-politics of environmental discourses (Gabriel 2014, p.40). This line of work on ecological imaginaries follows Escobar’s (1999, p.3) seminal work on antiessentialist political ecology, in which nature is considered to be ‘produced by/in historical discourses and practices in a multiplicity of domains’. Escobar argues that rather than having a true core or essence; nature is open, incomplete, and produced amongst other things, in contexts of power (ibid). Escobar’s (1999) work brings to the fore the multiplicity of “natures” present in the Pacific Coast of Colombia, to argue that diverse actors in the region construct different narratives of nature. By highlighting three distinct natures – capitalist nature, organic nature, and techno-nature – Escobar argues that each regime produces nature differently (see Escobar 1999 for further discussion). In this sense, diverse natures are produced not only through capitalist relations, but also through cultural and social everyday realities.

Similarly, Grove’s (2009, p.207) work has followed Escobar’s approach, which she argues, allows for focus on ‘cultural meanings and practices of nature’. The author’s work demonstrates that environmental transformations in the urban context are caught up in a mire of social meanings, which are by no means singular. By critiquing the political economy foundation of UPE, Grove argues that ‘cultural practices of nature’ can motivate political processes (Grove 2009, p.209). In this way, nature is considered more than the essentialist conception of nature as purely biophysical (Gandy 1997). Therefore, following Grove (2009) and Escobar (1999), articulations of urban natures can arise in multiple and everyday realities, alongside more dominant conceptions of nature. It is this approach that this thesis follows.

It is thus argued that the category of “nature” is constructed in plurality (Escobar 1999). This is to suggest that “nature” has no essential identity; there is no one “nature”. Rather, nature can be defined as ontologically ambiguous. Nature refers to diverse ‘cultural constructions of non-human environments’ (Grove 2009, p.209). Important for the discussion here is that these diverse articulations of nature have their own ‘history and specificity and are related to modes of perception and experience, determined by social, political, economic, and knowledge relations, and characterized by modes of use of space, ecological conditions…’ (Escobar 1999, p.4).

Drawing on the above framework, this section argues that nature is ‘a culturally and historically specific idea’ (Millington 2012, p.287), both discursive and material. It is argued that urban nature is no less natural than a national park, thus suggesting that the urban/nature binary is problematic. By drawing on anti-essentialist UPE and diffuse notions of power, the construction of the urban nature, and indeed reimagining it, is considered to also take place in the everyday. Therefore everyday practices that engage in and construct meanings about urban natures are important to the production of sustainable cities. The following section expands on how urban natures are produced through artworks, suggesting that possibilities exist for art to reframe how we construct what nature is, both materially and discursively. As Millington (2012, p.293) writes:

‘The task is to find ways of imagining and representing the incredibly complexity and relationality of both human and non-human systems, in order to better produce the types of socio-ecological futures we want to inhabit’.
2.3 Urban nature and the arts – art in urban political ecology

This section outlines UPE literature that has examined artistic practice that supports or reimagines urban nature, both discursively and materially. It firstly explores work that has engaged in the discursive construction of urban nature through popular photographic and journalistic works, as well as through artist’s representations of nature in cities. In then goes on to explore the work of urban political ecologist who has looked at ‘critical urban art interventions’ as a means of reimagining urban places and reconstructing ecological consciousness in cities.

Scholars in UPE have drawn on artwork to examine constructions of urban nature, ranging from work of photography and writing (Gandy 2013; Millington 2012), to painting and sculpture (Gandy 1997; Gandy 2006), to critical urban art interventions (Loftus 2012). For example, drawing on popular artistic and journalistic photographic work, Nate Millington (2012) examines portrayals of the urban and urban nature in Detroit, USA. Millington (2012) argues that the vast amounts of photographic work depicting the ruining city of Detroit that is being reclaimed by non-human nature, constructs oversimplified notions of the city in decline. The author (Millington 2012) argues that by building up nature/urban binaries, the production and dissemination of the photographs work to naturalise the socio-political processes responsible for Detroit’s decline. This renders invisible issues of race, economic restructuring and the everyday realities of racialised urban poverty that characterise Detroit (Millington 2012, p.280). By exploring the conceptions of emergent ecologies in Detroit through such works, the author argues that the way nature is imagined, or conceptualised, has vast implications for understanding, and thus acting upon, the city.

Millington (2012) argues that the way Detroit is portrayed and reimagined through the photographs fail to highlight the urban as complex assemblages of socio-natural flows and processes. Rather, they naturalise and thus render opaque socio-political processes. This implicit naturalisation of urban processes leads to the impression that urban processes are cyclical, natural, and therefore modifiable through technological processes (Gandy 2006). It is in this way, arising from the underlying ecological imaginary of nature as singular and separate, that the political contestation required to understand and alter urban processes is inherently denied (Ibid.). Evidently then, not all artistic practice that address the questions of urban and nature promote radical and transformative ecological imaginaries. Whilst Millington’s (2012) analysis highlights how artworks addressing the urban can produce problematic binaries, it none-the-less highlights how artistic practice can be analysed to understand how urban nature is constructed on a discursive level.

Gandy (2013) has also addressed the ways that photographers and writers have explored marginal sites of urban nature with in cities of Berlin, London and Montreal. Marginal urban natures, termed by Gandy (Gandy 2013, p.1302) as ‘wastelands’, ‘edgelands’ or ‘interim spaces’, are often regarded sites awaiting development or erasure. These spaces of urban nature, that are neither designed landscapes nor specifically assigned cultural spaces, such as abandoned blocks, brownfield sites and other marginal sites, are according to Gandy (2013) interesting sites to explore the ambiguities of urban nature. He concludes that artistic interventions in to urban marginal spaces ‘remind us that
looking, thinking and representing the familiar in unfamiliar way can also be a kind of radical cultural and political praxis’ (Ibid.).

Artistic practice has the ability to generate fresh perspectives on everyday or habitual aspects of life, including taken-for-granted assumptions about sites of urban nature. In this sense, the arts can make the familiar strange and make the strange familiar (Eisner 2008). Artistic practice can make us aware of unquestioned habits and assumptions. Russian literary critic Victor Shklovsky, in 1916, argued that arts major purpose was to ‘make strange’ everyday and taken-for-granted assumptions, situations and objects (Metzger 2011, p.219). Indeed, the ability of creative practice to ‘make strange’ the urban has been developed by Lefebvre, who drawn on cultural praxis and defamiliarisation of the everyday in urban spaces (Lefebvre, 1988). Similarly, the Situationist’s concept of ‘detournement’ draws on this idea (Metzger 2011). These processes have the potential of generating counter-hegemonic jolts that unsettles the ‘taken-for-granted’ (Metzger 2011, p.220).

2.3.1 Critical urban art interventions

More recently, UPE scholars have also started to look at art that is located in public spaces of cities, known as ‘critical urban art interventions’, or ‘urban art interventions’. Whilst cultural geographers have written about these types of artwork extensively, they provide a new and interesting terrain for UPE and the study of urban natures. Urban art interventions refers to art practices that engage with the urban, with both physical and discursive spaces and places (Pinder 2005). Such artistic practices seek to extend the notion of art as existing only in galleries and museums. Rather, urban art interventions involve diverse approaches of exploring and knowing the city through practices such as mapping places and urban walks. What unites many of these artistic practices and approaches is engagement in everyday practice, with the notion of the everyday as full of possibility to transform the city.

Critical urban art interventions have been explored from the perspective of UPE only by Loftus (2012). Loftus (2012) seeks to extend Lefebvre’s ideas on cultural praxis, into the socio-natural realm of the city, to argue that the mundane, the sensuous and the everyday creates relations between the social and the “natural” worlds (Loftus 2012 p.x). It is in the everyday that possibilities for an alternative world, for alternative socio-natural relations come into possibility. Loftus’ (2012, p.41) work on everyday practice and the production of urban natures explores how artistic works incite a rethinking, and perhaps reawakening, of the multiple sensuous and embodied experiences that compose the urban. He argues that there is a mutual exchange between sensory experience of a city, and the materiality of the city (Loftus 2012, p.42). One such example drawn on by Loftus (2012) is the artwork *Biomapping* by Christian Nold.

*Biomapping* maps how urban environments are experienced by participants and develops “emotion maps” of neighbourhoods (Loftus 2012, p.41). In this piece, multiple participants wear a lie detector and Global Positioning System device whilst walking, so that emotions of panic, stress or excitement, is mapped onto geographical places (Ibid.). The artwork draws attention to embodied experiences of the city and has been noted by local authorities, who have commissioned Nold to explore the possibilities of the artworks application in urban planning (Loftus 2012, p.42). Loftus (2012) argues that the everyday is an important arena in which the false dichotomies of nature and society can be eroded.
Thus, if we consider that the urban and urban nature is produced through everyday practices, how we know and embody the city are at once political acts that create and re-create the city (Loftus 2012, p.116). In this sense, the making of the urban and urban nature is in part constituted through the everyday senses and embodied experiences of citizens.

Loftus (2012) however notes that this kind of functionalist application of artworks is just one outcome. He argues that the artworks such as Biomapping do not actually produce urban environments differently, he rather suggests that artworks draw attention to relationships, emotions and processes that do produce urban natures (2012, p.42). Indeed, in contrast to Millington (2012), Loftus (2012 p.126) work on urban artistic interventions demonstrates that aesthetic and artistic engagement can open up conditions of possibility; that they create new ways of relating to urban nature, and thus create possibilities for reimagining the urban and urban nature. In this sense, artistic practice seems particular apt at drawing attention to often hidden processes that produce urban socio-natural assemblages. Through the everyday practice of walking, Biomapping has provided an evocative experience in order to draw attention to the nuances of urban space. It is in the very act of drawing attention to that artistic practice produces ‘conditions of possibility’ (Loftus 2012). Possibility for change within socio-natural relations must therefore also be understood to lie within a politics of the everyday (Ibid.). By engaging in the everyday, urban art interventions open up possibilities for change. Through artistic practice such as Nold’s, the importance of artistic practice for transforming cities in sustainable ways becomes apparent (Loftus 2012, p.44).

However, Loftus’s work provides very little analysis of how urban art interventions construct and/or challenge notions of urban nature. Whilst he provides examples of two artistic interventions in urban space, such as Biomapping, his analysis remains at the theoretical level, providing a critique of Lefebvre’s conception of nature. Drawing on Lefebvrian concept of the everyday and cultural praxis as full of possibility, Loftus (2012, p.126) critiques Lefebvre’s notion of nature as singular and separate from humans and society. According to Lefebvre, nature is no longer nature once humans touch it. Similarities can be drawn here between Lefebvre’s conception of nature and the dominant, singular and universalist conception of nature critiqued by Swyngedouw; a conception of nature as a thing that has been disturbed by humans and yet can be rectified and controlled (Swyngedouw 2007, p.18). It is here that Loftus (2012 p.126) departs from Lefebvre’s work, rather arguing for a conception of nature as produced through history and culture. By drawing on an urban political ecological conception of the city, nature is not separate from it, but constituted in, and through it. According to Loftus (2012), it is therefore that the everyday can be extended to an understanding of the production of urban nature (Loftus 2012 p.xiv).

Therefore, whilst Loftus (2012) work makes the important theoretical link between the everyday, artistic practice, and the construction of urban natures, there is a need for more analysis that explores these links. Whilst Loftus’ (2012) work explores examples of critical urban arts interventions at a theoretical level, analysis of the artworks he draws on is little more than descriptive. Furthermore, Loftus (2012) argues for urban art interventions to be considered as full of possibility to develop ecological awareness and new socio-ecological relations within cities. Despite this, the author provides no critical exploration of the opportunities and limitations of such artworks on a practical level. This thesis argues there is a gap in UPE literature, with further study needed to examine the
potential of artworks from the perspective of the artists themselves. This could allow analysis on how reimagine sites of urban nature, and the opportunities and limitations that arise on a more practical level.

2.4 Site and embodiment

To explore the opportunities and limitations of urban art interventions in reimagining urban nature, this section turns to cultural geography to review the conceptual and methodological approaches used in geography to study ‘urban art interventions’. Critical urban art interventions have long been studied from the field of geography, with discussion centring on how artworks build places and communities through interaction with site and bodies (see for example Rose 1997), as well as how the artworks re-imagine sites and new possibilities (Till 2008).

The concept of site has for a long time been an analytical concept that bridges both art theory and geography; it is used by geography to study arts interaction with space and place (Hawkins 2013; Rendell 2008). Site-specific art is considered to be art that has been created to exist in a certain location, and often, though not always, is located outside of galleries. The term ‘site-specific art’ has also been used to refer to ‘critical urban art interventions’, as the latter are often site-specific. However, some of the most prevalent site-specific work found outside the gallery was the land art movement of the 1970s. Discussing earthworks art pieces in the land art movement Anne Raine (1996, p.233) notes that the site-specific art works use site-specific forms and materials to create the works. In this way, Raine (1996 233) argues that by encountering the outdoors site, such artworks reintegrate not only ‘art and nature, but also nature and the social’. In this way, the concept of site is used to look at the interaction of art with geographical places.

However recently scholars have developed the concept of site as referring beyond the geographical location of the artwork (Rendell 2008). The concept of site has expanded to relate also to the research processes of the fieldwork used to create the artwork, looking both to the cultural and spatial practices that produce the art (Rendell 2008). In this way, both the artist and the works can be understood in an ethnographical sense, exploring and understanding sites (Rendell 2008).

Engagement with site and art through geography has also sought to highlight that places are ‘embodied contexts of experiences’ (Till 2008, p.105). In this way, geography scholars have been exploring how artworks and the places they generate are also constructed through embodied ways of knowing. The terms ‘embodiment’ and ‘embodied ways of knowing’ are used interchangeably in this thesis to signify ‘bodies as agents of knowledge production’ (Wilcox 2009, p.105). According to Grosz (1994 cited in Wilcox 2009, p.106) embodiment is considered as an alternative model of knowledge production that challenges dualisms of mind/body and ‘recognises the body’s capacity to know’. Whilst embodied knowledge manifests in many ways, the following discussion looks firstly to everyday practices and secondly to cultural practices as means through which embodied knowledge is promoted.

Firstly, everyday practices, such as walking or eating, are carried out through embodied knowledge. As Joy and Sherry Jr (Joy & Sherry 2003, p.263) note, drawing on Merleau Ponty’s work on embodiment, habits such as everyday motor skills are acquired through
cultural skills. Joy and Sherry Jr (Joy & Sherry 2003) use the example of the habits of using forks in the west, and chopsticks in China, to highlight that nuances of embodied knowledge that are developed in cultural contexts. The results of this is that individuals ‘learn to act appropriately in relation to specific cultural contexts’ (Joy & Sherry 2003, p.263). Applying this to urban space, it can be observed that cultural contexts define social norms about how we move through urban space, and how we interact with urban natures.

Secondly, cultural practices promote embodied ways of knowing. The geographer Harriet Hawkins (2010) has studied the embodied ways of knowing generated by the installations of artist Tomoko Takahashi, to explore the configurations of spaces, bodies and objects that the art generates. According to Hawkins, installations are immersive, they generate ‘spaces to which you take your whole body’ (Hawkins 2010, p.324). In this sense, installation extends beyond being an intellectual act, towards being an experience perceived by the whole body (Hawkins 2010, p.324). This way of knowing then can be understood as a shift from disembodied gaze towards embodied understandings of subjects, object and place (ibid). As Hawkins (Hawkins 2010, p.323) argues, geographical understandings of art must move beyond being understood through the ‘detached seeing subject’, because art is never understood through the eyes alone. To take this step as a researcher, Hawkins (2010) develops a method of enquiry in which her body is the research instrument and employs embodied writing practise as method.

Following Hawkins work on geography, art and embodiment, art can be understood as evocative; it enables people to ‘participate vicariously in a situation’ (Eisner 2008, p.6). Eisner (2008) makes the distinction between art as descriptive and art as evocative. The evocative, rather than mimicking something, sets up an experience in which ‘a set of qualities create an empathic sense of life’ (Eisner 2008, p.6). Eisner argues that artistic renderings of, for instance, nature transport us through the use of imagination and emotion. In this sense, art engages us, helping us see the world in terms of the art (Eisner 2008).

Similarly, Hui Niu Wilcox (2009) has also studied embodied ways of knowing developed through artworks, in this case, dance and performance. The artists, Ananya Dance Theatre, work to integrate art and science and research and activism, to explore and educate people about environmental justice in Minneapolis. Unlike Hawkins (2010) approach to embodied research as method, Wilcox (2009) interviewed the artists about their work, as well as audiences reflections. Writing from the perspective of pedagogy and learning, Wilcox’s (2009) work explores both the aims of the artists, and evaluates the work impact on the audience. Wilcox (Wilcox 2009) concludes that documenting such performances highlights successful art-science collaborations, and points to the need to further explore embodiment as a way of knowing with transformative and empowering potential for learning.

Drawing on the above discussion on site and embodiment, urban art interventions have the potential to explore and generate embodied experiences both through their engagement with everyday practices, and the cultural practice. In this sense, urban art interventions have been studied as forms of ‘aesthetic engagement with space’ (Hawkins 2013, p.60), in which their engagement with site and embodiment can transform urban spaces. Scholars have argued that urban art interventions create spaces in which spatial norms can be questioned and contradicted. Urban art interventions are considered to both challenge and
alter normal uses of space, through embodied spatial occupation and through everyday practices such as walking (Hawkins 2013).

For example, Pinder (2008) has documented urban art interventions in London, arguing that they have engaged critically in urban spaces in such a way as to question and contest spatial norms as well as create new meanings, experiences and relationships to urban spaces. Similarly, Fiona Mackenzie’s and Sue Taylor’s (2007) research into place and urban art interventions of public installations and landscape art, seeks to demonstrate that artworks can ‘re-work ideas of place and subjectivity’ in such a way that new local imaginaries disturb global ‘capitalocentric ones’. The authors argue that by conjuring up local imaginaries, the artworks create ‘places of visibility’ where meanings of local past, present and future places are reworked and made visible (Mackenzie & Taylor 2007).

None-the-less, the extent to which artistic interventions can transform urban spaces has been questioned. As noted above, scholars such as Loftus (2012) argue that urban art interventions do not produce places differently, but rather only place emphasis on the relationships, emotions and processes that do produce places. Similarly, Pinder (2011) has noted that analysis of urban art interventions need to be aware of ‘varied abilities of these practices to challenge – or not – the prevailing norms and power relations, rather than to succumb to the romance of these practices’. Therefore, whilst urban art interventions can engage critically in urban space by contesting prevailing norms and promoting embodied ways of knowing, the extent to which this happens must also be questioned.

Kwon (cited in Rendell 2008, p.28) has critiqued critical urban art interventions, suggesting that all site-specific art work has come to be assumed as critical. Kwon argues that just because artworks engage in sites outside of galleries, it doesn’t necessarily mean they’re critical (Rendell 2008). In this way, the name of ‘critical urban art interventions’ can be called to question. Are they critical just because they engage urban spaces, or, do they have other radical potential? Similarly, Pinder (2008, p.733) notes that cultural industries and the art world certainly have the ability to absorb and or marginalise oppositional practices. One only has to look to planning literatures on cultural lead urban growth, such as Richard Florida’s (2005) notion of the ‘creative class’. Culture, art and creativity have been used by Florida and others (see for example Landry 2000) as economic drivers, not as critical spatial practices that challenge dominant notions of growth and development.

Furthermore, applying a critical lens to embodied practices as shaping cities, Amin and Thrift (2002, p.103) argue that cities could be seen to produce and acculturate bodies. Indeed much of the embodied practices that make up everyday urban life, are undertaken without needing to think about the task at hand (Joy & Sherry 2003), and inculcated into us from an early age (Amin & Thrift 2002). Amin and Thrift (2002, p.103) argue that both formal and informal institutions govern urban bodies; the institutions of health and hygiene and social norms for example. From a Foucauldian perspective, these institutions create ‘well-disciplined bodies which are complicit in their own discipline through the interaction of what counts as the norm (and the abnormal)’ (Amin & Thrift 2002, p.104). None-the-less, such a structured view of embodied ways of being in the city is countered by Foucault himself, who also searched for spaces of resistance, in which the self has more agency to shape diverse embodied ways of being (Amin & Thrift 2002, p.104). Therefore, whilst cities can be spaces in which embodied ways of being are determined by
broader societal institutions and norms, there is none the less certain places that can reassert agency and challenge norms.

2.5 Summary of theoretical framework

To expand UPE analysis of critical urban art interventions and urban nature, concepts from cultural geography are drawn on, including site and embodiment. Whilst cultural geographers have written about urban art interventions extensively, they provide a new and interesting terrain for urban political ecology. What’s more, to date little literature on urban art interventions has explored how they interact with sites of urban nature. Building on Loftus (2012) mostly theoretical discussions on urban art interventions, the concepts of site and embodiment are developed from cultural geography to explore how urban art interventions reimagining sites of urban nature. Therefore studying urban art interventions provides a novel and rich approach to exploring how they reimagine urban natures through embodied knowledge and site. It is here, that potential lies in understanding how embodied knowledge relates to reimagining urban nature.

Drawing on the lens of post-structural urban political ecology, this thesis aims to explore the potential of urban art interventions to reimage sites of urban nature. It uses the concept of the everyday, used to address scales of the body, house and city level, through which cities can be transformed. The everyday is concerned with often taken-for-granted practices such as walking and domestic living, yet is also concerned with the political possibilities that arise through such practices. Artistic practices and urban art interventions that address the everyday in cities are considered to hold possibility to question, challenge and potentially reimage urban spaces.

Considering that urban nature is both material and discursive, the thesis explores how the artworks formulate and challenge how we know urban nature, as well as how the artworks construct and or reimagine sites of urban nature. After reviewing literature on urban ecological imaginaries that explores the role of art in constructing discourses on urban nature, it becomes apparent very little UPE literature has addressed urban art interventions, and the role they play in reimagining natures through the everyday. Furthermore, whilst some scholars do connect artistic practice in the construction of urban nature, this is done at an abstracted and theoretical level. This thesis therefore aims to fill this gap in the literature; by exploring how urban art interventions reimage sites of urban natures, by studying the practices and tactics they employ.

3. METHODOLOGY

In this section, the methodology is used to respond to the research questions is discussed. Firstly the research design is discussed, including why Experiment Stockholm and the artworks were chosen as a case study. This is followed by a discussion of data collection methods and data analysis. Finally, limitations and ethical considerations are addressed.
3.1 Why Experiment Stockholm?

This research aimed to study the exhibition Experiment Stockholm, including the urban art interventions located outside the gallery space. Experiment Stockholm was considered a relevant case study for two key reasons.

The first reason relates to the theme and context of the exhibition. The exhibition held in Stockholm generated a recent example of urban art interventions that were loosely tied together by the overall theme of the exhibition. This ensured that multiple artworks could be analysed together, considered that they were curated as part of the same exhibition. Furthermore, the artworks were supposed to integrate ‘nature and culture’ in the city, providing a unique and relevant case study to explore from the perspective of urban political ecology theory. What’s more, to date no literature in English has explored and documented urban art interventions in Stockholm, suggesting interesting new perspectives could be gained.

The second reason for choosing Experiment Stockholm as a case study was for practical purposes. Firstly, studying a case study in Stockholm was considered practical for the research, considering constraints on travel due to finance and life commitments prevented other case studies abroad being studied. Secondly, participation in the exhibition was possible through interning with the art gallery Färgfabriken for the duration of the exhibition period. This meant that participant observation was possible as a method, creating an interesting approach for the thesis.

3.2 Research design

Firstly, an inductive approach was used in which observations were made about the Experiment Stockholm exhibition through participant observation. From these observations, a general research orientation was determined. In particular, certain themes evident across the exhibition and explored by the various art works arose, including: urban nature; everyday practices such as walking, floating, domestic living; and, transforming urban environments through embodied practices.

Secondly, I then turned to the literature on urban environmental imaginaries in UPE, as well as literatures on cultural and critical geography, to take a more deductive approach, in which theory was used to determine certain research questions and concepts used for data collection. The thesis aims to infer implications of the findings back into UPE and urban art interventions literature. This last step can be understood as the final step, whereby one uses induction so that findings are ‘fed back into the stock of theory’ (Bryman 2012, p.24). Whilst an iterative approach has been used, epistemological and ontological orientations in the thesis align with a qualitative method of inquiry.

3.3 Methods – Data Collection and analysis

By employing multiple methods and sources of data, I have aimed to triangulate my data collection approach. Triangulation is understood as the use of multiple methods and sources of data collection when studying social phenomena, and is considered a means to increase credibility and employ good research practice (Bryman 2012, p.392). An
iterative approach has been employed with the data collection. Three methods of data collection have been employed, outlined below:

3.3.1 Semi-structured interviews

Semi-structured interviews make up the primary data for this thesis. Nine semi-structured interviews were carried out in April 2016, with a total of ten people interviewed. The interviews were 50 – 70 minutes in duration.

To conduct the interviews, certain themes and guidelines were outlined and used to guide each interview. Whilst I followed the themes and questions, the order of these changed depending on how the interviews developed. Furthermore, an iterative process was carried out with the interviews, in which interviews were recorded, transcribed and initial coding carried out before the next interview took place. In this way, the process of data collection was reviewed and improved throughout the process. First contact with the interviewees was developed during participant observation, when I stated my intention to study Experiment Stockholm. The artists and curators were then contacted in April 2016 to ask if they’d like to participate in the study.

In order to answer the research questions, two groups perspectives were gained, those of the artists who created the artworks, and the curators of Experiment Stockholm exhibition. Following previous research in cultural geography, artists have been a key group to interview about urban art interventions. This thesis builds on this approach, also including the curators of the exhibition. However, interviewing the artists provides a new approach for UPE analysis of art, which has tended to use the method of visual discourse analysis (see for example Pauwels 2015) on artworks. Whilst visual discourse analysis is useful to explore the hierarchies and binaries that are produced through the works, this approach is also limited in that it does not produce empirical data on the context of the artworks. It can thus be complemented with an ethnomethodological approach.

An ethnomethodological perspective to studying artworks seeks to go beyond the visual, to also provide insight into contexts of the artworks, including social practices used to develop them (Pauwels 2015, p.57). The interviews are used to generate contextual information about the artworks, including the ‘production circumstances (historical, technical, cultural), and the intended goals and uses’ (Pauwels 2015, p.48). Considering that this thesis aims to understand the tactics used by urban art interventions to reimagine sites of urban nature through everyday practice, it is argued that an ethnomethodological approach is relevant. It provides the emphasis needed to study not just the representations created by the artworks, but also the way that the artworks produced meaningful actions in practice (Pauwels 2015, p.57). It is argued this is particularly relevant to study the practices used by artists to understand the socio-historical and emotive nature of the sites.

Interviews included:

3 x curator interviews:
- Curator A, Färgfabriken
- Curator B, Färgfabriken
- Curator C, Färgfabriken

1 x project manager interview:
5 x artist interviews:

- Osynliga Teatern (Artwork: *Hidden Ecology* audiowalk)
  - Jens Nielsenn
  - Tomas Rajnai
- Maretopia Art Collective (Artwork: *Maretopia* floating cultural house)
  - Jens Evaldsson
- Luis Berrios-Negrón (Artwork: *Earthscor* Specularium greenhouse)
  - Luis Berrios-Negrón
  - Anna Asplind (Artwork: Cycle dérío and film)
  - Anna Asplind
- Asante Architects (Artwork: *Urban Weaving* pavilion)
  - Carolina Wikström

Grounded theory has been used as an approach for analysis of the transcribed interviews. Following Chazman (Bryman 2012), two stages of coding were undertaken: initial coding and focused coding. This enabled general themes to develop, which were then recoded for more in-depth coding.

### 3.3.2 Participant observation

Participant observation is generally defined as ‘the process of learning through exposure or involvement in the day-to-day or routine activities of participants in the researcher setting’ (LeCompte 1999, cited in (Kawulich 2005). Participant observation of the exhibition took place from August to November 2015, whilst I was an intern with Färgfabriken. As an intern, I participated in and observed various aspects of exhibition. This included taking part in events held in relation to the art works and urban art interventions, and generally taking part and being amongst the exhibition, artists and exhibition visitors on a daily basis. Notes and photographs were recorded during this period, including:

- Reflections and photographs from participation in Anna Asplind’s cycle dérío
- Some notes on audiences interactions with art works inside the exhibition
- Notes on reflections about themes that emerge across the exhibition

Dewalt and Dewalt (2011) argue that regardless of the topic, participant observation can improve both the quality of data collection and interpretation, including data collected also from other methods. This is because the method collects both explicit and tacit knowledge (Dewalt & Dewalt 2011). Indeed, through participant observation, implicit knowledge can be gained from tacit cultural forms, such as the way people walk, or non-verbal forms of communication (Dewalt & Dewalt 2011). Considering that this thesis is in part exploring embodied knowledge, and artistic interpretation, participant observation, as a method is considered highly relevant. Participant observation not only allows more holistic data collection, it also informs data interpretation by having greater insight and interpretation of meaning. Including participant observation in research is considered to increase validity of the study because of these strengths (Kawulich 2005). Furthermore, participant observation often results in extensive trust being built in researcher-participant relationships; this can result in participants revealing more information.
Limitations to participant observation must be noted. Firstly, considering that the exhibition was held in 2015, eight months before work on this thesis formally began, it should be noted that the topic of this thesis was developed throughout the process of participant observation and after, rather than determined before hand. This inductive approach in considered consistent with the process of grounded theory, in which collecting data and formulating research questions takes place in an iterative manner (Bryman 2012, p.571). None-the-less, due to the timing of the Exhibition well before formal the formal thesis work was started, it is thought that not as much data was generated during participant observation as could have been. It is for this reason that whilst participant observation proved an important method, semi-structured interviews form the primary data for this thesis.

Secondly, different levels of participation and observation result in different forms of data collection and analysis. For example, active participation may result in researchers not being able to disengage from the field, raising issues as to how reflexive analysis of their data can actually be (K. Dewalt & B. Dewalt 2011, p.25). The right balance of participation and observation is key to successful participant observation. In order to ensure a balance, notes and photographs were recorded during the period.

Other limitations of the method arises due to the researchers identity; gender, age and ethnicity may make it difficult to participate and observe, depending on the research field (K. Dewalt & B. Dewalt 2011)30). Due to the promotion of equality in Sweden, and the structure of the institution that held Experiment Stockholm, issues of age, gender, and ethnicity are not considered to have made it difficult to conduct participant observation. However, it must be noted that due to language barriers, active participation in some activities held in Swedish was hindered.

3.3.3 Text and art works

During March 2016, text material, including artist statements, and web content from the Experiment Stockholm website was gathered and analysed. Furthermore, photographs from the website were gathered to use as data. The accuracy and credibility of these sources is validated through interviews that are held with the authors/creators of the texts. The texts and artworks are examined in terms of who their implied viewers are, and the context they were created in (Bryman 2012, p.555). In this sense, their purpose and subjectivity are addressed during analysis.

Texts
The texts of the artworks (artist statements) and exhibition material from Färgfabriken are used.

Art as data
The artworks in Experiment Stockholm are used as data in this thesis. Drawing on Art Worlds by Howard Becker (Schmidt et al. 2015), it is argued that the ‘economic, the aesthetic, the technological’ are all ‘part of a world in which each reflects the other’. From this perspective, art becomes relevant data to use in social science enquiry. The intense subjectivity in artistic representations is thus not ignored, but held central. The ways in which art manipulates us to “see” something from a certain perspective is not considered
to make art any less relevant to study than, for example newspapers, media and social science and its concepts. Rather, it is argued that the evident and outward display of subjectivity of artworks makes it interesting to analyse constructions of meanings and discourses.

Therefore, this thesis does not pretend to produce ‘truth’. Rather, the subjectivity of knowledge is central, with the artworks considered to allow intricate approaches to understanding topics (Schmidt et al. 2015). This of course raises the question of subjectivity of the artworks, as well as the researchers own interpretations of the works (Schmidt et al. 2015). Whilst diversity of interpretations is acknowledged (Bryman 2012, p.548), I argue that the artworks none-the-less highlight perspectives on the urban and urban nature in Stockholm. As Pauwels (2015, p.49) notes, artistic genres provide insight into ‘norms and values of societies’. Furthermore, the ways the artworks were curated into an exhibition provides context through which to interpret them.

What’s more, through an iterative process with interviews, the thesis has aimed to analyse both the content or subject of artworks, and the depiction process. Following Pauwels (2015, p.50), it is argued that ‘significance of the image often resides in the combined effect of these two layers’. In the case of the urban art interventions analysed, not only the subjects of the artworks are important, but also how these subjects are depicted. It is argued that by exploring these two layers of the artworks, it is possible to explore the opportunities and limitations of using art in an exhibition about the future of the city.

3.4 Ethical considerations

Quality and reliability
In order to reduce risk of wasting participant’s time, the research in this thesis has been planned so that the importance of the research question is made evident to participants and readers. Furthermore, considerable effort has been made to ensure that the research design will ensure the research question to be answered. Finally, I have sought to clarify the research focus and motivate it, as well as have a clear aim and explain the methods used, including showing how these methods are used to answer the research questions.

Conflicts of interest and bias
Concerning conflicts of interest, this thesis has been written with a distinctive perspective, considering that I was an intern at Färgfabriken for five months, and carried out participant observation for the duration of the exhibition. This meant that whilst I got insight into the field I was going to study, I might have also developed biases. These may have developed through creating closer ties to the artists and curators than would have otherwise occurred, if I had not undertaken participant observation for five months. Whilst biases can never be removed completely, I have firstly tried to address this by developing a balanced discussion, to also include limitations that arise when using art to reimagine urban places. Secondly, I have further attempted to reduce bias as much as possible, by developing the research focus, questions, and content entirely by myself. In this way, neither Färgfabriken staff nor artists had influence over the thesis content and outcomes. As a result of this, I do not feel obliged to produce research with results of a certain flavour. Thirdly, I aim to address bias through reflexivity, and aim to be forthright about personal perspectives. This is evident in my explicit outlining of theoretical
perspectives taken (ie. UPE), and the influence this has on data collection and interpretation.

3.4.1 Ethical considerations concerning methods

Participant observation
During my internship, I was explicit that I would also be writing my thesis on Experiment Stockholm, and was therefore making participant observations during my internship. In order to ensure proper ethical conduct, artists, curators and other participants were informed as much as possible that I was planning to write a thesis on the exhibition, and that I would use data collected during my time as an intern, through the method of participant observation. It’s important to note here that no personally sensitive data was recorded during participant observation. Furthermore, following a grounded theory approach, the participant observation was my initial stage, and was not performed systematically with clear research questions. Rather, this method was performed in order to orientate my research in initial stages.

Finally, the settings being observed – the exhibition – is considered a public space, with the artworks were publicly and widely viewed. Therefore, the possibility of invasion of privacy is very low.

Interviews
Privacy is of course a core consideration for ethical research. The content of my research is not addressing sensitive, private or emotive topics. Considering that artists were interviewed from the public exhibition Experiment Stockholm, it is evident who the interview participants are. Therefore, the possibility for interviewee confidentiality is quite low. None-the-less, issues of confidentiality were discussed with each interviewee, and appropriate arrangements made prior to interviewing. Participants were asked if they would like their name used within the thesis; as the discussion centres on specific artists works and opinions, artistic names are used. It was determined the names of curators would be kept anonymous. Before each interview, I asked if I could record each interview, and a consent form was signed. Participants were informed on the research topic and purpose, as well as what is going to happen to the data (Bryman 2012, p.153). To generate sound research practice with interviewing, participants were offered a summary of the study on completion (Longhurst 2010).

3.5 Limitations

Methodological limitations of the thesis include relying on self-reported data of the interviews with artists and curators. This could have resulted in exaggeration of the significance of the artworks both in reaching audiences and in transforming urban spaces. None-the-less, by also drawing on participant observation, this limitation was to an extent addressed, in that I could triangulate the data. However, participant observation in itself had some limitations. The first was that I was not able to observe audience interaction with the artworks extensively, due to the broad range of events I participated in. Having a more narrow focus for the thesis study earlier on, as well as carrying out interviews with the audience could have been an approach to address this limitation.

Limitations as a researcher also arose due to limited Swedish skills. This was particularly evident during participant observation, when some events were held in Swedish. This
limitation was addressed by choosing an aspect of the exhibition to study that was least reliant on language as a means of communication. Furthermore, some of the artists were not Swedish, thus English was the main language spoken at most events connected to the art exhibition. There was however no language limitations that arose with the literature, as to date most studies of urban political ecology and urban artistic practices have been published in English.

4. THE ART WORKS OF EXPERIMENT STOCKHOLM: AN INTRODUCTION

4.1 Experiment Stockholm and Färgfabriken

As an art venue and foundation, Färgfabriken uses artistic methods to highlight alternative ways of interpreting the surrounding world (Färgfabriken 2015c). Experiment Stockholm was a project based at that the Färgfabriken from 23rd September to 29th November 2015, which aimed to raise questions about the future of Stockholm, including questioning, examining, and experimenting with strategies to deal with the rapidly growing Stockholm region. Experiment Stockholm is a laboratory; it consisted of an art exhibition, project rooms with poster displays, and a series of seminars, workshops and urban experiments. The programme was developed through partnerships with over 25 actors involved in the Stockholm regions development, including municipalities, consultancy companies, think tanks, non-profit organisations, public agencies, development companies and professional agencies. (Ibid.).

Experiment Stockholm was developed from over one year’s research that explored key themes, including the environment, urban planning issues, transport and infrastructure, housing, amongst others. The aim of Experiment Stockholm was to explore these issues from new perspectives. One approach developed in Experiment Stockholm was to explore these issues with artistic works, to explore how artistic methods highlight alternative ways of interpreting the city. Importantly, as a venue, Färgfabriken aims to be a location in which art, research and architecture can intersect. (Ibid.).

The artistic exhibition, which forms the main focus of this thesis, was located both the main gallery at Färgfabriken, and outside in surrounding city spaces. The exhibition consisted of six artworks, five of which are analysed in this thesis. The aim of the exhibition was to create an exhibition that engaged all of the senses, and to create a space in which ‘nature and culture are being intertwined’. (Ibid.).

4.2 The Artworks

All the artworks in this thesis were a part of the exhibition of Experiment Stockholm. All but one piece had a piece of art within the gallery hall, as well as an urban art intervention located outside the gallery in surrounding urban areas.
4.2.1 Maretopia

Maretopia is an artist collective that envisioned and begun construction of ‘a future floating ecological cultural house’ (Färgfabriken, 2015a). The urban art intervention was initiated by the local artist Jens Evaldsson, and seeks to explore and reimagine the potential for Stockholm’s water.

Outside the gallery
The first rafts were built from recycled material from a previous exhibition at Färgfabriken (Färgfabriken, 2015a). It consists of 8 rafts that are anchored out in small bay, near to the Gröndal jetty (see photo 1). Three of the rafts were designed and built as part of a course at the University College of Arts, Crafts and Design in Stockholm, in collaboration with Maretopia (Färgfabriken, 2015a). During the course, students created visions for a floating culture house. A theatre raft and an audience platform raft were developed and build during the course, as well as a foot-powered pedal boat, which is used to commute between Gröndal and Maretopia’s floating location. Maretopia further consists of two plant islands that were developed by Cecilia Tjärnberg.

Photo 1: Maretopia rafts in the waters outside Färgfabriken, Lövholmen, Stockholm (Source: Färgfabriken, 2015a).

The site of Maretopia is open to everyone, with the pedal boat free to borrow at any time to travel across to the floating cultural house. During Experiment Stockholm, Maretopia hosted a series of events out on the rafts, curated by Kristina Lindemann.

Within the exhibition
Within the exhibition space at Färgfabriken, Maretopia developed two tables onto which artists events hosted out on the rafts were also visualised and contextualised (Färgfabriken, 2015a).

4.2.2 Hidden Ecology

Osynliga Teatern (The Invisible Theatre) is a theatre group that consists of Tomas Rajnai and Jens Nielsen. Osynliga Teatern produces ‘interdisciplinary performances and
cinematic experiences through sound’ (Färgfabriken, 2015b). For Experiment Stockholm, Osyntiga Teatern created an audio walk piece, called *Hidden Ecology*. The audio walk began on-site within the gallery at Färgfabriken, and then lead the audience out in the surrounding neighbourhoods (see photo 2).

**Within the gallery**
The audio walk began on-site within the gallery at Färgfabriken, and then lead the audience out in the surrounding neighbourhoods (see photo 2). Simultaneously, within the gallery, a GIS-generated map traced where the participants walked. As more and more people took the audio walk, more and more lines appeared, overlapping on the map. The artwork ‘investigated a situation where new patterns of movement change the appearance of a map’ (Färgfabriken, 2015b).

![Photo 2: View over Lövholmen, the industrial suburb where Färgfabriken is located, and the area in which the Hidden Ecology audio walk started. (Source: Färgfabriken, 2015b).](image)

**Outside the gallery**
On beginning the audio walk, the audience took a set of headphones connected to an iPhone with an app that was created for the audio walk. The audience would hear voices that guided them out of the gallery space, and into the neighbourhood. The artists state: ‘You will go through this experience, guided by a voice and a GPS system, but as time goes on the voice becomes more and more personalized and together you discover the unexplored places’ (Färgfabriken, 2015b). The audio walk is conducted in pairs, and together you explore the neighbourhood whilst listening to stories and emotions of others. During the piece, the audience received various instructions, including amongst other things, to plant a flower seed that you were given, and to record you emotions and reflections at various points during the walk. At a point in the walk, you were instructed to head off on your own individual path. The piece created a dreamlike narrative that aimed to take away the audiences reference points and perceptions, in order to see the city in a new light (Färgfabriken, 2015b). Around 300 people participated in the audio walk during the exhibition period.
4.2.3 Earthscore Specularium

The *Earthscore Specularium (Nonsphere XV)*, created by Luis Berrios-Negrón, was a full size greenhouse installation, built and located both within the gallery building at Färgfabriken (see photo 3) and outside. Two thirds of the building was located within the exhibition hall, known as the “mess” (as seen in photo 3) and one third was located outside of gallery, known as the “farm”. However, on entering the greenhouse, there was no evident division from within to be able to tell if you were standing inside the Färgfabriken building or outside (see photos 4 and 5). Luis Berrios-Negrón lived in the greenhouse for the duration of the Experiment Stockholm exhibition, with his partner Maria Kamilla Larsen and their daughter Freia Pilar Berrios-Negrón Larsen.

On entering the gallery at Färgfabriken, one could not help but notice the imposing and poetic structure of the Specularium sitting in the back half of the gallery (see photo 4). On closer inspection, visitors were welcomed into the greenhouse, where Luis and his family lived. The walls in the kitchen were lined with hydroponically grown mint and other herbs, and the wall leading to the section situated outside the Färgfabriken was covered with a green wall full of growing plants.

*Photo 3: Earthscore Specularium, greenhouse designed by artist Luis Berrios-Negrón. Two silhouette figures can be seen standing inside the greenhouse. Seen from this perspective is the part of the greenhouse located within the gallery building at Färgfabriken. (Source: Färgfabriken, 2015c) (Photo credit: Karin Björkquist)*
The Earthscore Specularium installation aimed to explore the practice of living, in a future of accelerated climate change.
4.2.4 Anna Asplind’s dérive and film

Anna Asplind is a choreographer, dancer and filmmaker. For Experiment Stockholm, she created a video piece, and conducted two bicycle dérive events with audiences of around 10 people. Inspired by the Situationists, an artistic and political group from 1950s Paris, Anna’s work investigated the effect of the suburban landscape on the travelling body (Färgfabriken, 2015c).

Inside the gallery
Anna Asplind’s video piece explored the psychogeography of each place, where the environment propels the journey forward. The video piece was a cooperation between audio-visual artist Marcus Wilén and the composer Tomas Björkdal (Färgfabriken, 2015c). The film was created by the artists spending two months undertaking bicycle dérive between Färgfabriken and Haninge culture house, a distance of about 25km. The suburban environment portrayed in the film is clearly a space designed for cars, yet Anna’s poetic film explored how these spaces can be reworked, generating new perspectives on urban space (see for example photo 6). The film was projected onto the ceiling in Färgfabriken, so that one had to lie down on a bench in the gallery to watch it (see photo 7).

Photo 6. Shot taken from Anna Asplind’s short film, which was created from two months of the drifting by bike between the location of Färgfabriken and the Haninge culture house. (Source: Färgfabriken, 2015d)
Outside the gallery

Anna Asplind conducted two bicycle dérive events during the exhibition period, one starting from Färgfabriken and heading south towards Haninge, the other starting in Haninge and heading north. The method of deriving, or drifting through urban space was developed by the Situationists. During the dérive, the audience cycled between 1 – 3 hours with Anna, who started the events with an introduction to the method of doing a dérive. Amongst other instructions, this included a brief mediation of sort, as well as requests to no longer think in the way we normally would whilst cycling somewhere, but rather to focus on our surrounds and where the space was leading us. In these moments, the group could then break the rules of the environment, finding new ways to use the space and cycle through it. There was no ending point to the dérives, and thus the group was left to wander the suburbs by bike.

4.2.5 Asante’s Urban weaving

The Urban Weaving pavilion by Asante architects was located only within the gallery. However, as part of the piece, three weaving workshops were conducted on site, in which the audience could participate in constructing the pavilion. Inspired by the handicraft of weaving in the north of Tanzania, the pavilion had a first round of blocks that were woven by Maasai women (see photo 8). The rest of the blocks were then woven by guests at Experiment Stockholm, in which the artists aimed to create a cultural exchange between Stockholm and northern Tanzania.
The art installation explores the notion of Stockholm being built by many, from the bottom up, rather than by the few. The pavilion explores the notion of what a city would be like if it was built on the human scale, in which detailing was both visible and tactile on the buildings (Färgfabriken, 2015e). In this way, the piece is a response from the Architects, who perceived the need for Stockholm’s urban planning to open up more possibilities for diverse and new types of actors to build houses (Färgfabriken, 2015e).

4.3 The sites

All of the artworks in reviewed this thesis, with the exception of Asante’s Urban Weaving Pavilion, engaged with specific sites in the southern suburbs of Stockholm (see Image 1). These sites are understood as sites of marginal urban nature, that is in-between sites, brownfield sites and unused spaces of nature within the city. Asplind's film and bicycle dérive uses as in-between spaces, such as the green spaces evoked and used in her work. Maretopia engages with the water outside Färgfabriken, as shown in Image 1 below. Hidden Ecology engages with the industrial area of Lövholmen and the surrounding areas, also shown in Image 1 below. Earthscore Specularium engages with the site in the grounds outside Färgfabriken. Though not the deliberate focus of all these works, they none-the-less engage with the urban ecologies of their sites.
5. REIMAGING URBAN NATURE AND URBAN FUTURES THROUGH ART: TACTICS, OPPORTUNITIES AND LIMITATIONS

This thesis has aimed to explore some of the opportunities and limitations of including artworks in an exhibition about the future of Stockholm, with a focus placed on the tactics used to reimagine sites of urban nature. It documents the phenomena of ‘critical urban art interventions’ in Stockholm, drawing on five artworks from Experiment Stockholm. The thesis explores the tactics used in the exhibition that reimagine sites of urban nature, through concepts of embodiment and site. This chapter presents the results and discussion of the study, in relation to the theory.

Firstly, the ways that the artworks promoted embodied ways of knowing through everyday practices such as walking and cycling, as well as artistic methods are presented. This is followed by a discussion on the opportunities and limitations of this approach as perceived by the artists and curators (cf. chapter 5.1). The main finding from the analysis is that urban art interventions can promote embodied ways of knowing urban spaces, including sites of urban nature, through tactics of sensory immersion and defamiliarisation. The urban art interventions reviewed in this case study create ‘places of visibility’ in which human-nonhuman interactions are brought to the fore. None-the-less, limitations are present.

Secondly, the ways that the artworks engage with their sites are discussed (cf. chapter 5.2). The main finding from the analysis is that critical urban art interventions generate sites of political possibility, aiming to inspire people to use urban spaces, including the waters of Stockholm. Drawing on a broader notion of site to include both the physical and non-material interactions with site, the artworks challenge the notion of place as only...
physical, rather highlighting that it is constructed through memory, history and emotion. In this way, they challenge the notion of urban nature as static and separate from humans, by highlighting the socio-natural histories and processes that have constructed and shaped the sites of nature.

Thirdly and finally, opportunities and challenges of placing artwork in the exhibition about the future of the city are discussed (cf. chapter 5.3). The main finding from the analysis is that art can be understood as complimentary to other approaches to exploring the future of the city. It does not provide answers or clear plans, but provides a complementary approach in which creative, embodied knowledge and new, multiple perspectives of the future can be generated and explored.

5.1 Embodiment as a way of knowing the city and urban nature

*RQ: How did the artists aim to promote embodied ways of knowing through the artworks?*

Critical urban art interventions are artworks that engage with the urban, with both physical and discursive spaces and places (Pinder 2005). Expanding the notion of art as existing only in galleries, they situate themselves in sites throughout cities. The exhibition of Experiment Stockholm was thus located both within the gallery, and in the surrounding neighbourhoods of Stockholm. The urban art interventions studied in this thesis use multiple tactics to reimagine places in Stockholm, including sites of urban nature. One of the core ways they do this is by using both everyday practices and embodied ways of knowing to explore places in the city. This section explores how the artists and curators aimed to promote embodied ways of knowing in the exhibition.

Firstly, the tactics used by the artists to generate embodied experiences in urban spaces are discussed. Following this, the discussion centres on why embodied ways of knowing urban environments, generated through the artworks, can be useful to reimagine sites in the city. From this perspective, urban art interventions can be understood to create places in which embodied ways of knowing are brought to the fore, rather than left as unquestioned habitual norms. Therefore, critical urban art interventions hold potential to generate alternative discourses of knowing urban nature.

**Sensory immersion and defamiliarisation as tactics**

This section explores firstly the tactic of sensory immersion and secondly the act of defamiliarisation, both of which were used by the artists and curators to generate experiences of art works where embodied knowledge is paid attention. Embodied ways of knowing are often considered bodily knowledge that is taken-for-granted, such as everyday habits (Joy & Sherry 2003). Both in sites outside the exhibition in the public spaces, and inside the exhibition, the artworks explored these everyday habits, focusing on walking, cycling, domestic living, floating, and weaving, respectively (see Table 1). In this way, the exhibition aimed to address a gap in the way we relate to urban environments in day-to-day routine, by placing focus on often taken-for-granted embodied ways of knowing. As one curator noted:
‘...it’s like fallacy that we ah, we think our knowledge is all intellectual. But we are sort of embodied. So we actually are sort of very influenced by bodily experiences...’ (Curator B, Färgfabriken, 2016 interview).

Therefore, whilst we use embodied ways of knowing are used on a daily basis to move through, and live in cities, this way of knowing is often undervalued or taken for granted.

Firstly, to draw attention to embodied ways of knowing, both the curators and the artists aimed to create an immersive, sensory experience in Experiment Stockholm. As the geographer Hawkins (2015) argues, art installations are immersive; they create spaces that one enters with the body. The same can be said about urban art interventions. Yet in an urban art intervention, the space that you enter with your whole body is often everyday urban space; a street, a suburb, a waterfront. The artworks aimed to draw attention to the embodied ways of knowing that we use (often unconsciously) to move through, and exist in urban space, by drawing attention to all the senses. In Experiment Stockholm, all of the art works aimed to draw attention to all the senses, beyond sight, to also touch, smell, aural, and even taste (Table 1). In this way, they hoped to create experiences in which the city was understood in a way other than intellectual, in an embodied way. Therefore, it is argued here that what makes urban art interventions immersive is the way they construct sensory immersion, drawing attention to all the senses and exploring the world beyond the sense of sight.

<table>
<thead>
<tr>
<th>Table 1: Everyday practices and resulting embodied experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Art work</strong></td>
</tr>
</tbody>
</table>
| Maretopia | Floating, pedalling with feet | *Smell*: of the surrounding water  
*Touch*: of water plants, floating sensation being out on water  
*Sight*: view of rafts, change of perspective – seeing Lövholmen and Gröndal from water  
*Aural*: sounds of water lapping on floating rafts, local factory sounds, boats passing  
*Taste*: - |
| Hidden Ecology, by Osynliga Teatern | Walking | *Smell*: smells of neighbourhood  
*Touch*: participants are instructed to: touch a tree; to touch the other participants hand; to hold a flower seed; to plant the flower seed in soil somewhere in the neighbourhood  
*Sight*: participants saw new views of the area; participants became aware of the urban nature that was otherwise not seen by them  
*Aural*: hear the voices guiding you through the neighbourhood, hear the other participants recorded emotions and reflections  
*Taste*: - |
| Earthscore Specularium, by Luis Berrios-Negrón | Domestic home living | *Smell*: smells of: the pond; the plants; the ducks and chickens; smells of cooking and food prepared by the family  
*Touch*: Participants were invited to touch most objects in the greenhouse, they would pick up objects such as rugs made by the artist, touch the plants, etc; participants |
could feel the strength of industrial greenhouse lighting on their skin
**Sight:** sights of: the whole greenhouse, daily living mess of the family living in the greenhouse, images plastered to walls, mostly portraits from newspaper clippings; plants; birds;
**Aural:** Hearing the: ducks, chickens, the baby, the water trickling through the hydroponic and aquaponic systems, other noises from the exhibition
**Taste:** guests were invited to drink tea from herbs grown in the hydroponic system;

<table>
<thead>
<tr>
<th>Cycle dérive &amp; video by Anna Asplind</th>
<th>Cycling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smell:</strong> scents of areas the we rode through, including factory smells; grass; traffic fumes</td>
<td></td>
</tr>
<tr>
<td><strong>Touch:</strong> during the meditative beginning of the dérive, participants sat and felt their surroundings, grass soil, concrete; touch of holding bicycle</td>
<td></td>
</tr>
<tr>
<td><strong>Sight:</strong> participants noticed things they hadn’t ever seen or noticed, including: buildings; sites; tracks they could ride on off the main track. Video sights included scenes of people picnicking in grass between two busy lanes of traffic (see photo 6), people lying in grass on an unkempt suburban hill, amongst others</td>
<td></td>
</tr>
<tr>
<td><strong>Aural:</strong> overwhelming sounds of traffic at times, other participants chatter,</td>
<td></td>
</tr>
<tr>
<td><strong>Taste:</strong> -</td>
<td></td>
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<table>
<thead>
<tr>
<th>Urban Weaving, by Asante</th>
<th>Weaving</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smell:</strong> smell of the dried banana leaf fibbers used for weaving</td>
<td></td>
</tr>
<tr>
<td><strong>Touch:</strong> touching the weaving material; experience of weaving the mat to add to the pavilion structure</td>
<td></td>
</tr>
<tr>
<td><strong>Sight:</strong> sight of the urban weaving pavilion,</td>
<td></td>
</tr>
<tr>
<td><strong>Aural:</strong> sounds of the exhibition</td>
<td></td>
</tr>
<tr>
<td><strong>Taste:</strong> -</td>
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</table>

(Source: Interviews, 2016; participant observation, 2015)

The cycle dérive by Anna Asplind provides an interesting example of the sensory immersion created in the works. Both her video piece and the two dérives were about how the body experiences travelling through urban areas on bicycles, specifically between Färgfabriken and Haninge (Anna Asplind, 2016 interview). The works focused on the embodied experience of moving through the urban space, and aimed to create an experience in which one deliberately reflects on the embodied experience. The work sought to emphasise embodied ways of knowing urban space. To do this, she worked with all the senses, noting that ‘my exercises are a lot about opening these other senses [other than sight]’ (Anna Asplind, 2016 interview).

Anna Asplind’s dérives aimed to create an experience for the audience in which they pay attention to how their body moves through space and time, rather than only using their intellect (Anna Asplind, 2016 interview). Asplind’s work aimed for the audience to let the urban spaces lead you, rather than letting your intellect lead you. As one Färgfabriken staff put it:
‘...it [Asplind’s work] actually promoted the idea that you should go out into your city and see, and experience it in a new different way...through this idea of just letting yourself just pass through... (Project Manager, Färgfabriken, 2016 interview).

Following the dérive method, as well as her own methods developed through dance - bodily connections to space and to other bodies – Asplind aimed to create an experience in which all the senses were active and focused on (Anna Asplind, 2016 interview). The works thus aimed to developed sensory immersion out in the city spaces. The other artworks also deliberately aimed to draw attention to senses other than sight (see Appendix A for more details).

A secondly tactic that was also used to draw attention to embodied ways of knowing was the process of ‘defamiliarisation’. Following Shklovsky’s (cited in Metzger 2011) notion that artistic practice ‘makes strange’ taken-for-granted aspects of everyday life, the artworks analysed in this case study highlight that they aimed for everyday practices to be defamiliarised for the participants. Everyday habitual practices such as walking and cycling were “made strange”, in which these everyday habits were simultaneously focused on, and yet reconsidered.

According to the artists, the art works aimed to heighten attention paid to manifold sensuous experience of the everyday practice it engaged with (see Appendix A). In this moment, the artworks aimed to create evocative experiences in which the audience began to see the world through the artworks. For example, the audio walk Hidden Ecology by Osynliga Teatern provided an experience of an everyday practice, in this case the practice of walking. The piece aimed to defamiliarise participants embodied knowledge of walking. The artists of Hidden Ecology noted that the audio walk aimed to make participants reflect on the very act of walking, rather than just walking unreflectively as a means to get somewhere. It did this by changing the goal of walking; no longer was the aim to go somewhere, but to drift through the spaces, thus defamiliarising the routine habit of walking with a goal to get somewhere.

To generate this defamiliarisation, the artists drew on cinematic techniques in which the local environment is enhanced, so that the walk becomes ‘...something more than life’ (Osynliga Teatern, 2016 interview). During the audio walk Hidden Ecology, as participants walked through the area around Liljeholmen, they listened to the almost dreamy voice stating:

‘Imagine that every step you take, you are doing it for the first time. And the places around here is completely unknown to you’ (Osynliga Teatern, 2015).

Osynliga Teatern believed that this approach of defamiliarising the normal practice of walking was successful when the audience ‘lost space and time’, in which not only the practice of walking, but the whole urban environment would ‘became a new place’ for the audience (Osynliga Teatern, 2016 interview). As the artists noted:

‘...we wanted the listener to...find their own way in the area, and to get lost...the audience most of them probably have walked around here before, but we wanted them to take another route and to find different things and to look at the environment in another way... ’ (Osynliga Teatern, 2016 interview)

In this way, not only was the habitual practice of walking meant to be defamiliarised, but so was the environment.
Like the *Hidden Ecology* audio walk, Anna Asplind’s bicycle dérives and film functioned in a similar way. It sought to defamiliarise the process of passing through urban space, by drawing on the Situationist method of dérive. Asplind’s dérive aimed to defamiliarised how we move through cities spaces, by asking participants to ‘let the environment talk to them’ (Anna Asplind, 2016 interview; participant observation 2015). To create this novel experience of an otherwise habitual act of cycling, focus was removed from the act of getting somewhere, defamiliarising cycling as an act of transport. With no clear start and end points of the dérive, Asplind instead aimed to ‘inspire people to experience these places with their bodies’ (Anna Asplind, 2016 interview).

Arguably, comparing all the artworks, the Earthscore Specularium greenhouse deliberately sought to engage the most senses. Indeed creating a heightened sensuous experience was a core goal of the artwork, in order to defamiliarise and thus question the simple act of everyday domestic living in the context of climate change. However, unlike Maretopia, Hidden Ecology and the cycle dérives, to create this defamiliarisation the Earthscore Specularium worked to make the visitor feel slight discomfort. To do this, the artist aimed to create a space in which he and the audience were out of their sensory comfort zone. The artist first sought to achieve this for himself and his family, by living in the greenhouse for the duration of the Exhibition. As the artist noted:

‘...everything was deliberately made in that way...at first glance it had a beauty and an aesthetic...but I think once you were in, the temperature, the sensation with light...it would take ourselves or anyone that spends significant time in it out of their comfort zone’ (Luis Berrios-Negrón, 2016 interview).

The artist aimed to heighten the feelings of slight discomfort through design of the lighting, noting that the entire greenhouse was lit up with industrial greenhouse sodium lamps (Luis Berrios-Negrón, 2016 interview). These lights were deliberately chosen not only to fit with the aesthetic of an industrial greenhouse, but also to create an uncomfortable atmosphere for both the artist living there, and the guests visiting the exhibition (Luis Berrios-Negrón, 2016 interview). The lights not only produced an uncomfortable bright light, but one could also sense an uncomfortable sensation from them. The design of the greenhouse aimed to create a kind of exaggeration, to provoke ‘...an exceptional sensation, something that you couldn’t feel...in any other situation’ (Luis Berrios-Negrón, 2016 interview). In this way, the artist created a living environment that made both the exhibition audience and those living there feel out of their comfort zone.

Walking, cycling and domestic living are unquestionably practices that constitute part of everyday experiences living in the city of Stockholm, and indeed shapes the embodied practices that one uses in the city on a day-to-day basis. Yet, the practices of floating and weaving that arose in the artworks *Maretopia* and *Urban Weaving*, respectively, are rather more unusual. These examples highlight how embodied ways of knowing, and the habitual practices that constitute much of our embodied knowledge, are dependant on both culture and geography. For example, the urban artistic intervention Maretopia provides opportunities for guests and Stockholm residents to float on the waters of Stockholm. Arguably this is not a too uncommon experience in Stockholm, considering its geography, with public transport consisting of ferries, and many private boats being owned in the region. In contrast, Asante’s artwork provided opportunity for participants to weave their own banana leaf mats, to add to the urban weaving pavilion inside the
exhibition. Here participants were taken out of routine everyday practices, and given the opportunity to learn an everyday practice from Tanzania.

As the above discussion highlights, the artworks were created by diverse types of artists, and presented a broad range of ways to engage with urban spaces and everyday practices. Indeed, to generate a diverse range of embodied experiences was a key aim from the perspective of the curators. A key point that all of the curators raised, was that they aimed to blur the notion of what art is, and who creates art. For this reason, the artists had diverse backgrounds, including architects who created installations, installation artists who designed buildings, artists who designed buildings, a choreographer who made a film, and a theatre group that created an audio walk. Therefore, not only did the exhibition aim to generate diverse views by including art in the exhibition, but also to generate a diverse embodied experiences of artistic practices, and to highlight the diverse ways that different creators can interpret the city.

Beyond creating diverse embodied experiences, the exhibition blurred the notion of what art is, as well as called to question more broadly what disciplines should be used to address the issues about the future of the city. As Rendell (2008, p.47) notes, the site of artworks can also be conceived as being situated at the borders between different disciplines, and as such the works call to question disciplinary procedures. Indeed, the boundary of art and other fields such as design, urban design, and architecture was explored by Experiment Stockholm. As Jane Rendell (2008, p.49) argues, by exploring these disciplinary boundaries, artistic projects that engage with urban tend to have questions, rather than answers to social or environmental problems. In this sense, according to Rendell (Rendell 2008, p.49), art offers to architecture and design a ‘chance to think critically about their recent history and present aspirations’.

Through the artworks, the artists aimed to draw attention to the embodied ways of knowing the urban environment that are used on a daily basis, but often not focused on. Tactics of defamiliarisation and sensory immersion were used by the artists, who aimed to achieve these with diverse approaches such as generating discomfort; removing the goal of walking and cycling as a means to get from one place to another; and drawing on cinematic techniques and choreography. In this way, embodied practices were evoked by the exhibition. As one curator noted:

‘Good art, or, a good exhibition makes you reflect on your surroundings. That was what art could really do. One of the purposes with art, [is] that you create an alternative to the daily basis views you get into’ (Curator C, 2016 interview).

Artistic practices in the city, therefore, have the ability to make us reflect on our surroundings in new ways, generating sensitivity to how daily life is embodied (Curator C, 2016 interview). This became apparent by interviewing the artists on their aims of the artworks.

5.1.1. Why know the city through embodiment?

Whilst the tactics of defamiliarisation and sensory immersion arose as broad aims by the artists and curators in order to focus on embodied ways of knowing, the question follows: why know the city through embodied ways of knowing? What can be learnt from the embodied ways of knowing that are generated in urban art interventions?
Impacts of urban environments on bodies and emotions

By focusing on embodied ways of knowing, the urban art interventions in Experiment Stockholm drew attention to the impact of the surrounding environment on bodies and emotions. The impact of the environment on our bodies was particularly drawn attention to by artists Anna Asplind and Osynliga Teatern. Reflecting on her work in urban environments, the artist Asplind noted that ‘the environment we live in affects us a lot’, yet, when we build cities we don’t really think about the senses (Anna Asplind, 2016 interview).

Asplind’s work sought to draw attention to how the environment affects our bodies and emotions. For example, to make her film Anna Asplind dérive for two months between the suburbs of Liljeholmen and Haninge. These suburbs, 25km apart, are car-dominated suburbs, with large roads and light industrial areas. Asplind reflected that, when focusing of embodied ways of knowing whilst drifting through these areas, she was more aware of the impact of the environment on her body and emotions (Anna Asplind, 2016 interview). The loud environment, from the large amounts of traffic, made her both physically tired and emotionally bored whilst travelling through it (Anna Asplind, 2016 interview).

Similarly, in Hidden Ecology audio walk, the artists aimed for participants to ‘experience Stockholm in an emotional way’ whilst walking, which they consider an unusual way to experience the city (Osynliga Teatern, 2016 interview). They did this through evoking emotions of the participants, asking participants to reflect and record their emotions into the walk’s app, and also by playing recordings of previous participants’ reflections on their emotions, as they walked through the same city area. Osynliga Teatern (2016 interview) noted that their work was about: ‘how do we as people encounter a certain area with our emotions, and how do we walk and how do we react and how do we interact with the area’.

Hawkins’ (2015) argues that by focusing on embodied way of knowing, the audience’s gaze is shifted from being disembodied, towards embodied understandings of subjects, object and place. Applying this notion to the urban art interventions in this case study, the embodied experience of participants can therefore generate embodied understandings of urban space and urban nature. As Loftus (2012) noted with the artwork Biomapping (discussed in Chapter 2), artworks that highlight the emotive and sensory responses of people to urban environments can be useful for planners and municipalities as a tool for designing better spaces in cities. Both Asplind’s dérive and Hidden Ecology have potential for helping understanding how people interact with urban spaces on an embodied level, as well as the impact urban spaces have on people. As three artists noted, the focus on embodied ways of knowing that is generated by artistic practices might be one way to reconsider how we build and design cities. A tactile city that was designed with the senses in mind may be one way to make urban environments more human friendly (Osynliga Teatern, 2016 interview; Anna Asplind, 2016 interview).

Embodied experiences with urban nature: urban wastelands and ‘places of visibility’

A second reason that arises for focusing on embodied ways of knowing is that it provides possibilities to interact with sites of urban nature. The following points are discussed. Firstly, the artworks worked to highlight the ecological processes of sites of urban nature through embodied ways of knowing. Secondly, invisible socio-ecological processes such
as climate change and water pollution can be explored in physical and embodied ways through the artworks.

The urban art interventions in Experiment Stockholm worked to generate embodied ways of knowing the sites of urban nature that the artworks engaged with. As noted in Chapter Four, the artworks all engaged in sites in the city that contained marginal urban nature, that is, interim spaces, brownfield sites, and sites that are considered awaiting development (Gandy 2013). However, through cultural engagement with the sites, the artworks reimagined the sites as places where urban ecosystems could be explored, and aimed to insight reflection on the assumptions we make about such urban spaces. Rather than being just ‘wastelands’, the artworks created sites where the audience could gain embodied experiences of urban ecology and cultural practices.

For example, in the industrial yard behind Färgfabriken the audience could explore climate change and the food systems, in Earthscore Specularium. In the polluted waters just off shore from industrial Lövholmen, urban water ecology could be explored at Maretopia. On shore, in the audio walk Hidden Ecology, novel embodied experiences of planting seeds and interacting with trees scattered amongst factories could be experienced. The poetic aesthetics of interim spaces, otherwise deemed ugly, were explored in the cycle dérive and film. During these moments, more nuanced experiences of sites of urban nature arise, in which cultural values and assumptions of such spaces can be questioned.

Anna Asplind’s artworks provide an interesting example in which marginal urban natures, for example the interim spaces between busy roads and on old rubbish dumps, were reframed as sites of diverse embodied experiences. Asplind aimed to create an experience in which the audience could observe and experience the urban environment in a new way. Both her film and dérives sought to challenge preconceived notions about particular areas in Stockholm, and the way one can use them. The artist stated that her aim was to find special and beautiful moments in the area between Färgfabriken and Haninge, in an attempt to generate another perspective of an area that is otherwise considered to be ‘an ugly bad area’ (Anna Asplind, 2016 interview). In the video piece, people are seen exploring and using unusual urban nature areas, including green spaces in the middle of a four-lane road (see photo 6, cf. chapter 4), and people lying on a grassy hill that is an old rubbish dump (Anna Asplind, 2016 interview; participant observation, 2015).

Similarly, during Asplind’s dérée, people were asked to sit in the grass under a freeway at the beginning of dérée (see photo 9 below). In this way, Asplind generated embodied experiences in which the audience could reflect on the urban environment in novel ways. Asplind stated that different perspectives arise when one participates in the dérée:

‘...just put your body in a different position than you usually do, you see other things’ (Anna Asplind, 2016 interview).

Asplind noted that ‘because we’re using it, we are also looking at it [the area] differently’ (Anna Asplind, 2016 interview). By creating a poetic video piece and dérive experience in an area that is built for cars and industry, her work was questioning these areas and the preconceived ideas about them.
Hidden Ecology audio walk also provided participants with sensuous experiences with urban natures that were novel and unusual; challenging the norms of what one usually does whilst walking through an industrial area. During the audio walk, participants were asked to touch a tree, and to feel the sensation of the bark. In this way, the artists were trying to create an embodied experience with the urban environment, beyond engaging the usual sense of sight. Similarly during the walk, the audience was asked to plant seeds they were given, creating a novel experience with urban nature. The audience was asked to interact with urban nature by planting a seed in a site that is perhaps not considered normal, an act of urban guerrilla gardening in an industrial zone. With these acts there is a breaking of social spatial norms from what is considered normal whilst walking through the city.

Maretopia also generates a new way to think about the waters behind Lövholmen, by embodying and occupying the waters in a new way. The embodied act of being out on the water at Maretopia rendered visible the local aquatic ecosystem to the guests. For example, the floating garden raft is full of floating water plants that perform the function of cleaning the local polluted waters, by sucking up heavy metals (Jens Evaldsson, 2016 interview). The raft was designed and created by students at Konstfack, University College of Arts Craft and Design, with an interest in plants. Its design was informed by researchers at Ekologigruppen, an environmental consultancy in Stockholm, provided information to the art students (Jens Evaldsson, 2016 interview). By engaging with Maretopia, guests get the opportunity not only to see but also to smell and touch the water plants, providing an embodied experience of the local environment that would not otherwise be possible in the area. In this way, guests participating in the urban art intervention of Maretopia have the possibility to engage with local environmental issues specific to Stockholm’s history, through embodied ways of knowing.
By engaging culturally with marginal sites of urban nature, as the artworks in Experiment Stockholm do, the question of what is nature in the city arises. As Gandy (2013) explores, cultural engagement with urban wastelands help to expand concepts of urban nature from beyond the aesthetic of beautiful and designed spaces of parks, to include spaces such as brownfield sites and unused space, all of which hold biodiversity. From a conservation and planning perspective, the implications of reframing brownfield sites, or urban wastelands, as sites with potential ecological significance has been noted by conservation biologists (Gandy 2013). The term ‘open mosaic habitat’ is being promoted by conservation biologists in cities, in attempts to change attitudes towards marginal sites by land use planners (Gandy 2013).

Interestingly, in this case, urban art interventions are helping to reframe marginal sites of urban nature to show their ecological processes. However, rather than doing this through scientific ways of knowing, they are doing it through cultural engagement and embodied ways of knowing. As Gandy (2013, p.1311) notes, these kind of creative interventions in urban spaces ‘remind us that looking, thinking, and representing the familiar in an unfamiliar way can be a kind of radical cultural and political praxis’.

Not only do the urban art explorations work to reframe perceptions about marginal urban natures, they also work to create embodied experiences of invisible processes such as climate change and water pollution. A key goal for some of the artists was to create an embodied experience of invisible socio-ecological processes, such as climate change and water pollution. In this way, the artworks created ‘places of visibility’ in which often-invisible human-nonhuman interactions and their effects are ‘made visible’ through the art. The urban art interventions of Experiment Stockholm thus became ‘places of visibility’ (Mackenzie & Taylor 2007, p.606), in which human-nonhuman interactions are made visible.

One of the most prevalent examples of this was with Earthscore Specularium. As the artist noted, the greenhouse was an ‘embodied metaphor of a ghost...of the future, coming to haunt us in the present’, in the context of accelerated climate change (Luis Berrios-Negrón, 2016 interview). In this way, the greenhouse represented, but also embodied, the experience of a future in more advanced stages of climate change:

‘...you know, the sensations of living in a greenhouse,...it’s not a re-enactment, its again, it’s this matter of bringing the future to the present’ (Luis Berrios-Negrón, 2016 interview).

In this way, Luis Berrios-Negrón’s work aims to provide the opportunity for guests to embody a dystopic future, and thus a place in which the audience was nudged towards reflecting on accelerated climate change, both intellectually and embodied. As Berrios-Negrón noted, you cannot see climate change, yet somehow we need to make it visible and relevant to talk about, to take action on. He argues that in a visually dependent culture such as ours, this challenge is of particular import:

‘... given that you can’t see climate change, how do you deal with a culture that is visually dependent?...trying to create an installation that ah, yeah...inevitably it’s a visual experience, but I also tried to heighten the other senses as well, to privilege the other senses equally and try to make it as genuine... as possible, even to the point where I’m living inside the installation’ (Luis Berrios-Negrón, 2016 interview).
Creating an embodied experience of a dystopic future in accelerated climate change is one means of addressing the invisible nature of climate change. This way, the artwork and the resulting embodied experiences are used to address often-invisible human-nature interactions, in this case, climate change. Thus, the installation became a ‘place of visibility’ (Mackenzie & Taylor 2007, p.606), in which the interaction of humans and nature becomes not only visible to the audience, but also embodied. As one curator noted, embodied experiences of nature can make us reflect on our connection to nature, that we are more than intellects but also embodied organisms.

To conclude this section, it is argued that the urban art interventions reframe sites of marginal nature as cultural sites where embodied ways of knowing are promoted. Through cultural engagement with marginal sites, new perspectives of urban nature and the urban biotope can be gained. It is proposed that engagement with the artworks may also result in renegotiations of what urban nature is; by exploring ecological processes in marginal sites, the very concept of nature can be questioned. The binary of city/nature can be broken down by these cultural interactions with sites of urban nature, highlighted by the fact that ecological processes clearly exist within cities, even in marginal and industrial areas. In this way, critical urban art interventions provide a counter-hegemonic moment, creating a more complex understanding of urban nature and socio-ecological processes (Kaika & Swyngedouw 2012). However, further research is needed to explore how the audience perceive this. Such research could include a range of types of audience that engaged with the urban art interventions, including urban residents as well as professionals working with planning and urban development, and students.

What does become evident through this research is that urban art interventions promote alternative discourses of knowing, that of embodied ways of knowing. They do this using tactics such as: sensory immersion; defamiliarisation of everyday practices; and bodily engagements with urban spaces through the practices of dance and drama. The potential for using the embodied practices that emerge through urban art interventions in urban planning has been touched on by Loftus (2012). Further studies can no doubt explore the potential for urban art interventions to generate data on embodied reactions and reflections to urban spaces here in Stockholm. As Asplind described it, embodied ways of knowing urban spaces are important, and creative practice holds potential to develop these:

‘They [referring to planners] know it [embodied knowledge] is important but there are no keys, in how to find them. And then I think dance choreography is one key, to this area that people do not know. But I have the sense that this is something that, ah, a lot of people want to take into consideration, but there are no structures for it to exist yet’

In literature, the embodied ways of knowing generated by urban art interventions has begun to be explored through new creative methods for geographic research, with scholars proposing sound walks (Butler 2006) and installations (Hawkins 2010) as key methods for generating embodied knowledge about space place. It is argued here that much potential lies in developing these methods further, to generate knowledge of urban natures with field of urban political ecology and for practitioners of urban planning. None-the-less to do this, embodied knowledge will have to be granted authority as a discourse of knowing, along side that of scientific knowledge (Wilcox 2009).
5.1.2 Limitations of time and engagement

Yet, whilst urban art interventions promote embodied ways of knowing sites of urban nature, who actually experiences this? Does the audience actually experience the embodied ways of knowing promised in the artworks? Whilst further research is no doubt needed to explore these questions from the perspective of the audience, both the artists and curators can provide certain reflections.

Whilst scholars have addressed the potential of artworks to help generate ecological consciousness through embodied experiences generated by urban art interventions, the literature has not critically addressed the limitations of these approaches. For example, Loftus (2012) explores the role of urban art interventions in generating environmental awareness through creative praxis. He argues that ‘a radical ecological consciousness is likely to develop in the everyday through practical sensuous activity’ (Loftus 2012, p.129). However, his work does not critically engage is examining the tactics used in the artworks to develop this ecological consciousness, nor the limitations that arise.

By interviewing the artists and curators, this thesis aimed to fill this gap. Limitations to the audience both focusing on embodied ways of knowing arose. Two key limitations arose from the perspective of both the artists and curators. These limitations were raised as key factors the hindered or prevented the audience experiencing sensory immersion, defamiliarisation and resulting embodied experiences.

Firstly, the amount of time spent interacting with the artwork and the exhibition was considered key in gaining new perspectives. For example, Anna Asplind noted that the dérives she conducted were too short, considering that her work was trying to get the audience to perceive the urban environment from an embodied perspective. If done again, Asplind noted that she would make them longer, because she felt many of the participants were still in their normal state of mind (Anna Asplind, 2016 interview). She noted this from the discussions had during the dérives, which were still using intellectual knowledge to understand urban space. Asplind, on reflecting on one of the dérives, noted that many participants who were urban planners and architects by profession (Participant observation, 2015; Anna Asplind, 2016 interview) did not seem to change the way they thought about places and urban space. Anna noted that:

‘…people were very excited to bike around, but like, but I felt in the discussions that people were still in their normal state of mind’ (Anna Asplind, 2016 interview).

None-the-less, whilst recognising that many people cannot spend extended periods of time learning the dérive methods, Asplind noted that from her personal experience of carrying out dérives, it takes time to change your perspective.

Similarly, considering that the artistic exhibition required a lot of time to fully engage in all the art works, the curators also raised the issue of time as a limitation (Curator A, Färgfabriken, 2016 interview). According the curators, time is necessary for audience to be able to reflect on the artworks, rather than simply look at them and move on (Curator C, Färgfabriken, 2016 interview). None-the-less, according to one curator, many guests did spend a few hours in the exhibition, suggesting that they interacted extensively with some of the artworks (Curator A, Färgfabriken, 2016 interview).
Secondly, the ability to engage with aesthetic and embodied ways of knowing as a way to explore themes of the city, urban nature and environments was considered difficult for certain audiences, according to artists and curators. Artist Luis Berrios-Negrón particularly reflected upon this. With the Earthscore Specularium, his intention was that through embodied ways of knowing and an inquisitive attitude, the audience would explore the theme of living in accelerated climate change. The work was designed so that discussing the themes with the artist, who was living in the greenhouse full time, would heighten the audience’s embodied experience. This was also noted by the curators who believed that an embodied experience and discussions with the artist at the same time would generate a heightened experience for the audience (Curator A, Färgfabriken, 2016 interview; Curator B, Färgfabriken, 2016 interview).

None-the-less, according to the artist, the audience were not as inquisitive as he would have hoped, with only an estimate of 10 conversations taking place with members of the public.

‘Sweden is a tough place for this. People are very reserved here... people are shy. So not that many conversations happened with the public...(Luis Berrios-Negrón, 2016 interview).

The artist noted that whilst these estimated 10 conversations with random members of the public were good conversations that engaged in the themes of the artwork, he would have like more to have taken place (Luis Berrios-Negrón, 2016 interview). Of the conversations he did have with the audience, he noted that in depth dialogue with guests, in the Specularium, created a powerful means to generate new perspectives, insights and links, both for the artist and his guests (Luis Berrios-Negrón, 2016 interview).

Reflecting on this kind of experiential artwork, the artist noted that:

‘I was wondering if I could present the work in a way that was not didactic, you know...but it, it proved to be very difficult for the people, the audience, especially here in Sweden, to not be told what the work was about. I think it really varies where you go’ (Luis Berrios-Negrón, 2016 interview).

In other exhibitions, Berrios-Negrón noted that audiences were not shy to be inquisitive about the themes explored in the artworks, and to experience what’s going on through both aesthetic and embodied ways, as well as discussing with the artist himself. Berrios-Negrón notes that this is simply a cultural difference he had noticed after a few weeks in Sweden:

‘...people here in Sweden ah, have the expectation that the work should be explained. You know, to them. Its just cultural difference.’ (Luis Berrios-Negrón, 2016 interview).

None-the-less, recognising that the audience were not engaging in the artwork as much as he would have expected, the artist produced information leaflets. By printing out information sheets, he could remedy some of the misunderstanding and shyness to engage (Luis Berrios-Negrón, 2016 interview). However whilst the leaflets could help people engage with the themes of the artwork – living with climate change - what the leaflets could not do, was develop peoples engagement with embodied ways of experiencing these themes.

Therefore, whilst the artworks discussed in this study highlight that they provided opportunities for the audience to reflect on urban environments, and come in contact with urban nature in new and novel ways, limitations to this approach also arose.
5.2 Site and the everyday possibilities

*RQ: How do the artworks interact with the sites they use in the city?*

This section explores how the artworks and exhibition interact with sites in the city of Stockholm. Drawing on an expanded notion of site, the artworks interactions with site is discussed both in terms of the geographical, as well as their engagement with the research processes and cultural practices used to create the works (Rendell 2008). In this case, site is thus explored both in terms of the physical interaction of the artworks with places in the city of Stockholm, as well as their interactions with histories, memories and research processes.

By exploring the art-site relations that emerge through the artworks, it becomes evident that they specifically engage with the sites they use outside the gallery, both conceptually and materially (see Table 2). In this way, the artworks not only aimed to generate new ways of knowing urban natures, but also to develop and change them, by transforming them. It concludes that by exploring the art-site relations, the artworks both explore and generate political potential in the everyday.

<table>
<thead>
<tr>
<th>Artwork</th>
<th>Urban nature explored</th>
<th>Art-site relations</th>
</tr>
</thead>
</table>
| Maretopia | Cove in industrial/housing area | - Concept designed for Stockholm’s specific geography of water and islands  
- Recycled materials used to build the rafts were used from the Färgfabriken site  
- Engages with specific historic and present socio-environmental conditions of cove: plant raft to remove heavy metals and other pollutants from the water due to history of the factories in the water |
| Hidden Ecology, by Osynliga Teatern | Industrial area, and surrounding neighbourhoods including areas of water, parks and housing | - Designed especially for the location of Lövholmen and surrounding areas  
- Evokes history and memories of the urban areas as constituting the places  
- Generates an emotion map of the area |
| Earthscore Specularium, by Luis Berrios-Negrón. | Industrial area; plants and animals in the greenhouse | - Built in specific orientation to maximise sunlight in outside part of the greenhouse, based on roof structure and suns movement across the sky  
- Concept designed with Färgfabriken’s site history in mind: history of paint factory resulting in current heavy pollution of soil and water in the areas  
- Site specificity as ironic reference to the very notion of greenhouses as being the opposite of site specific: bringing tropical plants to grow in the cold autumn of Stockholm. |
| Cycle dérive & video by Anna Asplind | Industrial areas, marginal urban nature areas including old | - Concept and intervention developed for the area between Färgfabriken and Haninge  
- Film developed through two months of exploring the sites through embodied ways of knowing |
5.2.1 The city as a site, not a subject

Just as the North American land art movement of the 1970s sought to create art that *is* the landscape, rather than hold the landscape as a subject to be observed, the artworks in Experiment Stockholm took the city not as ‘subject’ but as ‘site’ (Raine 1996, p.232). In this sense, the artworks of Experiment Stockholm such as Maretopia, Anna Asplind’s cycle dérive, Earthscore Specularium and Hidden Ecology all engaged with site by physically and contextually embedding their works in the city landscape. The artworks, and thus the exhibition, used Stockholm not as a subject to observe and portray, but as site to interact with, and potentially transform. According to the curators, it was a goal of Experiment Stockholm, to connect the exhibition to the city:

‘...We really wanted to link this inner space, like the main space [gallery hall], with the outer space, the city. Like, to create a connection obviously, what was uh, happening, and was is happening in the city, this is also of course the idea of the whole project with Experiment Stockholm’ (Curator A, 2016, interview).

Challenging spatial norms & transforming places

Across the artworks, challenging spatial norms and transforming sites arose as a tactic used by the artists to engage with site. This ranged from temporary transformations, to semi-permanent and more permanent changes, depending on the artworks. The following section reviews how the artists aimed to transform sites, from the most temporary tactics, to the most permanent.

By developing intimate relations to their sites through embodied ways of knowing, the artworks generated understandings of places. These included social norms of how to act and move through spaces. However, the artists also aimed to transform places by defying and challenging social spatial norms. Anna Asplind’s bicycle dérive and the Hidden Ecology audio walk sough to temporarily change the urban environment by challenging spatial norms and occupying spaces in alternative ways. Transgressions of spatial codes in this way asserts alternative geographies of place, highlighting the ‘multiple uses of spaces within a city that coexist overlap and mesh together’ (Reid 2005, p.450). The artworks bring to the fore these myriad interpretations of urban space through using it differently.

Anna Asplind’s work for example, sought to use embodied ways of knowing not only to understand places through which she dérived, but to transform them. As the artist lead the dérives, she would give the audience small tasks on how to relate their body to that
specific place, as a means to explore and understand the environment through embodied ways. But, she would also challenge the audience to explore:

‘...how they could go against the social rules, or go with them...you know you kind of interact with the place’ (Anna Asplind, 2016 interview).

The artwork sought not only to highlight the social norms and physical constructions of that shape how we use and behave in urban spaces, but was also working with the aim of playing with them, of breaking them.

Beyond challenging social spatial norms, the urban art interventions also aimed to transform spaces within the city of Stockholm. Anna Aplind’s bicycle dérive, for example, aimed to temporarily alter the spaces by travelling through them:

‘...just by taking your time there, and travelling through this area, you temporarily change it as well’ (Anna Asplind, 2016 interview).

The artist argues that just by being in a place, you are changing it:

‘just by being there, like taking, reclaiming your place, or your space there, something is happening. It’s very temporary but more and more people do it and it becomes something, you kind of show the way for people that they can use the places’ (Anna Asplind, 2016 interview).

It is argued that by using urban sites differently, the urban art interventions reviewed here in Stockholm come to create a new place through the reinterpretation of space. Similarly, the artists of Hidden Ecology used the same tactic. The audio walk aimed to transform the area by instructing the audience to walk a different path. Osynliga Teatern noted that by getting the audience to walk in areas that are not usually walked in, or not designed specifically for walking, they change the urban environment (Osynliga Teatern, 2016 interview). This for example included crossing parking lots, gardens and waterside areas that were out of the way of main footpaths in the area.

According to one artist, the changing of place takes place not only for the people that are participating in the dérive, but also for others, for onlookers. By seeing people use a space differently, other people also look at the place differently (Anna Asplind, 2016 interview). None-the-less, the artists noted the temporary nature of such a change of urban space. Limitations of course arise in how long you occupy the space. For example, Asplind noted that her work was in a way reclaiming city space from cars. Yet, she noted that that is something that could happen in the long term, that: ‘my work didn’t reach that point of course’ (Anna Asplind, 2016 interview).

Other tactics were used to transform sites in a semi-permanent fashion. These included tactics such as planting flowers across a neighbourhood, to building semi-permanent structures. For example, the audio walk Hidden Ecology also aimed to transform urban spaces around Färgfabriken. The audio walk started with the audience getting some flower seeds, which they were instructed to plant somewhere in the urban area, towards the end of the walk. The idea was to highlight to the audience that they can change something, to leave a trace behind them (Osynliga Teatern, 2016 interview). In this way, the artwork reimagined an industrial site as transformed by flowers planted in all sorts of places, by the audience.

The Earthscore Specularium also temporarily changed the site it was occupying, especially the external part that protruded out from the Färgfabriken building. The artist
noted that the very physical design of the greenhouse was designed for the site specificity of this location, with the deliberate aim to create a sense of place:

‘...in regards to Earthscore Specularium, the way that it was set, the way that it was installed... the building had its placement on the city, in this industrial park, and the then the greenhouse, the Specularium was ah, reorientated towards, to a north-south, east-west orientation’ (Luis Berrios-Negrón, 2016 interview).

In this orientation, the artist maximised the sun hitting the greenhouse roof. However, whilst the Specularium was designed specifically for the site, interesting tensions arise between the notion of greenhouse and site specificity. As the artist noted:

‘Because.... greenhouses are, are precisely non-site specific. In fact they’re non-local. Ah, that’s the point of a greenhouse, or that’s been the instrumentalisation of the greenhouses, to precisely unearth and transplant and transgress bio-regional condition to control agricultural production’ (Luis Berrios-Negrón, 2016 interview).

A blurring of the notion of place is thus explored in the work, highlighting a way in which art can used to question the notion that place is local. In this case, the tensions between local site and globalisation arise highlighting global connections of food production and transportation of materials across the globe.

Arguably, Maretopia is the only art intervention reviewed in this study that changed a site permanently. This was done by the creation of the public space on the floating rafts of Maretopia. The artists note that they wanted to create public space, but also, use an aesthetic art piece to highlight how people can use Stockholm’s waters:

‘Because everybody owns the space in the city, so they should be able to use it also. And people kind of know that, but they don’t know how to use it, and don’t know what they’re allowed to do. And I would think that a lot of institutions don’t know either’ (Jens Evaldsson, 2016 interview).

Whilst Maretopia has now achieved the start of their vision of a public floating eco-culture house in Stockholm, the artist none-the-less noted that having a big cultural institution hosting them is helpful in proving that they’re legitimate:

‘...we put ourselves in a place now where there’s a lot of different institutions dealing with water, and it seems quite friendly here now, in way. Because we have Färgfabriken a big cultural institution that is liking us, hosting us. (Jens Evaldsson, 2016 interview).

The artist noted that having a cultural institution host Maretopia was important to ‘protect ourselves [Maretopia] a little bit’ (Jens Evaldsson, 2016 interview). This raises an important point for urban art interventions in Stockholm. To use space longer than in a temporary manner, certain legitimacy is required even to use public spaces such as the waters of Stockholm.

Maretopia’s floating cultural house works in such a way as to not only bring to the fore alternative ways of using the waters of Stockholm, but also in some ways empowers people to rethink how they use urban space and why. This highlights how artistic practice within the city works in such a way as to ‘not take anything for granted’ (Project Manager, Färgfabriken, 2016 interview). Already in the language of the art piece seen on the Färgfabriken website and the information sheet handed out to all guests going out to visit Maretopia from Experiment Stockholm, it becomes evident the Maretopia seeks to reimagine how we use the waters of Stockholm (Färgfabriken 2015a; participant observation). Not only does the art intervention defamiliarise how we use water in
Stockholm, it also brings to light what inhabitants of Stockholm can use the water for. As Jens Evaldsson reflected on the collective’s research about legal rights and public usage of the waters of Stockholm:

‘...we don’t really have permission here, but we’re not attaching to land, so that means we don’t have to pay rent to any landlord...’ (Jens Evaldsson, 2016 interview)

What arises across the artworks, from Maretopia, to the bicycle dérives and audio walk, is a desire from the artists for the artworks to generate interactions and transformations in urban spaces. What’s more, they aim to inspire their audience and participants to engage in such actions too, whether it be through planting flowers in acts of guerrilla gardening an industrial site, claiming the rights to the waters of Stockholm, or inspiring people to get involved in the construction of urban houses, as Asante’s urban weaving pavilion aims to do. In this sense, the artworks range from a metaphorical style of inspiration to engage in urban spaces, such as in Asante’s work, to outright engagement in urban space, such as Maretopia performs. The urban art interventions reviewed here thus highlight that they become ‘places of political possibility’ (Mackenzie & Taylor 2007 606), inspiring people to claim their right to the city through cultural acts. As the more permanent urban intervention, Maretopia has already seen their vision and sentiment spread to local youth, who have independently built their own raft, and attached it to Maretopia’s rafts (Jens Evaldsson, 2016 interview). Kenneth White (cited in Mackenzie & Taylor 2007, p.606) has termed these sites ‘open places where there is some sense of a horizon of the possible’.

None-the-less, critique does arise about the ability of art to really transform sites. As Anna Asplind noted:

‘It’s easy to be very philosophical about it [art] but what does it actually do?... I’m interested in that, because sometimes I feel that art can be too, um, it opens up a new perspective to think, and that is beautiful, but then when you go into the practical, what does it actually do. For me it’s usually a mental, it changes something mentally. And sometimes it changes something physical also, but usually its mental thing, I would say’ (Anna Asplind, 2016 interview).

More broadly, one curator brought up the issue of future development plans as a limitation to urban art interventions ability to engage in urban spaces. As one curator noted, the area around Färgfabriken is:

‘...locked down. They’re waiting here, and they [development companies] have, put boarders and regulate this system, you know, we have this very small land around FF, and its ah, these big fences around it, we are fenced in in that sense’ (Curator C, Färgfabriken, 2016 interview).

None-the-less, future work at Färgfabriken is looking into the possibilities of engaging with the area of Lövholmen, though it is out of scope both the Experiment Stockholm exhibition and this study:

So, this this area here, is the next step in our project and we want to understand what you could do with it. But it’s, it’s, so regulated, and people are so sacred that we should do something that we shouldn’t, that definitely want us avoid to do, to say things about it. They just want to have a quick process and sell this area and do it, and you know, do it as an upper middle class area, because it will be so expensive to live here’.
Evidently here, future studies could look into the specific site of Lövholmen, exploring the tensions and possibilities for artworks such as Maretopia to remain in site, despite the development plans.

5.2.2 Site beyond the physical: memory & history in the artworks

As discussed above, the art works all engaged in the physicality of site, aiming to not only embed their artworks in sites surrounding Färögfabriken, but also transform the places both temporarily and more permanently. However, by interviewing the artists it became apparent that the art-site relations extended beyond the physical. When discussing the sites, the artists evoked memory and history as key tactics they used to engage in the places.

For example, the Earthscore Specularium engaged with the site it was built on, seeking to transform it not in the present, but transform it by it speaking as ghost from a dystopic future. As the artist noted:

‘…given that the site of Färögfabriken was a, is an abandoned industrial space... no less of paint making, paint making being notoriously toxic product, um that I basically projected that industrial space onto the future... of survival through agriculture that we’re facing already, and then bring it to haunt us in the present time in the form of this greenhouse’ (Luis Berríos-Negrón, 2016 interview).

In this way, Earthscore Specularium developed the site of Färögfabriken by evoking the history of the site, and asking the audience to also reflect on the socio-environmental history of the site, and its potential future. Considering that the artwork in an embodied projection of the future, the art-site relations that emerge through the artwork is one that evidently plays with the notion of time and space, exploring both past, present and possible futures.

Maretopia’s engagement with the site where the rafts are anchored, in the cove outside of Färögfabriken, provides a further interesting example evoking history to engage in the site. Indeed the history of the site influences both the design of certain rafts, and the themes that the artwork engages with. In discussing the site of Maretopia, Jens Evaldsson noted the history of the site, including the surrounding carbon and paint factories, how they polluted the area, and with what chemicals. The artist highlighted that research into the history of the area was used to understand the site, and engage with it for the context of the artwork. The artist noted the history of the site shapes how the collective addresses the water pollution of the area through the artwork. For example, discussing the carbon factory, he noted:

‘It’s been there for a long time maybe over 70s or something. And they had a lot of liquid mercury in their measurement apparatus, pressure gauges, and those used to explode in the old times, I read’ (Jens Evaldsson, 2016 interview).

Similarly, Evaldsson described the impact of the paint factory on the soils and waters around Färögfabriken. This history, noted Evaldsson:

...that’s quite specific for this site, outside. Ah yeah, but its specific for Stockholm also, because Stockholm has in some parts a bit polluted water’ (Jens Evaldsson, 2016 interview).

Here, art has a particular freedom to be able to connect past, present and possible futures in ways that challenge notions of urban nature, and places, as static. Rather, the socio-ecological processes that construct the present state of the urban nature are brought to the
fore. In this way, the artworks challenge the notion of nature of separate from humans, by highlighting the socio-environmental histories that shape the past, present, and possible future states of the local urban environment.

What’s more, to engage with the history of the site, and make the history relevant within the design of the artwork, Maretopia aimed to engage with researchers and professionals who work with water pollution. Reflecting on the water pollution and history of the site, the artist noted:

’Sof that’s why also we want to work with the researchers about the pollution. So we contacted architects and researchers who work with the water quality and so on, and we talked with them about which sort of plants we should use, for cleaning the water.’

The artist noted that researchers and architects who work with these issues participated in the course at Konstfack, to help the Maretopia understand the issues, and then design rafts that address the specific socio-ecological history of the area. This resulted in the rafts that contain floating water plants that absorb the water.

It becomes evident that the Maretopia Art Collective used interdisciplinary methods to gain local knowledge about the site of their artwork. Other artists also noted this approach to understanding the sites they engaged with. Osynliga Teatern for example researched people’s stories and memories about the area around Färgfabriken. However, rather than documenting and learning about the state of the environment, they collected personal stories. The artists noted that they interviewed people who used to live and work in the area, when Färgfabriken was a functioning as a paint factory. Reflecting on the rapidly changing area around Färgfabriken, the artists noted that:

‘...Since it’s [the area] changing so much, and that we are like documenting architecture and ah landscape, and all the changes....but we can’t really, we haven’t really documented the stories, or, or peoples ah, experiences of it’

In this way, the audio walk Hidden Ecology becomes a memory bank, not only through the memories recorded by participants during the audio walk, but also through the research that the artists did to create the artwork. Reflecting on the interviews the artists did to research the area, they noted:

‘...you know these kind of moments was, they are not documented...I think these kind of, to see history in another perspective by emotions or interactions, and then for the audience here to actually add something, or record something and, in a way it could be like an archive of meetings or emotions. (Osynliga Teatern, 2016 interview).

What the above examples highlight, is that places are both ‘embodied contexts of experience, but also porous, connected to other places, times and peoples’ (Till 2008, p.105). Artworks have ability to reimagine sites, to engage in sites in ways that evoke their socio-ecological histories. By engaging in the history and memories of these sites, the art works bring to light the historical nature of environment change. In this way, the artworks effectively deny the universalist concept of nature as wild and separate from humans (Gandy 1997).

By evoking the socio-ecological history and memories of site, the artworks engage in constructing new meanings of what the sites of urban nature are. In this way, they are reconstructing shared discourses of urban nature, and sharing them with audience who engage deeply in the works. The waters around Maretopia no longer become just water,
but are rich with the history of the industrial era of Liljeholmen, and highlight the present pollutants that still remain. Yet more than this, in the case of Maretopia, they evoke a right to the city, or indeed a right to sites of urban nature. Urban art interventions can thus renders visible certain kinds of human-nonhuman interactions (Grove 2009), those of the past, present and future. Seen through this lens, sites of urban nature can be considered as more than the essentialist conception of nature as purely biophysical (Gandy 1997). Rather, nature if constructed through an interaction of social and ecological processes, both material and discursive. Therefore, it is argued here that urban art interventions can construct new urban imaginaries about the sites in which they engage, evoking the past, present and opening up new possible futures.

Of course, such cultural explorations into sites of urban nature exist on small scale, taking place in the everyday, and highlight the micro-politics of environmental discourses (Gabriel 2014, p.40) that can arise through cultural praxis. Future studies that explore who and if audience actually gain the perspectives aimed by the artists are required. None-the-less, according to some of the artists and curators, understanding and exploring sites from different perspective, such as embodied, historical, emotive and personal stories, suggests they may play a key role in reimagining futures of cities.

This research has highlighted that the artworks are hubs of local knowledge about the local sites, holding not only knowledge about the local environment, but about the histories that created these environments. Evidently, by using a broadened definition of the concept of site (Rendell 2008) a broader analysis of how the artworks engage with the city has resulted. In this case, by questioning the research practices used to create the artworks in Experiment Stockholm, it becomes apparent that the artworks are places that hold memory, history and local knowledge about their sites.

5.3 Using art to address urban futures: opportunities and limitations

*RQ: What are the opportunities and challenges of using artwork in the exhibition of the future of the city?*

To conclude the discussion, this section broadens the scope to explore the opportunities and challenges of using artwork in the exhibition of the future of the city. As the artworks in Experiment Stockholm demonstrate, art has the ability to bring to life multiple ways of imagining the future. Referring to using art in exhibitions about the future, one curator noted:

‘...the result doesn’t necessarily have to be something that needs to be built or something that needs to happen, and this is also what I think is interesting with the art…, is that it could be visionary or dystopian, or utopian vision of the future. Because then you also have an idea of, instead of having a piece of paper or whatever, you can get another idea of it’ (Curator A, 2016 interview).

In this sense, art has the ability to generate multiple visions of the future, and has the artistic license to address futures in diverse ways, as visionary, dystopian or utopian, for example. The works in Experiment Stockholm do this, with the Earthscore Specularium creating a dystopian future in accelerated climate change, and on the other side, Maretopia exploring a visionary ideal of a floating eco-cultural house that simultaneously cleans the
polluted waters of Stockholm. By creating artistic explorations about the future, curators noted that this allowed for diversity of future possibilities to be addressed:

‘You don’t have to have one, you don’t have to go one way, or there’s not just one answer to all the, to one questions, you know it’s a broad, its diversity and the world is a diverse place’ (Curator A, 2016 interview).

Similarly, following the ability to explore diverse possible futures, another curator noted that art helps to generate a new or fresh perspective on complex topics, such as the future of the city, and how to approach the challenges. In this sense, using art helps to get past preconceived notions of how to approach issues, starting from a fresh perspective. (Curator B, 2016 interview). This idea was further expressed with the notion that including art in the exhibition starts the discussion from a new perspective, so to speak, from an artistic perspective. This then, according to the curators, hopefully ‘opens up new possibilities’:

‘...It’s like you could start from a totally different perspective and maybe come up with a different, maybe you come up with the same solution, but maybe you come up with something, ah, else. Like if you start with ah, how does it feel biking to school when you’re eight years old, or something like that. Or just the feel of wind in your hair, or you know, you start somewhere else’ (Curator B, 2016 interview).

Two artists mentioned that one of these new perspectives that art can provide, is to explore what it would or could be like if we planned cities starting from a different perspective, for example, starting from paying attention to embodied way of knowing and being in urban space. Broadly, this challenges the dominant imaginary of a neoliberal city, with the economic perspective being its driving force. It does this by opening up questions of what kind of other logics there are, with what other ways can we know the city, and therefore make decisions about how we live in it and develop it into the future.

Furthermore, by using artists to interpret sites within cities, as well as themes about cities, the finished pieces can bring to life complex explorations of the future of the city. One artist and three curators raised the comparison of using art in the exhibition, as opposed to a traditional architectural exhibition that displays models and plans. A few key differences were noted. Firstly, using installations and urban art interventions generates places in which audience can have embodied experiences, rather than simply view possible future city plans, for example. Secondly, using art as opposed to plans in the exhibition does not generate a finished display piece, but rather leaves open interpretations for the audience to explore ideas, notions and potentials for themselves. As one curator stated, paraphrasing the words of film maker Amar Kanwar:

‘...art could be an argument without being an argument... art is a good place to start a difficult conversation’ (Curator B, 2016 interview).

Using installations and urban art interventions in an exhibition about the future of the city allows people to not only imagine what future possibilities there are, but also embody them, to experience them, to walk into the spaces that they create. The artworks allow the participants to encounter the city in a new way, rather than to just observe ideas about the city. As David Antin (cited in Rendell 2008, p.50) argues, ‘sculpture was a specific space in which the observer is thrust, i.e., it is a place’. Similarly, the artworks in experiment Stockholm create places in which the audience can enter, to think about the cities future, nudged towards ideas from a floating eco-culture house, to a greenhouse, to an urban walk where memories and emotions are heard and recorded. As another curator put it:
'Like you say, well, I wanted to discuss the future of the city, well why don’t you paint a painting of the future of the city? That would be the easy way to do it. But that’s not what we’re interested in’ (Curator A, 2016 interview).

In this sense, the artworks of Experiment Stockholm created opportunities to engage with, and to embody new and alternative places that are exploring issues about the city, and future possibilities. Using art in such an exhibition creates a more tactile and experiential way to explore the future of the city. As one artist put it:

‘I think art is in a very privileged place to speculate, on the meanings and potentialities of those alternative realities. And how do we make them visible in this dimension’ (Luis Berríos-Negrón, 2016 interview).

Therefore, by drawing on art in exhibitions about the future of cities, multiple visions can be explored in freer and more creative ways, ways that do not necessarily result in clear plans. The opportunities that arise from such an approach include new perspectives being explored, as well as new ways of approaching challenges. None-the-less, certain limitations also arise. For example, the curators noted that having such broad and diverse artistic interpretations of themes connected to the city was perhaps too open, and thus hindered people understanding or grasping what the artworks were about (Curator A, 2016, interview). In this respect, the curators, along with some artists, believed that the audience needed to be guided more, to help them grasp the themes of the artworks.

What’s more, it was noted that an exhibition about the city gets a different kind of audience compared to one that is familiar with engaging with art:

‘…when we do these kinds of exhibitions we have a different audience coming in... who maybe don’t go to exhibitions all that often, so I think you need to have that in mind a little’ (Curator a, 2016, interview).

None-the-less, drawing such a diverse audience to an art exhibition about the city can also be seen as an opportunity, despite some audience members not understanding the artworks. The exhibition itself becomes like a platform for diverse perspectives to be explored, as well as create meetings amongst the public:

‘You need to bring in the different voices to be able to listen and this platforms is so important to be able to create these meetings, but also for the public, I mean the meetings are important within themselves’ (Curator A, 2016, interview).

Other curators and some artists also mentioned the benefits of this meeting space, as a key opportunity that arose from creating such an exhibition. Considering that Experiment Stockholm was both an art exhibition and series of seminars, meetings and lectures about the city, it was possible for artistic perspectives to be seen by all kinds of people, not only the public that came specifically for the art.

Art can be understood as complimentary to other approaches to exploring the future of the city. It does not provide answers or clear plans, but it does compliment them by providing creative, exploratory approaches and new perspectives. As an artist stated:

‘I grow more and more convinced of the privilege of art, that art has, um, along with, along with science. Um, where, where, each ah, tap onto limits that one or the other can’t access individually’ (Luis Berríos-Negrón, 2016 interview).

In the words of one curator, artistic practice should not been seen as mascara to beautify the city, nor as a crutch to fix up poorly designed areas, but as a relevant method to be
included in the process of urban development, and visioning possible futures (Curator C, 2016).

6. CONCLUSION

In an increasingly urbanised future, how we know and relate to nature on an everyday level will have implications for how we care for the very ecosystems that support our urban lives. Yet as access to green areas is reduced with urbanisation, urban inhabitants are forgetting our complex relationships to, and dependence on, diverse ecosystems both in cities and beyond (Bendt et al. 2013). Reimaging urban nature - rethinking what it is, and reframing how we “know” and plan for it - will be a vital task in the Anthropocene. It is a task that requires new approaches and more than standard technocratic urban planning methods.

This thesis has explored the tactics used in the urban art interventions of Experiment Stockholm to reimagine sites of urban nature, simultaneously documenting current urban art interventions in Stockholm. Five urban art interventions have been documented, including: Maretopia floating eco-cultural house; Hidden Ecology audio walk; bicycle dérives and film; Earthscore Specularium greenhouse; and, the Urban Weaving Pavillion. According to the literature, documenting these artworks in Stockholm is the first time urban art interventions have been studied in Sweden, thus expanding the geography of where urban art interventions have been studied.

The art works of Experiment Stockholm reimagined sites of urban nature through multiple tactics that address both the materiality and discursive nature of nature (Gandy 2006). They did this by interacting with sites of urban nature, seeking to transform and interact with their physicality, as well as promoting new ways of knowing urban nature. These new ways of knowing included promoting embodiment as a knowledge and method for interacting with the sites, through diverse tactics. Furthermore, by engaging in the non-materiality of places, the socio-historical aspects of urban nature was brought to the fore in many of the artworks, evoking both memories and histories as key tactics they used to engage in site. Such tactics highlighted the historical and social specificities of urban nature in Stockholm that were shaped by social, political and economic relations (Escobar 1999). In this way, urban art interventions can reimagine urban nature as sites of complex, social and biophysical processes, thus overcoming the common perception of nature as singular and separate to humans. By highlighting the social, political and historical processes that shape sites of nature, the artworks demonstrate that nature is indeed more than the essentialist notion of a purely biophysical thing (Gandy 1997).

This thesis has sought to expand the UPE literature by studying how urban art interventions can reimagine how we know nature and on both a material and discursive level, through everyday practices and scales. It has done this by drawing on the concepts of embodiment and site, concepts that have been previously used in cultural geography to explore urban art interventions transformation of place. It has furthermore addressed the gap in the current literature, by addressing not only the opportunities but also the limitations of urban art interventions to reimagine and transform sites in cities (Pinder 2005).
The following section seeks to conclude by addressing the research questions, as well proving some methodological and theoretical reflections as well as suggestions for future research and practical findings.

**Embodiment as a way of knowing: opportunities and limitations**

To reimagine sites of urban nature, the urban art interventions promoted embodied ways of knowing that are used on a daily basis in cities, but often not focused on. (cf. chapter 5.1.). By exploring how the artists aimed to promote embodied ways of knowing through the artworks, key tactics of sensory immersion and defamiliarisation emerged. The artists aimed to achieve these with diverse approaches such as generating discomfort; removing the goal of walking and cycling as a means to get from one place to another; and drawing on cinematic techniques and choreography. In this way, urban art interventions can be understood to create places in which embodied ways of knowing are brought to the fore, rather than left as unquestioned habitual norms. The art aimed to defamiliarise daily practices such as walking and cycling, creating micro-moments of political possibility to rethink how we engage with urban spaces, and indeed what urban nature is.

The embodied ways of knowing generated through the artworks highlight useful approaches to reimagine sites of urban nature discursively. The artworks promoted alternative discourses of knowing - that of embodied ways of knowing. Not only did the artworks draw attention to how the environment affects our bodies and emotions, they also reimagined the sites as places where urban ecosystems could be explored. Rather than being just ‘wastelands’ (Gandy 2013), the artworks created sites where the audience could gain embodied experiences of urban ecology and cultural practices. They created embodied experiences of invisible processes such as climate change and water pollution. Therefore, the urban art interventions reviewed in this case study created ‘places of visibility’ in which human-nonhuman interactions were brought to the fore.

New perspectives of urban nature and the urban biotope can be gained through engagement with urban art interventions, supporting Loftus (2012) theoretical claims that urban art interventions may create new ecological understandings. By exploring ecological processes in marginal sites, the concept of nature can be questioned. The binary of city/nature can be broken down by these cultural interactions with sites of marginal urban nature. They do this by demonstrating that ecological processes clearly exist within cities, even in marginal and industrial areas. In this way, critical urban art interventions create a more complex understanding of urban nature and socio-ecological processes. However, further research is needed to explore how the audience perceive this. Such research should include a range of audiences, including urban residents as well as professionals working with planning and urban development, and students.

**Site and the everyday**

By exploring how the artworks interact with the sites they use, it becomes evident that the artworks not only aimed to generate embodied ways of knowing sites of urban natures, but also to sought to develop and change them (cf. chapter 5.2.). It is argued that the artworks all interacted with Stockholm as a site, rather than as a subject, by physically and contextually embedding their works in the city landscape. Challenging spatial norms and transforming sites arose as a tactic used by the artists to engage with site. Across the
diverse artworks, transformations ranged from temporary, to semi-permanent and more permanent changes.

Critical urban art interventions generate sites of political possibility, aiming to inspire residents to claim and use urban spaces, including the waters of Stockholm. It concludes that by exploring the art-site relations, the artworks both explore and generate political potential in the everyday. Through cultural practice urban inhabitants are encouraged to engage with, to claim, and transform sites of urban nature, be they urban waters, in-between sites of greenery, brownfield sites awaiting development or industrial sites.

Indeed, drawing on a broader notion of site to include both the physical and non-material interactions with site, the artworks challenge the notion of place as only physical, rather highlighting that it is constructed through memory, history and emotion. The artists evoked memory and history as key tactics to engage in the sites. In this way, the artworks challenge the notion of urban nature as static and separate from humans, by highlighting the socio-natural histories and processes that have constructed and shaped the sites of urban nature. Seen through this lens, sites of urban nature can be considered as more than the essentialist conception of nature as purely biophysical. Rather, nature is constructed through an interaction of social and ecological processes, both material and discursive.

None-the-less, critique does arise about the ability of art to really transform sites. This represents a tension in the current literature on urban art interventions between various scholars (see for example Loftus 2012; Kwon 2002; Pinder 2008). This tension was also brought up by the artists and curators interviewed. The findings from this thesis suggest that urban art interventions can indeed transform urban spaces; beyond just the way we know and perceive the site, to also the physical. Maretopia provides the most prevalent example of this. In this way, the findings contest Loftus’ (2012) argument that urban art interventions do not produce places differently. Yet, this thesis found that some artists and curators were sceptical about the long-term changes such artworks can generate, due to broader societal structures, including development plans and built infrastructure. It is argued that future work on urban art interventions and site could address temporal scales along with the everyday, to further explore these temporal limitations.

To address this, future studies may need to consider broader societal structures, requiring a theoretical framework that extends beyond the everyday and diffuse understandings of power employed in this thesis. Indeed, cultural explorations into sites of urban nature exist on small scale, taking place in the everyday, and highlight the micro-politics of environmental discourses (Gabriel 2014, p.40) that can arise through cultural praxis. None-the-less, understanding and exploring sites of urban nature from the different perspectives that arise through art, such as embodied, historical, emotive and personal stories, may play a key role in reimagining futures of cities and their ecosystems.

Using art to address urban futures: opportunities and limitations

More broadly, the thesis has explored the opportunities and limitations of using art in an exhibition about the future of the city (cf. chapter 5.3.). Findings suggest that artworks of Experiment Stockholm created opportunities to engage with, and to embody new and alternative places that are exploring issues about the city, and future possibilities. Using art creates a more tactile and experiential way to explore the future of the city; art generates the possibility to explore multiple visions of the future, thus aiming to
generating fresh perspectives. Urban art interventions in an exhibition about the future of the city allows people to not only imagine what future possibilities there are, but also embody them, to experience them, to walk into the spaces that they create. Limitations however arise from using artistic approaches to explore complex themes. Whilst urban themes draw a diverse audience to the exhibition, such an audience may not be familiar with art and artistic interpretations of complex themes.

Methodological and theoretical reflections

By situating this thesis in post-structural UPE, the thesis has responded to a call within the field to focus on discursive and everyday processes that also construct the city. It is argued that UPE can gain much from studying artistic practices, as a means to engage with urban nature and the everyday. This thesis has further aimed to fill gaps in the literature by also examining both the limitations of using art to reimagine sites of urban nature. It has addressed this from the perspective of the artists and curators. This approach was developed through drawing on methodological approaches in cultural geography. None-the-less, certain methodological limitations can be perceived.

Whilst both opportunities and limitations of the artworks could be explored from the perspectives of artists and curators, future studies could also interview the audience. This became apparent particularly when analysing the limitations of the tactics used in the artworks. Artists and curators mentioned the audience in all their perceived limitations, highlighting that key limitations arise through audience interaction with artworks. Therefore, in light of these limitations, this thesis can be considered exploratory, opening up future work that could address these limitations from the perspective of the audience. Whilst participant observation was considered at the outset to be an appropriate method to explore audience’s interactions with the artworks, it became apparent that it was not suitable for gaining insight into participant’s reflections and reactions to the artworks. Therefore, a methodological limitation of this thesis is that the audience were not interviewed during participant observation. Interviewing the audience provides an interesting and important next step for future research.

None-the-less, by bringing post-structural UPE into conversation with cultural geography methodologies, it is argued that there is a rich and novel crossover evident in this thesis’ approach. The afore mentioned methodologies include drawing on concepts of site and embodiment, as well as interviewing the artists as an approach for the empirical investigation. Exploring sites of urban nature through embodied ways of knowing has developed fresh and relevant new approaches for UPE. Future UPE work on urban natures and artwork could explore other methodological approaches found in cultural geography (Wilcox 2009 work on evaluating audience reflections on dance workshop for embodied knowledge pedagogy provides one example). Similarly, engagement with methods currently being developed in geography, such as ‘embodied ways of knowing as method’ (see for example Hawkins 2010) could be applied to future studies UPE urban natures. Such interactions would no doubt provide interesting insights into socio-natural relations at the everyday scale. It argued here that such methods would compliment participant observation methods that were used in this thesis.
Practical implications and concluding remarks

From a more practical perspective, the findings of this thesis suggest that artists and curators of urban art interventions develop both sites and networks of local knowledge generation, including knowledge of the socio-ecological history of sites, emotive responses to urban areas, and ecological processes. Whilst it can be argued that such an approach to art is functionalist, this point seeks to highlight that artists have a role to play in the development of cities, both their natural and built environments. Evidently, by using a broadened definition of the concept of site (Rendell 2008) a broader analysis of how the artworks engage with the city has resulted. In this case, by questioning the research practices used to create the artworks in Experiment Stockholm, it becomes apparent that the artworks are places that hold memory, history and local knowledge about their sites.

The potential for using such practices for alternative purposes, including in urban planning, should be explored in future work. Further studies can no doubt explore the potential of urban art interventions as structures and methods to generate data on embodied reactions and reflections to urban spaces. Research on sites and networks of socio-ecological memory, now considered highly relevant for creating resilient cities, would do well to explore more permanent urban art interventions as sites of socio-ecological memory.

None-the-less, the extent to which urban art interventions can drive transformations in the way we know and ultimately develop cities must be questions along certain lines. For, whilst it is argued that they can create places of political possibility and places of visibility to relate to, and embody, socio-ecological processes, does this have an impact at other scales, and for how long? As discussed in chapter five, the urban art interventions reviewed demonstrated various temporal impacts on their sites, from altering cites very temporarily, to semi-permanently. Scholars from cultural geography or UPE have not yet considered the temporal scales when discussing the political possibility of cultural praxis in cities. It is argued here that discussions on urban art interventions therefore need also to address scales beyond the everyday, as well as the audience’s ability to engage with embodiment, in order to further assess the opportunities and limitations of urban art interventions. Furthermore, future studies that review audience interaction could pursue a line of investigation that explores who actually interacts with the art interventions. Considering the limitations found in this study focus on audience interaction, future research may well ask: how inclusive are urban art interventions?
7. REFERENCES


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