COMMONING OUR FUTURES? AN ANARCHIST URBAN POLITICAL ECOLOGY

Ву

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Abstract

One response to the increasing pressure of urban living is in the re-appropriation of public spaces and urban green to help sustain and enhance the environmental, social and cultural life of cities. But a major paradox arises here: while they are increasingly leaning on voluntarist discourses of sustainability, the pressure of privatization, the implementation of risk-based policies and the general principles of consumer-based urban economies only scarcely fit with the notion of common, public spaces, and hardly accommodate with the freedom of their users or their alternative or even subversive occupation. Using an explicitly anarchist analytical lens and based on extensive fieldwork in Birmingham and Belfast (UK) and Amsterdam (NL), this thesis uses an ethno-geographic approach, consisting mainly of documents and policy analysis, semistructured interviews and field notes to re-place urban green commons in their broader spatial, social and political networks. It demonstrates how sustainability is a consensual but ultimately undetermined political object. Emerging co-operative processes of environmental governance and stewardship are identified and traced to the development of a new category of actors and networks. The potential of urban green commons to foster more resilient, socially inclusive cities is assessed alongside the need for radically re-politicized urban environments.



Be certain that this awareness, which is pristine cognition, is uninterrupted, Like the coursing central torrent of a river which flows unceasingly.

Look at your own mind to see whether it is like that or not!

Be certain that all that conceptual thoughts and fleeting memories are not strictly identifiable,

But unsubstantial in their motion, like the breezes of the atmosphere. Look at your own mind to see whether it is like that or not!

Be certain that all that appears is naturally manifest [in the mind], Like the images in a mirror which [also] appear naturally. Look at your own mind to see whether it is like that or not!

Be certain that all characteristics are liberated right where they are,
Like the clouds of the atmosphere, naturally originating and naturally dissolving.
Look at your own mind to see whether it is like that or not!

The Tibetan Book of the Dead [Bardo Thodol],
Observations Related to Examining the Nature of the Mind

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Abbreviations and Acronyms

BOSF Birmingham Open Space Forum

CES Cultural Ecosystem Services

CIC Community Interest Company

CUES Cultural Urban Ecosystem Services

ES Ecosystem Services

PE Political Ecology

UES Urban Ecosystem Services

UGC Urban Green Commons

UKNEA United Kingdom National Ecosystem Assessment

UPE Urban Political Ecology

SES Social-Ecological Systems

Chapter 1 Introduction

You may not be able to alter reality, but you can alter your attitude towards it, and this, paradoxically, alters reality. Try it and see.

Margaret Atwood, *Reality* (1983).

1.1 Placement of the Study

1.1.1 A Matter of Political Ecology

It's late October in Amsterdam and the weather is what you would expect from a typical Dutch Autumn: cold, damp with intermittent sunny spells that turn the canals into mirrors. I check the address on my smartphone and make my way into the tiny, steamy corner café where my interviewee has arranged for us to meet. There is a reason why this meeting doesn't happen in a more formal setting and why I will later have to deal with a background of reggae music on the tape. Far from having office spaces the friends group-like structure my interviewee is chairing doesn't even have a legal status at the time of the interview. During the hour that follows she explains in details how she and a couple of dedicated volunteers have had to work in a quasi-state of emergency: the hundred-year-old, one-hectare community garden they all had allotments in was about to be turned into a surface level car parking while waiting for future development. In a matter of months, they assembled a community, held consultations, conducted research, gave interviews to local newspapers and sat through meetings with all the stakeholders including the major University which was to take ownership of the land and the city council of Amsterdam, the current landowner. Even though the development of a new academic building is still planned for 2018, the

temporary surface level car parking is now out of the picture and the site is currently used both as a community garden and as a space of research and education on food and environment.

Of course the whole story is a little more complex – and still unfolding. But what happens here is a textbook case of Political Ecology and the very reason why this thesis exists.

1.1.2 Contextualization

Over the last decades scholars and practitioners have progressively acknowledged that we cannot consider cities as the place where nature stops anymore, resulting in urban environments being increasingly appreciated and theorized as hybrids between nature and culture, entities made of socio-ecological processes in constant transformation (Whatmore 2002, Murdoch 2006, Francis *et al.* 2008). This has led to the recognition that there is not only one nature but natures, historically, geographically and socially shaped as well as discursively constructed by politics, activists, scientists and NGOs (MacNaghten and Urry 1998). No longer seen as an 'ornamental fashion' (Sukopp 2003, p.301) nature has revealed itself in all its complexity and has recently made its way to the forefront of urban studies, unravelling how there is a multiplicity of urban natures and as much 'existing, possible, or practical socio-natural relations' (Kaika and Swyngedouw 2011, p.102). Justifying Harvey's famous claim that there is nothing so 'unnatural' about cities Swyngedouw has shown how political ecologists have affirmed urban environments as the product of complex socio-ecological processes (2009) while Gandy has demonstrated how, at the intersection of urban and

environmental studies, the progressive abandon of this ingrained duality between urban and natural worlds makes it possible to re-envision cities as the result of such processes 'in which longstanding ideological antinomies lose their analytical utility and political resonance' (2011, p.71).

Spanning the fields of urban ecology, political ecology, environmental studies or sociology this new direction in urban theory emerged with the global concerns over sustainability and environmental justice. As Kaika and Swyngedouw remind us,

This intense scholarly attention to urban socio-ecological processes was set against remarkable changes not only in the environmental, but also the political-economic and socio-cultural conditions of cities (2011, p.96).

The last thirty years have witnessed increased frequencies in economic downturns, major political shifts (the end of the Cold War or the fall of the Berlin Wall for example) and a progressive rise of environmental consciousness heralded by international summits and influential reports on environmental issues and climate change, such as the Brundtland Report *Our Common Future* (Adam 1998).

The concept of Social-Ecological Systems (SES onwards) was developed in this context to acknowledge the symbiotic relationship between ecological and social systems (Redman *et al.* 2004). It captures the knowledge distributed across various fields such as political ecology and environmental economics (Ostrom 2009, Hertz and Schlüter 2015) and highlights the pitfalls in studying ecological and social systems as disconnected, discrete entities (Redman *et al.* 2004). Whilst this concept has proven a powerful and useful one, writing under a single umbrella the complex and interconnected expertise of several discipline-specific perspectives, many authors have voiced the need to set up a framework that enables the cooperation by scholars from

diverse methodological backgrounds, all with their respective focus and analytical tools (Fabinyi et al. 2014, Hertz and Schlüter 2015). In an attempt to provide a 'common vocabulary and logical linguistic structure' to serve as a collaborative platform for researchers concerned with the analysis of 'complex, nested systems operating at multiple scales' Ostrom (2007, 2009) has drafted such a framework, later revised by Ostrom and McGinnis (2014, p.1). This framework aims to provide a basis for comparison between cases to enable the accumulation of consistent SES knowledge that is distributed across several fields of study (Ostrom 2009). To do so it identifies the common theoretical elements relevant to any such study (Ostrom, 2011) and structures the analysis of SES by providing researchers with an unequivocal representation of variables 'that have proven relevant to posit the effects of a common set of structural variables on interactions and outcomes over time' (Hertz and Schlüter 2015, p.15). These variables are divided into first tier variables which are measurable concepts such as resource systems and units, actors, governance systems, interactions and outcomes and second tier variables that characterize the first tier (such as the size of a resource system). Associated with exogenous factors (the social, political and economical settings) they provide the frame in which definite interactions lead to outcomes affecting the SES (Ostrom 2007, 2009). This articulation is not free from flaws or criticisms - some acknowledged by the authors themselves - but it constitutes a salutary effort that many recognize as 'one of the most comprehensive and integrative frameworks for SES analysis' (Hertz and Schlüter 2015, p.13). Ambitious and far-reaching the model is also a very powerful tool in both its flexibility and the room it offers for development. The authors themselves clearly state that adjustments are needed and acknowledge that ultimately a framework can 'only take

us so far'. It is eventually up to every researcher to design their own research process and select the explanatory variables that are best suited to their analysis inside this bigger context (Ostrom and McGinnis 2014). Some authors have argued that reformulations of this model are needed to better capture some of the most complex socio-economic processes (e.g. marginalization, impoverishment, negotiation, contestation) and further develop powerful analytic and critical tools (Fabinyi *et al.* 2014).

Developing alongside SES studies rather than in their wake, Political Ecology is undoubtedly one of the academic fields that has both benefitted from and contributed to the emergence of these studies: multidisciplinary by essence it advocates for intellectual and conceptual travel within various fields, or what Robbins dubs an 'interdisciplinary transgression' (2012). If SES attention to interconnectedness and constant insistence on the inter-dependency of complex social-ecological processes is deeply attuned to the epistemological challenges faced by many political ecologists, it often fails to address their more ontological concerns (Hertz and Schlüter 2015). Therefore, political ecologists – next to anthropologists – have voiced some criticisms against SES studies, especially for their dominant focus on resilience and a lack of attention on power in the literature, arguing that 'power and knowledge matter' (Fabinyi et al. 2014). Furthermore, the translation of some of their more theoretical inquiries into place-based research has been the concern of many geographers versed in political ecology (Chilvers and Evans 2009). Attention to power, the political dimension of environmental changes and the role of knowledge are central to political ecology (Robbins 2012) and the tension it embodies between modernism and non-modernism through the delicate articulation of the 'natural' with the 'social' (Latour quoted in

Murdoch 2006). Moving away from its Marxist and structuralist roots, at the convergence of political economy and cultural ecology, political ecology has gained new attention and audiences by shifting its focus and applying its methods to urban environments (Francis *et al.* 2008, Kaika and Swyngedouw 2011). Explicitly theorizing cities as the dynamic agency of human, non-human and 'more-than-human' elements and relations (Gabriel 2014, Hinchcliffe and Whatmore 2006), urban political ecology has demonstrated how 'there is no such thing as an unsustainable city in general' (Heynen *et al.* 2006, p.9) but rather a series of unfair or unbalanced power relations producing winners and losers, ecological losses and environmental degradation (Robbins 2012). As such and by questioning the very notions of accessibility, common goods or publicness, urban political ecology has contributed to make these notions central to sustainability-oriented research and to reintroduce public space into urban studies (Evans and Jones 2008, Kaika and Swyngedouw 2011).

1.1.3 Urban Green Spaces

Half of the world population now live in cities, a proportion expected to reach 66% by 2050 according to the United Nations latest report on World Urbanization Prospects (2014). While this trend is on the rise, the global stock of ecosystem services has decreased overall (Millennium Ecosystem Assessment 2005, Wu 2014, Dallimer et al. 2011). These figures may be common knowledge for anyone versed in urban studies, their juxtaposition nonetheless unravels one of the major challenges for any research concerned with human-environment interactions: a majority of human beings will now primarily access and interact with nature in urban areas where it is de facto declining.

Beyond their already acknowledged environmental and ecological benefits there is soaring evidence that ecosystem services and cultural ecosystem services also vastly benefit human life by improving physical health, mental health and overall wellbeing or by building up social cohesion (Keniger *et al* 2013, Gaston 2013). With sustainability high up in both the political and academic agendas the importance of urban parks and public open green spaces is increasingly being recognized: they are points of access to ecosystem services, places of recreation and education and more generally a fundamental locus of sociality (Chiesura 2004, Bratina Jurkowic 2014). In light of this the political ecological questions of production, accessibility, benefits and losses become even more burning (Whitehead *in* Death 2014). I hereby propose to study urban green spaces and the metabolic processes of power by which they are initiated, developed and governed. A classical object of urban studies they also stand for ideal places to question and potentially contest different notions of sustainability (Chilvers and Evans 2009).

The notion of commons, through its original incarnation of common land, dates back to medieval England where it helped landless serfs sustain their livelihood. The "modern" conceptualization of the commons (as common resources) has been extensively discussed for the last decades (Eizenberg 2011), especially since Elinor Ostrom's nobel prize winning work demonstrated that the "tragedy of the commons" can be avoided when actors favour co-operation in their management of common resources, ensuring a more sustainable development and equitable future (Vollan and Ostrom 2010). The benefits of urban citizens' participation and involvement in urban green commons start to emerge: they help promote health and wellbeing, an improved quality of life (reduction of crime, sense of place and increase in social cohesion) but

also the preservation of an ecological memory of place while helping to maintain the green infrastructure of cities (Dennis and James 2016).

Common goods, resources or land constitute a profoundly disruptive idea in a capitalist, neo-liberal environment based on individual property rights but one that is also increasingly perceived as a 'prime conceptual tool for ensuring sustainability and the rights of future generations' (Mishori 2014, p.338), centred on intergenerational justice, transmission and preservation. The commons also offer new paths to explore on all levels: political, social, environmental and even economic tensions.

Based on extensive fieldwork in the United Kingdom (Birmingham and Belfast) and in the Netherlands (Amsterdam), this work aims to explore the potential that lies in urban green spaces as vehicles of a more radical vision of sustainability. Beyond a simple appreciation of the full political meaning of nature it is argued that they offer a way to re-think the circulation of power outside traditional binary divisions and to observe critical environmental politics in action, a process deemed essential,

If sustainability is to be combined with a just and empowering urban development; an urban development that returns the city and the city's environment to its citizens (Swyngedouw *in* Heynen *et al.* 2006, pp.35-36).

1.2 Aims and Objectives

1.2.1 From SES to a Radical Political Ecology: Thesis Overview

The main objective of this thesis is to answer some of the most recent calls for a political ecology that would focus on actors and their diverse interests and strategies (Evans 2010, Zimmer 2010). By scoping the metabolic processes of production and governance of nature while situating the role of expert and practitioner knowledge, I aspire to re-examine the power dynamics that characterize their actions and shape their interactions. The research process was designed bearing in mind Evans' assumption that new ethnographic works in the field of political ecology would greatly improve our comprehension of 'how adaptive governance is being transformed by scientist–practitioner–activist networks that render traditional distinctions obsolete' (2010: 233), and fully aware that any work with such ambitions,

Needs to also engage in both site-specific and cross-scale and multi-site work that addresses the messy overlaps and institutional mechanisms that constitute and constrain environmental injustices (Howitt and Hillman *in* Smith *et al.* 2010).

The research work is thus of an ethno-geographic nature, relying mainly on interviews, documents and policy analysis, and focusing principally on qualitative data.

This thesis explores new domains theoretically and methodologically speaking, offering new approaches for doing political ecology. Rethinking the circulation of power and the role of various actors in the production, management and governance of green and public spaces can be achieved by distantiating oneself from the more traditional Neo-Marxist and Neo-Materialist views and epistemology that have been the mainstay of most political ecological works over the last 20 years. Inside a wider Social

Ecological Systems framework, the concept of panarchy (Figure 1.1) that is often referred to in SES literature is used to reconcile political ecology with its more anarchistic roots, leaning towards cultural ecology and geography. I argue that this concept offers a more holistic, complex and less polarized view while enabling a new vision of the circulation of power and the various mechanics of change, resistance and adaptation. By so doing it eventually becomes possible to interrogate Swyngedouw's claim that discourses of sustainability embody a post-political moment that prevents democratic moment from happening (2009).

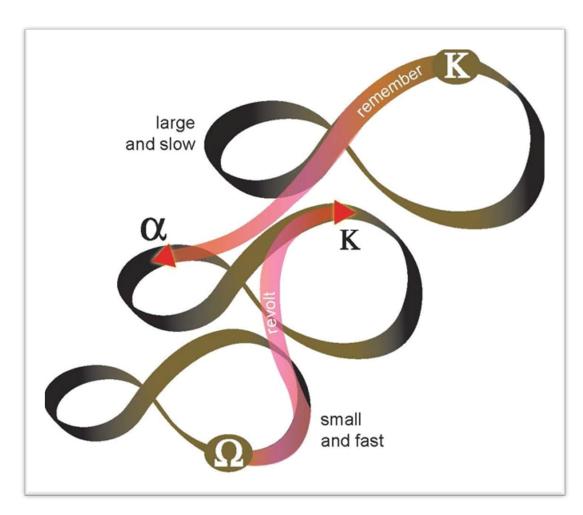


Figure 1.1 Visual representation of Panarchy

Source: Gunderson and Holding 2002

The main departure of this thesis lies in my will to foster a positive and potentially empowering analysis which, stripped from a Neo-Marxist rhetoric of class struggle and resource accumulation, advocates for a more progressive and constructive view by vesting the Commons with their full radical potential and exploring how political ecology could translate into a social ecology, as the constructive and coherent critique of the current social, political and anti-ecological trends (Bookchin 2005).

The thesis was contextualized in this chapter, which also exposes the rationale behind it and lay its unfolding across the following chapters.

The second and third chapters expose the general as well as theoretical background and in-depth conceptualisation of the research topic. The research design and methodological considerations are discussed over the course of these two chapters. Social-Ecological Systems as an overarching concept is the main focus of the second chapter where its key characteristics, strengths and weaknesses are examined in detail. The concept of panarchy is introduced here to explore not only its relevance but also how it proves to be an extremely powerful theoretical tool that can help one building a coherent and inclusive SES framework. The third chapter presents a reconciliation of political ecology with its anarchist roots in cultural ecology and discusses how the recent re-animation of anarchist geographies opens whole new theoretical fields and possibilities of engagement. Pushing further the on-going attempt to reunify human and physical geographies I demonstrate how, inside a wider SES framework, political ecology proves to be fertile ground to explore and develop the full potential of hybrid geographies beyond the human / non-human division. Using the urban as the locus where the deep interconnections between the 'social' and 'natural' spheres are magnified, it is argued that a study of the socio-ecological

processes at play is key to a better understanding of the complex and multi-faceted challenges faced by geographers and political ecologists of the Sustainability era. The case study cities are also presented here.

The 'political' dimension of urban political ecology is the focus of the fourth chapter which investigates the growing importance of sustainability and environment as political items, to explore further the conflicting time scales of short-term political agendas and long-term environmental issues. By doing so I hope to shed some light on the very diverse motives and logics acting as drivers for policy makers, activists and stakeholders, and finally articulate the environmental, ecological and sustainable discourses in their simultaneously complementary and conflicting dimensions.

Chapter five addresses the social dimension of the topic. Firstly, echoing current academic debates and reflecting on some of our own methodological issues, I discuss the notions of open, public, common and accessible spaces and argue that they call for reconsideration, which I offer through an anarchist conception of space and territory. I then demonstrate how green spaces impact community life – both in positive and negative ways – and how they can enhance social sustainability. I then move on to show how green spaces help to raise ecological and environmental awareness and demonstrate the importance of education in building both socially and environmentally sustainable and resilient cities.

The radical potential of the commons therefore is the main focus of the sixth chapter. After presenting the concept and some on-going debates, I explore various practical arrangements to show how the famous tragedy of the commons is not necessarily bound to happen. In the light of the case studies, I conclude that a reconsideration of

the commons would enable some more progressive environmental and social politics and help work toward a more radical definition of sustainability.

The main objective of chapter seven is to provide the reader with a clearer picture of the actors, networks and power relations involved in the metabolic processes of production, commodification and management of urban green spaces. By breaking down their connections to trace their emergence and picture how they play out, evolve and reconfigure not only the physical but also the social, cultural and political landscapes of cities, I present a radical re-analysis of the socio-ecological processes operating the mechanics of urban assemblage. I endeavour to unravel the true extent of these networks, the many and often neglected processes of negotiation, cooperation and resistance that happen at a plurality of intermediate levels, and the actual imbrication of scales, from the local to the global, at which they are woven.

In the final chapter I close the reflexive loop opened at the beginning of the thesis by assessing the thesis and re-articulating together sustainability as a dominant but ultimately equivocal concept, commoning practices as active forms of territorialisation and the many processes of post-politicization. This enables me to consider how, by using intellectually committed, unapologetically political and radical intellectual frameworks as well as creative, "hands on" research praxes one can move toward a different political ecological reading of the socio-environmental processes at work in cities, and foster a more radical definition of sustainability as well as a more progressive conception of urban environments.

This thesis was organised keeping in mind a theoretical and conceptual progression from the bigger scale to the smaller one and following the principles of multi-scalar reciprocal influence that are central to panarchy in the overall construction

Chapter 2 Rethinking Landscape: The SES Framework

2.1 Introduction

Chapters Two and Three set up the epistemological, theoretical, and methodological frameworks of the thesis before presenting the reader with the three cities that were investigated as case studies. These two chapters have been divided thematically for clarity purpose but should be read as one unit.

Chapter Two considers 'the ecological dimensions to socio-economic change since the early 1970s' (Gandy 1997, p.339) and how they have made their way to the forefront of urban studies. Section 2.2 explores how human-environment relationships have been re-considered in the face of a growing and globalized environmental threat, and how the concept of Anthropocene emerged to acknowledge the end of an often fantasized pristine state of nature. Such major intellectual turning points are reconciled with the re-conception of cities as socio-ecological landscapes interconnected at a global scale, breaking both conceptual and disciplinary boundaries.

Section 2.3 introduces Social-Ecological Systems and the SES framework. It demonstrates how inside this framework the concept of panarchy, as a structural model, helps to frame the many boundary-crossings between the social and ecological spheres while rethinking scales and hierarchy in urban environmental studies.

2.2 Rethinking Nature

2.2.1 A Long Awaited Reconciliation

Nowadays, for example, we are conscious of the disproportionate and unruly growth of many cities, which have become unhealthy to live in, not only because of pollution caused by toxic emissions but also as a result of urban chaos, poor transportation, and visual pollution and noise. Many cities are huge inefficient structures, excessively wasteful of energy and water. Neighbourhoods, even those recently built, are congested, chaotic and lacking in sufficient green spaces. We were not meant to be inundated by cement, asphalt, glass and metal, and deprived of physical contact with nature.

Pope Francis, Encyclical *Laudato Si*, paragraph 44 (2015).

Humanity has passed through a long history of one-sidedness and of a social condition that has always contained the potential of destruction, despite its creative achievement in technology. The great project of our time must be to open the other eye: to see all-sidedly and wholly, to heal and transcend the cleavage between humanity and nature that came with early wisdom.

Murray Bookchin, *The Ecology of Freedom* (1982).

One could think of an easier, more obvious juxtaposition but still there is something that undoubtedly links together these two figures, Murray Bookchin, father of social ecology and prominent figure of the green anarchist movement, and Pope Francis, head of the Roman Catholic Church and spiritual leader of an estimated 1.25 billion people worldwide (source: Holy See Press Office). Primarily an activist and political theorist Bookchin came to ecology in the 1950s when he saw a parallel between

un-reined capitalism and the exploitation of nature. In his view the former was in need of the latter to maintain itself, and the combination of both was directly responsible for the degradation of people's conditions of life and the prevention of their emancipation. Bookchin conceived anarchism and environmentalism as deeply attuned in their core principles and objectives, a thinking he would develop for the rest of his life and expose at lengths in his two most influential books *Post-Scarcity Anarchism* (1971) and *The Ecology of Freedom* (1985). In his encyclical *Laudato Si*, published in 2015 and subtitled *In Care of Our Common Home*, Pope Francis created a small revolution by straying away from what could be seen as the usual predication of a religious leader. There he voiced some alarming and alarmed concerns about 'global environmental deterioration' (paragraph 3) and clearly aimed criticisms at 'extreme and selective consumerism' (paragraph 50) while explicitly acknowledging the 'very solid scientific consensus' (paragraph 23) on climate change and its causes, which took many aback because of the conflicted history between earth sciences and religion.

Most interestingly both the radical political thinker and the religious leader urge for a move – or rather a sort of come back to, a more symbiotic life between Humankind and Nature, and seemingly see the same factors as being responsible for their now fundamentally asymmetric relationship. While Bookchin refers to a pre-'early wisdom' state of civilization, Pope Francis opens his encyclical by quoting Saint Francis of Assisi referring to the Earth as our 'Mother Earth, who sustains and governs us' (paragraph 1), which arguably constitutes a radical and compelling departure from the idea expressed in the Bible that men and women have to 'fill the earth and subdue it' (Genesis 1:28).

Tongue in cheek one could note that the commonality of views between Pope Francis and Murray Bookchin probably stops here. But whereas an embedded critique of capitalism and global politics is what you would expect from the theoretician and libertarian activist, it is far more surprising coming from a dominant religious figure. One could doubt that the latter hopes to establish the alternative social model advocated by the former but his unexpected intervention on the ways of the temporal world, unexpected both thematically and regarding its scientific acknowledgments. seems to denounce a failure from the political sphere in its attempts to tackle climate change and global environmental issues. This intervention also displays an apparent will to right the wrongs by displacing the debate on an ethical and moral ground rather than on the usual economic and political one. In clearly identifying the responsibilities of a certain kind of economic paradigm it does echo an on-going and growing trend of anti-capitalist critique, which presents the subjection of political action to economic rationality as the reason behind failed attempts to bring a co-ordinated global response through the international summits and conferences that have embodied the 'dominant mainstream technique of global environmental governance' (Death 2014) over the last forty years or so.

Whether or not this is indeed the cause of shortcomings in previous attempts to tackle the environmental crisis at a global scale is open to debate, but there's no doubt this intervention results of these failures and, echoing Bookchin again, is pressing for a most urgent reconciliation between people and nature.

2.2.2 Naming the Anthropocene: Challenges and Perspectives

No matter which fantasised early states of human-nature relationship Murray Bookchin and Pope Francis refer to their respective arguments must be placed in a wider context of intellectual and scientific approaches of this relationship. Such reflexions encompass a large variety of thinking and concerns of ecological, biological, geographical, social or moral nature (Kaika and Swyngedouw 2011), in which paradigms of dominance have changed a lot, from anthropocentrism to ecocentrism or biocentrism (Urry and MacNaghten 1998, Carter 2007).

These conceptions have also evolved and transformed rapidly with the emerging awareness of environmental threats, and have shaped and impacted as much social theories as ecology, environmental sciences and epistemology (Young *et al.* 2006). It is worth noting that the more recent expression of this centuries-long process is partly coming from a far larger audience as tectonics and climate change have become 'popular science' (Massey 2006, p.6) and concerns are now expressed outside of the scientific world and traditional activist networks. This may be observed, for example, in the soaring progression of green movements, from the growing enthusiasm for urban gardening and farming to the development of green political parties (Francis *et al.* 2012).

The growing call and apparent longing for a reconciliation between people and nature results from one of the fundamental paradoxes of the Anthropocene: societies have progressively disconnected themselves from nature while impacting on it at an ever growing scale, and most of what we consider today as natural is actually the resultant of long and complex socio-ecological processes (Birks 1996, Colding and Barthel

2013). Directly following the Holocene, the Anthropocene – literally the geological era of man – is a term coined by atmospheric chemist and Nobel Prize winner Paul Crutzen (Swyngedouw 2011). As a concept the Anthropocene stands for a scientific recognition that not only has the environment been strongly subjected to the influence of people but that most natural processes have been tainted by their activities for a considerable length of time which varies according to different authors.

Some researchers suggest that the Anthropocene started 12,000 years ago with the emergence of farming societies (Swyngedouw 2011), while others trace its beginning 2500 years ago when the major empires of the antiquity were all in place (Hong *et al.* 1994). For some, the Anthropocene was consequent with the industrial revolution (c.150 years ago) and the rise of the 19nalyse19tion (Francis *et al.* 2013). The debate remains open but there is a relative consensus that the middle of the 19th century and the height of modernity mark the beginning of a period of massive changes and that over this period 'environmental issues have become increasingly global in scale' (Levin et al. 2012, p.113).

As well as a new geological era the Anthropocene as a concept has opened many new perspectives (Francis *et al.* 2013, Eden and Holloway 2013) and revealed new philosophical and ethical conundrums, such as what Carter describes as the Anthropocentric-Ecocentric divide (2007). Even though a wide range of ecological thinking has brought to light the massive impact of human life on ecosystems and argued for the urgent need to abandon an anthropocentric paradigm, all attempts at promoting an ecocentric ethics ultimately come down to an anthropocentric argument, would it only be for the fact that in any inter-species conflict it would end up favoring humans for,

An ecocentric position that denied the existence of a clear and morally relevant dividing line between humankind and the rest of nature is, arguably, untenable (Carter 2007, p.36).

Debates over the place of people in nature are far from being over, as expressed in the plurality of ecological and environmental thoughts that have flourished over the last fifty years. The introductory quotes by Murray Bookchin and Pope Francis are just a small sample of various positions and thinking which, ultimately, express the same concerns even though they don't always aim at similar end points. The most notable changes lie in how these concerns (and the evidences to back them up) have become relatively mainstream and how the environmental agenda has made its way to the forefront of both the social and political agendas, on a global scale that mirrors the global scale of environmental changes and threats.

2.2.3 From Bounded Cities to Global Urban Landscapes

The Anthropocene as a concept arguably reveals its full heuristic potential when put in parallel with the general evolution of the urban world and what we conceive as being urban or natural. In 1970 Henri Lefebvre opened his landmark book *The Urban Revolution* with the following remark:

I'll begin with the following hypothesis: society has been completely urbanized (2003, p.1).

This incisive introduction to Lefebvre's seminal work requires us to make some important semantic observations. First when talking of the urbanized society Lefebvre encompasses far more than what would come to mind as being the urban society, or

to put it plainly: people living in cities. What he refers to as the 'urban society' further on in the text could also be construed as the urban civilization, namely the society that results of the industrial age, the stage of human civilization that developed from the industrial revolution and the processes of industrialization, be it inside or outside cities. This transpires a little later when Lefebvre explicitly presents agriculture as 'a form of industrial production' subjected to the demands and constraints of a global economy (Lefebvre 2003, p.3).

Even though Lefebvre admittedly referred essentially to the most industrialized nations when he wrote the book he had remarkably foreseen the trend to prevail in the following decades and, as he put it, the total urbanization that was still 'virtual' but would soon become 'real' (*Ibid*, p.1). Nearly half a century later it is widely admitted that nature in its entirety, if not urbanized, is now thoroughly marked by the seal of anthropic activities and influences, whether direct or indirect (Redman *et al.* 2004).

It follows that cities may now be conceived as being just a particular form of urbanization and that,

We can never really understand cities as simply 'things in themselves' since they are manifestations of broader processes of change, connection and recombination (Gandy 2012, p.130).

The emphasis put by Gandy on connection is of the uttermost importance. If cities can no longer be conceived as the sole locus of urbanity they may still be defined through their connections, their exchanges with the outer world and through the particular or even peculiar form of urbanization they offer, shaped by these connections. Two main reasons may be advanced for that: exchanges – and cities as the main setting of these exchanges, have shaped and reshaped the natural world for hundreds of years now

and a closer look at the assembly of their fauna and flora undermines our preconceptions of the natural and the unnatural, and of native and non-native species (Cronon 1991, Sukopp 2003). If one accepts these connections and exchanges then we need to take a step back and re-interrogate the very notion of landscape for, as Cronon puts it,

When people exchange things in their immediate vicinity for things that can only be obtained elsewhere, they impose a new set of meanings on the local landscape and connect it to a wider world (1991, p.37).

Cities may therefore be conceived as distinct forms of urban landscapes, where one city can be identified or described through a particular set of socio-natural processes (Kaika and Swyngedouw 2011, Gandy 2015) set in a particular place.

In a thought-provoking paper Doreen Massey reflects on landscape as a constant provocation that forces one to question the very notions of belonging, locatedness, connections and naturalness (Massey 2006). It may be argued that landscape (and especially urban landscape) is also a transgression: urban landscapes are a constant push to interrogate oneself, to reconceive what is urban or natural, what is or is not the city. Urban landscapes I argue force the researcher to transgress the traditional categories of natural and artificial, social and ecological; and because of the more or less subtle prints left by the aforementioned connections and exchanges, they are a constant push to question the very notions of borders and frontiers.

Deciphering the urban landscape transcends the usual thinking boundaries imposed by the logics of scale, it needs to be replaced in a wider context '[...] with domesticated landscapes making up the majority of terrestrial space on Earth' (Coldings and Barthel 2013, p.157). Following the seminal works of Pickett and McDonnell (1993) or Pickett

et al. (1997), Francis et al. argue that the study of urban ecosystems requires transdisciplinary work and boundary crossing 'across the social / ecological divide' (2012, p.183). The transgression is constant and the call to re-think the now symbiotic relationship of the anthropic, the natural and the urban 23nalys be ignored for, as Creswell states, landscapes are something we don't inhabit or occupy (like places), but look at (2004). Indeed, when looking at urban landscapes the provocation happens: one is presented with the deep interpenetration of the natural and the social.

More subtly perhaps this process is one of co-creation: by looking at landscapes we shape the very idea we have of these landscapes, of the interactions between nature and society that take place there, but by doing so we also already start to reshape these landscapes for 'nature / space is produced via uneven patterns of spatial relations that emerge in the form of the landscapes of our lives, but also in the form of our ideas of these landscapes' (Prudham and Heynen 2011, p.224).

Cities have acquired a global dimension in at least two respects. First they connect, influence and exchange flows (of information, people, capital etc.) at a global scale, causing a consequent 'time-space shrinkage of the globe' (Short 2006, p.62). Then through their activities they also impact not only their local environment but the general environmental situation and face environmental challenges that have become global in scale (Wu 2014). Cities are socio-ecological landscapes interconnected at a global scale thanks to fluidity of socio-ecological processes and flows (Ostrom 2007). From regional markets to stock exchanges (even though some parts of the world tend to be left behind), from localized epidemics to pandemics of airborne viruses (arguably spreading more evenly than economic growth) and the increased frequency of hazardous events, notwithstanding the relay of information in the digital age, what

happens locally is now deeply interconnected with what happens globally (Allen *et al.* 2014, Short 2006, Beck 1992). Exploring how inherited geographical and political structures might determine and perpetrate social structures, Ince argued that beyond the "borderlessness" hypothesis' this 'increasingly connected world has certainly destabilized the certainty of territory' (2012, p.1646).

Unbalancing traditional modes of analysis this emerging conception of the world as a multiplicity of interlinked landscapes at a global scale calls to develop new analytic tools, breaking down scales, hierarchies, dependencies and borders as we have conceived them so far.

2.3 The Social-Ecological Systems Framework

2.3.1 Introducing Social-Ecological Systems

The convergence of the previously exposed urban and environmental thoughts is worth noting for both emphasize the inter-connectedness of the social and ecological spheres, and the way the Lefebvrian urban society integrates, interacts with and depends on the environment, but is also responsible for its degradation through its activities. There is an interesting and quite revealing synchronicity of their respective timelines: the post-industrial world rose alongside the emergence of the geological era of people, where a fully urbanized society interacts with and impacts on an anthropic nature at a global scale, being now 'an integral part of virtually all ecosystems' (Redman *et al.* 2004, p.161).

There is a recognition here that post-modern cities are one form of urbanization – an epitome as much as a re-invention (Short 2006), but also much more. They are no longer the cities that subdue and master resources, they are the cities that fit in a wider world in which dependence on finite resources has grown, along with the threat that mankind might directly compromise its future ability to tap into these resources (Pickett et al. 2011). From a wider perspective this echoes the growing environmental concerns that became increasingly widespread and burning over the last 50 years or so – as embodied by the many summits, conferences and landmark documents such as the famous Bruntland Report 'Our Common Future' (Death 2014).

This movement can be traced back to the revolution that happened at the time in most of the scientific world, where the focus shifted from local and disconnected to global and interconnected, from isolated functions to system thinking. Concomitantly a major

shift was occurring in social sciences – and especially in Geography, expanding from the local to the global, looking for a scientific acceptance through the "quantitative revolution", informed by behaviorist approach and theory and causing a near total disappearance of regional geography as it was, with the idea that behavioural patterns could be observed, quantified and classified so as to be predicted (Anderberg 2004, Thrift 1999). The growing influence of Marxism was of importance too, especially as a reaction to positivist spatial science. Holding the idea of a determinist and predictable history Marxism has considerably impacted social sciences and theory, with the premise that as for the unfolding of time, the unfolding of space could be systematically read through the reproduction of production, accumulation and domination structures leading to class struggles. Today visions of a grand unified theory seem to have been abandoned overall, and if system thinking and complexity theory brought a lot to geography, there was a real need to move the discipline forward.

As Massey posits there was an urgent need to acknowledge that space matters: far from the idea of a neutral canvas on which social and physical processes would unfold indifferently, space is both 'open and dynamic' and never 'a closed system' (1999, p.264), therefore requesting new analytical tools to observe a different, more complex emerging reality and face unprecedented challenges. In that context, favored by the rise of inter- and pluri-disciplinarity, Social-Ecological Systems (SES onwards) theory and frameworks progressively gained momentum over the last twenty years for 'it is no longer tenable to study ecological and social systems in isolation from one another' (Redman *et al.* 2004, p.161). The SES theory posits as a starting point that instead of conceiving human and natural systems as separate entities, and studying them as such, they should be conceived as one single complex socio-ecological system.

Following Redman *et al.* a SES can be defined as a coherent system where biophysical and social factors interact in a sustained and resilient manner. This system is then defined at several spatial, temporal and organizational scales, that may or may not be hierarchically linked, and comprises a set of critical resources whose flows are regulated by a combination of both ecological and social systems. This system is perpetually dynamic, complex and with continuous adaptation (2004, p.163).

Rather than a theory or a methodology in itself, an SES framework, as its name indicates, aims at providing a framework for researchers interested in the study of Social-Ecological Systems. It provides common conceptual tools and often a 'logical linguistic structure' for scholars who confront 'the daunting problem of developing a coherent mode of analysis to apply to complex, nested systems operating at multiple scales' (McGinnis and Ostrom 2014, p.1). As such this framework accommodates works from various disciplinary backgrounds, multi-disciplinary works as well as collaborative inter-disciplinary research, and offers a considerable and welcome methodological freedom (Pickett *et al.* 2011). McGinnis and Ostrom explicitly state that their 'language framework was intended to remain "theory-neutral" (2014, p.1), so as to allow competing hypotheses to develop and be assessed on a common basis, even though they themselves concede that no language is ever neutral or free from preconceptions and limitations.

The framework adopted for this research is based on Redman *et al.* (2004). As outlined by the authors,

An essential step in developing a powerful, integrated framework for the study of SES is to acknowledge that social and ecological systems share common properties, including resilience and complexity that are linked through feedback relationships (p.163).

These common properties enable removing some conceptual barriers and, therefore, what is generally conceived as two different systems – the natural and the human one, can now be conceived as one single complex SES. Figure 2.1 gives depicts this particular conceptual framework designed for the study of SES, taking into account both time and the changes that may occur in the system.

External Political and **Economic Conditions Integrated SES** Social Ecological **Patterns** Patterns Human Ecological and and Components Components Processes **Processes** Interactions External Bio-geophysical Conditions

Figure 2.1: Conceptual framework for the study of complex SES

Source: Redman et al. 2004, p.164

2.3.2 Introducing Panarchy

Ostrom (2007) points out that the structure of complex systems is decomposable, partly or near totally, into smaller complex subsystems independent in their functions but able to influence each other through various mechanisms of feedback. This further indicates the need to study the inter-weaving of scales inside complex SES, as well as the various processes of interdependence and co-evolution, for the system as a whole and for its sub-parts. To deal with these many components and very subtle mechanisms of the system many scholars versed in the study of SES (especially ecologists) have emphasised use of the concept of panarchy. As described by Allen *et al.*, following the works of Gunderson and Holling, panarchy,

is a conceptual model that describes the ways in which complex systems of people and nature are dynamically organized and structured across scales of space and time (Allen *et al.* 2014, p.578).

Panarchy conceives a SES as evolving in series of adaptive cycles (Figure 2.2) in which the system goes through four simultaneous phase of growth I, conservation (K), release (Ω) and reorganization (α).

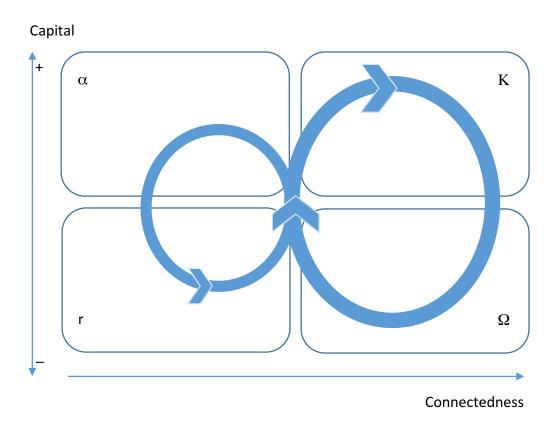


Figure 2.2: An adaptive cycle in panarchy

Source: Allen et al. 2014

Panarchy describes and understands the mechanisms of adaptation and resilience in such an adaptive cycle as follows: a brief initial stage of development I, consisting in a rapid exploitation of resources, is followed by a longer period (K) of capital accumulation. The capital may consist of system components, energy or both. Eventually the system collapses (Ω) and releases all the energy accumulated during the previous phases, which ultimately leads to a very rapid and dynamic phase of reorganization (α) and a new phase of development I.

Panarchy becomes a full structural model when a SES is conceived as a nested set of hierarchically ordered adaptive cycles. One adaptive cycle then corresponds to one dominant scale inside the wider social-ecological systems (Figure 2.3).

Remember Revolt

Revolt

Time

Figure 2.3 A nested set of adaptive cycles in panarchy

Source: Allen et al. 2014

At a smaller scale the adaptive cycles tend to be shorter, changes due to reorganization happen quicker but have less impact on the system as a whole. At the upper scales the adaptive cycles are longer, changes enacted by reorganization are more difficult to implement but last longer and affect bigger proportions or the whole SES. In this model the upscale feedback process is comparable to a revolt and the downscale one to a remembrance. The upper scale, bigger and more conservative structures always lean towards a conservation of the structures and processes in place during phases of reorganization — it remembers, while at any scale the phases of collapse and energy release can affect and even threaten the larger scale organization of the system — the revolts.

Since its introduction two decades ago panarchy has been a central feature of many studies concerned with ecological resilience in SES for it enables the articulation of complex interactions of social and natural systems across space and time within a single SES (Garmestani 2014). By offering a

potential for cycling within adaptive cycles to affect both smaller scales and larger scales, panarchy theory emphasises cross-scales linkages whereby processes at one scale affect those at other scales to influence the overall dynamics of the system (Allen &al. 2014, p.578),

Panarchy adds a welcome layer of depth and complexity to a SES framework by integrating time, scale and feedback mechanisms. Moreover, this model reflects the boundary crossing previously evoked when posing cities as the result of complex socio-natural processes, a boundary crossing that is fundamental to SES. From complexity science SES has indeed retained the idea that a boundary is not an absolute limit separating one thing from everything else (O'Sullivan 2004, p.287) and, as such, helps frame the transgression and the inter-connectedness between the natural and the social, the physical and the immaterial.

2.3.3 Remaining Challenges and Opportunities

As pointed by diverse authors SES are still very much a work in progress and despite much advancements some obstacles remain in terms of methodology, focus etc. and some challenges still need to be tackled. This seems to be especially the case for more socially or politically oriented researchers. A lack of focus on 'social diversity and power' and emphasis on 'institutions and organized social units' is the main concern

of Fabinyi *et al.* (2014, p.1) while the under-explored role of individual actors through their social capital and interactions in a SES framework is addressed by Barnes-Mauthe *et al.* (2015). The fact that expert knowledge is scattered across various disciplines, scales and scientific as well as non-scientific domains makes any interdisciplinary work challenging, even though SES can be considered a 'boundary object' across disciplines (Hertz and Schluter 2015, p.12). This makes finding a common linguistic basis difficult and at times tricky, a challenge that McGinnis and Ostrom (2014) address upfront with their linguistic framework.

The over-simplification of models and deduction of a universal solution, a 'panacea' as dubbed by Ostrom (2007, p.1) is a constant threat to be mindful of for any researcher versed in SES studies: one of the main challenges 'is to avoid adopting standardized blueprint solutions but to search to find the appropriate solutions for specific niches and help to adapt these to particular solutions' (Ostrom 2007, p.4). Over the course of the next chapters I aim to present and testing an alternative model to determine 'which influences on processes and outcomes are especially critical in specific empirical settings' as prompted by Ostrom and McGinnis (2014, p.1).

As stated by Evans,

the SES approach is representative of emergent forms of adaptive governance that abandon the Modernist dream of total control, acknowledging the inherently unpredictable and unplannable nature of Cities. Urban SES research thus offers a window on the epistemology of adaptation, especially the role of place in remaking the relation between knowledge makers and knowledge users in adaptive governance (Evans 2011, p.224).

This Modernist dream of totality was also to be found in urban studies and theory before being progressively abandoned (Short 2006). SES studies offer a whole new range of research opportunities that advocate panarchy as a fecund vein to mine in addressing the aforementioned challenges. As interconnectedness and reciprocal influences are central features of this model it may also help getting out of the hierarchy / scale conundrum that often hindered potential critical perspectives in many urban environmental studies for,

current processes of socio-economic restructuring are leading to negative environmental consequences obscured by a failure to extend analysis beyond limited temporal, spatial or sectorial scales (Gandy 1997, p.338).

2.4 Conclusion

Since their inception Socio-Ecological Systems have rapidly gained momentum as a powerful and flexible conceptual tool. Leaving behind the longstanding distinction between the stained, unnatural environment of cities and a supposedly pristine wilderness, the Anthropocene has then emerged to acknowledge the actual symbiosis between a nature long marked by the seal of anthropic activities and a fully urbanized society in a world of interconnected landscapes at a global scale, made of socio-natural processes in constant evolution.

This thesis adopts a SES framework as devised by Redman *et al.* (2004) and uses the concept of panarchy, as a structural model, to integrate the deep interconnections and the circulation of influences and power between scales and levels that we recognize as less clearly defined in reality than often presented in the literature.

Chapter Three will demonstrate how inside a SES framework the use of political ecological theory informed by anarchist philosophy and thought is used to develop an analysis of 'the interconnectedness processes that lead to uneven urban environments' (Heynen *et al.* 2006) and introduce the methodology and case studies in detail.

Chapter 3 An Anarchist Political Ecology

3.1 Introduction

This chapter introduces political ecology, the main disciplinary and intellectual backbone of the thesis within the wider SES framework outlined in Chapter Two. Encompassing a large number of research foci and practices, political ecology gathers researchers from diverse backgrounds around core social and environmental concerns, and a common way of viewing the world we inhabit as a place where 'politics is inevitably ecological, and [...] ecology is inherently political' (Robbins 2012, p.3).

Section 3.2 explores political ecology and the development of the field, from its anarchist roots in the late 19th century to its academic structuration in the 1970s. The core principles of the discipline and its strong ties with political economy are examined, before the rich potential that lies in a further engagement of political ecology with anarchist geography is investigated.

Section 3.3 introduces the concept of hybridity and posits urban green spaces as explicitly hybrid objects, resulting from complex socio-environmental processes. Moving on from these epistemological considerations, the methodology adopted to conduct the inquiry, based on narrative research and the use of semi-structured interviews is discussed and justified. I also introduce the "medium level" actors I have chosen to focus on in this section.

The three case study cities, Birmingham, Amsterdam and Belfast are introduced and presented in section 3.4.

3.2 Political Ecology

3.2.1 A Brief Genealogy of Political Ecology

[...] we seek to integrate three broad elements: the ecology of people as organisms sharing the universe with many other organisms, the political economy of people as social beings reshaping nature and one another to produce their collective life, and the cultural values of people as storytelling creatures struggling to find the meaning of their place in the world. (Cronon 1992, p.32).

Political ecology has certainly gained a lot of traction and interest in the academic world in the last decades, where it remains a loosely defined term encompassing a large number of approaches (Clark 2012). Robbins astutely points out that political ecology, more than a strictly defined academic field, is 'a term that describes a community of practices united around a certain kind of text' (2012, p.20). One could add that it also describes a community of interests and concerns and a certain way of appreciating the landscape.

Despite this plurality of approaches, the genealogy of political ecology is quite easily traced. Two major intellectual figures of the 19th century, Russian Peter Kropotkin and French Elisée Reclus, are widely acknowledged as its founding fathers. Both were respected albeit unorthodox geographers who got into troubles with the scientific and political establishments of their time. Interestingly enough the influence of their work somehow faded after their death, only to be re-investigated and celebrated from the 1970s onwards (Springer *et al.* 2012). Following Humboldt, Kropotkin and Reclus broke with the long and prevailing tradition of environmental determinism which stated that the physical condition of any territory determines the moral and physical traits of

the humans inhabiting that land, as much as their social organization and activities. Mirroring Darwin and Wallace they also broke with deeply ingrained imperialist views on race and social domination (Robbins 2012). Most of their intellectual departure, theoretical insurgency and resultant advances in the field can be attributed to their philosophical and political thinking as much as to their concern for social justice and early environmental advocacy. Both prominent anarchists they rejected the concepts of centrality, the legitimacy of any kind of domination and from evolution theory they had retained the idea that, beyond a dire competition, a certain level of cooperation and symbiotic living is necessary for any species to thrive (Robbins 2012, Springer 2013). As Darwin wrote in the concluding remarks of *On the Origin of Species*,

[...] these elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner have all been produced by laws acting around us (Darwin 2008, p.360).

Neither Kropotkin nor Reclus ever characterized their work as political ecology, the use of the term spread in the 1970s, but they most surely laid its foundations with their conception of interdependent human-environment interactions, extensive and rigorous fieldworks and a decidedly non-centralist approach (Robbins 2012, Springer 2013).

3.2.2 Political Ecology: Guiding Principles

Various definitions and goals co-exist under the general political ecology umbrella, leading Greenberg and Park to assert that the field brings several theories and methodologies together and 'all forms of legitimate political ecology will have some family resemblances but need not share a common core.' (Greenberg and Park 1994, p.8). Following seminal works by Peet and Watts or Blaikie and Brookfield, Robbins and Heynen *et al.* have identified some common foundations: political ecology labelled endeavors are a convergence between the concerns of ecologically oriented social science and the main principles of political economy (Robbins 2012, p.15). Political economy can be loosely defined as the study of the inter-relationships between politics and economics theory, or of the role of public policy in influencing the economic and social welfare of a political unit (Fabinyi *et al.* 2014). Thus, this very diverse body of work tries to articulate the ever-changing dialectic between society and environmental resources and further, between the various classes, communities and groups constituting society itself (Heynen *et al.* 2006, p.8).

Since it was discovered (or more accurately re-invested) in the 1970s and then further investigated and theorized in the 1980s by a range of scholars versed in critical theory, political ecology has structured itself, taken several methodological and analytical shapes, and explored a considerable range of subjects (Forsyth 2008, Zimmer 2010). Beyond the diversity of interests and practices, Robbins (2012, pp.21-23) identifies what he calls the five dominant narratives, or theses, of political ecology (Figure 3.1).

Figure 3.1 The five theses of Political Ecology

Thesis	Objects of explanation	
Degradation and Marginalization	Environmental Conditions	
Conservation and Control	Conservation Outcomes	
Environmental Conflict and Exclusion	Access and Exclusion	
Environmental Subjects and Identity	Political Identities	
Political Objects and Actors	Socio-Political Conditions	

Source: Robbins 2012, p.22

The degradation and marginalization thesis argues that sustainable production systems and resource uses become unsustainable and over-exploitive when they have to fulfil the needs of regional or global markets, thus degrading the general environmental conditions. The conservation and control thesis posits that efforts to implement sustainability, protect nature or favour local communities have actually disrupted traditional local systems of livelihood, production and organization, and often resulted in the appropriation of resources and landscapes by global interests. The environmental conflict and exclusion thesis focuses on the acceleration of conflicts between different groups due to the increasing scarcity of resources appropriated or restricted by state authorities, private firms or social elites. While the resulting environmental problems become 'socialized', the ensuing long term social conflicts

become 'ecologized' (*ibid*). The *environmental subjects and identity* thesis contends that new, politically committed and environmentally conscious behaviours and identities emerge in response to institutionalized forms of environmental management. Changing conditions in environmental management thus offers opportunity for local groups to structure and affirm themselves on a political level. Finally, the *political objects and actors thesis* aims to show how the interaction of human and non-human actors (such as soil, vegetation, bacteria or extreme weather events) are impacting on existing economic and socio-political systems, shaping new alliances between people and institutions and causing resistance in marginalized communities.

It is obvious that even though each of these emphasises one process or explanation over another, they merely present us with different facets of the same intellectual object. Close attention to the interconnections between society and environment, their reciprocal and defining influences, the dispossession or deprivation of smaller groups, the impacts of nationalization or globalization on the production and exploitation of resources and the structuration of identities and political messages are the main traits that endure and somehow define the field (in addition to the leading principles aforementioned). Beyond this useful but somewhat archetypal view of the field, it is worth noting that most research works are rather transversal and generally establish bridges between these theses, all recognizing that,

[..] the transformation of nature is embedded in a series of social, political, cultural, and economic constellations and procedures (i.e., social relations) that operate within a nested articulation of significant, but intrinsically unstable, geographical scales (Swyngedouw 2004, p.130).

From a political theory and social ethics perspective, due to the influence of political economy on political ecological thinking, different and conflicting approaches have emerged, appealing to diverse political and social sensibilities. If they all aim at bringing the most appropriate political response to the growing concerns about global environmental and ecological threats, these approaches differ greatly both in terms of their reading of a situation, and in terms of the solutions or interventions they propose (Carter 2007, Death 2014). From one end of the political spectrum to the other, one mention conservative environmentalism, capitalism, can natural liberal environmentalism or eco-socialism (Clark 2012), all trying to incorporate the environmental imperative inside their wider politico-economic agenda.

This reflects a growing consensus in the social sciences that focusing on social and cultural dynamics at a very local level or on relations exchange at an international scale is not enough, and that there is a need to address explicitly the relationships between policy, politics or political economy in general, both past and present (Greenberg and Park 1994, p.8). Thus the main goal of political ecology is to,

explore and explain community-level and regional political action in the global sphere, in response to local and regional degradation and scarcity (Hempel 1996 cited in Robbins 2012, p.15).

Inside a wider SES framework political ecology proves to be a very adaptable and powerful analytical lens to trace the many inter-connections and reciprocal influences across scales, from the very local to the more global ones, thanks to its use of a 'multi-scalar chain of explanation' as a favorite methodological tool to 42nalyse environmental change and conflicts through deeply embedded social, political and economic structures (Zimmer 2010, p.344). This research predominantly focuses

upon the access and exclusion and socio-political conditions theses although it will draw upon the others as necessary as they are deeply interwoven.

3.2.3 Anarchist Thought and Political Ecology, a Reconciliation

If political ecology has deep roots within anarchist thoughts and anarchist geography they were somewhat left behind and obscured when it developed in the second half of the twentieth century, where most conceptual efforts expounded a Marxist, materialist, critical paradigm. This school of thought revived political ecology and despite strong convergences in their common critic of capital and imperialism, it also somewhat understandably consciously ignored or left aside the initial critique of state and centralization and arguments for self-organization (Springer et al. 2012, Springer 2013).

In this work I contend that a reconciliation of political ecology with its anarchist roots provides new perspectives that help to advance the field. Anarchist geography and political ecology have much in common and much to offer to each other, philosophically, theoretically and methodologically. Anarchist geography shares some deep connections with humanistic geography in the attention it pays to the study of place and to the understanding of 'how mere space becomes an intensely human place' (Tuan 1976, p.269), its commitment to fieldwork and long advocacy of the necessity to critically build on knowledge (Smith 1984). Both fields retain from post-structuralism the notion that the creation of meanings – and thus, of place, is an unfinished process that continuously evolves as contexts and relationships change and evolve (Murdoch 2006), but part with its anti-humanist concern that individuals are

less important than the systems they belong to in this process. Finally, both contend that any social project is always necessarily a spatial project.

An anarchist approach to human geography is in no way an apology of chaos and collapse and several authors have emphasized how we must reject from the start 'the crude rhetoric that failed states are somehow representative of "anarchy" (Springer *et al.*, 2012), or that such a philosophical ground would only provide tools for the study of political abuses and state oppression. At the heart of anarchist geography is the tension between people's aspirations to self-organize their lives as individuals or collectives and the 'everyday matrices of power' that regulate and constrain their capacities of doing so (*ibid*, p.1593). This tension mainly lies in the opposition of the vertical layout of these matrices to the horizontal layout of people's social and spatial practices. It must be stated clearly that the power here mentioned is not necessarily illegitimate or perceived to be so, and the constraints mentioned are also to be found in democratic societies for this tension is inherent to all the political philosophies building upon the social contract.

Using an anarchist approach to human geography Ince (2012) has questioned the notion of territory as a tension between a social space and an institutional space, while Ferrel has elucidated the "proper" and "improper" uses of open public spaces in a consumer oriented society (Ferrel 2012). These recent efforts to re-investigate classical subjects like space or territory have helped to cast a new light on the flows and regulations that shape contemporary life and spatial organization, both in and outside of the neo-liberal and consumerist developments. Anarchist geography appears as both a solid and original analytical scope for a political ecological study within a SES framework. Also as Springer notes,

on the more theoretical side of things, anarchism has much to contribute to enhancing geographical knowledge, where themes such as state theory and sovereignty; [...] urban design and aesthetics; activism and social justice; [...] belongings and the politics of place; [...] and the manifold implications of society-space relations all seem particularly well suited to a more overt infusion of anarchist ideas, where new research insights and agendas might productively arise. (Springer 2013, p.56).

Far from being a stretch, using an anarchist approach to do political ecology is much more about reconciling the field with some of its roots and show how such an approach is relevant and potentially intellectually proficient today, especially when we consider that,

political ecology, moreover, explores these social and environmental changes with an understanding that there are better, less coercive, less exploitive, and more sustainable ways of doing things' (Robbins 2012, p.20).

3.3 Objects of Study and Methodology

3.3.1 Urban Green Spaces

Whereas "traditional" political ecological studies were mainly concerned with the impact of globalization on local livelihood strategies, the use of resources in traditional communities such as fisheries or the degradation of environmental conditions, urban political ecology has recently gained momentum by switching its attention to explicitly urban environments and the diverse metabolic processes of power behind the production and governance of urban nature (Zimmer 2010, Heynen 2013).

At the heart of urban political ecology is also the concept of hybridity and the conception of urban nature as a hybrid object, co-constituted by particular economic, ecologic and political conditions in a specific cultural context (Zimmer 2010, Swyngedouw and Heynen 2003). Hybrid objects are made of more-than-human relationships: the interactions between human, non-human (i.e. plants, animals etc.) and material elements (Hinchcliffe and Whatmore 2006) which also prompted Eden et al. to speak of more-than-urban ecosystems (2013). Another strong concern of urban political ecology is that the urban is produced as a governable space, it is a space where different types of governances (of infrastructures, resources, flows...) overlap to actively produce and reshape the urban society (Gabriel 2014). Finally, urban political ecology is highly attentive to how the governance of space and resources in a more-than-human environment constitutes and is co-constituted by various discourses of sustainability, often reproducing environmental injustice and social inequality instead of fighting them (Swyngedouw and Heynen 2003, Heynen et al. 2006).

Urban green spaces are a perfect example of hybrid objects and how they are produced (Zimmer 2010). Figure 3.2 depicts the co-constitutive process leading to the production of hybrids, where the "prism of modernity" stands for the tendency to systematically consider natural processes as nothing more than a useful tool, inherited from a modernist conception of cities and nature (Swyngedouw 1999, Swyngedouw and Heynen 2003). Urban green spaces are also a classical object of research in urban studies, from social geography to urban ecology (Chiesura 2004, Low 2005). Furthermore, as major providers of both ecosystem services and cultural ecosystem services they are often, rightly, presented as an important locus of both environmental and social sustainability in urban environments (Andersson *et al.* 2014, Bertram and Redhanz 2015, McPhearson *et al.* 2015). These considerations are further explored and discussed in Chapter Four.

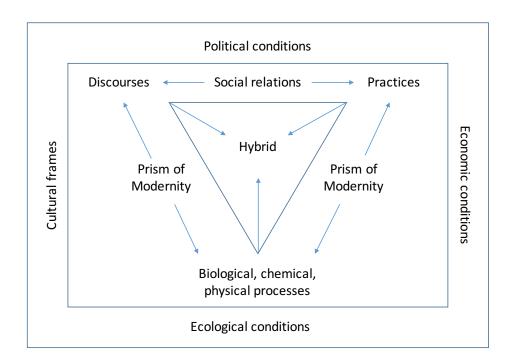


Figure 3.2 The production of hybrid objects

Source: Zimmer 2010.

3.3.2 Methodological Considerations

In recent years several authors have stressed the role a socially and environmentally mindful geography has to play in the development of a political ecology of adaptation that would engage in both site specific, multi-site and cross scale research, to identify and address the existing gaps and overlaps in policies, political responses and "formal" urban structuration when it comes to how people use, aspire to use and organize their individual and community life around nature and especially green spaces in cities (Evans 2011, Howitt and Hillman 2010, Paschen and Ison 2014). Such work is crucial for a better understanding of the constant evolution of the urban landscapes and to avoid the reproduction of social and environmental injustice (Swyngedouw 2004). Evans asserts that new ethnographic work in the field of political ecology would,

contribute massively to our understanding of how adaptive governance is being transformed by scientist–practitioner–activist networks that render traditional distinctions obsolete (2010, p.233).

The identification of these different actors and their various motives, I contend, is key to better understand how they effect this transformation and reshape governance and adaptation processes. This is the main undertaking of this thesis, and it stands as a will to answer Zimmer's call for an urban political ecology that would go beyond the recognition of the role of power in its empirical analysis of negotiation processes, and concentrate on actors' diversified interests and strategies (Zimmer 2010).

A narrative research method was used for data collection. Socially oriented narratives through individual experiences enable researchers to navigate not only the cultural but also the social and political values and the 'less tangible social and ethical concerns'

attached to urban ecosystem services (Chan et al. 2012, p.8). As such they offer a better way to identify and contextualize the various discourses of sustainability, governance and resilience (Paschen and Ison 2014), and can help find a way to integrate cultural values and attachment to place in social-ecological systems, two components sorely missing in most studies (Chan et al. 2012, Vierikko and Niemelä 2016).

Discourse can be defined as 'an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices' (Hajer and Versteeg 2005, p.175). It affects our perception, interpretation and experience of being-in-the-world and thus shapes our comprehension of environmental issues, of their associated problems and solutions (Usher 2013, Hajer 2005). Through discourse some concepts such as sustainability or the precautionary principle are 'continuously contested in a struggles about meaning, interpretation and implementation' (Hajer and Versteeg 2005, p.176).

Discourse analysis, as the study of the language in use, enables us to see how a broad range of actors all try to weigh in the definition of various concepts and problems. It thus proves to be a very powerful and useful tool for the critical study of environmental politics and policy (Hajer 2002, Hajer and Versteeg 2005). As a linguistically oriented form of discourse analysis was not required nor the purpose of this thesis, I have employed thematic discourse analysis to identify the prevalent patterns (such as themes, stories) and forms of discourses to complement and make a consistent use of the data collected through narrative research (Usher 2013).

Echoing Evans and Zimmer the methodological framework has been designed to embrace the complex and intrinsically interdisciplinary focus of urban political ecology, while tackling some of the theoretical and practical challenges it offers to the researcher for the development of the field. The research work is thus of an ethnogeographic nature: it aims at studying the distribution of people and their relationships to the environment – here both urban and natural, or "socio-natural", in which they live. Focusing mainly on qualitative data it relies principally on semi-structured, thematic and open-ended interviews, complemented with documents, photography and observations (Evans 2010, Zimmer 2010, Vierikko and Niemelä 2016). Table 3.1 lists the various techniques used during the research process and their specific function.

Table 3.1: Research techniques

Techniques	Use	
Semi-Structured Interviews	Obtaining comparable specific	
	information, great open-endedness	
	and flexibility	
Observation	Getting information about real-world	
	practices without the pressure of the	
	researcher's gaze	
Photography	Giving a visual aspect, a materiality to urban and environmental narratives	
Electronic	Easy access to background	
	information and documents through	
	internet searches and emails	

Source: Evans 2002.

Semi-structured interviews are a flexible and powerful data collection tool as they allow the researcher to collect specific, comparable information but also gives enough freedom to the interviewee to enrich it with as much additional information as they see fit, thus often delivering unforeseen but capital material (Vierikko and Niemelä 2016). Data coming from a panel of interviewees (see appendix 1) all interviewed on the same issues provide a broad picture and enable the researcher to cross-check fact while conferring comparability to the data, allow for the emergence of patterns and may then

lead to a better understanding of the subject inquired (Diefenbach 2009, p.883). Still to confront and assert these data a form of "triangulation" is needed, using complementary research methods providing additional 'empirical' or allegedly objective information (from surveys, censuses or other official document) (Smith 1984, p.357). For this reason, electronic based research, observation and field notes have also been used to complement and balance the semi-structured interviews. Photos were taken and used as an exploratory tool but are not featured in the thesis.

Only documents and interviews were ultimately retained to focus solely on the various and confronting discourses, on the individual stories and lived experiences rather than the temporary material arrangements. This thesis is an ethno-geographic, socially oriented work centred on individual narratives and I thus tried to avoid a bias that could be induced by the visual representation, the materiality of places. These individual stories had to be told by the various actors, in their own words without further interference. As such focussing on discourses allows for a better comparison between official discourses and their confrontation with and impacts on the narratives of citizens and everyday practitioners, at individual, community and city scale. Finally, I believe that pictures did not add any significant weight to the research output as they can not capture the socio-political dimension (such as the constitution of Friends groups, the negotiations over common spaces...) nor the lived one, the everyday struggles and intimate aspects of people's relationship to UGC.

The full data collection process was designed and undertaken over the course of fifteen months, from the spring of 2014 and the conception of the interviews to the summer of 2015 when the last interview was transcribed. In total twenty-seven interviews were undertaken, ranging from 25 to 65 minutes in length, adding up to nearly sixteen hours

of recorded material. One interview could not be carried out and, as it proved impossible to re-schedule, the interviewee accepted to fill in a detailed questionnaire devised to obtain comparable if less expansive information. All interviews were then fully transcribed and coded.

All interviewees were identified and selected for their knowledge, involvement and the role they play in relation to the green spaces, natural life and sustainability agendas of the three case study cities, to offer both a broad and representative panel. Civil servants, volunteers, charity workers, environmental and urban activists, environment and urban design professionals constitute this panel, with some holding comparable positions in every city. The originality of this research also lays in the fact that it concentrates its analysis on the actors operating at a medium level (e.g. Friends groups, civil servants, local charities and advocacy groups) that has been quite neglected so far, the great majority of studies focusing either on the bottom or top levels, on the interactions and conflicts between those two, but nearly never on the intermediate level where most of the negotiations processes actually take place. The different actors involved in the negotiation and commodification of the production and management of green spaces in cities are frequently the missing links in most political ecological studies. Here I have willingly chosen to exclude high level decision makers and simple park-goers to focus on "medium level" actors, avoiding the extreme ends of the spectrum to focus on the people who have an everyday hands-on experience of urban green spaces, nature and environmental politics. This cross-sectional study answers Zimmer's call for an actor-oriented approach in urban political ecology that would incorporate their environmental and scientific narratives, their environmental

imaginaries (Zimmer 2010) as well as, I would add, personal sets of socio-ecological values for,

So far, Urban Political Ecology does not specify enough in which way the human part of the process of production of hybrid cities is shaped through interests and power relations between actors (*ibid*, p.351).

Most interviewees were directly approached via email or phone calls; some I contacted via other interviewees. Some were very much "place-based" (i.e. attached to a specific place or initiative in their respective city), others were more involved in the city as a whole or at a regional level while some were both through their position or various additional commitments as explained in the following chapters. A table summing up the principal characteristics of all interviewees can be found in appendix 1, encapsulating their gender, the position they held, the companies, association, charities they worked for or volunteered in, as well as their employment status (some being interviewed in their professional capacity and others in their volunteering one), whether they were employed full-time or part-time and whether they held another position (when acknowledged). The interviewees selection process happened through inquiry and recommendations: I've endeavoured to meet some I reckoned were 'key' stakeholders, but have also let them lead me to one another so the selection would happen in a quite organic way, so as to represent the actual landscape of urban green spaces stakeholders in their plurality and their interactions. Except for a little number, all Interviewees were either working for local authorities, social and environmental charities, or volunteering in community and Friends groups, big and small.

Due to the inherent flexibility of semi-structured interviews and the explorative nature of qualitative study no two interviews were conducted in the exact same way, but all

provided strong comparable material. The guidelines used for coding are reproduced in appendix 2. The interviewing schedule is reproduced in Table 3.2 (N.B: the same interviewee anonymous 'number identification' has been used for both appendix 1 and table).

Table 3.2: Interviewing schedule

City	Birmingham	Amsterdam	Belfast
Interview			
1	23/07/14		
2	23/07/14		
3		16/09/14	
4		23/09/14	
5		24/09/14	
6		09/10/14	
7		14/10/14	
8		21/10/14	
9		28/10/14	
10		31/10/14	
11	18/11/14		
12	10/12/14		
13	11/12/14		
14	09/01/15		
15	12/01/15		
16	11/02/15		
17	27/02/15		
18	04/03/15		
19	06/03/15		
20			09/03/15
21			10/03/15
22			10/03/15
23			11/03/15
24			13/03/15
25			Questionnaire
26	31/03/15		
27	01/04/15		
28	01/04/15		

The narratives obtained were then used to trace a 'multi-scalar chain of explanation' (Zimmer 2010, p.344) to explore the metabolic processes of negotiation and commodification of the production and governance of green spaces in cities, recognizing that,

scalar reconfigurations also produce new socio-physical ecological scales that shape in important ways who will have access to what kind of nature, and the particular trajectories of environmental change (Swyngedouw 2004, p.131).

This exploration was conducted using the concept of panarchy introduced in chapter two and its mechanisms of reciprocal influences through interlinked scales, while also acknowledging that,

In some places transformations may be subtle, small-scale, private, personal; in others they may be larger in reach, more spectacular, public. Each may be significant for the lives of people and places involved (Kindon et al. 2007, p.227).

It may be added that each of these transformations may effect change or be affected by changes happening in other places, at smaller or bigger scale for territory 'is produced, reproduced and contested over time by competing political and spatial imaginaries' (Ince 2012, p.1649).

This methodology and the main use of an ethno-geographic approach for narrative research seems all the more appealing that there is a strongly ingrained importance of discourse and environmental construction in political ecology (Robbins 2012). Following Duncan and Duncan (2001) and Hyndman (2001) this can also be linked to a long geographical tradition of reading the landscape to see how people co-constitute and reshape these landscapes, so as to generate knowledge (Paschen and Ison 2014,

p1086, Diefenbach 2008) and produce a 'more responsible, if partial, account of what is happening in the world' (Hyndman 2001, p.262).

Finally, from humanist and anarchist geography this approach retains an attention to the intimate and micro-geographies of place, how they integrate in and sometimes conflict with the bigger urban socio-natural assemblage, thus answering Heynen's call for an urban political ecology that would constitute an effort to

"push ethnography toward an approach that offers the possibility for travelling intellectually and strategically between the macrological structures of power – that is the global processes of capitalism, imperialism and patriarchy – and the micrological textures of power played out in material social practices of everyday life" (Heynen 2013, p.748, partly quoting Katz 1992, p.500).

The research methodology was submitted to the University of Birmingham ethical review committee and approved under reference ERN_14-0865.

3.4 Case studies: Birmingham, Amsterdam and Belfast

The strengths and limitations of case studies have been explored at lengths in the literature (Diefenbach 2009) and they are now widely recognized as a valid and productive approach to inquire spatiotemporally located phenomena, proving especially appropriate for place-specific research (Evans 2002). If quantitative studies may appear more solid for generalization within a single sample of population, Tsang (2014) and Diefenbach (2009) have highlighted the merits of case studies and qualitative research in terms of theoretical generalization: there is an 'intricate relationship between theory building and theory testing' (Tsang 2014, p. 378) due to the inherently explorative dimension of qualitative research. Therefore, evidence needs to be drawn from multiple case studies to strengthen the findings and make them more compelling (*Ibid*, p.374). Dismissing some recurring criticisms Diefenbach points out that a certain partiality is in the very nature of science - even in "hard" sciences, for it is a product of a particular form of 'human reasoning' that only mirrors the particular mindset and interests of the researcher, and thus is only a problem if ignored or not properly acknowledged (2009, p.878). Finally, it must be stated here that,

squaring the place specificity of experiments with demands for abstract (placeless) knowledge is an inherently geographical tension that inhabits debates surrounding adaptation and transition more generally (Evans 2010, p.226).

All three case study cities have been selected to offer a diverse panel of socioeconomic contexts, urban and environmental challenges in various cultural and institutional settings.

A former workshop of the world and home to 1.1 million people Birmingham is the youngest and most ethnically diverse city in the UK. With its industrial grandeur now gone it is a city undergoing a massive regeneration and transformation process, looking to secure its place on 'the global marketplace' and boasting the ambition to become a 'truly leading green city' (Big City Plan), thanks to an ambitious Green Living Spaces Plan. The city is also the only UK member of the Biophilic Cities network (since 2013) and, as of September 2016, has adopted an ambitious 25 years Natural Capital Protocol. Birmingham is exemplary of former industrial cities trying to find a new breath, both economically and socially, while facing the challenges of complex diversity: accommodate youth, high unemployment and community cohesion with a sustainable, resilient growth. It is also the city the researcher was based in, thus offering a greater ease of access than any other city, and the possibility of an in-depth Beyond these practical considerations, it was also a requirement that inquiry. Birmingham be one of the case studies due to my affiliation with the Liveable Cities Research Program (which extensively focused on three UK cities, one of them being Birmingham), while the partnerships established in this program (with Birmingham City Council especially) guaranteed a minimum access to official documentation.

Another very diverse city with a slightly more modest population of 840,000 Amsterdam in the Netherlands has been dubbed Europe's most livable city: it is renown worldwide for its open-mindedness, its extensive network of cycling paths and the omnipresence of water and greenery. Yet the Dutch capital faces its own economic and social

challenges, looking to retain economic activities within the core city while, with a strong expected growth of population (in between 100 and 150,000 people by 2040), it must preserve its green and blue infrastructure whilst allowing the development of massive housing projects and the expansion of the public transportation networks (Musterd and Salet 2003, Structural Vision: Amsterdam 2040, Amsterdam Definitely Sustainable). Many parallels can thus be established between the two cities, and Amsterdam was chosen as a continental Europe counterpoint to Birmingham in the design of this comparative study. How was the situation outside of the UK? Were there points of similarity or were the cities total opposites? In addition, Amsterdam was an easily accessible case study, offering the possibility to be hosted by a partner institution (the University of Amsterdam) and thus guaranteed minimum access to resources, as well as the possibility to interact with researchers based there having a very good knowledge of the city. The limited time and resources available for an abroad field trip meant that access to data, experience and tips from locally-based academics having a better vision and knowledge of the situation was of a great help. Identifying prospective places and groups of interests, getting in touch with potential interviewees, securing and scheduling interviews is a time consuming and pressure inducing process, so much so that a young researcher always welcomes solutions to limit the practical troubles.

Belfast, a divided city where territoriality is strong, is ill-famed for the weight of its history and its persisting social divisions (Brunn *et al.* 2010). With a population of 334,000 and burdened by a certain lack of governance power the city is now looking for a brighter future and a long-term vision for its development (Needham and Buitelaar 2012). While shared spaces are of critical importance Belfast suffers from a lack of

open spaces and a lot of vacant or underused spaces (Belfast City Centre Regeneration Strategy and Investment Plan) as conflicts are arising between the new 'consumerist Belfast' and the traditionally segregated areas (O'Dowd and Komarova 2011, p.2016). If Belfast doesn't compare with Birmingham or Amsterdam in terms of size or population it is a city of major regional importance as the capital and largest city of Northern Ireland and it casts a different light on our problematic, being divided rather than diverse, longing for stability as much as prosperity. Belfast was meant as a community oriented case study. If diversity is a challenge the city shares with Birmingham and Amsterdam, the division between the two main communities is and has been the main problematic in Belfast for over half a century now. The capital of Northern Ireland is indeed in a very unique situation, its local authorities holding very little governance powers – a lot of policies, including in urban planning, being directly piloted from London. The delicate power share and constant negotiations between the two main communities also considerably complicate things in a place where the environment has never been a priority compared to peace-keeping and economic development. Could that change, though, in a decidedly forward-looking Belfast and could UGS hold the opportunity to lead the city toward a better future with peacefully co-existing communities?

Fieldwork was completed between July 2014 and early April 2015, including two months in Amsterdam thanks to the University of Amsterdam where the author was accepted as a visiting PhD (in September and October 2014) and two weeks in Belfast (in March 2015), for an overall period of nine months as shown in table 3.2.

3.5 Statement on Positionality

To be an academic work of social science and not an essay or opinion piece, the present dissertation deserves a statement on positionality to avoid confusion and make potential biases known to the reader, especially as it is an openly committed and tentatively radical research work.

I am a European white male, under thirty, middle class and, all things kept in perspective, highly educated. I am a politically and socially committed person, with great sympathy to the various enterprises stemming from community and grass roots initiatives, and have a strong interest for (and belief in) the commoning movement.

I nonetheless willingly remained external and did not opt for Participant Action Research, to position myself as an academic observer, a geographer and an ethnographer, rather than as an immersed or 'undercover' sociologist.

I always introduced myself to all interviewees as a researcher and my work as an academic one, and took great care of making my motives and methods clear to all I interacted with and inquired. All were provided with a synthetic but clear presentation of my doctoral research and with a description of the research program this PhD was taking place in, Liveable Cities, both in paper and electronic format, along with a compulsory and confidential 'consent form to take part in a research project'. In the same way, I declined the offers made on several occasions by interviewees to join their community groups, become an active member in their community garden or volunteer for their charity, in order to keep a professional as much as a critical distance and avoid any apparent conflict of interests or suspicion of bias beyond my openly acknowledged sympathy to alternative environmental movements and radical politics.

3.6 Conclusion

Political ecology has been identified as the main disciplinary field of this thesis in light of its attention to the complex and multiple processes that lead to the unfair or unbalanced condition of social-ecological systems. I have demonstrated how, thanks to its theoretical and methodological flexibility, the field has much to contribute to the advancement of knowledge in the study of environmental change and adaptation.

Anarchist geography and thought are used as a privileged analytical scope to explore the inherent tensions between actors in urban political ecology, especially when studying how hybrid natures are assembled, produced, governed and reproduced.

Methodology-wise this work mainly uses an ethno-geographic approach. Based on narrative research and discourse analysis, through semi-structured interviews and official documents, it explores the narratives, values and imaginaries that shape environmental stewardship and governance in cities.

Finally, I have introduced the three case study cities: Birmingham, Amsterdam and Belfast with their respective characteristics and challenges.

Chapter Four introduces and discuss the concept of sustainability before exploring the conflicting discourses that emerge from its implementation.

Chapter 4 Conflicting Notions of Sustainability

What's the use of a fine house if you haven't got a tolerable planet to put it on?

H.D. Thoreau, *Familiar Letters* (1895).

4.1 Introduction

Chapter 4 explores the critical role that cities have to play in the implementation of sustainability at a global scale.

In section 4.2 I introduce ecosystem services, cultural ecosystem services and link them with urban green spaces and the green infrastructure of cities. I then demonstrate how sustainable development as presented in the Brundtland report remains a very broadly defined term though it has been the driving force behind every environmental policy over the last thirty years. This demonstration allows me to argue that sustainability, as a concept based on the principles of sustainable development, is ambiguous and offers a wide array of definitions that very often conflict with each other.

Section 4.3 explores official documents to see how sustainability is handled in the three case study cities at the political level. Using interviews with civil servants it then becomes possible to show how these official discourses conflict with those of the actors that work toward a more sustainable city on a daily basis.

Section 4.4 provides a discussion re-evaluating the articulation of sustainabilityoriented policies with the governance and management of urban green spaces.

4.2 Cities as an Essential Locus of Sustainability

4.2.1 The Emergence of Ecosystem Services and Cultural Ecosystem Services

Ecosystem Services (ES) are the regulating, provisioning and supporting benefits provided by ecosystems that are 'directly relevant or beneficial to human well-being' (Haase *et al.* 2014, p.414), while Cultural Ecosystem Services (CES) are the non-material benefits people derive from ES through spiritual enrichment, recreation, cognitive development etc. (*Ibid.*). The benefits of ES and CES include climate change adaptation and mitigation, health and wellbeing, preservation of wildlife and habitat, economic growth and investment, social cohesion and the strengthening of communities. The Millenium Ecosystem Assessment (MEA, 2003) laid important foundations by asserting the importance of ES and explicitly stating that CES do exist, are connected to human health and well-being and, most importantly, cannot be outsourced and 'provide multi-dimensional linkages between people and the environment they live in' (Andersson *et al.* 2015, p.165).

In urban areas ES and CES are mainly obtained and produced through green spaces and the green infrastructure. Broadly defined a green space is 'any area of land not covered by impermeable surface' (Gaston *et al.* 2013, p.3) while the green infrastructure is an interconnected network of green spaces (Gill *et al.* 2007) including remnant vegetation, parks and gardens, natural and semi-natural spaces, allotments and community gardens, civic spaces, sport facilities or green corridors. In cities green spaces tend to be distributed in a complex way and the green infrastructure often forms a mosaic of grey and green areas rather than a continuous, homogeneous ensemble (Gaston *et al.* 2013, James *et al.* 2009).

4.2.2 From Sustainable Development to an Ambiguous Sustainability

Since it was first heralded in the World Conservation Strategy in 1980 and then endorsed with a broader social, economic and political dimension by the Brundtland Report *Our Common Future* in 1987, sustainable development has become the dominant discourse and driving force behind international environmental policies and politics (Carter 2007). The definition of sustainable development as 'development that meet the needs and aspirations of the present without compromising the ability of future generations to meet their own needs' (WCED 1987) has been adopted the world over by policymakers and is since then used as the leading principle behind the everpresent concept of Sustainability (Wu 2014).

If the definition of sustainable development is casually broad, sustainability as a concept based on the principles of sustainable development is even more broadly defined and proves ambiguous, its meaning both complex and contested. It encompasses a vast array of definitions and understandings that can be complementary but are also often conflicting, notwithstanding that sustainability and sustainable development are sometimes interchangeably used (Carter 2007). Straightforwardly, sustainability is a way of 'meeting fundamental human needs while preserving the life-support systems of planet earth' (Kates *et al.* 2001, p.641). This definition is wide ranging but has the merit of clearly emphasising the environment and the ecological sphere as key drivers of sustainability.

Sustainability thus remains a very disputed term and there is no accepted definition of what a sustainable city is or even should be. Paraphrasing Carter, we could say that sustainability, like sustainable development and beauty, 'is in the eyes of the beholder'

(2007, p.212). As Ehrenfeld (2009) notes there is a much stronger agreement on what is unsustainable than on what is sustainable, and there is no fixed set of indicators and criteria by which to judge how sustainable a city is, be it for politicians, planners or scientists (Chiesura 2004, McPhearson *et al.* 2015). More, there are different aspects to sustainability (environmental, social and economic) that tend to be favoured over one another depending on context, stakeholders or scale of intervention (Evans and Jones 2008).

Cities have an essential role to play in the achievement of sustainability at a global scale: hosting more than half of the world population on less than 1% of Earth's terrestrial surface they account for 60% of residential water use, 75% of energy use and 80% of human greenhouse gas emissions (Wu 2014). Since the MEA, ES and CES have emerged as key elements of urban sustainability, both of critical importance for cities and citizens, for infrastructure and people (Andersson *et al.* 2015, McPhearson *et al.* 2015). Still, as emphasized by Chiesura,

Cities' sustainability and regeneration strategies mainly focus on manmade and built components of the urban environment. In comparison, attention to the natural components and the green spaces of the urban structure is still poor (2004, p.129).

It then matters to explore how sustainability is presented in various discourses, documents and policies to unravel how such a critical endeavour is understood, defined and implemented at city level (Andersson *et al.* 2015, McPhearson *et al.* 2015). How do cities put forward their politics of sustainability? Are they explicitly linked to the provision and production of ES and CES or designed around their green

infrastructure? Which measures are put in place by different actors to achieve sustainability at city level and how do they evaluate if the target is reached or missed?

4.3 Conflicting Notions of Sustainability

4.3.1 Documents and discourses

Birmingham, Amsterdam and Belfast have all produced a considerable corpus of documents – related to future planning, development, sustainability and environment, and all three cities boast ambitious urban development schemes for the next decades. I use some of these documents to show how sustainability is handled in each of these three cities at a political level.

Following the three stages of analysis involved in thematic discourse analysis (Usher 2013) I first explore these documents to identify dominant discourses of sustainability before comparing those discourses to see how they differ from each other and build up different official narratives and storylines. Then using the interviews conducted with civil servants it becomes possible to show how these official discourses and narratives conflict with those of the actors that work toward a more sustainable city "on the ground".

4.3.1.1 Birmingham

In Birmingham two documents stand out: The Green Living Spaces Plan (2013) and the Carbon Roadmap (2013). The Green Living Spaces Plan puts forward Birmingham's ambition to be one of the world's leading green cities. It focuses on ES and Natural Capital (as the stock of natural resources that are available in the city and their associated benefits) but remains surprisingly elliptic on sustainability. Nowhere is the term defined, not even in the glossary provided and the link between environment and sustainability is implied rather than explicit. 'Green' is favoured over sustainability

except when a direct link is made with either business, transportations or the built environment (i.e. with infrastructures) or referring to an existing specific document. The green infrastructure of the city is presented as a supporting tool rather than a major pillar of sustainability in this document and fails to be systematically articulated with the notion of Natural Capital.

The Birmingham Carbon Roadmap issued by the Green Commission, a 'strategic advisory body to Birmingham' composed of 'key stakeholders and individuals in the city, with cross sector representation' (i.e. business, energy, environment and engineering) (p.5) places itself as a richer, more ambitious and far reaching document. It is linked to an online portal (makingbirminghamgreener.com) offering solutions to be sustainable to individuals, and Sustainability Forums that were held on a regular basis (every three months in 2014) displaying a will to adopt a collaborative approach to the implementation of sustainability policies. It also mentions the importance of the Birmingham Open Spaces Forum - the federation of open and green spaces in Birmingham, a nationwide 'model' (p.10) representing the community sector (see following chapters). The introduction mentions what the 'sustainability credentials' of the city should be: 'its energy and transport system, the efficiency and quality of the built and natural environment' and advances 'the city's horticultural and environmental achievements', the 'Nature Improvement Area (NIA) programme for Birmingham and the Black Country' and Birmingham's inclusion in the Biophilic Cities network, looking to 'change the way we value the natural environment as a fundamental city resource' (p.14). The link between sustainability and the natural environment is not articulated further but it is clearly made. Once more, sustainability seems to be self-explanatory, no clear definition is provided and sustainability is part of a bigger plan. The main

ambition exposed in this document remains to create a 'thriving sustainable economy' to enable growth and attract international investments thus promoting a 'new green economy that focuses on sustainable growth' (p.16). The Birmingham Carbon Roadmap presents a timeline (annex 2) of planned interventions and clearly establishes links with national policies such as the Stern Review and the UK Climate Change Act (pp.24-25). The section entitled 'Natural Capital and Adaptation' (pp.46-47) with its sub-section 'greening the city' explicitly mentions the UKNEA and the Ecosystem Services Assessment made for Birmingham, stating that a better use of natural resources will 'benefit human wellbeing and the economy' and refers to ES and CES provided by the green and blue infrastructure without explicitly naming them as such. What is not clear in this document is what, in the end, makes the difference between a green and a sustainable city in the vision displayed as words are not clearly defined. Both terms could very well be interchangeably used here and it is difficult to work out why the emphasis is on green with the support of sustainable measures rather than sustainable with the support of green solutions. Green seems to refer to a sort of ideal, a concept, while sustainability would refer to a technical property rather than a quality or a target. This ultimately points out the very political nature of the document.

4.3.1.2 Amsterdam

A Green Metropole: Amsterdam Definitely Sustainable (2010) and the Structural Vision Amsterdam 2040 (2011) are two documents that stand out in Amsterdam.

A Green Metropole: Amsterdam Definitely Sustainable presents itself as a synthesis of the Sustainability Programme 2011-2014 (entitled Amsterdam Definitely Sustainable) stating ambitiously that 'in 2014, Amsterdam will be sustainable'.

Amsterdam's four pillars of sustainability are defined as 'climate and energy', 'mobility and air quality', a 'sustainable innovative economy' and 'materials and consumers'. To evaluate whether or not the city is now sustainable would be pretty difficult and is beyond the scope of this thesis. What can be said though is that this document green is used both to refer to a greening of the economy and to the green infrastructure (p.2). Overall it displays a different approach to sustainability than is the case for Birmingham: sustainability is here defined as a program and clearly put at the forefront of Amsterdam's ambitions but the green infrastructure, ES and CES are surprisingly all but absent. While the city is showcased as being green the parks are presented as contributing to the quality of life and as a boost in real estate value.

Issued by the department of urban planning, the Amsterdam 2040 structural vision is unambiguously called 'economically strong and sustainable'. The introduction emphasises the importance of greenery on the first page as one of the main reasons why people wish to invest and live in Amsterdam. Interestingly enough in this vision of sustainability green does not seem to have an environmental meaning at first. Echoing Chiesura (2004) these matters are left to the built environment and infrastructure. Green spaces are aimed toward quality of life and most of all attractiveness for people and business (p.6) and the document stresses the importance of their recreational purpose as a precondition to attract business and investment (pp.10-11). They therefore become a selling point in a nearly commercial political discourse and vision, an enabler rather than a value *per se*, even though the importance of their preservation is emphasised, which is seen as slightly disturbing for a self-proclaimed green metropole. Still, an urban planner from the DRO (the

municipality of Amsterdam's department of urban planning) insists in her interview on the importance and protection of the green infrastructure:

So whenever there is someone who wants to build something on a green space or do something else, they are forced to go to a commission and probably the commission says no. Because we need our green structure (Urban Planner, DRO 24/09/14).

This echoes A Green Metropole: Amsterdam Definitely Sustainable when it states that Amsterdam has a 'restrictive policy towards building in green areas' (p.2).

The emphasis put on sustainability thus seems far stronger in Amsterdam where it is presented as a target to reach and it has been made into a program, which makes even more striking the absence of focus on the role green spaces have to play through the ES and CES they provide in such a program.

4.3.1.3 Belfast

In Belfast the notion of sustainability is absent in the documents that were readily available: The Belfast City Council Regeneration Strategy and Investment Plan (2014) and People and Place: Public Realm Strategy for Belfast City Centre (2005). The need to create a 'sustainable city centre' is only mentioned once in the Belfast City Council Regeneration Strategy and Investment Plan (p.8). Most of the information were thus drawn from interviews with the Parks and Cemeteries service manager and the Landscape Planning and Development manager for Belfast City Council.

4.3.2 The Insiders' views

These official discourses and strategies need to be confronted and balanced by the perception and hands-on experience of stakeholders and practitioners that deal with the implementation of sustainability and the realpolitik of environmental management on a daily basis (McPhearson *et al.* 2015). As stated by Vierikko and Niemelä,

The advantage of an exhaustive in-depth interview is that it identifies intangible values and meanings, by supporting people in addressing controversial and sensitive topics in their own words (2016, p.2).

This confrontation between the socio-ecological values of a defined category of actors – here the civil servants in charge of sustainability programs and green spaces management, and the meanings they attach in their practice to the socio-ecological values of decision makers as expressed in policies and official documents helps unveiling some of the processes that shape cities as specific SES (Vierikko and Niemelä 2016).

First, there is a consensus of civil servants in all our case study cities that the growing issues of climate change and public health have been important game changers to help promote the importance of green spaces:

The two sort of new things we've got in our armoury now... is the whole issue of climate change, and that has suddenly brought a new focus, politically a new focus. Because whether people agree with it or disagree with it, there was very loud public debate around 'is climate change a global issue? Is there anything we can do about it at a local level?' And so local politicians to a city like Birmingham were very keen on the idea of us demonstrating there was a local dimension to climate change. [...] And the second one that's much more tangible to people and is gaining

space, is the connection to health (Sustainability and Climate Change Manager, Birmingham City Council 18/11/14).

Access to public open space... good quality public open space, it is important, not just any public open space but good quality open space, there's massive links to health benefits (Head of Parks, Birmingham City Council 12/01/15).

The preservation and, where possible, the expansion of green spaces consistently appears as an efficient tool for the mitigation of extreme weather events and the reduction of public health issues caused by urban living:

So it's becoming more important, and also because of climate eh... adaptation we're searching for green spaces, especially in the city. [...] This summer we had heavy rainfalls in Amsterdam and it's something we should be aware of and make more green spaces for climate adaptation and things like that (Urban Planner, DRO 24/09/14).

They've been lots of studies done on public health and the value of green spaces to public health, so I think that needs to be really emphasised (Landscape Planning and Development Manager, Belfast City Council 10/03/15).

This however seems to be more appreciated at an operational level than a decision making one: even though the multi-functionality of green spaces and the importance of ES and CES in terms of reducing temperatures, alleviating flood risks or promoting better health is increasingly recognized by practitioners, on a political and policy level it has only recently gained traction and that was due to an emphasis on economic factors:

The ammunition that ecosystem services gives you is that it starts to demonstrate that there are crossover values, multi-dimensional values to the role being played by the natural environment. We can't put an accurate price on those, but we can pit some... values that have some evidential base to them (Sustainability and Climate Change Manager, Birmingham City Council 18/11/14).

Now what we've been doing since 2009 is starting to show, and this is why we have the biophilic cities, and why we're doing a lot with the natural capital, is to show if you are looking at it as the green service, as purely... 'what does it cost?', without looking at... will you take that away, what will it cost to bring the benefits? You're looking at two different things then (Head of Parks, Birmingham City Council 12/01/15).

Such an economic communication barrier, caused by the impossibility to put an accurate price tag on the natural environment, is partly overcome by practitioners through the emphasis they put on the ability of ES to maximise social value and benefits and to make cities more inclusive:

And we're working on multifunctional use of green spaces. [...] And also more and more the economic factor, and health, because we really want to design the green spaces in a way that people are stimulated to exercise, and children to play, and elderly people to feel comfortable to walk or... so that's also really important (Urban Planner, DRO 24/09/14).

So we've been enquiring the open space, getting bits of land by compulsory purchase so that there would be a cycle way and route down the city. And that's led to economic regeneration, bringing the communities together and also tied in with the huge flood alleviation scheme (Parks and Cemeteries Service Manager, Belfast City Council 10/3/15).

This indirect economic value of green spaces generated through ES is increasingly perceived and used as a tool by practitioners to protect the green infrastructure, even

if this value is still not properly recognized by decision makers or if there is a lack of implementation in policies:

Not that it's... not that it's comprehensive or totally understood but it enables you to start to have a more informed debate with the people that are decision makers, who are essentially accountants. That's the critical point is the people making decisions in cities all over the world are accountants, and accountants do not value a natural environment (Sustainability and Climate Change Manager, Birmingham City Council 18/11/14).

Sometimes you think there is, you know, a distance between the political, formal political decisions and ground... what happens on the ground, but... I find it difficult to really say, how that works (Landscape Planning and Development Manager, Belfast City Council 10/03/15).

Even though imperfect this tool seems to be much needed to face the pressure imposed by housing developments, which appears to be the direct competition green spaces have to face in every city. In Birmingham, Amsterdam and Belfast there's a concord that the need for housing is a constant and major threat as it always seems to be prioritized over the preservation of green spaces particularly when a purely economic value of these green spaces remains elusive to decision makers:

I think what... this pressure, the planners are under a massive amount of pressure to increase the housing stock in Birmingham. What they're doing... they are buying into the green living space plan, but in there there's also... one of the strands is productive landscape. So if that landscape isn't productive, one way you can turn it into productive is by building on it. And we've got to be careful that they don't look at that (Head of Parks, Birmingham City Council 12/01/15).

How can a city that really care about green spaces even contemplate turning a sports field, which has the biggest urban badgers set in the West Midlands, into a housing estate? Why don't the planners turn around and go 'we can forget that to start with'? Cause it's just a non-starter, that needs to be bought back and used as a sports field. But they don't. Why if we are a biophilic city, aren't we saying 'we're not building on the green belt'? (Councillor for Edgbaston, Birmingham City Council Shadow Cabinet member for Green, Smart and Sustainable City, 09/01/15).

In addition, there is a 'showcase' aspect with decision-makers trying to position themselves as architects of forward looking, transforming cities:

So it's more interesting for them to do big new projects where they change the public area instead of using what's already there and upgrading that for example. Which would be I think for the people who live in Amsterdam at least as interesting, but not so spectacular of course. If you put a little extra money until you get more bio-diversity in a small park that would be very nice for the people living there, but that's not a big thing for the politicians to put on their CVs... (Program Manager for Nature and Environmental Education, Municipality of Amsterdam, 21/10/14)

And the loss of open spaces is really tragic for any city, there's a lot more pressure these days on open space, green space for built development; which need to be very carefully looked at (Landscape Planning and Development Manager, Belfast City Council 10/03/15).

Beyond grand schemes and masterplans, it appears that there is a lack of long term vision for the integration and preservation of green spaces, especially when such holistic views are advanced in documents, and civil servants are prone to denounce the short-sightedness of environmental policies and programs (often running until the next election at best) and the politically driven will of decision makers to leave their mark, mostly in Birmingham and Amsterdam.

So in a way it's very much to do with a failure of policy, and a failure of leadership and a failure of vision. And so those things are critical to the... to the future, it's how we reinvigorate all that. [...] Because in a way, all the way along the line, the great difficulty of politics is that they are very short-sighted. So very few policies exist that have got any future distance attached to them (Sustainability and Climate Change Manager, Birmingham City Council 18/11/14).

Further, in Amsterdam, environmental programs and budgets seem to be quite person dependent:

Now we're working on an agenda for green spaces, we're going to finish it I think in January and that is the new vision on green. I mean, it's not all new but we have a new Elderman, and of course he said 'I want my vision written down, and I want to talk to everyone also, but I want to make a new statement', and that is also, there is 20 million euros attached like to this new agenda (Urban Planner, DRO 24/09/14).

At the same time I'm a little bit critical, that's I guess typical from politics as well that there's a lot of things happening that are already forming a foundation, and they are overlooked very often and they may even disappear. [...] Of course every four years you have the new election and it can change the way you work. [...] Yeah, every four years everything is insecure (Program Manager for Nature and Environmental Education, Municipality of Amsterdam, 21/10/14)

This absence of continuity in policies and environmental programs highlights the complex temporal aspect of a situation that results from the short-sightedness of decision makers and a lack of communication and coordination over time that has not prepared cities to face the current challenges of sustainability in the way they operate. More, the permanent competition for money and ever-looming cuts are a constant

threat that can jeopardize a lot of initiatives and feed the disorganization, short-termism and lack of coordination:

I can honestly say that since I've been in post in 2009 I've never been in the same room with the Chair of the Wildlife... or the CEO of the Wildlife board, or any of the key players, all together to talk about Birmingham's open spaces. [...] That's the way everybody's been in a position of fighting and defending their own bit rather than stepping back and... and looking over. [...] So I think there would be greater strength if we all got together and pull together, but... we haven't. And there's no excuse (Head of Parks, Birmingham City Council 12/01/15).

In addition to a startling disconnection there is a dire competition between various actors within municipalities and local authorities who are *de facto* pitted against each other rather than encouraged to work in synergy:

And actually it's very much to do with the way municipalities have viewed their role, you know. So we're actually masters of our own downfall in the way in which in we've articulated all those... opportunities. It hasn't been a shortage of resources; the resources have been there, but it's been... decisions that have been made along the way that have decoupled critical connections (Sustainability and Climate Change Manager, Birmingham City Council 18/11/14).

We were also very much threatened in the last two years maybe by cuts and so it's very important to make yourself visible, especially when you're, the group of people working mainly outside offices, so they're not visible to the people who make the decisions and so, yeah, you do have to get on, especially in the re-organization, you have to sit at the table where they decide what's going to be important in the next few years (Program Manager for Nature and Environmental Education, Municipality of Amsterdam, 21/10/14).

In Belfast community outreach initiatives have had and still have a clear priority in this socially and culturally divided city, and environment has long been on the backseat of local politics because of the Troubles, even though shared common spaces hold a lot of potential:

I think, because of the Troubles... going back in time, probably when I first started, the emphasis was very much on community safety, on safety, people didn't feel safe in their own communities and they weren't very environmentally aware, but as we've come out of the Troubles the importance of open spaces has suddenly been realized by the public out there (Parks and Cemeteries Service Manager, Belfast City Council 10/3/15).

The equality agenda still imposes some priorities, such as ensuring there are 3G football pitches distributed evenly across the city:

Belfast is still obviously a reasonably divided city. There are different political communities within the city and there's this attempt by the council to try and bounce what it provides in different parts of the city [...] (Landscape Planning and Development Manager, Belfast City Council 10/3/15)

Making quite a lot of 3G, don't know whether I'd be altogether in agreement with that, but there you are. But it's also part... we have a lot of equality agenda, if one sector of the community is not well provided for, it is important that... that would be made up [...] (Parks and Cemeteries Service Manager, Belfast City Council 10/3/15)

More, open spaces, environment and biodiversity are seen as threatened, being an easy target of redevelopment schemes in the current context of economic development in Belfast,

As the economic climate gets better the pressure on open space will become greater and that's one of the threat we will have to face [...] (Landscape Planning and Development Manager, Belfast City Council 10/3/15).

I think all of us on my side, on the operational side, would feel that the horticultural and the biodiversity element is being downgraded and more... I mean there's more emphasis on I suppose... I suppose people there having enjoyment and fun and so on, and the environment and the heritage would be at risk of suffering. [...] And we could end up I suppose wiping out habitats and species and things (Parks and Cemeteries Service Manager, Belfast City Council 10/3/15).

This provides a stark contrast with the affirmation that there is a growing appreciation of wildlife and ecology by citizens in Belfast,

There's more and more appreciation of wildlife and ecology and green spaces are obviously very important to... in those terms, I think it's becoming more appreciated by the public in Belfast (Landscape Planning and Development Manager, Belfast City Council 10/3/15).

Belfast offers a very contrasted view compared to Birmingham and Amsterdam: the imperatives of urban and economic development and a constraining equality agenda seem to have postponed the formulation of any sustainability program in the local political agenda. Open spaces are only starting to get rid of the negative image that was attached to them as potentially dangerous spaces but the future of environmentally significant open and green spaces seems a little uncertain due to the lack of such a vision.

Still, the local government reform and subsequent reorganization of the city council (effective from April 1st 2015) is set to change a lot of things in the way the city operates.

This is a major political event with planning powers coming back to Belfast City Council instead of belonging to the central government in London, and the task to set up the Belfast Agenda (belfastcity.gov.uk). This also means that at the time of the research, the decision to implement a sustainability agenda in planning did not belong to Belfast City Council, no more than the ability to build on or develop green and open spaces, which in some ways had protected them so far. The situation had also been different due to a certain absence of competition for funding within departments:

I think when the planners centrally had control they really were very tight on us and wouldn't allow us develop green space, I would worry now and as money becomes tighter that that could become a problem (Parks and Cemeteries Service Manager, Belfast City Council 10/3/15).

It is worth noting that in Amsterdam following the reorganization of the municipality (effective from January 1st 2015) the planning department has been renamed Ruimte en Duurzaamheid, urban planning and sustainability, which would demonstrate a will to integrate sustainability further within urban planning in the future.

These administrative reorganizations within municipalities can be seen as yet another obstacle, breaking continuity again and posing new challenges but also as an opportunity, grouping people across departments to work toward a more defined and long term sustainability agenda.

Birmingham and Amsterdam have different agendas and conceptions of sustainability but both cities seem to share the same priorities: a thriving economy able to attract investments, the accommodation of a burning need for more housing and an image of international leadership in all things green. However, these priorities appear to be strongly hierarchized and beyond proudly exposed ambitions to be sustainable cities, the natural environment very often comes last after a "green" economic growth and the

pressure to build more housing. Green spaces seem to hold a rather precarious position in future planning, highlighting that at political and decision making levels sustainability must follow some clear priorities in terms of actions, favouring the more visible and probably politically marketable ones:

I would like if there would be more of a shift from the environmental focus, which we sometimes call the grey area about the sun roofs and the smart grid and all these kind of stuff to the more simple: just more green more trees more green areas (Program Manager for Nature and Environmental Education, Municipality of Amsterdam, 21/10/14).

4.4 Sustainability: A Consensual Discourse?

This chapter has demonstrated that sustainable and green tend to be used interchangeably, reinforcing the ambiguity and plasticity of the concept, and there is an overall lack of articulation between green spaces and green infrastructure, all making it difficult to assess the endeavours of cities to become more sustainable. More, official discourses and individual storylines often contrast when they don't clash: there are some obvious disjunctions between official discourses of sustainability as presented in documents and the implementation of sustainability in practice. These disjunctions highlight profound differences of socio-ecological values, knowledge and the precarious position of many urban green spaces.

There is also an obvious disjunction between the time frames of political agendas and policy makers and the temporalities of environmental stewardship (Adam 1998), creating what I would call a deeply arrhythmic condition of ecological and environmental governance (Jones and Warren 2016).

This would all tend to confirm Erik Swyngedouw's hypothesis that the concept of sustainability has become an empty shell, or rather a consensual social and political object that has evacuated the proper political dimension of city life (including debates, dissensions, opposition...), some sort of a neutered common ground able to gather traditionally socially, politically and economically divided groups, only letting an ideologically driven technological and managerial elite in charge of environmental questions (Swyngedouw 2009).

Still, the growing importance of community led initiatives – further explored in Chapter Five and Six, points to the attachment and involvement of citizens in green and

environmental matters and is generally favourably looked upon even though it sets some new challenges. Evans and Jones (2008) even argue that the ambiguity of the term sustainability can foster more creative enterprises and potentially more sustainable outcomes, maybe helping to advance Ehrenfeld's (2009) idea of radical sustainability, one that would not simply be the opposite of unsustainable.

4.5 Conclusion

This chapter has drawn attention to a wide range of understandings of sustainability as a concept and of what sustainable cities should or could be, in which some clear economic priorities are often established.

It has also demonstrated that in our three case study cities, official documents and policies often fail to articulate their green spaces as part of a bigger green infrastructure, and to conceptualize this green infrastructure as an enduring provider of ES and CES that needs to be preserved and nurtured on a timescale that is distinct from political agendas and calendar.

Still, there is a common agreement that green spaces hold the potential to build more cohesive cities and to implement sustainability "from the ground up". Chapter Five explores these possibilities further and assesses the impact of green spaces on the social life of cities.

Chapter 5 The Spaces of Contemporary Social Life

It was a good place, and a fine city, but there is a price to be paid for all good places, and a price all good places have to pay.

Neil Gaiman, Neverwhere (2013).

5.1 Introduction

Chapter 4 has demonstrated that there is no accepted definition of what is or what constitutes a sustainable city, resulting in a multiplicity of criteria and indicators to assess the sustainability of a city, those often including some aspects of urban planning and community development (Chiesura 2004).

If the literature on ES and CES often hints at the role they may play in terms of social cohesion and community life most SES studies underplay or underestimate how social aspects, especially social capital and power, may contribute to sustainability (Fabinyi et al. 2014); a limitation I wish to address over the next chapters.

In Section 5.2 I present an anarchist conception of space and territory as a way to go past the traditional and restrictive public / private divide that hinders many urban and political ecological studies. Such a conception casts a different light on the mechanisms of territorialisation and appropriation, unveiling both the complexity and the extreme fluidity behind the process of space-making.

Building on that theory Section 5.3 investigates urban green spaces as being essentially the products and expression of a politics of affinity, an active process of

space making through practices of co-operation and territorialisation, deeply entwined with environmental concerns and aspirations to community life and social cohesion.

The discussion in Section 5.4 aims to re-articulate the stewardship and practice of urban green spaces around the social dimensions of sustainability, while highlighting the disjunction between the time-scales of environmental policies and governance.

5.2 For an Anarchist Conception of Space.

5.2.1 Laying Out the Neo-Liberal City

The reconfiguration of the urban realm that accelerated through the second half of the 20th century has resulted in a deep transformation of the politics and culture of city living, especially for working and middle class residents, and in the emergence of an always sharper line between public and private space (Karsten 2008, 2013). This reconfiguration has strengthened the boundedness of urban spaces, marking the progressive disappearance of mixed uses of spaces such as sidewalks and alleys where the private and the public frequently mingled (Karsten 2008). As a consequence, it has also established firmly in our urban imaginaries the idea that a space should have a clear definition or purpose: residential, commercial, recreational etc. (Ferrell 2012).

This novel and decidedly capitalist arrangement has been enforced through regulation and policing, based on a distinction between the proper and improper uses of space, which proved especially constitutive for open public spaces that are now promoted as consumer spaces (Ince 2012, Ferrell 2012). More accurately maybe public space is now designed to act as a space of transition, facilitating the circulation between places of consumption and thus supporting this ultimate purpose by establishing some standard sets of rules to help harmonize the geography of the neo-liberal city, so as to avoid stagnation, discussion and the possible expression of unwanted opinion, attuning open public spaces to the rhythm and patterns of the post-industrial urban life (Edensor 2008, Short 2006). As Short puts it:

Privately controlled places such as shopping malls have become hubs of a form of public life that is controlled and managed. The privatization of public space entails restricted access and a limited range of behaviour. [...] Behaviour is monitored (2006, p.98).

More recently this re-ordering of the urban world has also been coupled with a growing concern for security. This movement has resulted in the increased privatization, fencing and access restriction of public open spaces and, consequently, has greatly impacted the social and cultural life of cities by displacing or preventing opportunities of social gatherings (always potentially political) and unwanted manifestations of counter culture and sub-culture to either "appropriate" or private spaces (Low 2005). This has reinforced the decline of unregulated open spaces and the marginalization or part silencing of their users (Mitchell 1995) for, as Ferrell puts it,

Risk-based policing and consumer-based urban economies coalesce around a central consequence: intolerance toward open urban space and those who would occupy or traverse it inappropriately (2012, p.1689).

Occupy and traverse are purposefully chosen words: in fact, it must be noted that the geography of the neo-liberal city is one of strong territorial fixity, where space is carefully compartmented and regulated but where people (and goods) are supposed to be in constant motion, following precisely scheduled and rhythmic fluxes (Mitchell 1995, Ferrell 2012, Edensor 2008). It is thus only regarded as "proper" use not to be in motion in functionally designated spaces such as home, school or the working place.

Consequently, the quality of life in cities is now largely treated as a commodity that would ultimately be the privilege of those who can afford it, economically and hence spatially. Conjoined with an increased demand for movement control and personal safety in the post 9/11 world this trend has contributed to establish and legitimize

strong practices of territorial appropriation, segregation and enclosure (Ferrell 2012, Low 1996, 2005).

5.2.2 Beyond the Public / Private Divide: for an Anarchist Conception of Space

Beyond the paralyzing territorial fixity of the neo-liberal city induced by a somewhat sterile (research-wise) division between public and private spaces, I argue here that an anarchist conception of space and territory has much to contribute in terms of analysis and gives us an appropriate lens to study the social dimension of sustainability and the "grounded" political ecology of green spaces. It may also offer a much sought escape from the territorial trap (Reid-Henry 2010) at city level, as well as from the Foucauldian notion of territory as a disciplining and controlling device (Antonsich 2009).

In the words of Raffestin,

Territory and territoriality derive from the activity that humans carry out in the space that is given or provided to them in common, within the limits of the conception that they have of it.' (2012, p.123).

Territory is an interaction between the social and the institutional based on 'aspirations to continuity, contiguity and boundedness' (Ince 2012, p.1648) so as to form a homogenous group of a sort, be it a neighbourhood, a local community or a nation (Antonsich 2009). These social and institutional elements are both inter-related and co-constitutive, running through multiple processes of territorialisation and reterritorialisation, and thus very often become blurred (Ince 2012).

The public / private dichotomy through which most urban studies operate is based on property rights, a legal (institutional) distinction that very often has nothing to do with the empirical (social) use of space (the actual practice of territorialisation): some private spaces are open to and extensively used by the public, while some public spaces are massively deserted or appropriated *de facto*, generally in a rather exclusive fashion, through processes of gentrification, ethnic segregation, etc. (Mitchell 1995, Low 2005, Ince 2012). Processes of territorialisation are indeed constituted by a range of very diverse territorial practices that can't be easily identified as "good" or "bad": those are infused 'with multiple political, cultural, economic and social trajectories and intersections' (Ince 2012, p.1650).

An anarchist conception of space and territory constitutes a considerable departure from the heavily unified and regulated assemblage of spaces of the neo-liberal, post-industrial city, which heavily relies on distinctions between the proper and improper uses of space as previously mentioned. Here the everyday practices of bordering and territorialisation are seen as happening through association and co-operation while the use of space is primarily defined around common goals and purposes constitutive of citizenship, identities and subjectivities (seen here as vectors of emancipation and a potentially more democratic urbanism) rather than around the imposition of a common set of rules (Ferrell 2012, Ince 2012).

This conception does not ignore the dichotomy between public and private space but sees beyond it in its delineation of the practices of territorialisation, with a prioritization of co-operation and a clear advocacy of prefigurative politics. Prefigurative politics captures the strategies developed by anarchists to embed the political principles (such as mutual aid, self-determination and solidarity) of a conceptual, utopian anarchist

society into their present everyday organization, in the spirit of some early anarchists who undertook some 'propaganda by the deed' (Ince 2012, p.1652, Clough and Blumberg 2012).

Following the idea that a social project has to be a spatial one, anarchist strategy and philosophy rest on the acknowledgement that society, much like space, is permanently in motion. Consequently "revolution" can be described as a never ending process of development and spatial reconfiguration (Springer et al. 2012). Even though modern day anarchists still call for moments of upheaval and rupture, changes that can be considered as revolutionary are actually perceived as happening over long periods of time, those periods being necessary for organizational and relational reconfigurations to take place. On a conceptual level, it is easy here to establish a parallel with an adaptive cycle in the panarchy model, with its sequential, rhythmic phases of organization, upheavals and reorganization (Ince 2012).

This process is always in motion, never complete and always forward looking, an everyday revolution of a sort, for Utopia is not to be achieved: it is an unattainable goal. But, as Ince puts it,

in striving to achieve it, we can move towards revolution through the constant creation and adaptation of revolutionary practices and relations in everyday life. This acknowledgement radically transforms the spatialities (and temporalities) of revolutionary praxis, producing political spaces that are processual and in tension between the present and future; between the actual and the possible, it is in this tension that anarchism resides (2012, p. 1653).

Following Antonsich (2009) anarchist theory and practice can bring a more progressive and constructive light on territory and the practice of territorialisation: the act of bordering that has carried a strongly negative connotation in most cultural geography studies of the last thirty years, which insisted on the fluidity and the borderlessness of space, can become a practice of affirmation, social cohesion and self-determination rather than one of discrimination and exclusion. This also echoes the previously mentioned idea that beyond a somewhat unavoidable competition, a certain level of co-operation between individuals and / or species as well as a certain gregariousness is needed for them to thrive (Clough and Blumberg 2012).

An anarchist conception of space offers much flexibility in terms of boundaries and function: territory and borders are entwined in social relationships and, beyond the borderlessness hypothesis, it rests on the establishment of fluid, often temporary networks of associations and co-operations (Clough and Blumberg 2012, Ince 2012).

Whether public or private, open and common spaces should be designed so people are enabled to traverse, stop, occupy or rest (whether they are everyday park-goers, homeless or protesters) – or at least common spaces should be able to accommodate dissidence, marginalities and the individuals who somehow fell through the cracks of the system (Ferrell 2012, Low 1996, Mitchell 1995, 2014).

5.3 Urban Green Spaces and the Politics of Affinity

5.3.1 Finding a Common Ground

Speaking of urban gardening and urban farming projects, one of the interviewees insisted on the fact that in the context of high density European cities these spaces shouldn't be seen as productive assets or ways to self-sufficiency (as can be the case in some African, Asian or even Northern American cities), for the main objective of most people who get involved in or start such a project is to have a sociality around their natural environment:

Yeah, that's, I think that's the only real benefit. It's environmental and social. [...] an urban farm shouldn't be addressed as like something to produce new food for the citizens but a place to interact and have an off-line sociality at a moment in your life (Director, CITIES Foundation, 16/09/2014).

Urban gardens foster a community life around a community of interests:

And so there's also these groups they put on a lot of activities and events... It becomes more of a community hub, a place you can go and meet people and it's more of a social thing to it as well. So that will help the area to give people more of a sense of belonging (Chair, Birmingham Open Spaces Forum, 11/02/15)

I think certainly food is a very, very good thing to bring communities together and it's particularly... particularly strong on the social cohesion agenda and you look back, I mentioned earlier the sort of 70 plus per cent of people wanting to get involved in a program to make new friends, well that's... that's a social cohesion agenda, not a green agenda. But the two go hand in hand (Program Manager, The Conservation Volunteers, 04/03/15).

Through an anarchistic prism, this means that in urban green spaces associations and social cohesion happen through the deployment of a politics of affinity rather than a politics of identity (Clough and Blumberg 2012):

Yeah. I mean I think... All the things I said about community are true on an individual basis. But I think on a collective basis park... parks and open spaces are a place you come into contact with people you don't come into contact with at other time. You have your friendship groups, which you chose and you cooperate with them in decisions about where you go and what you do. If you're in a park you have to learn to cooperate with complete strangers, who may have completely different aims and objectives to you (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

But the people we work with are from all the areas, communities and ethnic groups that we've in Birmingham and the Black Country. And that's often interesting cause people have different attitudes towards the natural world because of their own cultural background (Chair, Wildlife Trust Birmingham and Black Country, 10/12/14).

Here social catalysis happens through a common interest rather than a common background, often to the point that it can neuter or temporarily dismiss important or ingrained differences to the profit of more fruitful and positive interactions:

And we've had... we've seen kids that had visited, we've had open days where we've had kids from all over, all over East Belfast attending... So the idea is that this is sort of a neutral area where people can come together and hopefully enjoy the space. I'm hoping in the next year too that, like I said the surrounding areas will benefit from this little green piece of land. Yeah (Project Manager, Bridge Community Garden, 13/03/15).

You know, from a diverse community, particularly within an urban area, everybody's got some common shared values about the importance of these places and what needs to be done to protect them and look after them, and particularly at a time of limited public investment because of the cuts in the public sector (Trustee, Wildlife Trust, 09/03/15).

Urban green spaces are a common ground, a meeting point not only spatially but socially and culturally, where people who might otherwise have very few in common may interact, exchange and co-operate around common interests and activities. They act as a powerful social catalyst in cities whose populations are increasingly diverse, disparate and often socially, culturally and ethnically divided.

When people walk in it's not all pushed in and neat, I mean again that reflects the diversity of people who work, people who use the garden and the diversity also attracts always different aspects in our life which is important... [...] And it's incredible experience about how it should be done, about it's a matter of time, it's a matter of effort, it's about a community doing things together as well (Therapeutic Horticulturist, Martineau Gardens, 23/07/14).

I believe that such green spaces are very important as they provide space for enjoying one's natural environment on one's own terms, free from the restraints otherwise imposed by the urban environment. I believe that they add to our quality of life through the opportunity to experience beauty and to meet and interact with others (Development Officer, GROW, 12/05/15).

Green spaces reflect the growing diversity and plurality of cities while allowing some sort of togetherness that is often hard to obtain in a more regulated, institutional space. Beyond a common attraction for the outdoors and the natural environment the politics of affinity are also defined around environmental and social ethics, a common wish for

the preservation of a place and a sociality based around these ethics. These politics strengthen the bonds of local communities, especially for people who actively get involved through volunteering activities, and provide the core elements of a place-based sustainability:

Because if you're a regular in the park you can't help but chat. And feel rooted in a community and feel that you belong somewhere. [...] So it's that strange space which again I think is rare in the modern world, where people who have nothing else in common apart for them enjoying being outdoors have to get along with each other. And that's people you haven't chosen. So I think that's a thing (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

Local people are up in arms about that, cause they do not want to lose their local open spaces, and so the Friends group set up as result of that. Friends groups keep going really well because local people are very passionate about their local open space, they don't want it damaged, they want it to be improved. [...] And that's another reason groups will set up, because they passionately want to improve their local environment. So people see it as essentially important to them (Chair, Birmingham Open Spaces Forum, 11/02/15).

Shared experiences help establish connections both between individuals and with spaces:

So I do think that we need to really promote parks as a space for community life, and not just a space for someone to go and walk the dog on their own or go for a run on their own after work. But somewhere where you can do things together and meet other people who live locally and share some kind of experience. [...] For me it's about having an opportunity to get outdoors and doing something to benefit my local green space if you like. So I think people have different reasons for doing it.

And some people might have all of those reasons (Project Manager, Birmingham Trees for Life, 31/03/15).

So that's why we came up with the idea of a green hub, because hub, yeah you know what hub means but it's like the crossroads, it's where inter-connections happen. [...] And for us the reason we chose that is because it wasn't just about green space, it was about social space. We realized very quickly that it was unique in the area because it gave people a chance to interact in a different way than they would normally, and the research of Jolanda Maas actually shows that social cohesion is increased by interacting in green spaces (Project Manager, The Green Living Lab / Het Groene Leven Lab, 28/10/14).

Thus, there's a need to adopt a different, more nuanced approach to sustainability. People access to sustainability through something far more tangible than policies: the impact on their everyday lives, grounded in their local environment and immediate surroundings, in their social interactions at neighbourhood or community level, and through the contrast felt with the otherwise somewhat claustrophobic and oppressive feeling of the city.

And we sort of turned around and went 'well, what should we do now?' and we looked at the infrastructure of the park and said 'well, I'm sure we can get together and improve this and improve that'. And at that stage it was very much the kind of paths and bins and benches thing. And then we started looking at... well we all had little children at the time, about what sort of services we would want to keep our children busy. And we started looking at things like play schemes and play activities and social activities everything... everything we've ever done started with 'wouldn't it be nice if...' (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

5.3.2 Social Sustainability and Resilience

Urban green spaces help stress the importance of collaboration between individuals, echoing the anarchist views of evolution happening through a certain level of cooperation rather than a strict competition, a cooperation that pre-exists and precedes politics (Springer 2013). This also proves essential to favour the emergence of an appropriate context for conservation and environmental education through what Hinchcliffe and Whatmore dub the "politics of conviviality" (2006):

I think now time is also that everybody realizes that when you want to have a sustainable city you have to take care of the people, to think and act that way, and it's not enough just to make parks, it's not enough just to make the public spaces different, it's necessary, when you have... about waste, about green, about whatever you have to take people with you so that they know how things work and they can act in a different way (Director, ANMEC, 14/10/14).

Everybody all the time is learning how to make sense of their world, essentially, and having explanations. Even wrong explanations. But nevertheless finding ways to make sense. If you see everything working together in an eco-system from the very smallest plant to the most complex, or from the very smallest animal to the most complex, you find a place for yourself within that, and then you become a more resilient individual and that helps you through life generally (Director [1], Highbury Orchard Community, 01/04/15).

It is thus important not only to think about sustainability but to think holistically, and make each and everyone feel like an integral part of a whole:

Because it's not your average grass etc. that is on public space and food plants are particularly you know valuable for biodiversity and pollinators etc. So I think... I think in terms of food growing spaces and be that raise

beds or orchards or whatever... I think the primary thing people would see out of it is 'oh fresh food', you know or 'oh, we can cook this' or 'we can get together and have fun'. But actually the second benefit as I say is a massive increase of biodiversity which is... which is good. So if things are done properly then I think you know the two go hand in hand and the two support each other (Program Manager, The Conservation Volunteers, 04/03/15).

We thought there was a different approach to the natural world, and that people should have a different relationship to the natural world than being told 'it's all very precious', which it is of course, 'it's all very precious and therefore we got to keep people away from it' you know to... yes it is very precious and valuable but we want you to understand that, we want you to enjoy it, and if we help you to enjoy it, you... you know, people in general are more likely then to be willing to fight for its conservation and to... make resources available for that and so on (Chair, Wildlife Trust Birmingham and Black Country, 10/12/14).

Green spaces help changing the perception and attitude of the public, and thus making sure that sustainability is not just another it word or is perceived as a marketing device:

And what we learnt through our process was... sustainability in a business sense unfortunately just means the buildings, and yeah, we... you know people, we say that to some people and they're like 'of course, you know it's marketing!' or you know having green or sustainability it means marketing. But for us that's what we wanted to set up the green hub, because we actually want to have a discussion and we want to inform people what sustainability really means (Project Manager, The Green Living Lab / Het Groene Leven Lab, 28/10/14).

Through diverse place-based activities the social dimension of sustainability can have a long term impact on the environmental one, reminding us that there is an

interdependence and a symbiosis between the species which thrive (Low, 2005 Bookchin 2005). Communication and education provide a way to raise environmental awareness while helping people to attune or re-attune with nature, which can be seen as a long term action towards a more socially and environmentally conscious type of citizenship, reinforcing the temporal irrelevance of most of the sustainable policies mentioned in Chapter 4.

On a more spiritual level, urban green spaces also help people to acquire a sense of their importance as social beings and their place as living things in the world:

But of course that's something we aspire to, that people should feel here, feel that connection, but a connection with each other as well as a connection with the planet, because this is a very good eh... "neutral space" works (Director, Martineau Gardens, 23/07/14).

That's what I meant, things that I said, that people are just like plants, they just need the right environment to grow, you know, and that's important (Therapeutic Horticulturist, Martineau Gardens, 23/07/14).

People can adjust, find their place not only in society but next to one another, and better perceive the mutually dependent relationship of nature and society:

And all these other things are natural, or semi-natural at least don't they, you know. So I think that in the urban nature conservation movement in a way we have a much greater understanding of the dynamic relationship of people and wildlife and species. And the fact that species and habitats are dynamic anyway, they're always changing and stuff's always moving around. [...] And by the way, when you work with multicultural communities as we do here, the last thing you want to be talking about is alien species! (Laughs) (Chair, Wildlife Trust Birmingham and Black Country, 10/12/14).

It's a leveller I think being in nature. It connects us with our own natural position in the scheme of living things and so our social complexities can fall away and they're not too important, so it brings us to the same level (Director [1], Highbury Orchard Community, 01/04/15).

Well we were a land-based species for the vast majority of our evolution, and we only become urbanized and industrialized in a tiny, tiny recent space of time. So our own evolution, physical evolution and mental evolution, hasn't caught up with the way we're living now. And that is why we've got so many stresses to do with living in an urbanized industrial environment. [...] And unless they're encouraged to have an interest in the natural environment from quite an early age, and encouraged to go out of the city and into the countryside, then I think people just don't. And I find that really sad and quite worrying because I think it puts our natural environment at risk in the future because people haven't been brought up to value it. And I think it's really important... instilling the value of nature and the environment in people from a very young age is really critical otherwise people won't protect it in the future (Project Manager, Birmingham Trees for Life, 31/03/15).

Such spaces are also fundamentally disrupting the neo-liberal arrangement of cities based around consumer-oriented logics and functionally designed spaces. They help breaking the imposed rhythms and patterns of the post-industrial world:

So for me that's why it's important, and I think it's... open spaces are the last... my husband was saying something about... the last place you can go without having to spend money. You can be here for a day and never open the... you can come without the purse. And you know, there's nothing for sale! Anyway, and you just, you just, you know, take what there is and put back what you can I suppose. It is just that (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

I think in a funny way this takes us back to our past, to a more rural

environment, eh, and so I think for a lot of people there's a lot of comfort in that, and a feeling of safety and familiarity. I think the very fact that it is essentially free means that parents can come here and their children can explore without it being constantly "I need money", and so that pressure, that economic pressure is not here (Director, Martineau Gardens, 23/07/14).

Green spaces are perceived as some of the last truly public space, catering for all categories of society:

And we thought this was such a waste, because so many people were coming, it was really... it's the only area in this vicinity where people can come and sit in the grass... and not buy anything but just relax and you know, it's the only green space but also really public space... (Project Manager, The Green Living Lab / Het Groene Leven Lab, 28/10/14).

Because lots of children in Amsterdam when they don't have lots of money, when they don't have opportunities, you have to have something in the neighbourhood where they live, where they can go themselves. That's something that we subscribe to very strongly (Director, ANMEC, 14/10/14).

The possibility to escape the pressure of urban living and wind down for a while is often mentioned as important for a lot of urban dwellers:

We have a lot of people coming from... living in a busy city... you just want to get out and get your hands dirty and look closely at something like a plant. So you have a lot of people that just, they do it for, like a form of meditation or yoga or something. We have a lot of people they do it for health reasons, they want to move more and... yeah just be outside more. (Coordinator, City Plot Amsterdam, 09/10/14).

The importance of green spaces to help people adjust or re-adjust themselves is very often emphasised. They are places of inclusion and rest, especially for people who otherwise struggle to fit as "productive" members of society or inside a community:

So I think that... and we do have parents that bring their children to Warley Woods to help do physical tasks in the outdoors throughout the year so... I think people have different reasons for doing it and I know that more and more... some mental health charities are trying to get people with mental health issues involved in doing things in the outdoors. Doing things... what they call the Green Gym and things like that (Project Manager, Birmingham Trees for Life, 31/03/15).

Well very often people come to us because they don't fit in to other places, we are the place for the people who don't fit. Because they don't want to be inside, because they don't want to be doing the same thing, very often they just don't want to be inside (Director, Martineau Gardens, 23/07/14).

Green spaces are quite unique in how they integrate marginality and offer the ability to achieve something meaningful, without an explicitly economic value:

It's about margins; people on the margins or beyond the margins who still need places. But I think of community in this sort of active sense, we don't really know what community means anymore. Sometimes it means geographical area, and sometimes it means a rather indistinct population... [...] And in that sense there is a community, and these are people who take a bit of responsibility for each other, for each other's wellbeing, and work on something together (Director [2], Highbury Orchard Community, 01/04/15).

But if you got the decent people who want to do something and they've got no money, they will still achieve something even without any money. So people are the important thing and therefore working with local people on what is important to them has always been part of the ethos of this

organization. And... and I hope that it always will be, really (Chair, Wildlife Trust Birmingham and Black Country, 10/12/14).

5.3.3 Limitations and barriers

Space-making is an active and on-going process, bringing empowering and liberating experiences. Sometimes this process may also engender experiences of closure, exclusion and domination, and there are some functional, social, economic an institutional limitations and barriers that must be identified and explored (Hinchcliffe & Whatmore 2006).

Even though urban green spaces attract population from all social and cultural backgrounds, when it comes to memberships or active volunteering in community gardens or Friends groups type structures, the population tends to be overwhelmingly, (or predominantly) white, middle-age, and middle-class:

I don't know, because I'm not saying an analysis, but I would guess that most of these organizations' members are still white, middle class and well educated, cause that's the classic profile of a membership for organizations like this (Chair, Wildlife Trust Birmingham and Black Country, 10/12/14).

How would you describe the average person who is involved with Friends groups, green space activity, In Bloom, Garden Organic... stuff like that. And you go to any of these sorts of larger meetings and the average attendee is middle age, middle class white. And how do we work more to engage non-white communities in green space activity, with all the problems associated with it you know (Program Manager, The Conservation Volunteers, 04/03/15).

There is a problem of engagement with communities in their plurality, and a notable difference between urban farming or gardening, which is more segregated it seems, and traditional park-going:

And that's, with urban farming, it's a nice idea from the neighbourhood, but when white people lead the initiative, it's the white people who create it. But I think what really works it that we have a lot of parks in Amsterdam and, like the Vondelpark, you've heard? (Director, ANMEC, 14/10/14).

Most people (or groups) willing to take an active role or start an initiative lack the administrative knowledge or practical skills to do so, which means they need someone with such knowledge and skills to refer to. There is also a clear distinction between food growing, the undertaking of maintenance or beautification work and "traditional" conservation that remains the domain of qualified professionals:

And the other thing we do a lot is we teach in the community gardens around the city, there's hundreds of them right now and there's been a lot of help by the Gemeente in getting the land settled, and sometimes funding for materials, and what's missing is the knowledge, so people don't really know how to start, so that's where we're coming trying to help them get going (Coordinator, City Plot Amsterdam, 09/10/14).

And a lot of times we find people want to start doing something for their local open space, but they're not sure how. They'll find out about us through the website, through word to mouth, through talking to their park ranger or their park manager, they'll always be told come and see us. I can go out and sit down and talk to them and say... and show how easy it is to get a group set up. I'll be there with them for the first few meetings, help them get the group set up, get it constituted, get them a committee voted in, start them looking at what they want to do, look at possible little funding bits they can do, and getting their confidence so they know they can do it (Chair, Birmingham Open Spaces Forum, 11/02/15).

Friends groups, community leaders or active volunteers nearly always have a need for an 'institutional' point of reference or for knowledge resource:

I think BOSF is a really useful umbrella organization for the really little Friends groups to have a point of reference, someone to ask advice of, a resource (Project Manager, Birmingham Trees for Life, 31/03/15).

We have a big community engagement program where we work with lots of community groups, hundreds of community groups who are managing the green space on their doorstep at the bottom of their roads. So providing them with grant application support, practical support, tools, you know... practical managers who can come in and teach them how to... to manage woodlands, hedges, paths... that kind of thing (Trustee, Wildlife Trust, 09/03/15)

The isolation or lack of informed guidance are some of the most commonly identified barriers: without a coordinating, referring structure to offer support or the appropriate knowledge of those in charge, failure can come easy. Inefficient management, poor operationalization, financial instability and mishandled accountancy are the most frequently evoked threats. Having a sustained leadership and being able to secure funding are real problems even for the most anarchist-flavoured or autonomy-minded initiatives, not to mention that to be successful such enterprises ask for unwavering commitment:

So what makes a space succeed or fail? And it's very often... it's very often having either a strong leadership, an individual but which is good or bad because then if that individual moves on the whole project collapses, it's a group of people who want to be involved... and as you say it's an initial something that makes people want to do something about that (Program Manager, The Conservation Volunteers, 04/03/15).

You need to have a few people that are absolutely committed, they're

gonna stick a lot of time into the garden, and they also know how to bring people along and not make it something that's their project, so it's a very fine balance, it's skills that you may have acquired, you may actually have acquired through your work, but they are very important skills for community gardens (Coordinator, City Plot Amsterdam, 09/10/14).

Beyond the importance of charisma, leadership and determination, the ability to handle the financial and technical management aspects is crucial:

Because those are really important aspects, not only being able to, to, to have a piece of land but there's a whole management, and the operationalization of the project that... like it's challenging (Director, CITIES Foundation, 16/09/2014).

And sometimes it's just hard work, and for God's sake can't just someone come and write a cheque for the tiny little amount of money that it costs to keep this organization running! I wouldn't... Isn't it a wonder... of course the state should contribute to this wonderful place because it saves them money on other way so, blah... But it's always that dilemma... And these have been difficult times because of the state of the economy, so... Hey Oh! And on we go (Director, Martineau Gardens, 23/07/14).

Sometimes problems arise from a confrontation with or a lack of support from the political level, which may be due to the inherently political nature of such projects, some legal or administrative issues, the adverse economic context or a plain lack of interest:

And if they... for instance we don't have a lease here, we can't fundraise, we cannot get money from English Heritage to work here because they insist that we have a fifteen-year lease. They won't give us any money if we don't have a lease and if the Council doesn't give us then we can't get money from those big organizations. So there are hurdles like that where it's inertia, it's lack of interest. They've created this space, the Council is not interested in this space and even though we're here doing things

they're not interested in this space (Director [2], Highbury Orchard Community, 01/04/15).

They know we're here and they give us their blessing, but we don't get anything in return (Director [1], Highbury Orchard Community, 01/04/15).

So... the economic pressures on the City Council are huge... but I guess in response to that what we'd say is... so are the environmental and the social pressures on the city and the... we can't just let the economic pressure take... take priority each and every time (General Manager, Friends of the Earth Birmingham, 27/02/15).

Communication between various stakeholders and politics is often difficult due to a broad diversity of agendas and motives, and sometimes to the inference of these agendas:

However, as a charity working with the local community and based in a public park I would like to feel that local government wants to help us make a positive contribution to improving urban green space with practical assistance and procedural support rather than appearing distant and mysterious (Development Officer, GROW, 12/05/15).

And to be honest from the beginning we didn't have a political agenda, unless you mean politics in the sense of community like a people movement, we weren't partisan, we never have been and we never will be. So that was an interesting development, we realized very quickly 'this is political', what we do, you know, when all we're doing is asking questions (Project Manager, The Green Living Lab / Het Groene Leven Lab, 28/10/14).

This unravels the complex political depths and hidden dimensions of environment and green spaces in cities:

This is a process that in a way... it has a really high political value, because we are talking of a very popular subject, which is food, but I like the way this value is re-, re-, re-placed in the urban landscape by just having people doing things that... disconnect (Director, CITIES Foundation, 16/09/2014).

Yeah there's a lot of people: Friends of the Earth, also Wildlife... a lot of different people, you may have talked to them. You know there's plenty of people who campaign and... but the Government don't really prioritize hem... how important parks are in the city (Director [2], Forum for an Alternative Belfast, 11/03/15).

Finally, some spaces highlight a lack of consultation and a difference of intention and logic between users, planners and decision makers, preventing their proper access, use or appropriation:

So they're also getting all the car fumes from few meters, unmitigated in that sense, then... sort of incoherent there is a green space, which you will find around motorways and stuff, lots of strips and so on, tend to be unmanaged, unusable spaces and also almost create anti-social behaviour. So you know it's important that a green space is well designed and actually usable (Director [1], Forum for an Alternative Belfast, 09/03/15).

A carefully provided for space can lend itself to enhancing community and neighbourhood life but a neglected space where little thought is given to how it is used can have the opposite effect. In some places the local green space has become an area for antisocial behaviour and crime (Development Officer, GROW, 12/05/15).

5.4 The Limits of "Sustainability by the Deed"

As discussed in Chapter 4, sustainability is very political at the decision-making level, often pushed forward in discourse but not necessarily translating into concrete long-term policies or followed by any wider support or programs, as confirmed by many interviewees. These actors and the structures they belong to take a far more grounded and direct approach, rather akin to the "propaganda by the deed" motto of early anarchists previously evoked in this chapter. Sustainability has a far more social dimension here and is about building more coherent, cohesive and resilient communities as most people are looking for an environmentally based sociality. However, what is gained in impact and efficiency through direct action may be lost in terms of political and financial leverage capacity. In addition, there is a lack of grand vision, of a masterplan that would be co-ordinated at city scale: despite the impact of some co-ordinating structures, the "think global, act local" remains the main guiding principle.

Decision makers don't always seem to know how to best collaborate with such initiatives and people, when they take any interest in them at all. This might be a problem of places for people who don't fit: they end up being regarded as places that don't fit. As further explored in following chapters the disconnection, or lack of communication, is not between the ground and medium level of stewardship but between the ground and the higher level decision makers who, because of a lack of contact with the ground and the pursuit of their own political agendas, often fail to see the relevance of such initiatives or the benefits of a potential, more developed contribution.

The disjunction between the temporalities of environmental policies and stewardship appears even bigger and problematic than before, casting a concerning light on the diachronic relationship they entertain. From that perspective urban green spaces disrupt not only the neo-liberal timeframe of environmental governance and management but also the more traditional embodiments and manifestations of the political life.

Finally, the social endeavour is not always successful, or only partly: if urban green spaces manage to bring communities together and undeniably create or reinforce social cohesion, the typical membership and management profile of Friends groups, community gardens and environmental charities doesn't reflect this diversity, remaining overwhelmingly white, middle age and middle class, even though things are looking a little brighter on the gender side, as further explored in Chapter 6.

5.5 Conclusion

By exploring anarchist conceptions of space and territory this chapter has highlighted that place-making is an active, on-going and perpetually challenged process, which eventually proves to be fundamentally at odds with the modernist, neo-liberal arrangement of the city based on a functionally defined, consumer-oriented geography.

I have also endeavoured to demonstrate that environmental and social sustainability are intricately linked, for most people engage in environmental pursuits through socially oriented and community led initiatives.

The strength and potential of many of these initiatives resides in the fact that they have learnt how to make do and be efficient with very limited people and resources. With the development and growing importance of peer to peer networking, open source software, knowledge and resource oriented wikis, the banalisation of crowd funding campaigns and the mainstreaming of sharing economy principles (Springer *et al.* 2012), the context seems to be ready for such enterprises that escape the traditional public versus private binary. Such considerations lead us toward a re-examination of the Commons, which is the main undertaking of Chapter 6.

<u>Chapter 6 Re-Envisioning Urban Green Commons</u>

The really striking point is that many, though by no means all, of the early visions of the planning movement stemmed from the anarchist movement, which flourished in the last decades of the nineteenth century and the first years of the twentieth. [...] The vision of these anarchist pioneers was not merely of an alternative built form, but of an alternative society, neither capitalistic nor bureaucratic-socialistic: a society based on voluntary cooperation among men and women, working and living in small self-governing commonwealths.

Sir Peter Hall, Cities of Tomorrow (2002).

6.1 Introduction

I have demonstrated in Chapter 5 how urban green spaces are disruptive of the traditional public versus private binary. I intend to establish here how, following the work of Elinor Ostrom and others, the commons have increasingly been recognised as a potentially powerful tool to promote environmental and social sustainability, preserving natural resources while enabling a social and economic development that wouldn't let the "usual victims" down or deny them the opportunity to develop and access critical resources. Following Setha Low and her assertion that 'cultural ecosystem services are located in time and space – for a cultural ecosystem to be maintained or conserved, its place(s) must be preserved' (2005, p.5), I wish to explore how a resilience oriented management of place may enable the safeguard, conservation and enhancement of natural resources, with a focus on urban ecosystem and cultural ecosystem services.

Section 6.2 revisits the commons and their evolution from their origins as common land to their more contemporary and urban incarnations, especially as urban green commons, which have known a recent surge both in mainstream medias and in academic literature.

Section 6.3 explores some of the alternatives offered by the commons to re-envision the governance, stewardship and management of urban green spaces. I expose how more resilient urban spaces and environments can be fostered through less constrained, more flexible uses of spaces in which communities and environmental groups are empowered to take an active role and cooperate with traditional management structures.

Section 6.4 offers a discussion in which I try to articulate urban green commons with the processes of education and transmission around the concept of intergenerational environmental and social justice.

6.2 From Common Lands to Urban Green Commons

6.2.1 Beyond the Tragedy of The Commons

In a compelling paper Mishori ably demonstrates how common resources and public spaces disrupt our traditional Lockean conceptions of property according to which a private property is enclosed and its access strictly restricted, so as to mark its appropriation and exclusive use (2014). Indeed, urban green spaces can be private but open and free of use, but also public and fenced with their access highly regulated. The author's reference to Locke is essential for another less immediate reason: the great philosopher was deeply critical of unused property (property meaning land here), which he saw as a waste and an offence against nature. Yet he did not really offer any alternative beyond his theory (referred to as *Lockean proviso*) that accumulation of wealth and property should only be limited by the ability of others to benefit from the good left in common (Locke 2008). This philosophico-legal conundrum stands pretty much unresolved (Colding and Barthel 2013), for as Mishori points out:

Most current definitions refer to the commons primarily as shared resources or as social arrangements, not as shared *property* (2014, p.337).

In their original incarnation as common land in pre-industrial England, the commons were actually divided between "common", "stinted" and "waste", the latter being the only truly common land in the modern sense of open, public access to all comers, the access to the two formers being subject to some form of common rights or seasonal regulation. The commons as such started to strongly decline with the modernisation of agriculture, the industrial revolution and the enclosure movement that culminated

with the various enclosure Acts which spread from the late eighteenth century to the end of the nineteenth century, until the percentage of land under common right had dwindled to a mere 5,3% by 1839 (Clark and Clark 2001).

It must not be forgotten that these commons, as relating to a common land source of natural resources, providing much needed supply for the subsistence of peasants, low class and landless agriculture workers, were a rural phenomenon (Eizenberg 2012). The greening of public squares that happened in London alongside the process of enclosure was marking a transition from public plazas to private, gated urban gardens reflecting the cultural and social values of the aristocracy through the taming and ordering of nature (Lawrence 1993). Here modern infrastructures and engineering techniques served the display of a highly constructed idea of landscape, an idealized vision of nature for the pleasure and enjoyment of the wealthy residents, far from the reality of its rural counter-part or from the daily labour happening on of the fringe lands traditionally devoted to agriculture in urban settlements (Sukopp 2003, Gandy 2011).

The notion that central parts of cities could host critical environmental resources for the use or the enjoyment of all is far more recent. It mainly emerged with the hygienist and paternalist concerns that gave birth to the early park movement (Short 2006), advocating the need of factory workers for fresh air, exercise and the possibility to grow one's own supply of fresh fruits and vegetables, at a time where most urban dwellers had grown up in the countryside before moving to cities to look for employment opportunities.

The commons as a concept resurfaced with Gareth Hardin's controversial, landmark paper on the now proverbial "tragedy of the commons", published in Science in 1968,

in which he presented a neo-Malthusian reflection, advocating for a tighter population control and a definitive rupture with common rights of use. Instead of enclosure Hardin called for regulation to happen through coercion, mutual between individuals preferably and from a central authority if need be, arguing that over-population and an unregulated use (and therefore an exploitation and destruction) of common resources was a death sentence mankind pronounced against itself (Hardin 1968).

Elinor Ostrom's seminal work on common natural resources is perhaps the best known and most widely recognized work on the commons. In her 1990 book *Governing the Commons* (among others), which was partly a response to Hardin's claims, she demonstrated how common pool resources can be, and in some cases are, managed so as to avoid the collapse of eco-systems through diverse social and institutional arrangements (Ostrom 1990). This work led her to later develop her own SES framework, which we mentioned in Chapter 2, so as to articulate these local, self-governing structures to the wider regional, national, trans-national and global structures of ecological and environmental management.

6.2.2 Contemporary Reflexions on Urban Commons

In June 2015 British newspaper the Guardian, in its Cities section, published an article entitled 'Urban commons have potential – it's not just community gardens'. In a section of the newspaper supported by the Rockefeller Foundation, the columnist gave a short panorama of environmentally minded, socially conscious urban initiatives around the world, some explicitly reclaiming themselves of the commons, some labelled as participating in this up and coming idea, to announce a temporary exhibit hosted by the London School of Economics. If the publication of such an article in a centre-left media with alleged progressive views is not surprising and far from revolutionary, it remains indicative of the progress made by an idea that had long been left aside, either disregarded as belonging to the past (and in between the lines to a less civilized area of pre-capitalism) or as a charming but ultimately annoying neo-hippie venture. The support of the Rockefeller Foundation and the partnership with the London School of Economics are quite telling too. These two institutions, albeit strongly committed to resilient, sustainable economies and resource governance promote more arrangements, are not exactly known for their subversive positions. Finally, this article also shows the progressive displacement of commoning from a rural custom to a modern urban practice and form of organization.

Since the pioneering, landmark work of Elinor Ostrom and her demonstration that the "tragedy of the commons" is not necessarily bound to happen (1990), the commons have outgrown their status as the preoccupation of concerned environmentalist, alarmed ecologists and utopian economists (Ostrom and Vollan 2010, Dietz et al. 2003).

First essentially concerned with the use, shortage and potential extinction of critical resources on a global scale, academic works on the commons have zoomed in from macro to micro economic studies, with Acheson's now famous studies of lobster fisheries in Maine among others (1988), followed by many other such works, before zooming out to see how such micro-economic studies and principles could impact and even transfer on a global scale. As stated by Mishori:

The concept of the commons has already been regarded as a prime conceptual tool for ensuring sustainability and the rights of future generations. Various approaches to intergenerational justice emphasize preservation of options and access to resources for future generations. The commons, being shared or owned by a diachronic collective, provides a particularly viable tool for realizing such values (2014, p.338).

Recently a growing number of studies have explored urban commons in their materiality and in their social, politic and environmental dimensions. Coldings and Barthel have investigated urban green commons as alternative and active land management systems which hold the potential to increase cultural diversity and integration through civic participation, concluding that,

Urban green commons, hence, represent arenas for management and development of interlinked biocultural diversity in urban landscapes (2013, p.163).

In two studies of urban green commons in New York Eizenberg has explored the potential and limitations of the management of community gardens. Using a Lefebvrian framework she has identified the three moments defining the production of urban commons (2012) and examined the implications of the privatization of threatened common spaces by environmental NGOs (2012). Mishori has discussed

the political and legal struggles over the public ownership of a suburban beach in Tel-Aviv, Israel (2014), while Jeffrey *and al.* have questioned and articulated the material and immaterial dimensions of both enclosure and commons as factors of spatial, social and political organization in the city (2012).

6.3 In Care of Our Common Home: Governing Urban Green Commons

6.3.1 The Emergence of New Governance Arrangements

As stated by Colding and Barthel (2013, p.159) urban green commons encompass a vast diversity of arrangements that rest on practical management rather than on ownership rights per se. Indeed, ownership rights may belong to a range of actors including the state, a regional, municipal or local authority, public and private owners. The importance of focussing on the material, socio-political process of commoning and on the resulting governance arrangements rather than on property rights is twofold: as previously mentioned, the notions of public, private, open and closed are generally misleading and reflect a legal matter of fact rather than the actual use and management situation. Secondly, most urban green commons did not develop as commons: the process of commoning, the reterritorialization of a place as a common, very often happens when the previous arrangement is failing. Cuts in funding and a lack of management and stewardship capacity appear to be the starting point of many initiatives that can be identified as commoning of urban green spaces and resources. Indeed, as evoked in Chapter 5, the threat often acts as a starting point, an abrupt incentive that prompts citizen initiatives and assembles community around a common goal:

So the Council who are managing this land are not managing it in a way that fits with the vision of the people who handed it over to the Council, so it's been neglected. And where a community comes together and says: 'we would like to see something happen here', that becomes a political campaign. And so we are part of that political campaign to say: 'let's make better use of this piece of land' (Director [2], Highbury Orchard Community, 01/04/15).

The Friends of Cotteridge Park as I said set up in 1997 as a result of there being a threat to the park. We never found out exactly what the details were but we knew we'd have a loss of services, so lots of people got together, wrote letters [...] And the local authorities reversed their decision at that point, and we all kind of looked at each other [...] And we sort of turned around and went 'well, what should we do now?' and we looked at the infrastructure of the park and said 'well, I'm sure we can get together and improve this and improve that' [...] And we started looking at things like play schemes and play activities and social activities everything... (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

Despite such step ups from civil society, there is still a need for the smaller structures who wish to work hand in hand with public authorities to be provided with some support:

I think Birmingham is really lucky to have BOSF because it's... it gives... some of the Friends groups are only literally two or three people, and for two or three people to try and battle on in isolation when the Rangers service has been cut so much and they no longer have the rangers for that park because the rangers have got twenty parks... (Project Manager, Birmingham Trees for Life, 31/03/15).

This is all the more important that there it always takes some sort of threat to provoke a reaction from the public, but also to push local authorities to accept a change in their ways:

So when it's threatened people will speak up. People won't speak up if it looks nice and it's beautiful and it's there and it's all lovely. They will let that happen. As soon as that's threatened they will be up in arms about it (Chair, Birmingham Open Spaces Forum, 11/02/15).

I mean this job in here, we are in contact with the public a lot so we would get a lot of feedback from the public. We get a lot of demands on a daily basis for enhanced, improved playgrounds, sport pitches, community gardens. It's constant. So there's a big demand for it. It leads to all sorts of problems; obviously you can't do everything for everybody, so the problems are prioritization, budgets and all that sort of stuff, so that's one of the primary difficulties we have (Landscape Planning and Development Manager, Belfast City Council 10/3/15).

In most situations urban green commons are about the common interest taking over the problem of property rights. In that regard, it is worth noting that the Highbury Orchard Community (Birmingham), probably are the most anarchist or autonomous minded venture of all those investigated for this thesis, are legally set up as a Community Interest Company (CIC), even though they have strictly no legal right to operate within the boundaries of Highbury Park and on its ground:

They've created this space, the Council is not interested in this space and even though we're here doing things they're not interested in this space [...] We're guerrilla gardening on a bigger scale, which we can do because it's neglected land (Director [2], Highbury Orchard Community, 01/04/15).

They know we're here and they give us their blessing, but we don't get anything in return (Director [1], Highbury Orchard Community, 01/04/15).

CICs are 'limited companies which operate to provide a benefit to the community they serve' with their purpose being 'primarily one of community benefit rather than private profit' (source: Department for Business Innovation and Skills, Office of the Regulator of Community Interest Companies: Information and Guidance Notes).

This very problem of the legal structure to adopt is a tricky one both in the United Kingdom and in the Netherlands. The legal status (as a company, a foundation, a

charity, a trust etc.) largely determines the capacity of the structure to generate incomes, obtain grants, hire people or act as a contractor and thus, ultimately, its ability to operate and sustain itself (would it only be to buy tools or seeds, run activities etc.), especially as the very absence of a form of land ownership right may hinder its capacity to raise funds. Not only the legal status but the public relationship aspect is important for even the name of the structure may go as far as displaying some political intentions and potentially thwarting the co-operation from local authorities and public or private stakeholders,

And we're also not a foundation so we can't really get grants. So that's an issue. [...] We're a company in fact. And this was also that before I came. So I think if we were to do it again, I'm guessing it would be more strategic for us to be a foundation because then we can receive grants and now, I mean you know in a way when City Plot was set up the idea was more to sell seeds and to do some education but not necessarily to earn money from it. So I think the two people that started it had a slightly different vision and they're both in other places now, they're both involved but... so now the people that are here now we need to make it, have income generation (Coordinator, City Plot Amsterdam, 09/10/14).

I'm not Dutch and I called the organization *Vrienden van de Almatuin* (Friends of the Alma Garden), but I later realized that it generally means you're protesting against something if you're 'friends' of something. [...] So yeah, we had to... yeah, unfortunately it perhaps didn't seem that I had criticism, for some people I was acting as a corporation rather than being in a democratic organization, because I made the decision 'we're not going to protest, we're not doing petition' and what happened eventually, when I had already made contact... my corporate had made contact with key players and they supported us. [...] So that's why we came up with the idea of a green hub, because hub, yeah you know what hub means but it's like the crossroads, it's where inter-connections happen (Project Manager, The Green Living Lab / Het Groene Leven Lab, 28/10/14).

The search for reliable, sustainable sources of funding often proves to initiate a vicious circle, showing that a focus on land ownership has become rather counterproductive:

And if they... for instance we don't have a lease here, we can't fundraise, we cannot get money from English Heritage to work here because they insist that we have a fifteen-year lease. They won't give us any money if we don't have a lease and if the Council doesn't give us then we can't get money from those big organizations (Director [2], Highbury Orchard Community, 01/04/15).

Some new forms of temporary arrangements are also emerging, based around the mutual interest of landowners and commoners and thus practically overriding the absence of property rights from the "active" commoners. Those are about making the most of the opportunities offered by spaces which are temporarily out of use or left vacant: most are spaces awaiting development, sometimes for years as the economic context fluctuates unpredictably or cause dealings to linger. This type of co-operative practice impacts positively on the social and the ecological and make sure these temporarily vacant spaces remain both ecologically productive and socially contributive. Even though such arrangements present some undeniable advantages, especially for environment and biodiversity, the practice still seems to encounter some resistance in the UK:

I think open space needs to be productive. So even if it's open... if it's left... brownfield sites, a lot of brownfield sites, but brownfield site could be brilliant if you sow it down with wildflower or even if you did... quick crop rotation or anything, you could... you could actually maintain... The big problem, the concern where everybody goes and this is why I don't think it happens, it's because once you start, if you make it look better by... let's say let's just sow a whole allotment of wildflowers, meadows

and everything, that would be lovely because the land is... the land is would be happy with the wildflowers on it and the bees and all the insects and so on... The minute you start making it look better, when they do come to build on it five, six years and on, the outcry of removing that asset compared to a fenced stuff, weed free... is more of an issue. That, I think that's why they don't do it. I find... I find equally frustrating that... the look of the city and the look... and the benefits, even if it's short term, we should be doing it (Head of Parks, Birmingham City Council 12/01/15).

But we found... so we found out ok by virtue of the fact they needed a temporary initiative, what was the reason for that, the reason is the VU are not ready to build a new academic building until 2018. So we thought... well if we say, you know are we against academic institutions developing themselves? No, because you know we really want to promote education but the plan was to destroy the garden this year and to create a temporary car park there, which would serve the construction workers for the universities development which is literally just across the road. And we thought this was such a waste [...] You know they are planning to build on the ground in 2018, we'll see what happens! (laughs). But you know we totally accept that and you know we're not a protest group but hopefully we can create something really wonderful there and... and for the next few years be a service to the public so... and the VU. (Project Manager, The Green Living Lab / Het Groene Leven Lab, 28/10/14).

UGCs also highlight some sort of a dichotomy in the think global / act local movement, a problem of organization and scale to make a real, wider scale impact with local, small scale and community led models and projects:

We need to start to see the extent of greyness in those neighbourhoods. It can help realize, the only way to tackle this is green space you know, we can't afford to knock this housing down and rebuild it, so how do you get green strategies working virally? [...] There's little projects going

there and community garden movements starting and stuff. So there are moves you know but I think they are nowhere near fast enough (Director [1], Forum for an Alternative Belfast, 09/03/15).

In Amsterdam the partial devolution of stewardship of untended, vacant spaces seems to be at a more advanced stage, with the municipality (*Gemeente*) even providing aspiring urban gardeners with a map of available spaces and a limited number of small grants through its local councils (*Stadsdelen*):

And the other thing we do a lot is we teach in the community gardens around the city, there's hundreds of them right now and there's been a lot of help by the *Gemeente* in getting the land settled, and sometimes funding for materials, and what's missing is the knowledge, so people don't really know how to start, so that's where we're coming trying to help them get going. [...] But on that we'll say 'look, see if there's anything there otherwise just walk around your neighbourhood, just look for, you don't need much space at all and then you go touch basing... contact your *Stadsdeel*, that's usually that easy (Coordinator, City Plot Amsterdam, 09/10/14).

We made a research and we provide a how to do list for any initiator in the city of Amsterdam in any neighbourhood, if you want to start a garden, that was three years ago, if you want to start a garden those are the things you need to do to make it legal and it is possible almost anywhere. [...] So... as long as you know which are the rules to make this happen... you can do it (Director, CITIES Foundation, 16/09/13).

There is obviously a good bit of pragmatism and rationality, both political and financial, behind this movement for as one interviewee explains:

And to answer your second question, also we noticed that with policy makers in the city of Amsterdam at least there's, and in general I guess, there's more consciousness about the change in how people look to these developments and to green spaces. They have to because... for one, the "voice of the people", it's a big word but it's getting stronger, people are more able to, better able to speak for themselves, and on the other side the municipality and the government is shrinking and having less funding to... to follow their own plans. So they are much more, they have to be open for the inputs of local organizations and local people (Landscape Architect, Delva, 23/09/13).

One interviewee points out that, given the current lack of financial capacity of authorities to keep on maintaining parks and open green spaces, these cooperative governance arrangements very often present a win/win situation:

And then over the years we've done quite a lot in terms of infrastructure improvements, so everything from raising the money to get the tennis court resurfaced to buying the orchard, which was a bit of abandoned land, buying it, clearing it, planting fruit trees, giving it back to the park, so it now belongs to the city council though we raised the money to buy it. Skate-park, basketball court, boules, planted the millennium wood in 2000, so lots and lots of you know, very different activities going on. [...] And we were all sat down in a room together, and when the only other people who care about your park as much as you are, is either the park manager or the volunteers, we're the people who really care, and the target should be the politicians, who make the decisions about where money goes or doesn't go, and it's not the park officers, it's not the volunteers (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

Another interviewee adds an important caveat: when it comes to public parks and open spaces Friends groups can't substitute themselves for park rangers or maintenance teams from local authorities. They have to work hand in hand but have a different role, even though they can do a lot. This is about the partial devolution of stewardship and curating powers, not a complete transfer of management power and responsibilities:

We work really closely, I know all the parks managers really well and head of rangers everything, we do work closely and they do see us as important, they count us as a critical friend and they involve us in the decision making process so there's no gap there. Occasionally some people may think 'oh yes let the community run it, they've got such a good group'... No, that's a no go, because if you think about it there's a lot of work gonna be done to keep an open space looking good, even just mowing the grass: you need a big drive lawnmower. And community and the local volunteers are volunteers: they can do a lot, they really can but to do that they've got to have that core structure run by the Council, by the landowner, a core structure to keep that park or open space in a good condition. Then a community group can come on board and bring in all that added extra value: they can bring in more money for new equipment, they can bring in events, they can bring in activities, they can do all sort... educational walks, all sorts of things belonging (Chair, Birmingham Open Spaces Forum, 11/02/15).

A lot of work must be put into mutual trust and assistance, such communing initiatives are about empowering communities, not abandoning them with an unwanted burden:

And when it is self-supporting [...] then they draw back, but when it goes less, then they... ok? It's like that, they do it... well to start it and first year, they look if it's not neglected or if there are some problems, when it goes well they withdraw but they look but from... yeah. Distance with love, we call that (Participation Broker, Municipality Amsterdam, 31/10/14).

Whenever you provide the possibility to citizens to engage in something, and you give them a strict idea about what the final result will be, there's much of a higher possibility to fail, rather than create a process, and think about the process of understanding what are the needs of that area and helping the citizens to shape themselves as the ones that will be bring this process further, even when you are gone (Director, CITIES Foundation, 16/09/13).

Thus, urban green commons are a combination of interests and spaces in cities, shedding a new light on some canonical place making theory as can be found in the works of Jane Jacobs and Jan Gehl, where practices of territorialisation and reterritorialization are embedded within stewardship and governance arrangements, a co-recreation of place through a latitude for self-determination.

6.3.2 Diachronic Environmental Politics

Urban green commons are not only disrupting the neo-liberal timeframes of governance and management but also more traditional manifestations of politics. They embody a progressive form of "politics by other means", born from the need to find a third way between the usual, confrontational (and ultimately unproductive) protests and an inauspicious lack of action,

I've got very strong feelings about property, developers and the idea of land banking and the idea of sites, which have so much potential in the city... they're being left to rot and really bringing down the... the town, the kind of fabric of the area. It was interesting because the government tried to tackle land banking by making sure the business rates were applicable to vacant buildings as well as used buildings. And in Digbeth instead of the buildings becoming alive with tenants in a lot of cases it just involved... it just resulted in demolition orders being sold so... there are whole swathes of Digbeth have now being demolished and are being used for no purpose whatsoever, occasionally car parking. So this is... this is... I mean as much of a campaign to say no to... to those things and to have a democratic voice of... you know, this is the way that land should be managed (General Manager, Friends of the Earth Birmingham, 27/02/15).

And where a community comes together and says: 'we would like to see something happen here', that becomes a political campaign. And so we are part of that political campaign to say: 'let's make better use of this piece of land'. In some respects, it's nice that it's just completely wild, but then what happens? Is turned into something like a desert, of all brambles or all nettles or all laurels? And the people who use it are only the people who are determined enough to make it their home or make it their special place. So one has to then have a social and political campaign to say: 'let's do something about this', and partly that's what

prompted the orchard. [...] So there is a mismatch between what should be accountable governance and the reality (Director [2], Highbury Orchard Community, 01/04/15).

The biggest challenge often consists in breaking down the various barriers and establish an efficient, informed, and mutually understanding communication:

We were thinking 'ok, this is a very political forum', we personally believe that there is social responsibility no matter what kind of ownership rights you have, but... so anyway we had... it was a huge learning curve for us. [...] if we want to have a serious conversation about protecting green spaces in our city, we have to do it only in a positive way, we have to do it by inspiring and actually, you know, finding out what everybody needs because the assembled brutality doesn't work. It just doesn't work. (Project Manager, The Green Living Lab / Het Groene Leven Lab, 28/10/14).

[...] basically funding restrictions. It just wasn't on their priority list. But it would be great if we could prove... prove them that this should be a priority in some parts of the community. [...] But... and I think that there is... almost like a communication barrier there. How to fix that... I guess that's where you come in (laughs). But yeah I think it would certainly help if they were greater communication between people in the community, the community and the council (Project Manager, Bridge Community Garden, 13/03/15).

Suspended developments or a lack of financial or managerial capacity may also lead some untended or abandoned spaces to become places of anti-social behaviour, driving people further away not only from nature but from their community and sometimes from society at large, thus reinforcing processes of segregation and enclosing, both within spaces and within society. Urban green commons can be a powerful tool to prevent such processes:

I think some spaces are... developed with the particular idea of reducing antisocial behaviour. So if you use a space and make it nice or turn it into something else, the antisocial behaviour stops. So for example, up on Coplow Street which is where I got my local grow space, we... five, six years ago we got permission from the Council to work with an old garage space which was... you know it was an attraction for drug users, it was an attraction for antisocial behaviour... and that space got turned into a free growing space and the antisocial behaviour stopped obviously cause the space wasn't there anymore. But you involve local people in projects and that element is definitely reduced (Program Manager, The Conservation Volunteers, 04/03/15).

Well I suppose I can come from my limited experience from whenever I was working on this project, but the before and after is incredible. Before it was kind of a run-down fence, ugly car park and it really had an effect on the rest of its surroundings. So you were coming down the road you really didn't pay any attention, unfortunately that area as well... there's quite a lot of shops, which aren't occupied... Shutters are down... but with the, with this garden it really has changed the area completely. And the idea hopefully then is that, the obvious thing is people will come and enjoy the garden, but hopefully it will impact on the surroundings too (Project Manager, Bridge Community Garden, 13/03/15).

Urban green commons and the various processes of commoning are also a manifestation of how the continuing disinvestment of public authorities has progressively enabled a shift in the balance of power and seen the emergence of new forms of political engagement and new geometries of political relationships within cities. New forms of pragmatic, common interest oriented associations and partnerships are blooming, with an increasing level of cooperation between stakeholders from both the public and the private sectors and citizens, in light of which the real divide appears to stand between the higher ranking politicians, the decision-

makers, and the front-line management, such as park staff, rangers, etc. and the various citizens and interest groups:

And we were all sat down in a room together, and when the only other people who care about your park as much as you are, is either the park manager or the volunteers, we're the people who really care, and the target should be the politicians, who make the decisions about where money goes or doesn't go, and it's not the park officers, it's not the volunteers. So the main reason for getting BOSF together, the three main reasons: one, to support individual groups, so they can all learn from each other. Two, create a really good dialogue with landowners, which in most case is the city council, so that we are seen as equal partners with them. And thirdly just to make sure that the priority of all the issue of parks was staying on the political agenda. As a big group we could make ourselves heard (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

There's no gap between us, I don't see any more in the Parks department. We work really closely, I know all the parks managers really well and head of rangers everything, we do work closely and they do see us as important, they count us as a critical friend and they involve us in the decision making process so there's no gap there. It's the next tier up really; it's getting the decision makers to understand again and... not just see parks and open spaces as the easy cut. It's not an easy cut. We... we made it clear that parks and open spaces in Birmingham is not an easy cut, and that they do have a fight on their hands if they want to keep cutting in (Chair, Birmingham Open Spaces Forum, 11/02/15).

This increased level of cooperation does not suppress the urgency for all stakeholders to stay vigilant and keep on protesting and lobbying local authorities:

I think certainly in Birmingham there's the... the sort of support which the green spaces have from Friends groups or from individuals is... is huge, and I think you know you only have to look at the last two or three budget consultations to realize, actually if the green space, Friends groups and the parks groups and the allotment groups weren't, actually on the ball and pushing for their green space then a lot of the cuts over the last couple of years would have hit green spaces. But by motivating and mobilizing a huge number of responses the Open Spaces Forum have actually done a lot of good work to stop cuts in green spaces (Program Manager, The Conservation Volunteers, 04/03/15).

Well we've quite a situation with Birmingham City Council at the moment where it's actually broke, it's got no money it's got massive debts. So... the economic pressures on the City Council are huge... but I guess in response to that what we'd say is... so are the environmental and the social pressures on the city and the... we can't just let the economic pressure take... take priority each and every time (General Manager, Friends of the Earth Birmingham, 27/02/15).

Indeed, one recurring criticism is that political pressure and diverging priorities push politicians and decision makers to adjust their discourse, enforce local and national agendas and policies, thus abandoning or neglecting green agendas and commitments to sustainability:

Oh and Government have been pathetic as well, you know, so I might as well get it said and then... you know government like to have their policy and their white paper and then they will pilot things, they will do demonstration projects, you know, I mean DEFRA is guilty as anybody else. Peanuts, absolute peanuts have they invested in green infrastructure in urban areas. Ok, I've said it (Trustee, Wildlife Trust, 06/03/15).

The all liberal agenda for the city which is, you know, 'we want to take all that away but these neighbourhoods are resistant to change' and I think that's the kind of let's see... that's a lot of government speak. I would put up in a much different way I think, I would say you know these neighbourhoods have actually been forced into kind of small crowd areas surrounded by big road infrastructures, they've been built on a kind of culde-sac layout that's introverted, that's not their fault. So the introversion, social, political that's projected around all these neighbourhoods has been built up when... I think we forget that, I think we forget that the city has been... changed radically in forty years (Director [1], Forum for an Alternative Belfast, 09/03/15).

Accepting that,

More recent approaches view the urbanisation of nature as a process of continuous de-territorialisation and re-territorialisation of metabolic circulatory flows, organised through social and physical conduits or networks of 'metabolic vehicles'. These processes are infused by relations of power and sustained by particular imaginaries of what nature is or should be (Kaika and Swyngedouw 2012, p.24).

I also contend that such confrontations re-invigorate urban politics beyond the postpolitical situation denounced by Kaika and Swyngedouw (Swyngedouw 2009, Kaika and Swyngedouw 2012), and re-introduce some vitality in the democratic life of cities:

Indeed, while clouded in the rhetoric of imminent catastrophe and the need for radical change, technical fixes to environmental problems are currently highlighted as solutions, making sure that nothing really changes and contributing to what has been defined as a post-political urban condition (*Ibid*, p.26).

They are proof that scaremongering discourses on global warming and environmental threats have not managed to annihilate all forms of properly democratic contestation

and political participation around less-than-radical environmental politics and the enforcement of a consensual technocratic, business-oriented sustainability agenda. Through these various processes of de-territorialisation, re-territorialisation and-cooperation the political and social impact of urban green commons is to reshape political and environmental imaginaries and to liven up democratic engagement in the city. Urban green commons, seen through an anarchist lens of continuous transformation and re-territorialisation, help the development of more resilient spaces in these changing and uncertain times, socially, environmentally and economically. Thanks to more enduring political co-operations and socio-spatial projects, deliberately eschewing the traditional electoral timeframes of environmental governance, these spaces are progressively re-inserted within a less arrhythmic, more symbiotic urban natural sphere.

6.4 Transmission, Intergenerational Justice and Remaining Boundaries

Urban green commons fulfil an important function not only as powerful vectors of place making initiatives but also in the role they play in the retention and transmission of collective memories and knowledge (Colding and Barthel 2013). The various processes of retention and transmission happen not only through place-based activities and operations of governance, management and stewardship, but through the very acts of appropriation, de-territorialisation and re-territorialisation.

I argue that urban green commons are not only building cognitive resilience (*Ibid*), they also hold the potential to foster more critical, environmentally conscious citizenship and to encourage more radical and democratic politics. Some forms of coengagements already exist (with schools, reinsertion programs, etc.) that could be pushed even further, articulating together physical spaces, common interests, cultural diversity and an intergenerational process of education, transmission, co-existence and self-determination that too often fails to be articulated as such in the literature:

Not formal education but I think... there is a lot of education that goes on so people learn how to grow things, people learn how to identify things, people learn how to... certainly in the case of Health for Life spaces, people learn how to construct (Program Manager, The Conservation Volunteers, 04/03/15).

Because it's about encouraging the local, the small kids to take pride and ownership in their local area. And if you can get them interested at primary school you tend to keep them through (Head of Parks, Birmingham City Council 12/01/15).

Transmission is crucial not only to pass on knowledge and skills to future generations, but also to guide and inspire their current and future behaviour:

So I found that program really inspiring and I thought the kids that took part in it were... behaved completely differently than they did inside the school, and were very excited about the food they produced. So kids were interested in food out of the supermarket, ate everything that they grew themselves, and were just happy to be outside and the social dynamics between the children changed, and I just thought this is what I want to be doing. A very concrete way to make positive change in society (Coordinator, City Plot Amsterdam, 09/10/14).

They're also learning to have a good respect for fire, how is an outdoor fire built, can I build it myself with supervision, do I know how to put it out safely? What kind of food goes on it, can I find that food, will I recognize the right leaves and the right berries and things like that. So there are many, many things to learn... the birds around here, so many things to recognize, but also that whole sense of how it all fits together (Director [2], Highbury Orchard Community, 01/04/15).

Most interviewees echo in their own words Jane Jacob's lifelong argument that people would only carry on living in cities if those were interesting, social, creative and liveable, with an added, topical ecological / sustainability twist:

And actually having... you know, cities... cities only thrive if there's enough reasons for people to want to carry on living there. If it becomes intolerable to live in urban areas, then people move out (Trustee, Wildlife Trust, 06/03/15).

"Shared spaces" in inverted comas because we wanted to offer a different idea of what shared spaces could mean, and it was kind of shocking that those four hundred photographs were incredibly hard spaces, there was hardly any trees, hardly any landscape or gardens, so you know, what's that like for kids to grow up in this environment you know? (Director [1], Forum for an Alternative Belfast, 09/03/15).

Urban green commons start to shape a new urban political ecology that works across spatial and temporal scales and, following Low, assert the importance of social sustainability and cultural diversity, cultivated and reinforced through the preservation and enhancement of common spaces that may then act as 'pool of adaptive evolutionary strategies' in the urban realm (2005, p. 8):

People have done little pocket parks, community gardens and things; a few people have... up in Skegoneill, Glandore, the little community garden up there you may go and have a look at that, on the Skegoneill Road on the corner of Glandore, there's a small shop, a community shop and then a community garden besides, and that's a good example for people have taken their... something on board (Director [2], Forum for an Alternative Belfast, 09/03/15).

It's about the diversity and the fluidity so we, in a sense... this is a very small example of how members of the public, relevant specialists, can create and manage a place with diversity in mind and flexibility. So we're trying to balance wildlife, social, cultural... economic, ethical and other things in one space, and so... and we're doing it informally and we do it with advice and we have good social connections with people. So in a way this is a very small-scale model of how things could work in public open spaces (Director [1], Highbury Orchard Community, 01/04/15).

Once more, the main obstacle lies in how to find a way to integrate UGCs and commoning initiatives in bigger scale planning and management:

I have no concerns about society losing its interest, you know... I have no concerns at all. The public are interested, they gain value from it, they've all begin to get the messages about going for a walk and running and you know, this that and the other, and taking children out. All the social side of the agenda I think is fine and... and that's a good foundation. The strategic management approach is very poor at this moment in time (Trustee, Wildlife Trust, 06/03/15).

The limit that seems to be most frequently encountered is the lack of will to work in different ways and with different people, described as a real barrier that paralyses urban environmental politics. Such a refusal is fundamentally at odds with the way socio-ecological systems work and evolve, with rupture and adaptation, new elements and disappearing ones. In Belfast, a lack of care from public powers was also frequently mentioned:

And there's very much a, you know, 'we'll only work with this group and keep with this group, we won't extend it, we won't involve new people', and to be honest you do what you've always done you'll get what you've always got. [...] But I think... I think there's such a... such a vast amount of people and groups involved in green space that there's... there's the political will to keep those people on side (Program Manager, The Conservation Volunteers, 04/03/15).

Yeah there's a lot of people: Friends of the Earth, also wildlife... a lot of different people, you may have talked to them. You know there's plenty of people who campaign and... but the Government don't really prioritize err... how important parks are in the city (Director [2], Forum for an Alternative Belfast, 09/03/15).

No, no, who cares about these small neighbourhoods? The powers that be do not care. And it is not embedded in any urban policy whatsoever. You know you can palpably see that they just don't care about this issue. (Director [1], Forum for an Alternative Belfast, 09/03/15).

In addition, a lot of citizens it seems are lacking the will to transgress boundaries, both social and spatial, compared to what may have been the case in the past, due to changes in the social and political contexts:

The most of it isn't really peace wall really but as you get the more general flow out to, you know what is good landscape on the hills... I think is more limited by people's sectarian geography of the city now and their lack in willingness to transgress territory than they would have done back in the 50s (Director [1], Forum for an Alternative Belfast, 09/03/15).

Encouraging collaborative commoning processes of urban spaces and resources holds the potential to help people re-appropriate these spaces and cross the increasing number of socio-spatial boundaries. It is also a way to cultivate more radical, environmentally and democratically conscious politics at the local level. Finally, it is a powerful stance on issues of intergenerational environmental and social justice, offering the vision of a different, better future in a more responsible, caring, environmentally aware society (Kaika and Swyngedouw 2012).

6.5 Conclusion

Urban green commons have recently emerged in academic and non-academic literature as holding a potentially powerful capacity to reshape the way we live in urban environments. They embody a more participative, progressive type of citizenship and also echoes a certain alternative Zeitgeist, blending environmental awareness, a longing for truly democratic and participative movements, the development of the sharing economy as much as peer to peer networks, open source softwares and the growing "wikisation" of knowledge (Springer et al. 2012, p.1594).

The growing lack of financial and managerial capacities from local authorities and public powers, when it's not a straight disinvestment in favour of more economically or politically valuable projects, have also favoured the emergence of urban green commons and commoning initiatives. Those have proven especially useful for vacant or disused spaces, which can become environmentally and socially productive again, even if for a limited period of time.

A combination of common interests and physical spaces in cities, urban green commons acknowledge the criticality of an increased cultural diversity and have slowly started to reshape the geometries of power relationship and interdependences in cities.

These new and emerging urban political ecologies are the main focus of Chapter 7.

Chapter 7 Reconfiguring Urban Political Ecologies

That mankind are not infallible; that their truths, for the most part, are only half-truths; that unity of opinion, unless resulting from the fullest and freest comparison of opposite opinions, is not desirable, and diversity not an evil, but a good, until mankind are much more capable than at present of recognizing all sides of the truth, are principles applicable to men's modes of action, no less than to their opinions.

John Stuart Mill, On Liberty (1859).

7.1 Introduction

This chapter presents the reader with an urban political ecology that highlights the fractures and disconnections of the contemporary city and its drifts towards new models of stewardship, governance and social organizations. It explores the construction of the political subject, of citizenship and identity through the emergence of multiple environmental discourses, networks of governance and common interests. This constitutes a small revolution in the environmental and political life of cities that is slowly but powerfully reconfiguring urban power relationships.

To do so I want to build on and discuss three influential and innovative papers or arguments that have recently impacted political ecological thinking and theory and opened new fields by challenging a lot of assumptions and representations, including my own assumptions and certitudes when researching and writing this thesis. These three works develop different but intrinsically linked arguments which, properly articulated, can help us demonstrate how urban political ecologies are currently

undergoing a process of transformation and reconfiguration, leaning on the points made in previous chapters.

Mainly based on the work of Nate Gabriel section 7.2 explores the production and reproduction of environmental imaginaries through the diffusion of a hegemonic discourse of nature that shape individual knowledge and influence the whole process of environmental governance. It then moves on to show how the emergence of discordant environmental discourses resulting from micro-politics of place have started to reconfigure power relationships through liberating, situated practices of commoning.

Section 7.3, A Non-Linear Political Ecology, uses the work of Ahjond Garmestani on adaptive, networked governance as a starting point to trace the emergence of a new category of medium level actors and the reconfiguration of environmental management and governance processes at the urban level, increasingly performed through decentralized, fluid and cross-scalar networks.

Section 7.4 investigates and discusses Erik Swyngedouw's body of work on the post-political condition of cities and the processes of post-politicization. I explore and evaluate how the transition of urban environmental governance to a stakeholder-based arrangement is at risk of preventing any form of political dissent, contestation and ultimately annul the properly political life of cities. I finally advance the importance of highly politicized environments, urban green and governance processes.

7.2 The Environmental Imaginary and The Commons

7.2.1 The Production of Environmental Imaginaries

Imagining, again, urban environmental utopias that go beyond a neoliberal framework is imperative. We should dare to try again, to think anew, even if we have to fail again (Kaika and Syngedouw 2012, p.26).

In a compelling and thought provoking paper entitled *Urban Political Ecology*: Environmental Imaginary, Governance and the Non-Human Nate Gabriel undertakes the hefty task of untangling how what we refer to as "environmental imaginaries" are produced, reproduced and disseminated, using a Foucauldian-like enterprise to trace the genealogies of environmental knowledge, imaginaries and governance (Gabriel 2014). By so doing he explores and discusses the role afforded to these various environmental imaginaries in governance and how what he refers to as the dominant, hegemonic environmental discourses are not only shaping but standardizing and unifying our conceptions of nature and ordering the material conditions of urban spaces through the construction of landscapes, subjects and practices. As a result of their recent mainstreaming and overall adoption throughout the political spectrum, both governmental and non-governmental, such discourses, originally produced as a rationale to enforce environmental policies and impose governance practices, have come to shape people's perceptions and environmental imaginary. The international scientific consensus on global warming and environmental degradation have helped the construction of this discourse and the emergence of a dominant environmental narrative based on the growing disconnection between an ever more urbanized human and a vulnerable nature in need to be returned to a pristine state (Gabriel 2014, Kaika and Swyngedouw 2012, Swyngedouw 2009).

The interactions of such a manufactured imaginary with the non-human (the material) and the more-than-human (vegetal and animal), and the socio-spatial practices resulting from these interactions, are now often considered as a prominent driver of environmental governance and most of the current urban political ecological dynamics and debates are framed thereupon (Heynen 2013).

In this chapter I argue that these current dynamics might not be as systematic, unidirectional and linear as often presented in the literature. New and emerging forms of engagement with urban nature and green, through urban green commons and commoning practices are powerfully reshaping urban environmental imaginaries by involving citizens to confront them with different environmental materialities and narratives, as shown in Chapters 5 and 6. In so doing our very engagement with the natural world surrounding us is transformed, creating important shifts in the political, social and environmental life of cities and thus reconfiguring urban political ecologies outside of imposed imaginaries and socio-natural relationships.

Following Gabriel, I advocate a departure from the dominant hegemonic environmental discourse to focus on the 'micro-politics of urban environmental discourse' and on the resulting opportunities for new political activities (Gabriel 2012, p.40), built around common interests and the politics of affinity introduced in section 5.3 (Clough and Blumberg 2012). As *per* the introductory quote it is about imagining new urban environmental utopias and, following anarchist principles, striving to lean towards these utopias, not seeing them as an end point (for utopias shall never be realised) but as a continuous endeavour, a way to maintain high levels of awareness by never letting unbearable or unsustainable environmental, social and political conditions settle down.

7.2.2 Urban Green Commons and the Micro-Politics of Place

My interviews highlight a vast array of reasons why people regularly visit urban green commons or decide to get involved in their maintenance or management: from a concern for environment and climate change, an educational purpose, an interest in healthy eating and food growing processes or the desire for a richer sociability and a vibrant community life to an increasing awareness of the physical and mental health benefits provided by such places. This variety of interests and motives highlights not only the broad range of benefits that people derive from urban green and are progressively becoming aware of, but also a dynamic change in their environmental imaginaries and perceptions through a ripple effect of a sort, acquiring environmental, social and political dimensions.

When it comes to urban green commons this also illustrates the importance of the moment and the momentary: they are a point in place and time, a reference, a temporary centre of gravity in the life of many people and communities (see 5.3.1 and 5.3.2). Urban green commons are both a locus and a catalyst. Hence the necessity of political ecological works that pay attention to 'the momentary and the commonplace' (Gabriel 2014, p.42), as I have endeavoured to do in this thesis, to highlight the ambiguity, ambivalence, indecision, and opportunities born from these interactions and which allow the emergence of new dimensions of life through the connections between autonomous subjects and their environment (Chapter 6). This also echoes our conception of space and society as flexible arrangements undergoing constant reconfigurations, and ties in with an anarchist vision of people organizing and

re-organizing the modalities of their lives both with and against the grain of the everyday matrices of power, depending on how those constrain or liberate their lives.

Through this perspective it becomes possible to envision the formation of the individual subject not as the product of the disciplining, uniformizing power held by the state but as a result of the productive forms of praxes that breed power and knowledge (see 6.3 and 6.4), while governance is understood as the exertion of control not through laws but through what Foucauld referred to as the right disposition of things,

the processes of interaction and decision-making among the actors involved in a collective problem that lead to the creation, reinforcement, or reproduction of social norms and institutions (Gabriel 2014, p.42)

This proposition, I argue, must be developed by suggesting that these processes don't necessarily favour a decentralized form of autocratic governance (Swyngedouw 2005) but can result in potentially liberating and empowering practices.

Indeed, a plurality of emerging urban realms can be identified by paying attention to the multiple, divergent social and spatial practices of urban citizens for,

Here, governance is not examined by tracing the circuits of power through which citizens are controlled, dominated, or oppressed by the state and related institutions, nor is it treated as a force that operates unidirectionally to inculcate citizens as self-monitoring subjects of economic regimes that foist responsibility and risk onto the poor and working classes in the service of the interests of the elite (Gabriel 2014, p.42).

7.2.3 Political Ecology Beyond Actor-Network Theory?

Finally, I call for a distancing with Actor Network Theory-oriented political ecological works and contend that non-human and more-than-human agents don't have an active, co-constitutive role in shaping the political ecology of city. Urban "nature" is a juxtaposition, or more accurately an assemblage of human, non-human and more than human elements, a hybrid object, but human actors are the ones politicizing, sometimes depoliticizing depending on their needs, and vesting with meaning the human, the non-human and the more-than-human. This is not about denying the reality, the materiality or the symbolic power of non-human and more-than-human elements, but recognizing that if politicized non-human and more-than-human entities influence the thinking and actions of human actors, they don't partake in any negotiation or confrontation process: they are negotiated or the confrontation happens over them. These processes are what constitutes and alters the political ecology of cities.

Hence the importance of narrative research and methods focusing on discourses, perceptions and subjectivity to delineate the emergence and the construction of environmental, social and political knowledge and consciousness. This knowledge consequently shapes (or comes to amend) the environmental imaginary and thus the environmental consciousness of citizens, which in turn impacts greatly on power relationships, governance processes and thus on the overall political ecology of cities, the resources, their users, stewards and managers. Through this process a new category of actors and governance networks is slowly starting to emerge, and I shall identify and characterize them in the next section.

7.3 A Non-Linear Political Ecology

In this section I wish to demonstrate how the emergence of new networks of power and governance is deeply reconfiguring urban political ecologies and environmental management dynamics by deeply transforming the various processes of production, negotiation and sometimes commodification of urban green. By focusing on these new dimensions of governance and stewardship we can aptly frame and better understand how expert knowledge, skills and management responsibilities are now shared and, gradually, become more evenly spread and often contested.

7.3.1 The Emergence of Medium Level Actors

First we need to focus on the importance of a nascent and very diverse category of actors, either individuals or groups, that increasingly act as intermediaries between the higher levels of decision making, front line management or volunteers and citizens, the mains users of green spaces. Affiliated to charities, non-governmental and non-profit organizations, to interest groups and sometimes to the public administration, these actors occasionally belong to multiple networks, holding several positions and being engaged in different initiatives. Their emergence can also be partly linked to the rise of the volunteering sector, cultivating the same strategies of close relationships and tight but decentralized, vertical and cross-sectoral networks, thus possessing a far reach.

Establishing a tentative, far from definitive typology of what I would characterize as "medium level actors" is a complex task. These actors are not just practitioners or park-goers, nor are they policy- or decision-makers. Located somewhere in between those two categories they occupy a broad and rather undetermined range of positions,

in a similarly broad and undetermined range of institutions. Of importance are their leadership capacities, their knowledge of the environmental but also in the political and social spheres and their management skills. Based on my panel of interviewees the background of these actors is of significance too. In terms of education there is an over-representation of graduates (twenty-five out of twenty-eight interviewees acknowledged holding at least a Bachelor's degree), a majority of them having a background or qualifications in environmental, social and / or political sciences or a relative field, nineteen of them holding a degree in one of those fields and three being trained as architects. Similarly, their professional trajectories are hardly neutral: some have previously worked in the conservation and environmental sector, others in the private sector in managerial positions or as social workers in the public sector.

Gender equality characterized my sample: one half of the interviewees were female (fourteen participants out of twenty-eight), without any pre-selection or intended purpose. Moreover, men and women held comparable positions in terms of hierarchy, responsibility and power though it must be stressed that women tended to be a little more represented in the voluntary / charitable sector or in part-time positions. Nine women out of fourteen worked on a full-time basis, while only three men were on a part-time basis, one of them being retired. It is important to note that this full-time / part-time distinction is made in regard to the position for which participants were interviewed, some of them being engaged part-time in other environmental or social ventures, thus being employed full-time. Women thus generally held comparable, if a little more precarious, positions. The situation is not as bright when it comes to diversity, all our interviewees being white, middle class and very often middle age (or soon to be).

The networks within which these medium level actors operate prove to be both tight and strongly interconnected. Garmestani repeatedly mentions but fails to properly identify these actors (2014). Their total number is hard to estimate (for any given city) but appears to be overall limited. In Birmingham and Amsterdam most of these actors knew each other personally or were aware of each other's work and influence, mentioning it during the interviews, often referencing or acknowledging some of the other actors' importance or actions when they didn't directly mention a collaboration. demonstrating both the presence and the extent of these emerging networks. Some organisations such as BOSF in Birmingham and City Plot in Amsterdam were repeatedly mentioned. As for Belfast the situation appears a little different: no such central figure emerged even though some mentions were made of notable actors or places. Different explanations may be advanced for this: the smaller sample of actors, a less advanced situation when it comes to cooperation in terms of green spaces management or, as suggested in all the interviews, the still strongly sectarian and divided geography of the city that keeps on impacting every dimension of urban development.

The emergence of this new category of medium level actors (as presented in Chapter 3) illustrates that,

There are critical roles to be played by individual actors in shifting policy from one regime to an alternate regime. Individuals who are well-connected, innovators and / or charismatic have the capacity to help create the conditions necessary for change [...] the leadership needed to foster a transition to adaptive governance isn't necessary the work of one individual (Garmestani 2014, p.735-736).

Their interactions, characterized as "non-linear dynamics" (*Ibid*), need to be accounted for: they are processes made of ruptures and reconfigurations, involving a broad spectrum of actors whose power relationships aren't simply straight line hierarchical.

Medium level actors occupy a broad range of functions. Some of them are facilitating the everyday management and maintenance of the green infrastructure (Friends groups leaders), informing and training volunteers or aspiring commoners (through structures such as City Plot, GROW), carrying education and outreach programs (ANMEC, the Conservation Volunteers), lobbying local, regional and sometimes national authorities (the CITIES Foundation, the Forum for an Alternative Belfast) or relaying national campaigns (Friends of the Earth), often undertaking several of these tasks, and act both inside and outside of the traditional governance conduits, in official or non-official capacities, in a co-operative or oppositional manner.

Our case studiy cities each presented us with very different landscapes of medium level actors both, in their characterization and organization.

In Birmingham most medium level actors belonged to bigger groups or structures, all very well connected and inserted in strong networks that linked or extended regionally or nationally. In addition, despite a history of head-on confrontation and protest, they overwhelminghly enjoyed the support from local authorities and front line civil servants (such as park rangers...), with a broad range of cooperative actions very much in place and efficient. Finally, the Birmingham landscape was characterized by a very advanced level of cooperation and federative dynamics, with a lot of small to medium groups assembled under bigger umbrellas: for example, the various Friends groups

gathering under the tutelage of the Birmingham Open Spaces Forum, which is itself part of the national Federation of City Farms and Gardens.

Amsterdam was characterized by a myriad of small and very small groups (even though they were some bigger ones), and medium level actors had a very international profile due to the highly cosmopolitan aspect of the city. The groups they belonged to generally appeared to be hyper organized, often specialized but not necessarily to cooperate beyond measures. The fact that commoning initiatives are encouraged by local authorities and have been part of Amsterdam's political ecological landscapes for some decades now seem to favour actions from smaller groups at a very local scale rather than the intervention and coordination of bigger structures or environmental charities.

The profile of Belfast's medium level actors is slightly more tricky to establish. First, I could not identify many of them beyond a handful of somewhat overwhelmed civil servants (who felt like they were not given the means to properly do their job) and independent actors working in isolation, with an absence of publicly available resources, be it information or funding. Every initiatives or policies seemed to circle back to Belfast's specific problematics: the division between protestant and catholic communities, the need to equally favour their development and to maintain a hard-earned peace. Finally, most local planning decisions were still taken at national level at the time of inquiry, in total disconnection with the ground, maintaining an enduring feeling of defiance and mistrust (both between Belfast citizens and local authorities, and between local civil servants and "central" decision makers and politicians) in a city where building trust and mutual understanding around common interests would be a key step.

7.3.2 The Increasingly Networked Governance of Urban Green Commons

Following the work of Maarten Hajer and Wytske Versteeg (2005), I contend that governance is increasingly happening through networks rather than being enacted by single entities or more traditional public or private bodies. This network governance is used to make up for the absence of a clearly defined legislation or as a coping mechanism to face increasingly difficult or unprecedented situations, such as a continued reduction of financial capacity, the emergence of new demands and concerns from the general public or a clear prioritization and politicization of some new topics. In the words of the authors, rather than theorized and conceived:

network governance is performed. The essential instability, the absence of shared rules, the need to collaborate across systems of signification: these are the conditions that ensure that the very joint experience of collaboration becomes the key reference in securing such essential components of 'good' governance as shared knowledge, trust and a reciprocal understanding of conditions under which the various parties have to operate (Hajer & Versteeg 2005, p.342).

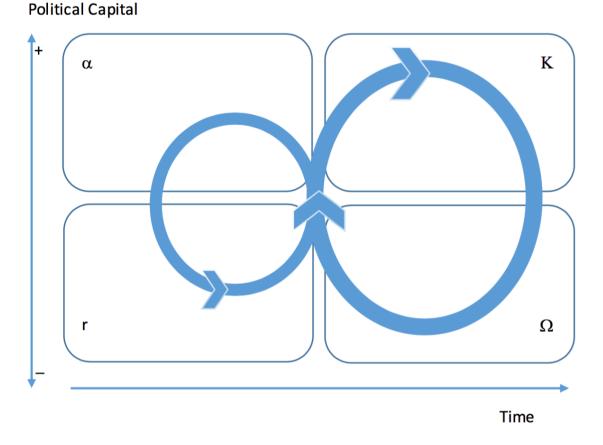
This again brings us to a Foucauldian notion of governance as control happening through the right disposition of things, where the acting power is not necessarily traced through the classical statist arcana of legal coercion or domination. Indeed, the right disposition of things may also be envisioned as a right disposition, or maybe more accurately a right association, of people, structures and time.

Envisioning governance through networks also offers an opportunity to break away from the usual representations of governance processes as either a top-down imposed force or a bottom-up opposed resistance. Actually these processes would be more

accurately pictured as circulations inside a multiscale ensemble of interconnected networks.

Returning to panarchy, the model can be used to represent an adaptive cycle of governance processes, especially in terms of policy making, apprehending the policymaking process as an adaptive cycle of policies where those are conceived and implemented during the growth phase (r), concern or contestation arise as policies start to display signs of failure during the conservation phase (K) before they fail during the phase of release (Ω) and are amended or replaced during the reorganization phase (α) (Garmestani 2014) (Figure 7.1).

Figure 7.1 An adaptive cycle of policy in panarchy



Source: Allen et al. 2014

Another layer of complexity must then be added as these adaptive cycles operate across a distinct range of scale both in space and time, and are connected to other adaptive cycles operating on adjacent levels. As adaptive cycles are operating over discrete ranges of scale, a system's resilience (its adaptive capacity) depends upon the interactions between structure and dynamics at multiple scales (Garmestani 2014, p.732).

The same adaptive model can be used to represent the reconfiguration of governance processes. I contend here that through the right disposition of things, the practical governance arrangements often take precedence over the current policies and governance guidelines in the release (Ω) and reorganization (α) phases. The latter often takes a long time to develop but eventually leads to a policy making or reformulation process. These practical arrangements may even serve as inspiration and, in some cases, orient the reformulation of policies. Such adaptive cycles also reconfigure environmental discourses, both official and alternatives, and reshape the relationships of the actors involved.

This model remains of course very schematic and the reality may not be that simple or well-functioning. As emphasized by one of the interviewees:

I think the thing that's missing is the connection of all green spaces. [...] we don't get together, we don't link as much as we should, and we don't strategically look at what, where... irrespective of ownership, and work out what's the best use or activity on that land (Head of Parks, Birmingham City Council 12/01/15).

The disconnection between civil servants has already been explored in Chapter 4, all of them following or being subordinated to very siloed (and often competing) agendas

and political imperatives. This would indicate that even though the various medium level actors know each other and sometimes interact on a regular basis, their cooperation is not guaranteed. Most display a tendency to work in isolation or behave in a confrontational manner. Despite these limitations and the necessity to overcome a certain mutual defiance, a transition in governance is undeniably taking place, highlighting the necessity to develop and empower such networks, to improve communication between actors and facilitate mutual recognition.

As emphasised by Garmestani,

A complicating factor in this calculus is the fact that not only are social–ecological systems often characterized by multiple regimes and the capacity for nonlinear dynamics, but also policy is sometimes characterized by multiple regimes and nonlinear change (Hall 1993). Thus, it is necessary to improve environmental management via a suite of mechanisms that allow for adaptation in the responses to surprises (2014, p.732).

Following the work of Gunderson, Garmestani goes on to argue that 'the generation of adaptive capacity in management entities' is a good form of institutional insurance policy for sustainability since a certain degree of uncertainty is constitutive to social–ecological systems. This adaptive capacity in social–ecological systems is 'characterized by past history and local knowledge, as well as open and frequent lines of communication between entities at multiple scales' (2014, p.735).

Generating adaptive capacity actually accounts for the true nature and complexity of Social Ecological Systems and strives to adapt their governance and management (Allen *et al.* 2014). Indeed, adaptive governance has an essential role to play in the management of social–ecological systems: top-down, centralized decision making

processes which emphasize immediate, hyper-reactive responses to system crises tend to increase the vulnerability of said system. This vulnerability can be reduced and better apprehended when an adaptive capacity is fostered at multiple scales within the system (Allen *et al.* 2014, Garmestani 2014, Sellberg *et al.* 2015). This process also helps in the enterprise to build more resilient and potentially truly sustainable cities, in which sustainability would not simply mean "not unsustainable" or an even vaguer opposite of unsustainable (Ehrenfeld 2009). To do this there is a need to recognize the knowledge, leadership and governance capacity that exists and emerges at every level and every scale, within decentralized networks of power and governance. The official mechanisms to connect institutional and non-institutional stakeholders, individuals or groups, operating in diverse networks at every scale are currently lacking and remain mostly informal.

The transmission of local environmental history and knowledge must also be facilitated and this process, if not institutionalized, has to become routine, so an intergenerational form of environmental and social justice is empowered (see 6.4). Enabling governance processes through these emerging networks and, by so doing, progressively opening governance and stewardship to all members and parts of society (including the voluntary and community sector in particular) is also a powerful democratic move, leading us to re-evaluate Swyngedouw's assessment of the undemocratic, post-political condition in cities.

7.4 Beyond the Post-Political City: (Re-)Politicizing Urban Environments

7.4.1 The Post-Political Condition

Most of Erik Swyngedouw's work over the last decade has either focused on or directly dealt with what he refers to as the "post-political" condition of cities and the "post-politicization" of critical subjects such as the environment, citizenship or social justice. Reduced to its most straightforward expression and definition, the post-political condition is the embodiment of 'new forms of autocratic governance-beyond-the-state' (Swyngedouw 2009, p.608). In the post-political city, the very act of governing has been reconfigured into:

A stakeholder-based arrangement of governance in which the traditional state forms (national, regional or local government) partake together with experts, non-governmental organizations and other 'responsible' partners (see Crouch, 2004) in the pursuit of environmentally sustainable socioecological practices (*Ibid*).

Here sustainable refers to the hegemonic discourse and dominant notion of sustainability mentioned in Chapter 4 and section 7.2, built around the common, technocratic narrative of an impending ecological catastrophe that only a worldwide social change informed by expert knowledge and backed by techno-institutional fixes can prevent. This vision is also highly tributary to a conception of the world as a SES, in which,

urban environmental conditions are seen as dynamic, socio-physical, power-laden and co-evolutionary constructions. Uneven consequences of socio-environmental change, the distribution of environmental 'goods' and 'bads', and the rhizomatic networks that relate local urban ecological

transformations with distant socio-ecological processes are now commonly understood as combined social and physical entanglements. (Swyngedouw 2009, p.603)

The post-political condition, fundamentally, is a slow but steady drift towards a technocratic, authoritative form of governance based on a consensual but fundamentally apolitical discourse ordered around a scientifically fleshed out vision of an uncertain future, plagued by the consequences of climate change and resource scarcity. Focussed on expert knowledge, technical efficiency and managerial capacity the post-political condition annuls both the responsibility of political leaders and the properly democratic (as in *demokratia*, the power held by the people) political moment: most forms of contestation are prevented under the argumentation that civil society is indeed represented in this arrangement (through the partaking of NGOs, charities or community groups) and that it is fundamentally irresponsible to contest expert knowledge or reject the principles of sustainability, as an ethical, responsible, environmentally oriented politics of welfare (Swyngedouw 2005, 2009 and 2011).

The notion of scale is very important in the post-political argument: post-political governance happens through a release of power and responsibility at the local or urban scale coming from governing bodies operating at a superior regional or national scale to ensure the cooperation of the various actors involved, anaesthetize the political conscience of the civil society and weave a new narrative of environmental sustainability and political (self-)determination (Swyngedouw and Heynen 2003):

Not only is the political arena evacuated of radical dissent, critique and fundamental conflict, but the parameters of democratic governing itself are being shifted, announcing new forms of governmentality, in which traditional disciplinary society is transfigured into a society of control

through disembedded networks of governance (Swyngedouw 2009, p.608).

The post-political condition depends on the emergence of a novel group of actors rather akin to our medium level actors that progressively takes over governance duties, with the blessing of the public authorities traditionally holding power and handling those duties, and with the support of the civil society, craving for a more democratic representation and a bigger involvement in the political sphere. The catalysis between these two parties happens through the consensuality of the hegemonic environmental discourse of sustainability and the tacit agreement that, ultimately, public authorities only ever delegate what they feel like they can delegate or don't wish to manage anymore (Swyngedouw 2005, 2009, 2011).

7.4.2 Post-Political or the Re-imagination of Urban Politics?

I would argue that the qualification of any political situation or governance arrangement as post-political is debatable. Post-political indicates, quite literally, happening after the political, or succeeding to politics. Therefore, it might be more accurate and productive to focus on post-politicization as a process – as to what happens beyond the politicization or the de-politicization of the environment, for even a decentralized, autocratic form of governance is government and, by essence, is deeply political and entrenched in politics.

Contrary to Swyngedouw, I suggest that the post-political condition is symptomatic of new forms of politics and political relationships rather than of the disappearance of politics and political condition (as shown 6.3). All forms of dissidence or dissension have not been erased by the consensuality of the dominant discourse of sustainability. They may have indeed evolved towards less radical or violent (i.e. physically violent) forms of contestation, but have by no means disappeared. It is debatable whether or not the post-political condition has cancelled the "proper" political moment: what has changed, and is still changing, is the way we do and envision politics, leaning more towards participatory democracy than highly centralized nation state confronting the masses. In that regard it must be stated that Swyngedouw's vision is also deeply tributary to a (Neo-)Marxist "us and them" confrontational vision, a political ecology of class struggle (Swyngedouw 2011, Greenberg and Park 1994). Moreover, as highlighted by the interviews conducted for this thesis, co-operation does not necessarily mean submission: contestation and protests are still enabled to happen and happening. Rather, the post-political condition is indicative of the evolution of

welfare states facing the failures of neo-liberalism and laissez-faire economics and not being able to fulfil some of their previous engagements.

I nonetheless support Swyngedouw in his view that various discourses of sustainability are always in danger of being used as a way to enforce a capitalist, neo-liberal "green" agenda, when these discourses are not directly a produce of this agenda (see Chapter 4). Different political philosophies that embody various strands of political ecological thinking, such as natural capitalism or liberal environmentalism, have recently invested the political arena to act as the moral foundations of new environmental politics (Clark 2012) and we must remain wary that sustainability doesn't become instrumental to a "clean" form of neo-liberalism, the human face of un-reined capitalism and careless resource exploitation, nor a justification for authoritative or despotic forms of governance.

I contend that the post-politicization of the environment and the development of a consensual, dominant environmental and political narrative does not prevent all form of protests, dissent and confrontation as recently exemplified by the various Occupy movements around the world. The growing tendency of such movements to reclaim public spaces by occupying and transforming spaces can be linked to an active, conscious and militant form of territorialisation from civil society. Such civil, deeply political forms of resistance call for renewed engagements with critical geographies of institutional violence, resources control and the various processes that reproduce and perpetuate the structures of domination. In addition, the interviewees stated, both on and off-record, that most consultation processes turn out to be more about informing rather than consulting, and thus often failing in their originally intended purpose. This did not, however, prevent people from exerting pressure and getting their voice heard

through other means:

People are being consulted to death, but nothing actually comes out of those consultations (Director [1], Forum for an Alternative Belfast, 09/03/15).

I mean the politicians can't turn around and complain... because we are their voters, if they turn around and say 'we don't like what you're doing' we'll say 'well come and do it yourself then', or 'we won't vote for you'.

[...] But by and large we all want the same thing: we want reasonable amount of investment in the cities green infrastructure, and between us we then become the pressure on the politicians who hold the budgets. So it's kind of... that's the joy of not being paid. That's the joy of being a volunteer, we can say what we like when we like, to who we like (Chair, Friends of Cotteridge Park, Vice Chair, Birmingham Opens Spaces Forum, 11/12/14).

We... we made it clear that parks and open spaces in Birmingham is not an easy cut, and that they do have a fight on their hands if they want to keep cutting in (Chair, Birmingham Open Spaces Forum, 11/02/15).

Another important caveat to add is that the post-politicization of the environment and the consequent, supposed de-politicization of society are only ever possible when supported by a relatively stable form of governance. If critical infrastructures and thus access to critical resources started failing, the political situation would be instantly and powerfully reconfigured, bringing back a much more active, even radical form of contestation and engagement. This is exemplified by the recent and ongoing water crisis in the city of Flint, Michigan (US), even the most basic, taken for granted services are susceptible to fail and jeopardize the life of hundreds of thousands citizens. A situation reinforced, in Flint, by the strongly social and racial dimensions of this crisis, happening in a city which inhabitants are essentially poor, working class and

predominantly African-American. Neo-liberalism is by nature an unsustainable political system, depending on volatile, unreliable market values and holding at its core a form of social violence that can never be hidden or contained for too long.

The local networks through which governance processes are currently reconfigured in cities are seldom politically neutral and it would seem like a lot of wishful thinking from governing bodies to think that political discussion and dissension are going to be evacuated thanks to practical arrangements of stewardship: some like Friends of the Earth are by essence political formations, while some like the Birmingham Open Space Forum or its upscale counterpart, the National Federation of Parks and Green Spaces, have invested the political field and hold a considerable lobbying capacity. Additionally, urban green commons tend to foster a form of alternative political thinking and attract politically minded individuals, from the green, degrowth, slow, vegan or animal rights movements leading to commonality of purpose and engagement. In Amsterdam urban green commons also prove to have intricate but strong ties with the Dutch green political party or even the Partij voor de Dieren (PvdD, the party of animals). These solidarities are symptomatic of the growing politicization or repoliticization of such subjects.

7.4.3 The Radical Urban Politics of Tomorrow

Following Swyngedouw, I advocate the importance of highly politicized urban environment, nature and governance processes (2009). Social, environmental and ecological matters are, by nature, deeply political and this political dimension must not be side-lined under the pretext of the burning, on-going issues caused by environmental threats. More than ever they should be given a proper political dimension, that needs articulating with the role and responsibilities of the individual, of civil society and public authorities. Such forums are essential to foster democratic politics of social empowerment and environmental justice:

Et cela parce que le modèle de la gauche traditionnelle d'un mouvement homogène soudé par une identité de classe et coordonné par la direction d'un parti fort est manifestement devenu intenable. En même temps, une prolifération de luttes locales, spécifiques, comme les qualifie Foucault, si elles ne parviennent pas à établir des connexions entre elles, n'a que peu de chances de permettre une résistance plus générale à la néolibéralisation, ou une restructuration radicale des relations de pouvoirs urbaines (Purcell 2009, p.48).

This because the traditional left-wing model of a homogeneous movement united around a class identity and coordinated by the leadership of a strong party has obviously become untenable. Meanwhile a plurality of specific (as termed by Foucault) local struggles, if they can't establish connections between themselves, has very few chances to ever allow a more global resistance to neo-liberalisation or a radical reconfiguration of urban power relationships [Translation by the author].

As such, the current political condition would be an expression of politics and political dissent beyond the patronage of traditional, hegemonic political parties. In most of the

Western world the traditional embodiments of the radical left (mainly the socialist and communist parties) have progressively abandoned their historic, working class, less privileged electoral crowds to focus on an emerging, more educated middle-class and unapologetically ditched the social function they used to hold at the local level, opening wide avenues for neo-liberalism and the subversion of local politics by extremist parties (Purcell 2009). This highlights the importance of medium level actors, decentralized governance networks and alternative management structures that accommodate a plurality of urban utopias and environmental imaginaries produced by highly politicized (or re-politicized) environments and urban green. Urban green commons hold the potential to facilitate social interactions and enable the coordination of encounters and actions which empower citizens to reclaim the spaces and modalities of their lives.

7.5 Conclusion

This chapter has demonstrated that there is an on-going transformation of environmental imaginaries which, beyond a common narrative of environmental degradation and ecological emergency starts to re-assess the role and the importance of urban green and urban natural resources. Urban green commons and the blooming plurality of commoning initiatives are shaping a new, particular and diverse urban environmental narrative, interwoven with individual life stories.

A new category of medium level actors, both individual and groups, has recently emerged and gained in importance, responsibilities and audience. Their recognition and involvement in the public sphere has caused profound changes in the various processes of environmental governance, management and stewardship. Environmental governance is increasingly performed through networks at the local and urban level, as a stakeholders' arrangement based on negotiation and cooperation, through a progressive devolution of stewardship and management duties. The intrinsic flexibility of these networks offers coping mechanisms capable of potentially reducing the vulnerability of urban environmental systems and increasing the resilience of both urban green and communities.

Finally, exploring post-political thinking and the processes of post-politicization, I have demonstrated how beyond the profound transformation of local politics and governance processes, what we call the post-political condition is fundamentally a progressive abandonment of the traditional, stereotypical and confrontational top-down policing, bottom-up contestation processes. This condition has not erased the political life of cities but a continued drift towards consensual, practical governance

arrangements might indeed pose a threat of any form of political protest or dissension being constantly prevented or muted. However, recent crises in critical urban resources management have proven more than ever that the environment is a deeply political matter and that, in the long run, most arrangements are only temporary fixes that cannot make up for the inherent social and environmental injustice of the neocapitalist system when faced with major emergencies.

Chapter 8 General Conclusion

Notre monde nouveau point autour de nous, comme germerait une flore nouvelle sous le détritus des âges. Non seulement il n'est pas chimérique, comme on le répète sans cesse, mais il se montre déja sous mille formes; aveugle est l'homme qui ne sait pas l'observer. En revanche, s'il est une société chimérique, impossible, c'est bien le pandémonium dans lequel nous vivons.

Our new world peers all around us as a new flora would bloom under the waste of ages. Not only isn't it chimeric, as repeated time and again, but it already shows under a thousand forms; blind is the man who can't observe it. On the other hand, if there's a chimeric, impossible society it's the pandemonium in which we live [Translation by the author].

Élisée Reclus, L'Anarchie (1894).

8.1 Opening Reflections

In many respects this thesis is a snap-shot, an attempt at painting a vivid picture of a precise moment in time, a potential turning point in the varying fortunes of history. It attempts to portray as accurately as possible a complex and multifaceted situation. Such a fresco necessarily implies that some details are left behind, others dramatized and emphasised.

This thesis is also an openly, unapologetically intellectually committed piece of research. It has the inherent strengths and defaults of such works: it is both driven and opinionated even though I have strived to remain as dispassionate and balanced

as possible in my analysis. Researchers can never totally abstract themselves from their research, especially for the long-term, life engulfing project that is a PhD.

I would defend here that geography as an academic discipline and political ecology as a field of study are more than ever in dire need of more radical intellectual and political engagements. Geographers are dealing with the world as it is right here, right now, and as it could be tomorrow, for better or worse. This permanent tension between deciphering what is and envisioning what will be requires a move beyond the abstract, theoretical concepts we use as an analytical lens to positively position ourselves. We are in this peculiar situation that we simultaneously inhabit, transform and investigate our object of study. To delve into a fraction of the world, to expose its beauty and its contradictions and, by making some of it a little more understandable, allowing for a change to happen entails the responsibility to keep on exploring potentially better futures:

Social transformation is, of course, necessarily a spatial project, and a spatial dimension to the effective critique of existing structures is an important element of imagining and forging spaces for new ones (Springer *et al.* 2012, p.1593).

As to the contextual and momentary aspects, the situation has already changed in the months that separate the end of fieldwork from the submission of this thesis: Forum for an Alternative Belfast has shut down since the completion of field work, some interviewees have been replaced and no longer hold their positions while some structures have evolved or expanded. This demonstrates how impermanent and fragile things are, and reminds us that we must never be lulled by a false sense of security and permanence.

8.2 Assessing the Thesis

8.2.1 An Anarchist Political Ecology of Urban Green Commons

This thesis had three main objectives: (i) to reconcile political ecology with its radical roots while assessing the relevance of an unapologetically, deliberately anarchist framework; (ii) to explore the limits and disjunctions of the dominant discourse of sustainability at city scale and its impact on the creation, negotiation and commodification of urban green spaces; and (iii) finally to describe the emergence of new forms of urban green commons, in their complexity, plurality and dynamic arrangements, and the consequent reconfigurations of urban political ecology in a period of deep uncertainties and transformations in the environmental, political and economic spheres.

In Chapters 2 and 3 I advanced and assessed the relevance and impact of an anarchist political ecology and, more generally, the relevance of geographical engagements with anarchist theory and practice, promoting a holistic approach to socio-environmental matters and breaking compartmented approaches and barriers between species, spaces and institutions. Indeed, political ecology has proven poor in radical engagements beyond a comprehensive panorama of Marxist theories so far, while anarchist geography has shied away from engaging with political ecology, or only very partially and mostly on questions of resource exploitation and indigenous rights. I have endeavoured to bridge this gap here and to pave the way for new research projects, demonstrating how much political ecology and anarchist theory can contribute to each other. I first demonstrated how political ecology, thanks to its theoretical richness and methodological flexibility, has contributed greatly to the advancement of knowledge in

the study of environmental change and adaptation. By using anarchist theory and thought it then becomes possible to explore the multiple tensions and interactions between actors in urban political ecology, and to investigate how hybrid urban natures are produced and assembled, negotiated and sometimes negated, and ultimately governed and reproduced.

Following the work of Elinor Ostrom (1990, 2007, 2009, 2010) I have used a Social-Ecological Systems framework (as devised by Redman *et al.* (2004)), allowing a central place to the concept of panarchy. Explicitly articulated with my anarchist lens this framework has enabled me to present an alternative to the usual depictions of society as a deeply stratified, hermetic structure moved by linear relationships of power, and to concentrate on people's ability to reclaim and self-organize the modalities of their lives both with and against the everyday matrices of power that regulate and constrain them. Therefore, this thesis has focused on the microgeographies of place and on the individual socio-environmental narratives in which interweaving and synergies shape the current socio-ecological conditions we live in. To do so, I have used narrative research methods and carried an ethno-geographic study, thus answering the multiple academic calls to address this dimension and displace the more traditional urban political ecologies of critical resources management towards urban political ecologies of everyday life.

In Chapter 4 I challenged the different green agendas and political discourses of sustainability. There is a wide range of understandings of sustainability, both as a concept and more importantly regarding how to embed it to produce a sustainable city. Exploring official planning and policy documents in Birmingham, Belfast and Amsterdam, I have shown how beyond voluntary statements and actions plans, policy-

makers and decision-makers often failed to articulate green spaces as part of a bigger green infrastructure, and to positively assert green infrastructure as an long-term provider of ecosystem services and cultural ecosystem services that requires stewardship on a longer timescale that is distinct from the political one (i.e. election cycles of four years or five years). Despite a general understanding that green spaces have a major role to play in the building of more cohesive and inclusive cities and in the implementation of resilience as a mostly bottom-up enterprise, their importance is still overwhelmingly downplayed. Sustainability remains a multifaceted and conflictual notion, offering opportunities for either the development of more resilient, responsible communities and equitable urban environments or for a growing domination of market forces, a disengagement of the political sphere to the profit of private stakeholders and the overturn of a pervasive, green-washed form of neo-liberalism.

The resurgence and modernization of commoning practices, especially under the form of urban green commons, was the main focus of Chapter 6. The technical, legal issues of property rights surrounding these commons remain unresolved; this is a very complex matter that requires further study and inquiry but it was beyond the scope of this thesis. Furthermore, and despite a generally favourable context, any change will be extremely difficult and long to enact on a large scale as it would imply a complete shift of the institutional paradigm our current society functions on. Nevertheless, urban green commons embody a perfect example of practical arrangements superseding legal matters in times of political uncertainties, with active, committed citizens reasserting their rights to self-determination by reclaiming the spaces and modalities of their lives through practices of appropriation, territorialisation and cooperation.

The identification of middle level actors in Chapter 6 and the description and characterization of emerging cooperative processes of "governance-beyond-the-state" around urban green commons has been one of the main undertakings of this thesis. Assessing the social impact of urban green commons and the consequent production of environmental knowledge and recomposition of urban environmental imaginaries has helped us trace the development of new forms of environmental awareness, social capital and thus the transversal reconfiguration of power relationships and networked governance processes.

Chapter 7 offered a re-evaluation and discussion of the "post-political condition" and supposed disappearance of radical forms of political dissension and protest. Rather than a post-political condition, I have argued that it would be more accurate to focus on post-politicization as the various processes behind the progressive withdrawal of most unitary states, and their subdivisions, from some of the governance responsibilities that were traditionally incumbent upon them. What is currently happening is a swift but quiet revolution towards new modes of political relationships, governance and dissension, generating new modes of social and political organizations.

8.2.2 Achievements and Limitations of the Thesis

Situated within the field of political ecology this thesis has endeavoured to conceive an operational anarchist framework to study the complex socio-dynamics of urban green commons at a local, city-wide scale, stripped of a Marxist or neo-Marxist vertical, class oriented reading lens. By so doing, it has shed a new light on the various processes of appropriation, negotiation, commodification and contestation of urban green spaces

through individual narratives, in their concordances, discordances and sometimes in their confrontation. It has also enabled the identification of a previously unobserved class of medium level actors which transcend the traditional top-down and bottom-up classifications and dynamics. Nevertheless, a limitation has been met in how to give an accurate, straightforward picture of these actors, a visual rendition of their networks, organization and articulation. This limitation has not been overcome.

Besides, this thesis has demonstrated that in the upper spheres of decision makers and higher-ranking civil servants, in planning and policy documents and official discourses, Sustainability is very often a political item without much scientific consistence or legal substance behind it. The various definitions showcased are often in contradiction with one another or easily interchangeable with other terms such as green, durable or responsible, and frequently part of a communication or marketing strategy which aims at positioning cities or institutions well on the 'green map' within national and international agendas.

By focussing on individual narratives and discourses this thesis has also managed to make actors and especially citizens and everyday practitioners a focal point of future political ecological studies, answering the recent calls for a political ecology that would focus on actors, their various interests, strategies and trajectories, and how their interpersonal and structural relationships shape, impact on and are shaped by the plurality of human-environment dynamics.

Finally, this thesis has identified new and constructive processes of governance and stewardship of urban green commons in uncertain economic times, with potential major social and political changes ahead. Whether those are going with or against the

grid, are officially recognised or unofficially accepted by all parties, they are setting in motions new gears of governance that fits within a wider context of deep cultural and political transformations, embodied by the Slow Movement, the growing importance of community led initiatives, the think global act local principles, a longing for more local and participative democracy, and the increasing role of progressive, environmental and ecological topics such as resource exploitation, durability, animal welfare or food safety in all political debates.

8.3 Broadening the Perspectives: Beyond the Thesis

The first important step to take this research further would be to conduct an extensive intra-UK comparative studies with metropoles of a comparable size, such as Manchester, Liverpool or Edinburgh to assess the situation of the country and the replicability (or the extent of applicability) of the Birmingham findings. An in-depth case study of London would be highly valuable too: it is a British city which specific size, population and capital status sets a little apart – to the best of my knowledge a very small number of works have focused on London urban green commons exclusively so far, such as Meredith Whitten's PhD thesis at the London School of Economics.

This research would also need to be transported in other geographical and cultural settings: the present thesis, for many reasons exposed in Chapter 3 focused on a Western, European context. If the problematics it addresses have already been reasonably covered in Northern Europe and particularly Scandinavia (see for exemple Vierikko and Niemelä 2016), and are increasingly studied in North America (Ibes 2011, Eizenberg 2012), despite a couple of noteworthy studies and papers other regions like South America (Low *et al.* 2005), Africa (Lawhon *et al.* 2015), Middle East (the pioneering work of Efrat Eizenberg, 2012 and Eizenberg and Alon-Mozes 2016) or Asia (especially in Japan with a case study from Soga *et al.* 2016) are, if not unexplored, rather underexplored. A couple of papers deal with urban ecosystem services and urban green commons in these countries, but the literature is still far from comprehensive.

Another big development in terms of future research stands in an assessment of how much it is possible to upscale such an anarchist framework. How valuable would it be to deploy it on a larger scale? Would it keep its relevance or fail to capture the big picture? Is it only a powerful analytic tool at community / city / local scale? It also worth inquiring whether it is possible to identify and characterize such horizontal networks at a national or international scale, especially with structures such as big charities or NGOs: it is guite certain that a form of vertical, hierarchized organization would be missing as these organizations tend to be widespread and across several scales. An anarchist lens as devised for this thesis is definitely not a one size fits all analytical tool, especially focused as it was on individuals and small groups. In addition, all the networks and interactions that can be 'easily' identified at local, city scale become infinitely more complex, multiple, tangled and ramified as you upscale them. Upscaling the study would also mean multiplying the number of actors, groups, etc. Their relationships are complex and plastic enough to make them difficult to identify and picture at city scale; upscaling would only make it an even bigger and complex undertaking.

Another research opportunity laying ahead is to use a similarly devised framework to work on slightly different topics such as resource exploitation, indigenous rights and land occupation, which by nature offer a lot of affinities with a radical, a-hierarchic intellectual approach. Any future research would also largely benefit from further engagements with Science and Technology Studies to try and assess the role of Information Technology, social networks, and how new ways of disseminating or acquiring knowledge can complement place-based knowledge and / or encourage people into collaborative or commoning processes, and also encourage the pooling of

common resources. Moreover, they often prove to be very efficient media to bring together communities, organize various manifestations or reach out to people.

There is also a strong need to start focusing on urban political ecologies of survival and engage with cities and places where urban green commons at large but especially community gardens and urban farms are, more than a leisurely or social activity, something people depend on for their own maintenance and survival on a day to day basis. Case studies could feature cities like Detroit where UGC have come to embody both the failures of capitalistic, short sighted urbanism and its potential remedy, with hopes for a better, more sustainable future.

Finally, there's a critical need to devise a way to visualize the various networks of actors, especially our newly identified medium level actors, to give an accurate account of their complexity but also to get a better understanding of the way they are working. The closest comparison we could give of these networks is somewhat akin to a constellation, or a galaxy, with several systems that co-exist and influence each other, and a phenomenon of gravitation, enclosed in between the top and bottom levels. A visualisation of the distribution of legal power-holding and unofficial power sharing, rather than conventional hierarchy, needs to be conceptualized and implemented: most citizens groups and charities are fundamentally a-hierarchical both in their internal organization (as they function in a very collaborative, co-operative and democratic way) and in how they work and share power together, and these relationships must be articulated with local, regional and sometimes national authorities.

This is the self-acknowledged biggest limitation of this thesis: I have not achieved this visual rendition because I did not have time enough to conceive and implement it up to a research thesis standard. This dimension of the subject unfolded as the thesis progressed, it was unforeseen and thus not part of the scheduled analysis and tasks to undertake: such an endeavour could be the purpose of a whole research project in its own right, if not of an entire PhD thesis. It simply proved too complex and time consuming to be purposefully and satisfactorily executed.

The path followed all along this thesis demonstrates the frailty of the urban condition and the immense intellectual and practical challenges that lay ahead. It leaves room for further exploration of problematics that were only outlined here and alludes to new fields of inquiry, such as the urban political ecologies of survival and environmental justice, more sociological and even legal inquiries of the commons, focussing on the question of property rights, or studies of the properly ecological impacts of urban green commons.

This topic would also benefit from a deeper engagement with Saskia Sassen's work on the processes of global urbanization (2006) where cities are conceived as operating at the regional, national and transnational scales. These new and reconfiguring forms of social and political organization and governance require urgent investigations globally.

8.4 Final Considerations

Finally, I contend that this thesis also provides opportunities to re-engage with the works of some prominent anarchist and alternative radical thinkers like Reclus, Kropotkin, Gramsci or Bookchin on the one hand but also, a little more surprisingly maybe, with some landmark urban authors on the other. In particular I think of Jane Jacobs, who after being a controversial but leading figure of urban theory, activism and dissidence has recently fallen from grace and, of late, been vehemently attacked and quite unfairly re-read as an early advocate of gentrification (and therefore of a pernicious form of segregation) and proponent of a certain backward looking attitude. Notwithstanding some personal political and economic disagreements with Jacobs, I positively assert that her vision of urban practice and activism at the local, neighbourhood scale remains surprisingly modern, urgently relevant, and delightfully but purposefully subversive for who dares to truly engage with it.

As I finish writing up this thesis and following months of mobilization, protest and lobbying from civil society, scientific experts and various political parties, the British Government has just overturned Lancashire Council decision to ban fracking and decided to proceed with shale gas extraction. This highly controversial decision happened in a time of great political uncertainty, in the wake of the "Brexit" referendum which raises numerous questions about energy independency and sovereignty, while the future of many environment protection laws is being put in jeopardy. These two particular cases are essentially overstepping the boundaries of this thesis but cast a light on the decisively political nature of environment and ecology, and foreshadow the many difficult social and political struggles to come.

Appendices

Appendix 1 Principal characteristics of the interviewees

	Gender	Position	Status	FT/PT	Other professional occupation
1	Ь	Director Martineau Gardens	Employee	F/T	NA
7	Σ	Horticultural Therapist Martineau Gardens	Employee	F/T	NA
8	Ь	Director CITIES	Employee	F/T	٨
4	M	Landscape Architect	Employee	F/T	NA
5	ч	Urban Planner Geemente Amsterdam	Employee	F/T	NA
9	Ь	Coordinator CityPlot	Employee	F/T	NA
2	Ь	Director ANMEC	Employee	F/T	NA
8	ш	Program Manager Geemente Amsterdam	Employee	F/T	NA
6	Ь	Project Manager / Educational Program Coordinator	Self-Employed	T/4	٨
10	Σ	Participation Broker Geemente Amsterdam	Employee	F/T	NA
11	Σ	Climate Change and Sustainability Manager Birmingham City Council	Employee	F/T	NA
12	Σ	Chair of the Wildlife Trust Birmingham/Black Country	Retired	T/4	Z
13	Ь	Chair of the Friends of Cotteridge Park	Self-Employed	F/T	Z
14	Ь	Shadow Cabinet Member for Sustainability Birmingham City Council	Self-Employed	T/A	٨
15	M	Head of Parks Birmingham City Council	Employee	F/T	NA
16	Ь	Chair of Birmingham Open Spaces Forum	Self-Employed	P/T	Υ
17	Σ	General Manager Friends of the Earth Birmingham	Employee	F/T	Z
		Health/Life in the Community Program Manager The Conservation			
18	Σ	Volunteers	Employee	F/T	Z
19	ч	Environmental Consultancy Director	Self-Employed	F/T	Z
20	Μ	Co-Director Forum for an Alternative Belfast	Employee	T/d	Y
21	Ь	Parks & Cemeteries Service Manager Belfast City Council	Employee	F/T	NA
22	Μ	Landscape Planning and Development Manager Belfast City Council	Employee	F/T	NA
23	Σ	Co-Director Forum for an Alternative Belfast	Employee	F/T	NA
24	Σ	Project Manager Soundscape Park Project	Employee	F/T	NA
25	Σ	Development Officer for GROW Northern Ireland	Employee	F/T	NA
26	ч	Project Manager, Birmingham Trees for Life	Employee	P/T	٨
27	Σ	Co-Director Highbury Orchard Community	Self-Employed	P/T	>

Appendix 2 Guidelines for coding

- 1. General Presentation.
 - a. Gender M/F
 - b. Occupation
 - i. Position
 - ii. Status (employee / self-employed / civil servant / volunteer)
 - iii. Full-time / Part-time
 - iv. Other professional occupation Y/N/NA
 - 1. In the environmental sector Y/N/NA
 - a. Which?
 - c. Education / Background
 - d. Previous position / Employment
 - e. Volunteering (additional to "main" volunteering / occupation) Y/N/NA
 - i. Which?
 - f. Company / Public Sector / Charity / NGO
 - i. Multiple affiliations
 - ii. Scale (local / regional / national / international)
- 2. About the need for open, public green spaces.
 - a. Importance of CES Y/N/NA
 - b. General need for open, public green spaces Y/N/NA
 - c. Reasons advanced
 - i. Social interactions
 - ii. Health benefits

- iii. Recreation
- iv. Environmental / Ecological benefits
- v. Ecosystem services
- vi. Other (food production...)
- d. Give a sense of integration in the urban environment Y/N/NA
- e. Modify perception of the urban environment Y/N/NA
- f. Modify practice of the urban environment Y/N/NA
- g. Give a sense of belonging to a place Y/N/NA
- h. Provide a place of escape Y/N/NA
- 3. Social dimensions and community life.
 - a. Green spaces have a social impact Y/N/NA
 - b. People feel concerned about their green spaces Y/N/NA
 - c. There is a form of civic involvement through green spaces Y/N/NA
 - d. Green spaces help to build, develop and sustain community life Y/N/NA
 - e. Reasons advanced
 - i. Community of interests / values
 - ii. Bonding activities (gardening, food-growing...)
 - iii. Shared concern for the space
 - iv. Other (levelling of inequities...)
 - f. Green spaces have an educational / pedagogic value Y/N/NA
 - i. With children Y/N/NA
 - ii. With adults Y/N/NA
- 4. Politic and economic context.
 - a. Perceived constraints induced by the politic / economic context Y/N/NA

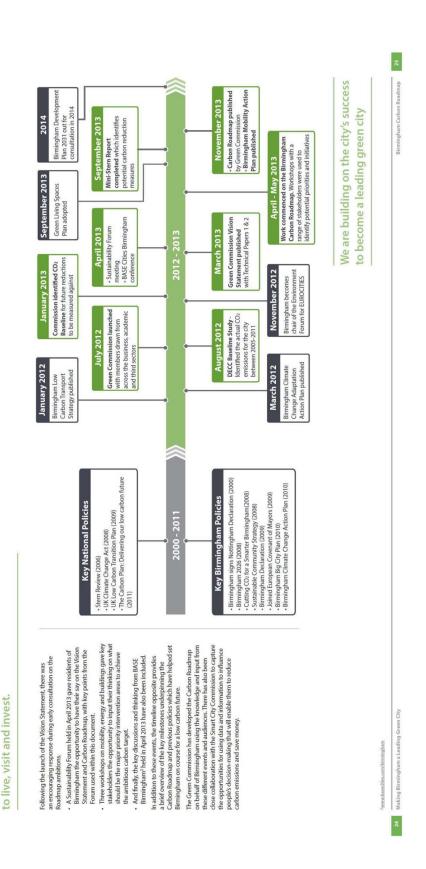
- i. Funding
- ii. Policies
- iii. Others
- b. Perceived gap between top level and bottom level Y/N/NA
 - i. Where?
 - ii. Why?
- c. Perceived threat on green spaces Y/N/NA
 - i. Reduction
 - ii. Disappearance
 - iii. Reasons
- 5. Open Reflexion.
 - a. Do you think things could/should change? Y/N/NA
 - b. Where could things be done differently? (Category)
 - c. How?

Appendix 3 Timeline for the Birmingham Carbon Roadmap

on how it maintains and nurtures its environment, will always be seen as an attractive place in which

A city which develops a high quality of life based

Building the Roadmap



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