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**Nature and Urban Form-
A Comparative Environmental History of
the Hills in Perth, Western Australia,
and Marka in Oslo, Norway**

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Abstract

During the last century, views on nature in general, and on natural areas close to urban centres in particular, have changed drastically. Landscapes adjacent to cities were long seen as a resource, a productive hinterland supporting the city. This view on nature has become increasingly questioned. In post-industrial, 'Western' cities urban natures as landscapes are now spaces of leisure and aesthetics rather than spaces of industry and production.

This general shift in the perception and use of urban natures has had great repercussions for how cities are spatially planned and laid out. At hand of the environmental histories (19th century to present day) of the Hills area in Perth, Australia and Marka in Oslo, Norway, this thesis posits that new views and uses of nature have heavily influenced the form of urban expansion in the two cities. For the Perth case study, suburban living is used as a main point of reference in which various views on, and activities in urban nature, are expressed. For the Oslo case study, outdoor sports are examined as a regulator of urban expansion.

Various qualitative methods are applied, including literary analysis of prose, critical analysis of urban strategic plans, and literature reviews of local texts on history. Semi-structured interviews were conducted in both cities to explore current conflicts relating to urban expansion and human relations to the natural environment.

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Introduction

During the last century, views on nature in general, and on natural areas close to urban centres in particular, have changed drastically. Historically, nature adjacent to the city was seen as a resource, a productive hinterland supporting the city. Raw materials were extracted (timber, minerals, rocks), food was produced (vegetables, grain, livestock), energy was produced and extracted (water power, firewood, coal burning), and drinking water for the city was provided. This was also reflected in the social sciences and humanities, where nature long used to be conceptualised as a unity, an Other to humans, a wilderness opposing the urban, an object for human domination and manipulation (for criticisms of these views, see Castree 2003; Gregory 2001; Macnaghten & Urry 1998; Næss 1999) .

From the middle of the 20th century and onwards, this view on nature has become increasingly questioned. In particular, the last two decades have shown an increased interest in human-nature relations within the social sciences and humanities (Braun 2005; Castree 2003). It is now often argued that nature should no longer be seen as the unity that it really never was. Nature thus turned into plural natures, and is no longer imagined simply as a material Other, but also a carrier of a wide array of meanings (Altman & Low 1989; Macnaghten & Urry 1998). Furthermore, as the human-nature dichotomy is being increasingly questioned, many scholars now argue that natures and cities are intricately linked in manifold ways, and that natures are an integral and intrinsic part of the urban sphere (Braun 2005; Heynen et al 2006).

While in some respects urban nature still serves as a resource base in some cities, for example in the form of water catchment areas, I will argue that a general shift in the perception, use and eventually planning of urban natures has taken place. In post-industrial, globalised Western cities, local urban nature is no longer the main resource base. Even food production has been ‘outsourced’ to other, economically more efficient locations in the globalised, neo-liberal world system (Inglis & Gimlin 2009). Cheap energy, cheap labour in industrialising nations, and efficient telecommunications have made a city’s geographic location and distance to other central locations close to irrelevant in many respects (Castells 1996) .

I will argue that today, urban natures as landscapes figure predominantly as leisure and recreational spaces. Urban parks, national parks, sports grounds, wildlife reserves, campuses, public and private gardens and other urban natures are mainly places imagined, used and planned for recreation, relaxation, health, conservation and beautification. As life-style localities, urban natures have become de-industrialised, yet commodified in ever-new ways; as real estate and positive externalities, and through festivalisation and urban image-creation .

Within the social sciences, urban natures are now recognised as highly fragmented spaces with multiple uses and user groups (Dollinger 2004), as contested sites of production and consumption (Heynen et al 2006; Macnagthen & Urry 1998) and as places of attachment (Altman & Low 1989; Tuan 1976) forming an integrated part of the city and its identity.

In this thesis, I will draw a connection between the aforementioned conceptualisations and uses of urban natures, and the built environment of cities. The cities of Perth, Western Australia and Oslo, capital of Norway will be the case study cities. The Perth Hills area in the Perth Eastern Metropolitan Region, and the forests of Marka¹ in Oslo will serve as local case studies. The Perth Hills are a geographically loosely defined area, stretching north-south for around 90 kms on the low-lying Darling Ranges 25 kms east of the Perth CBD. After a defining history of lumbering, the Hills are today characterised by eucalypt forests of the jarrah and karri type, numerous national and regional parks and state forests, and a belt of rural and low-density suburbs towards the city. Marka is a series of forest-clad hills and lakes surrounding Oslo to the west, north and east, covering an area of approximately 1700 square kilometres. The forests, which are almost entirely protected from urban development, have been used for lumbering for centuries, and are today very popular recreational grounds for Oslo's citizens.

Perth and Oslo are both rapidly growing cities, economically and population-wise. They are relatively isolated, Perth arguably more so², and located in sparsely populated regions. Yet over the last 150 years or so, the two cities have had, and still have, vastly different approaches to

¹ The short and most commonly used form 'Marka' will henceforth be used about Oslomarka.

² As the capital of the state of Western Australia, Perth claims to be the 'most isolated capital city in the world', being in fact closer to Jakarta than to Canberra or Sydney (Kennewell & Shaw 2008).

urban expansion and development of the natural areas within and surrounding the city. While urban sprawl has changed the face of the Perth Hills drastically, Marka has largely been protected from urban development since the end of the 19th century.

While the cases studies of course are unique, they have been chosen because they are exemplary of certain national and international trends.

In Australia, sprawling suburbs into vast open territories are a fact in most cities (Davison 1995; Brown 2008). The mainland capital cities of Sydney, Melbourne, Adelaide, Brisbane and Canberra all have dispersed suburbs that continue to permanently change the landscapes surrounding the cities. In Melbourne and Adelaide, conservation plans similar to the Hills Bill currently under discussion in Perth (see chapter 3) have already been ratified in order to protect natural landscapes close to the city, and to regulate the urban sprawl (Department of Planning South Australia 2006; Parks Victoria n.d.). The debates surrounding suburbia and the conservation and re-use of urban natures are thus not limited to Perth.

In Norway, most cities have extensive natural areas close to the city. Bergen has *byfjellene* (the city mountains), Trondheim has Bymarka, Stavanger has Sørmarka, Kristiansand has Baneheia and Bodø has Bodømarka. They are central to their city's identities, and mainly used for recreational purposes. Like Marka, they are generally protected from urban development, yet are facing increasing pressure in the face of urban expansion, and conflicts relating to natural resource management and multiple user interests (Agency of Environmental Management 2003).

The case studies will allow us to compare two cities whose surrounding natural areas have a similar environmental geography and productive history, yet have been imagined and developed differently. Keeping in line with the argument that urban natures should be seen as an integral part of the city, urban expansion and the conservation, or lack thereof, of urban natures will be treated as two sides of the same coin.

Research Questions

The main research question is:

How have different views on urban natures as productive, and later recreational, spaces resulted in different urban forms in Perth and Oslo?

This research question carries with it two sub-questions:

How have urban natures been imagined and constructed historically in Perth and Oslo?

How have these specific views on urban natures influenced the urban development in their respective cities?

I will argue that local variations in the views on urban natures as productive and recreational spaces can be seen as having had an immense impact on the general form of urban development and expansion, and on the conservation and consumption of urban natures. The local variations in views on nature will be traced historically and culturally.

Relevance

The research topic is highly relevant for current, pressing political questions. In Perth, the urban question of the day is ‘to sprawl or not to sprawl’ (Weller 2009). The low-density, car-oriented, mono-functional suburb is the dominant urban form, and has changed the Perth Hills from a rural/peri-urban to a suburban landscape. The single-family ‘house with backyard’ on a large plot is still the Australian dream for many, yet is increasingly being criticised as an unsustainable urban form (Davison 1995; Brown 2008). Local strategies to change the urban morphology and limit urban sprawl through ‘infill’ and ‘plot subdivision’ infuriate NIMBY’s and figure high both in Australian academia and the West Australian media.

In Oslo, urban sprawl into Marka has never really been a question. While Marka historically used to reach far into the ‘pot’ of the city, and the city thus arguably has engulfed a large part of it, the borders of the forests have been kept more or less constant since the 1950s. User conflicts between foresters and sportsmen seem to have reached some form of equilibrium after decades of conflict. However, there are still important questions about urban development in the form of large sports facilities, the form and role of conservationism, and the role of forestry to be addressed.

The research also adds to current socio-cultural discussions in the social sciences and Urban Studies about the role of nature in the city. As the dichotomies of human/nature and urban/nature are being increasingly questioned, fields such as environmental history, political ecology and cultural geography are critically re-examining human-nature and urban-nature relations. The case studies of this thesis will provide examples of human-nature and urban-nature relations drawn from two specific cultural and historical contexts.

Methodology: Environmental history and semi-structured interviews

In exploring views on, and uses of nature from a historical and cultural perspective, and in explaining how these views have formed cities and their natural environment, this thesis can be read as a comparative environmental history of Perth and Oslo. Broadly speaking, environmental history is a discipline that studies the relationship between humans and the environment as they evolve over time (Robin & Smith 2008; Worster 1990). More precisely, ‘[e]nvironmental history seeks to explain present landscapes and their evolving and dynamic nature through their history’ (Brown 2008, p. 5-6). In order to do so, the researcher must consider how ‘perceptions, ideologies, ethics, laws and myths have become part of an individual or group’s dialogue with nature’ (Worster 1990, p. 1091).

The urban was long excluded from environmental history, as it was seen as a sphere only of culture, and not of nature (see f. ex. Worster 1990). More recently, cities have also been prolifically described and analysed in environmental histories, as historians have argued that, after all, urbanisation had become the main factor in transforming the natural environment

(Rosen 1994). While a mix of cultural and ecological perspectives is common in environmental histories (see f. ex. Gaynor 2006), I will focus mainly on the cultural aspects of the natural environment.

Qualitative methods including literature reviews, and the critical analysis of prose, planning documents and newspaper articles will be applied in writing the environmental histories. As the environmental histories lead us into the present day, data from interviews will also be introduced in order to better the understanding of current developments and conflicts. In connection to the local case studies of the Hills and Marka, I conducted seven semi-structured interviews with bureaucrats, politicians, and key individuals in volunteer and neighbourhood organisations.

Semi- structured interviews are a combination of unstructured interviews and structured interviews. The former take place as unguided conversations around a topic, whereas the latter follow a strict interview guide and leave little room for follow-up questions. Semi-structured interviews rely on a guide of general questions which can be adapted during the interview, as the researcher and the interviewee together explore a subject (O'Reilly 2005, p. 116-120). They thus give the interviewee more power in forming the interview, while still allowing for the researcher to guide the interviewee to areas of relevance.

While being semi-structured in form, the interviews were conducted as expert interviews. These interviews are conducted with people that one believes to hold detailed knowledge on the subject of study. Semi-structured expert interviews often lead the researcher in new directions by providing insights from a qualified insider's point of view, and can thus help the researcher locate other fields of interest or define new research questions (Bogner & Menz 2005, pp. 33-36). This was particularly the case for the expert interviews that I conducted in Oslo, as these took place rather early in the research process and were vital in the formation of the final research question.

Of a total of seven interviews, three were conducted in Perth, and four in Oslo. In Perth, I interviewed:

- a planner from the municipality of Kalamunda in the Hills
- the spokesperson of the neighbourhood organisation Save Perth Hills

- a member, for the Perth Metropolitan Region East, of the Government of West Australia

In Oslo, I interviewed:

- the forest administrator in the Outdoor Department of the municipality of Oslo
- the section leader for environmental administration at the Norwegian Department of Environment
- a senior advisor in the forestry company Løvenskiold that owns most of Nordmarka
- the leader of the Oslo environmental organisation Naturvernforbundet Oslo og Akershus (NOA), which has been active in the conservation of Marka.

The interview data was used to gain a more nuanced and engaged understanding of the historical processes of nature and its administration, and to unravel current political and economical conflicts relating to the natures of the Hills and Marka. As the interviewees came from different organisations and often had conflicting perspectives and different fields of expertise, specific questions were developed for each interview. Central to all interview guides however was the historical dimension, and the political and economic framing of nature.

Structure of the thesis

The thesis has been divided into three chapters. Chapter 1 will introduce the theoretical framework. Here, I will draw mainly on social and cultural conceptualisations of nature and landscape. Defining urban nature as landscapes within and around cities, I will investigate how urban nature is presented in the urban planning theories of Ebenezer Howard, le Corbusier, and Jane Jacobs.

Chapter 2 will be the environmental history of Perth and the Hills, and Chapter 3 the environmental history of Oslo and Marka. Chapters 2 and 3 will both be divided into two subchapters. For each city, I will in the first subchapter define and analyse different views on nature and activities in nature. In the second subchapter, I will trace these views and activities in the development of the built environment and in processes of urban expansion, showing how

views on nature and the development of cities are intimately related. Chapters 2 and 3 will form the main part of the analysis.

Chapter 4 will consist of a comparative discussion and conclusion.



The Coastal Plain and the Perth CBD seen from Kalamunda Falls in the Hills.
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CHAPTER 1: THEORY

1.1 Social and Cultural Nature

‘[Raymond Williams] argues that the term ‘nature’ is perhaps the most complex and difficult word in the English language; that the idea of nature contains an enormous amount of human history; and that our current understandings of nature derive from an immensely complicated array of ideas, linked to many of the key concepts of Western thought, such as God, Idealism, Democracy, Modernity, Society, the Enlightenment, Romanticism and so on.’ (Williams in Macnaughten & Urry 1998: p. 8)

What is nature? The answers to this question are manifold. Raymond Williams, the British cultural theorist quoted in the above, described the term nature as being ‘formidably polysemic or, if you prefer, semantically promiscuous’ (Williams, quoted in Castree 2003, p. 168). A delimitation of nature in the context of this thesis is thus highly necessary in order to avoid semantical promiscuity getting a foothold and blurring the borders of the subject matter.

The main theme of this thesis is how human conceptions and uses of the natural environment have influenced the built environment, or how meanings and practices have produced spaces and places. Nature will thus be discussed mainly in the context of the human-nature relationship as it is situated in the humanities and social sciences, as something imagined, perceived, produced and consumed by humans. A basic assumption of this academic tradition today is that ‘conceptions of nature are socially constructed’ and that ‘they vary according to cultural and historical determinations’ (Descola 1996, p 82).

This of course is not to say that humans are above or apart from their natural environment. As Swyngendouw has argued, sociocultural scholars ‘increasingly recognise that natural or ecological conditions and processes do not operate separately from social processes, and that the actually existing socionatural conditions are always the result of intricate transformations of pre-existing configurations that are themselves inherently natural *and* social.’ (Swyngendouw 1999, cited in Heynen et al 2006, p. 3). Neither does it mean that this approach necessarily leads

to an anthropocentric view of nature; there is an important distinction to be made between the claim that all our relationships with the environment are coloured by our *Menschlichkeit*, and the claim that the environment is there solely to serve the human race.

In the context of this thesis, the concept of *social nature* gives us the tools to compare different views on nature, and allows us to avoid the pitfalls of environmental and geographical determinism.

Othering

A recurring theme in sociocultural analyses of nature is the human- nature dichotomy, closely related to the culture-nature dichotomy (see for example Macnaughten & Urry 1998 and Williams 1973 for critiques of this view). It is argued that through various philosophies, rationalities and practices, modern 'Western' thought and society has placed humans and their culture outside of nature, framing nature as an Other against which culture, civilisation and humanity are defined. Often, this process of 'othering' is seen as the root of environmental problems caused by the human exploitation of nature (Næss 1999; Zuidervaat 2011). Writing about the views that colonisers had of nature in the colonised countries, Derek Gregory (2001) argues that colonial nature was seen as other in a double sense; as *Other* to civilized humans, to culture and society; and as *other nature*, nature that was different to the 'normal', temperate nature of the colonisers' home country (Gregory 2001).

Three paradigms: orientalism, paternalism, communalism

Pálsson (1996) identifies and defines three distinct paradigms of human-nature relations within the field of anthropology: orientalism, paternalism and communalism. The paradigms are historically situated as reflections of wider views within Western societies, which allows us to extend their descriptive use beyond the field of anthropology.

The first two, orientalism and paternalism, rest on the human-nature dichotomy, an 'othering' of nature, setting it apart from humans and making humans masters over it. The latter rejects this

radical separation and instead focuses on reciprocity, participation and contingency in human-nature relations (Pálsson 1996, p. 66).

Orientalism is characterised by the manipulation and domination of nature. Ingold (cited in Pálsson 1996, p. 67) describes it as a 'colonial' regime, where the world is 'a *tabula rasa*' for the inscription of human history. The language of orientalism is one of 'domestication, frontiers, and expansion- of exploring, conquering, and exploiting the environment- for the diverse purposes of production, consumption, sport and display' (Pálsson 1996, p. 68).

While *paternalism* also employs the human-nature dichotomy, and assumes human mastery over nature, it is characterised by 'relations of protection, not exploitation' (Pálsson 1996, p. 69). This view, which has had a revival with the advent of environmentalism from the 1960s and onwards, sees humans as having a great responsibility towards the conservation of the Earth. The knowledge humans are holding should be used to act 'on behalf of nature' (, p. 70), as the specieism of the orientalist view has been replaced by the belief that all species matter.

In all its noble aims however, paternalism often leads to a fetishisation of nature (Pálsson 1996). Nature is seen as something primordial, pure, ever-lasting, balanced and inherently good. A paternalist view tends to play down the long-term historical influence of the human-nature relationship in shaping the environment, and is inherently normative in its description of what constitutes 'real' nature. This can be problematic, for as Phil Macnaghten and John Urry argue, 'what is viewed and criticised as unnatural or environmentally damaging in one era or one society is not necessarily viewed as such in another' (Macnaughten & Urry 1998, p. 19). Within the paternalist paradigm, natural purity, longevity and balance are seen as being upset by ruthless, un-natural contemporary human behaviour. The human-nature dichotomy is thus perpetuated.

The *communalist* paradigm discards altogether of the human-nature dichotomy, and sees humans as part of a holistic unity. Dialogue and generalised reciprocity are seen as keys to our embedded relations *in* nature. Empathy and connectednes replace interpersonal and environmental comparisons of utility (England, cited in Pálsson 1993, p. 73). Examples of contemporary communalist theories include the environmental philosophy of deep ecology, developed by Arne Naess and others in the 1970s. Deep ecology sees humans as part of a holistic world system;

humans are thus part of nature and nature is part of ourselves (Næss 1999), a thought that has great repercussions for how we live and act in the environment.

Hunter-gatherers such as the Aboriginals in Australia are often portrayed as perfect examples of societies holding a communalist view of nature, living in an unconditionally reciprocal relationship with nature, and seeing themselves as part of the natural environment that they inhabit rather than masters over it.

Natures

An important shift in recent discussions of nature is the pluralisation of nature. As Macnaughten and Urry argue, 'there is no singular 'nature' as such, only a diversity of contested natures', and 'each such nature is constituted through a variety of socio-cultural processes from which such natures cannot be plausibly separated' (Macnaughten and Urry 1998, p. 1). Within a society, many parallel and everchanging conceptions of nature exist. These various conceptions reflect socio-cultural and economic positions, and are tied up to power relations of domination and subordination.

Nature and the city

How then are social natures relevant to urban studies? Isn't the city the opposite of nature, its antithesis? In *The Country and the City*, Raymond Williams (1973) argued that the division between the rural country and the city is problematic, as country and city are linked and coexist through various socio-economic processes. In particular, he was criticising the glorification of rural life, and arguing that it was rural life and its evolving forms of production and ownership which had led to the formation of the modern, capitalist city. As Bruce Braun puts it, for Williams, '[c]ities existed only through particular productions of nature and space, both internally and in their hinterlands' (Braun 2005, p. 636).

More recently, Jahn has argued that '[t]he "city" as a form of life is a specific, historically developed model of the regulation of the societal relationship with nature.... [U]rban struggles are predominantly socio-ecological struggles, since they are always about the social and material regulation and socio-cultural symbolization of societal relationships with nature' (Jahn, cited in Heynen et al 2006, p. 1). Social natures are thus an intrinsic part of cities, and a study of their conceptualisation, production and consumption can also be helpful in understanding the development of cities.

Urban natures

The study of the relationship between cities and nature has taken manifold paths, and studied nature in various forms. Braun for example lists water, food, waste and energy as particularly popular and useful ways of thinking about urban nature within human geography (Braun 2005). Natural scientists have become increasingly interested in cities as habitats and ecosystems. Considerations about climate and microclimate are central to much architecture and neighbourhood planning, and climate change has emerged as an important element within sustainable urban development.

In this thesis, urban natures will be used to refer to natural areas of extensive size close to or within cities. The two case study areas, Marka and the Perth Hills, contain hills covered by forests, bush- and agricultural land, rivers and lakes. They are home to a rich flora and fauna as well as varying densities of human settlement. These urban natures are held together by being seen as a distinct geographical area by the inhabitants of the cities of which they form an intrinsic part, as well as diverse economic, ecologic, cultural and planning processes that will be explored throughout this thesis.

1.2. Landscape

As was established in the above, in this thesis the term urban natures will be used to refer to the natural environments within and around cities. These natures will be explored mainly from a socio-cultural macro-perspective, as geographical areas that are held together by certain environmental, socio-cultural, economic and planning characteristics. In the context of urban planning and expansion, these natures are seen as land that forms part of the land reserves for the future expansion of a city. Through acquisition, appropriation and re-zoning, this land can potentially become part of the urban fabric.

However, the land is of course not ‘empty’ as it is. Often, it is home to a rich ecology that is, while rarely ‘untouched’, at least significantly different from the urban ecology. Where the land forms part of a rural area, it is already settled, albeit not as densely as the city. Economical practices such as agriculture, forestry and mining depend directly on the land, and many recreational practices also use it as their arena. Thus situated, urban natures are landscapes.

The English term landscape in its modern meaning comes from the Middle Dutch term *lantscap*. From the 16th century onwards, as a Dutch landscape painting tradition developed, the word *lantscap* referred to a work of art depicting natural scenery, generally of rural and agricultural character. From the 18th century and onwards, the English term landscape had evolved to also refer to a physical area or region. The more recent term landscaping refers to the lay-out and beautification of parks and gardens. In its etymological roots, we can already see the contours of several key features of landscape as it is theorized. Firstly, the ‘nature’ of landscape is not untouched and primordial, but humanised. Secondly, landscape is framed, literally and figuratively. And thirdly, landscape contains a normative aesthetic.



‘Die Jäger im Schnee’, Pieter Bruegel 1565

Landscape views in cultural geography

The academic field that offers probably the most developed framework for studying landscapes from a historical, socio-cultural and economic perspective, is the field of cultural and social geography, and in particular the field of rural geography.

Within cultural geography, there has been a long tradition pointing to the role of humans in shaping the natural environment. Carl Sauer’s work, starting in the 1920s and carried on by his Berkeley School followers, was influential in creating a cultural view on landscapes, one that eschewed environmental determinisms (Whatmore, in Anderson et al 2003).

These geographers also provided a ‘counterpoint to those understandings of landscape that seek to derive normative value from a myth of pre-human natural purity’ (Hinchliffe 2003:209).

Environmental and conservationist organisations can often be seen to defend the view that untouched nature is more valuable than nature where the human influence is visible.

Creswell (2003) argues that there have been three paradigmatic views on landscape within cultural geography. The first was the *culturalist* view, influenced by Sauer and his Berkeley School. Landscapes were seen as shaped by human practices, with nature being the background or medium, and culture the acting agent.

Description and comparison of the processes that lead to regionally different landscapes were seen as a main task. While the pitfalls of earlier environmental determinist perspectives were successfully avoided, the culturalist perspective taken to its extreme saw nature as a product more or less solely of human actions, a mere medium ‘swallowed up in the hubris of social constructionism’ (Demeritt 1998 in Whatmore 2003:165).

In this vein, Jackson argues: [A] landscape is not a natural feature of the environment, but a synthetic space, a man-made system of spaces superimposed on the face of the land, functioning and evolving not according to natural laws but to serve a community. A landscape is thus a space deliberately created to speed up or slow down nature (Jackson 1984, in Creswell 2003: 271).

The second view, which can be termed *humanist*, was occupied with how perception forms the landscape. Influenced first by art theory (ways of seeing), and later by linguistics (reading the landscape as text), the humanist view was interested in the symbols inherent in landscapes, and the role of the subject and the human imagination in interpreting these symbols. A main argument was that the same landscape could be interpreted very differently depending on the eye of the beholder, and that internalised ideas played an important role in these interpretations.

Meinig put it like this:

‘We may certainly agree that we will see many of the same elements- houses, roads, trees, hills- in term of such denominations as number, form, diversity and color; but such facts only take on meaning through association, they must be fitted together according to some coherent body of ideas. Thus we confront the central problem: any landscape is composed not only of what lies before our eyes but what lies within our heads.’

(Meinig 1979, in Creswell 2003: 271)

The third view is heavily influenced by radical and *Marxist* ideas. Landscape is seen as historically shaped and highly ideologised spaces, ‘a complex moment in a system of social reproduction’ (Mitchell 1996 in Mitchell 2003). The material landscape is produced through human labour, and acts as the arena for past and present power struggles. What is accepted as a fact in the capitalist economy, namely that land (and landscape) is a commodity that can be produced, bought and sold, Marxists see as a historical contingency that is worth questioning.

Cosgrove argues that ‘[l]andscape’s capacity to hide under a smooth surface the labour that produces and maintains it, is a direct outcome of its pictorial qualities and its identification with physical ‘nature’, placing the historical and contingent beyond critical reflection.’ (Cosgrove 2003:260)

While Creswell gives a comprehensive overview over different landscape paradigms within cultural geography, van Auken & Rye (2011) nicely sum up three important ‘dimensions’ of landscape: *land*, *meaning*, and *practice*. The material and geographical basis of landscape is the *land*. As humans relate to the land, *meanings* about the land, and the human relations to it, are formed. These meanings are turned into *practices*, as humans act upon and within the land. These three dimensions of course do not appear in a linear fashion, but continuously re-work, reinforce and influence each other.

Cosgrove (2003) also stresses the role landscapes play in national identities. As the idea of the nation-state is closely connected to territoriality, it is unsurprising that landscapes are important to national identity, as landscape *is* the very territory of the nation. However, not any landscape

within the borders of a nation-state is necessarily seen as important to a nation's identity, or seen as representative of the nation. Over time, certain landscapes have emerged as being more representative of a nation than others.

As Duncan argues: 'The landscape [...] is one of the central elements in a cultural system, for as an ordered assemblage of objects, a text, it acts as a signifying system through which a social system is communicated, reproduced, experienced and explored.' (Duncan 1990, in Creswell 2003: 272)

However, on an everyday basis, we often engage uncritically with landscape. We might live in it, use it for certain activities such as skiing, walking or horseback riding, without giving much thought of its socio-cultural or economic meanings, or without even being aware that these meanings are present in the landscape. Duncan further argues that 'by becoming part of the everyday, the taken-for granted, the objective, and the natural, the landscape masks the artificial and ideological nature of its form and content, its history as a social construction is unexamined. It is, therefore, as unwittingly read as it is unwittingly written'. (Duncan 1990, in Creswell 2003: 272)

The term landscape is a loaded term, and carries many meanings, some of which are culturally and nationally defined. Cosgrove (2003) for example points out that for most Americans, landscape is wild nature untouched by man, whereas the British conception of the term encompasses 'distinctly humanized' and even 'garden- like qualities' (Cosgrove 2003, p. 252). A discussion of the way landscape is defined in Australia and Norway will follow at a later point.

Fragmented landscapes

Along the lines of Macnaghten and Urry's (1998) contested natures, landscapes can also be seen as highly fragmented (Dollinger 2004). In this post-modern conceptualisation, landscapes are perceived as 'platforms' by various user and interest groups, as spaces possessing certain characteristics that make them fit for a specific purpose. This makes different landscapes

interchangeable as long as the needed characteristics are present, and renders their historical and cultural context close to irrelevant (Dollinger 2004).

But the fragmented landscape views also produce and alter landscapes. Using ski lifts in the Alps as an example, Dollinger shows how lift infrastructure and connected environmental alterations have changed the Alpine landscape to the extent that the romantic, idealised alpine environment that many tourists seek is now threatened (Dollinger 2004). Landscapes are thus fragmentally perceived, produced and consumed, forming a mosaic carpet of overlapping landscapes that threatens to collapse as conflicting 'platforms' and perceptions collide.

1.3. Planning Theory and Nature

Ebenezer Howard's Garden City

In 1898, English inventor and court-writer Ebenezer Howard first published his ideas on the Garden City in a book entitled *To- Morrow: A Peaceful Path to Real Reform*. Revised and republished in 1902 under the title *Garden Cities of To- Morrow* (Howard 1946), the book would become one of the most influential works of 20th century urban planning literature, and form the cornerstone of the Garden City movement.

Before he started writing his seminal work, Howard had lived and worked in London and Chicago, two rapidly growing industrial cities. Here he had developed a distaste for many aspects of the city, in particular its 'old, crowded, chaotic slum towns of the past' (Howard 1946, p.111). Other negatives of the city included long hours spent in transit, unemployment, high land prices, polluted air and the 'closing out of nature' (Howard 1946, p. 46). In order to tackle these urban problems, Howard envisioned a new type of city, a Garden City that would carry with it the best of both urban and rural life. 'Town and country must be married, and out of this joyous union will spring a new hope, a new life, a new civilization' (Howard 1946, p. 48).

Howard's plan for the Garden City included not only a new and rigidly planned urban layout, but also new ways of arranging economical, social and environmental relations. He envisioned the Garden City as a grand-scale 'experiment designed for humanity at large' (Howard 1946, p. 57). At the very basis of this experiment lay a new way of organising land ownership, as for Howard, 'land reform' was the 'foundation on which all other reforms must be built' (Howard 1946, p. 148). Quoting the philosopher John Stuart Mill, Howard saw land as an ever-lasting form of wealth; '[t]he land subsists, and the land is almost the only thing that subsists'. (Mill, In Howard 1946, p. 132)

Founding a new Garden City on a blank sheet, the municipality was to buy all the land for the city, a green-field site of rural and agricultural land. The basic premise was that land in rural areas was inevitably much cheaper than in existing cities, so Howard argued that it would make economical sense to found new cities here instead of expanding further in already over-crowded and over-priced urban or sub-urban areas (Howard 1946, p. 58-60). Schematically, a concentric city was imagined, with a Central Park in the centre, surrounded by a ring of housing and gardens on relatively spacious lots, then a wide, green avenue, then more housing, then industry at the outer edge of the city, all surrounded by a wide green belt of agricultural land (Howard 1946).



Diagram of the Garden City © Cornell University

As the master plan suggests, there were to be ample amounts of green space both within and around the city. In the words of F. J Osborne, Howard envisioned the Garden City as much as a ‘city in a garden- that is surrounded by beautiful country- as a city of gardens’ (Osborne, in Howard 1946, p. 26)

The Garden City was to be built around and interspersed by public green space, and surrounded by agricultural lands. Plots were to be large enough to room private gardens in front of the small single-family homes. Streets were to be ‘so wide and spacious that sunlight and air might freely circulate’, full of ‘ trees, shrubs and grass’ to give the town a ‘semi-rural appearance’ (Howard 1946, p. 67).

The city was supposed to be more or less self-sufficient, with the immediate hinterlands producing most of the food, thus cutting the cost of transporting foodstuffs. Short distances

within the city, to a central train station and to green spaces were a central idea³. While not specifically referring to walkability, the city was laid out according to walking distance, and it was to be developed at a human scale. Howard thought that good intra-urban transport could best be achieved and sustained by keeping the city within its original territory and limiting its population to a maximum of 32.000 citizens (Howard 1946).

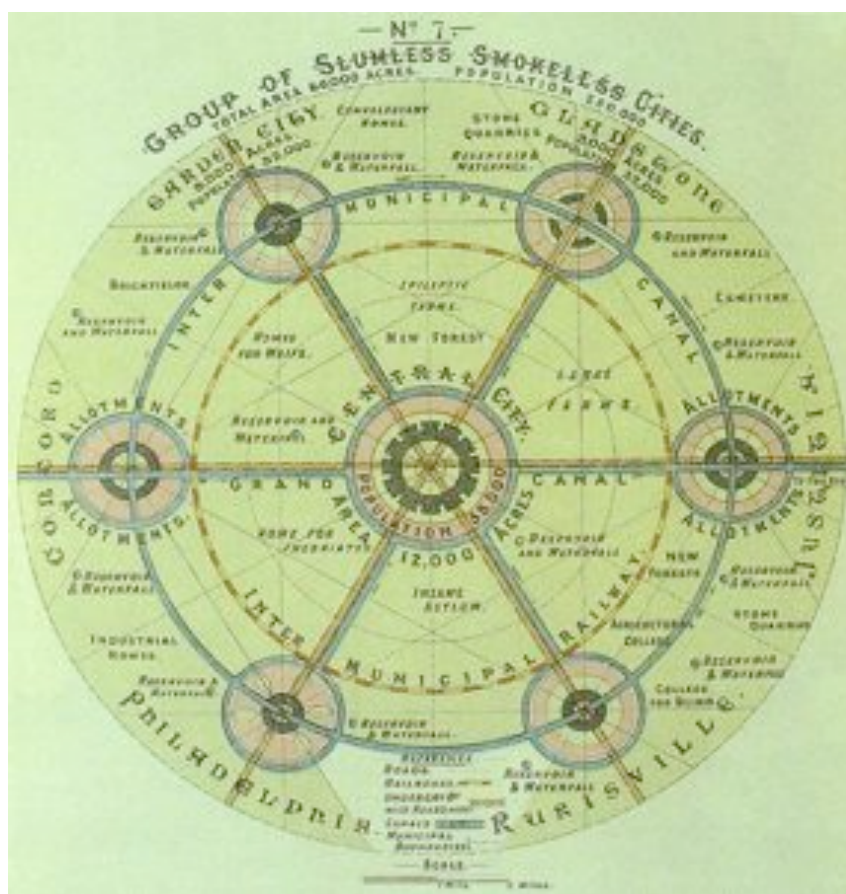


Diagram of interconnected Garden Cities ©gardenhosedaptor

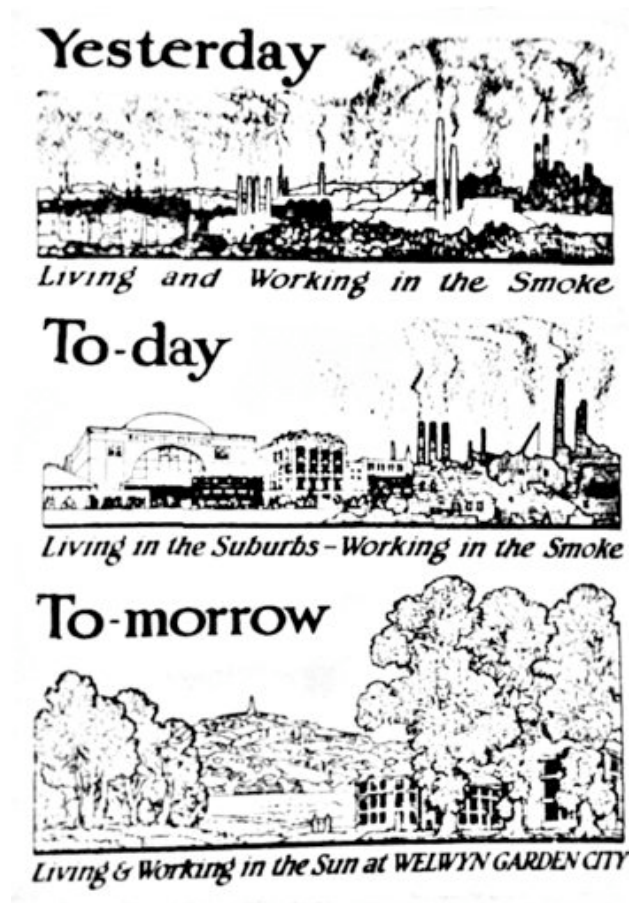
Boulevards and roads crossed the city geometrically to ensure access, and a ring railroad was to encircle the town. This would be connected to an inter-municipal railroad network, providing

³ Howard's Garden City can also be seen as a forerunner of transit-oriented development, TOD. Manifesting itself as an important idea in urban development since the 1990s, the central characteristics of TOD's include medium to high-density development with a mix of functions to improve walkability; local access to open and green space; and the central and walkable location of a public transport hub such as a train station to ensure metropolitan or regional mobility (Dittmar & Ohland 2004).

‘rapid railway transit’ (Howard 1946, p. 130) between separate Garden Cities in a region. Instead of expanding a single city to accommodate a rising population, Howard imagined new Garden Cities to be founded, all of similar size and layout, divided by agricultural land, and connected to each other through railways and main roads. The Garden City thus had an important dimension of regional planning to it, as Howard imagined eventually the whole countryside to be covered by Garden Cities in an interconnected web, situated around a Central City.

Legacy of the Garden City

In Howard's lifetime, two Garden Cities were built in England, Letchworth (founded in 1903) and Welwyn (founded in 1920). The influence of Howard's ideas however has reached far beyond these two model garden cities. As Stephen V. Ward has argued, ' [t]he garden village, garden suburb, satellite town and new town were international variants that were built on the conceptual foundations of the garden city' (Ward 1992, p. 24)



Welwyn Garden City promotional poster (in Howard 1946)

The name garden city (*cit  jardin*, *Gartenstadt*, *haveby*) was used for many new townships and suburbs founded in Central and Northern European countries throughout the 20th century, in particular in Germany. Many of these 'garden cities' focused only on the garden aspect of

Howard's ideas, resulting in suburbs with plenty of parklands and gardens as well as higher housing standards, yet incorporating little else of Howard's social reformist ideas (Ward 1990). In Oslo, 7 such garden suburbs were founded in the first half of the 20th century, the largest being Sogn hageby with over 900 units of housing, and Ullevål hageby with over 600 units of housing. While these garden cities often created aesthetically pleasing suburbs and increased living standards, more green space and parks do not automatically create better cities. This was at the heart of Jane Jacobs' critique of the Garden City movement, as we shall see in the below.

Apart from the numerous new garden cities and suburbs, the principle of creating new cities in greenfields away from existing urban centres became widespread in 20th century urban planning. The Garden City movement was a driving force behind the New Towns program in the UK, where some 30 new towns were created in the years after the second world war, applying many of Howard's principles (Hall & Ward 1998). The concept of satellite towns has been an important part of Howard's legacy. Countless satellite towns were incorporated in metropolitan and regional plans during the 20th century, in particular during the Modernist period from the end of WWII to the 1970s.

Le Corbusier's Radiant City

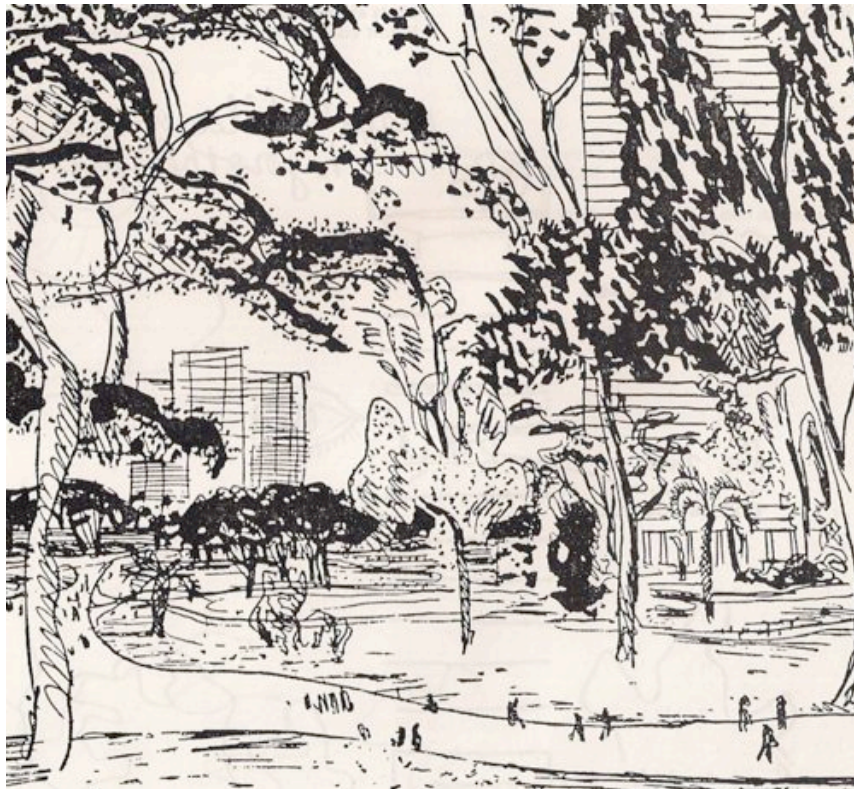
Le Corbusier's (2010) Radiant City first appeared in a 1925 volume originally entitled Urbanisme. The book contained a highly futuristic and innovative philosophy and plan for a new type of city, characterised by a strictly functional logic and geometric layout, dense high-rise living, vast open (green) spaces, and monofunctional neighbourhoods. Even though the social and economic philosophies as well as the preferred building types of the Radiant City differ radically from those of the Garden City, a certain kinship regarding the role of green space is evident.

Around a dense centre of enormous high rise buildings, le Corbusier imagined a green belt of protected land, the lungs of the city. This protected zone could in the future be used for urban expansion. Further out were the residential garden cities, sprawling, peripheral suburbs, forming a 'supple, extensive and elastic' contrast to the concentrated urban core (Le Corbusier 2010, p.

345). Here, the workers were to live, surrounded by open green space and fresh air. In order to secure a functional, i.e. geometrical layout, le Corbusier contended that ‘we must build in the open, both within the city and around it’ (le Corbusier 2010, pp. 349-350).

About the aesthetics and general layout of the Radiant City, le Corbusier writes:

‘Suppose we are entering the city by way of the Great Park. Our fast car takes the special elevated motor track between the majestic sky scrapers; as we approach nearer there is seen the repetition against the sky of the twenty-four sky-scrapers; [...] the whole City is a Park. The terraces stretch out over lawns and into groves. Low buildings of a horizontal kind lead the eye on to the foliage of trees. [...] Here is the CITY with its crowds living in peace and pure air, where noise is smothered under the foliage of green trees. [...] There are gardens, games and sports grounds. And sky everywhere, as far as the eye can see.’ (le Corbusier 2010, p. 350)



Sketch by le Corbusier from the Radiant City ©archdaily

Jane Jacobs on urban parks, and her critiques of Howard's Garden City and le Corbusier's Radiant City

In her seminal work *The Death and Life of Great American Cities*, Jane Jacobs (1961) criticizes what she refers to as orthodox urban planning, and argues for a new approach to planning the 'fantastically dynamic places' (Jacobs 1961, p. 14) that cities are, based on careful observation and an enthusiasm for diversity. Jacobs identifies three main influences that shaped the orthodox tradition until the 1960s, namely Ebenezer Howard's Garden Cities, le Corbusier's Radiant City, and to a lesser extent the American City Beautiful movement (Jacobs 1961, pp. 17-25).

What does a critique of orthodox city planning have to do with urban natures? While there is no discussion of urban natures as such in the book, her critiques of the Garden City, le Corbusier and the City Beautiful can nevertheless contribute to our understanding of different conceptualizations and planning regimes of urban natures.

In *The Death and Life of American Cities*, Jacobs also discusses the functioning of neighbourhood parks at length, focusing on how diverse park uses by people from different social groups create better and safer parks that vitalize whole neighbourhoods. Urban natures in the form of parks are thus discussed as central and integral part of everyday urban life, as social spaces that are formed by their surrounding neighbourhoods.

Let us first turn to Jacobs' critique of orthodox city planning, and see what her critique can tell us about urban natures and their planning. Jacobs sees the Garden City as a reaction to the ills of the English industrial urban centres, a utopian place 'where the city poor might again live close to nature' (Jacobs 1961, p. 17). Quoting Nathan Glazer, she recognises in the Garden City the ideal of the English country town, 'with the manor house and its park replaced by a community center, and with some factories hidden behind a screen of trees, to supply work' (Jacobs 1961, p. 18). According to Jacobs, the Garden City was in its essence anti-urban, limiting the population to a maximum of 30.000 people, and 'authoritarian' (Jacobs 1961, p. 19) in the sense that it was rigidly planned and controlled to the minutest detail.

As a ‘powerful and city-destroying idea’ (Jacobs 1961, p. 18) Jacobs also criticizes the spatial separation of functions such as agriculture, industry, and civic services, an idea that was later adopted and further developed by Modernists such as le Corbusier in the concept of mono-functional areas. Jacobs sees this functional separation destroying the very diversity and adaptability that makes up a metropolis and sets it apart from a rural area. Regarding le Corbusier’s Radiant City, Jacobs argues that this was simply a version of the Garden City gone vertical, a modern, high-density city of ‘towers in the park’ (Jacobs 1961, p. 22).

What then is wrong, according to Jacobs, with Howard’s city full of gardens, or le Corbusier’s city in a park? Most importantly, Jacobs criticizes the idea that open green space in and of itself is a positive element in a city. For Jacobs, ‘[p]arks are not automatically anything’ (Jacobs 1961, p. 92). She sees the purported all- healing qualities of green space as a central idea of orthodox city planning, claiming that for decades, urban planners have been taught that ‘mush like this must be good for us, as long as it comes embedded with grass’ (Jacobs 1961, p. 7). To support her position, she gives examples of town renewal projects that were interspersed with ‘air, light, sunshine and landscaping’ yet still failed to produce the wanted socio-economic results (Jacobs 1961, p. 6).

Jacobs also attacks the idea that parks and trees are the ‘green lungs’ of a city, claiming that three acres (roughly 1.6 hectares) of forest are needed to absorb the amount of CO₂ produced by four people (Jacobs 1961, p. 91)

Jacobs here raises important points that are often forgotten in public and political discourses about urban green spaces: more is not always better, as plenty of open green space in a city not necessarily results in a better city. The layout, multifunctionality, accessibility and neighbourhood integration of a green space is more important from an urban social perspective than the mere extent of the green area or how many trees are planted on it. Furthermore, parks and other urban green spaces play only an insignificant active role in keeping urban air clean (though parks do not pollute in the way streets, factories or houses do, so at least a park secures an area in the city that does not pollute the local air)

So what makes an urban park successful? Jacobs convincingly argues that a park is successful if it is used by different groups of people, at different times of day and for different purposes. Through ‘self-policing’ and social control, this will make the park a safe place, a social space and a meeting point for the neighbourhood. Jacobs furthermore argues that this social functioning of a park is highly dependent on its surroundings, on the neighbourhood in which it is embedded. She points to a diversity of functions in the rim or immediate vicinity of the park as an important condition for the diverse uses and user groups, and thus the success or failure of a park. A good park is thus one that has become an integrated part of a neighbourhood through being used on an everyday basis by various groups of citizens (Jacobs 1961).

From theory to practice

In this chapter, nature has been discussed as a social and political construction, a site for othering, and a contested and politicised plurality. Three paradigmatic views on human-nature relationships have been defined, namely orientalism, paternalism and communalism, and will be applied to the case studies in the next two chapters as a broad categorical framework of analysis for defining and comparing different views on nature. The intricate relationship between the natural, the rural and the urban has been pointed out, and urban natures have in the context of this thesis been defined as landscapes. From the field of cultural and social geography I have drawn various insights on interpretations of landscape, including the view that landscape is made up of the three aspects land, meaning and practice. In analysing the case studies, I will thus group views on nature (meaning) together with activities in nature (practice) in the subchapters 2.1. and 3.1.

Moving on from theories about nature and landscape to theories of urban planning, I have presented the planning ideas of two influential, the writer Ebenezer Howard, and the architect le Corbusier. These theories have been nuanced and assessed through the work of the equally influential Jane Jacobs, and will be traced in the development of Perth and Oslo.

In chapter 2 and 3, I will first analyse various historical views on nature and activities in nature, before showing how these views are inextricably connected to the planning and development of Perth and Oslo.

CHAPTER 2- PERTH and the HILLS

2.1 PERTH and the HILLS - Views on Nature, Activities in Nature

Colonial natures and 'the bush'

Colonial Australian literature is full of references to land and nature⁴. Whether framed as the outback or the bush, the strange environments that met and surrounded the early settlers often figure as central elements in writings. The poetic genre of bush poetry, with its roots in the second half of the 19th century, is still hugely popular today. Often framed in nationalistic terms, it is seen as part of a distinct Australian history and identity (see for example Grattan 1938). The writings of Henry Lawson (1867-1922) and Banjo Paterson (1864-1941) can figure as examples of two contradictory, yet complimentary and representative views of the Australian bush in poetry. Lawson often described a struggle for survival in a harsh climate and environment, as he 'had no romantic illusions about a rural idyll' (Elder 2008, p. 95). In the short story 'The Drover's wife'⁵, a mother of four is living in a house in the bush, her husband away with the sheep. The setting is described as:

'Bush all around – bush with no horizon, for the country is flat. No ranges in the distance. The bush consists of stunted, rotten native apple-trees. No undergrowth. Nothing to relieve the eye save the darker green of a few she-oaks which are sighing above the narrow, almost waterless creek. Nineteen miles to the nearest sign of civilisation – a shanty on the main road.' (Lawson 1892)

Little water, loneliness, vast open space and the 'everlasting, maddening sameness of the stunted trees – that monotony which makes a man long to break away' (Lawson 1892) tear on the characters in Lawson's stories.

⁴ In the following, the term 'colonial' refers to the time from first British settlement in 1788, to Australian independence (the formation of the Commonwealth of Australia) in 1901. 'Settlers' refers to first generation, non-Aboriginal immigrants.

⁵ A drover is a riding herdsman of sheep or cattle, and the Australian equivalent (occupationally as well as mythically) of the Argentinian gaucho or the American cowboy.

In contrast, Lawson's contemporary Paterson held a romanticised, if detached view of the bush. In the poem 'Clancy of the Overflow', Paterson describes the life of a drover.

'And the bush hath friends to meet him, and their kindly voices greet him
In the murmur of the breezes and the river on its bars,
And he sees the vision splendid of the sunlit plains extended,
And at night the wond'rous glory of the everlasting stars.' (Paterson 1889)



'A Winter Evening, Hawthorne, 1886' by Frederick McCubbin of the Heidelberg School of Australian Impressionists

The bush is a fascinating place, full of opportunities, beauty and 'real' Australian characters. It is also a positive contrast to the city, where life is hectic, loud and full of miseries. Paterson writes:

'As the stock are slowly stringing, Clancy rides behind them singing,
For the drover's life has pleasures that the townsfolk never know.
[...]' (Paterson 1889)

Lawson and Paterson display two different views of the Australian bush that have pervaded into the present day. On the one hand, the bush is seen as a harsh, challenging, unforgiving environment that stretches endlessly into the distance. On the other hand it is also the place where the 'Australian spirit' was born through hardworking men and women, who loved their country and saw its endless beauty, resources and opportunities (see for example Elliot 1941; Davis 2008).

(Post)colonial natures

Post-colonial Australian literature and academia has continued to explore, often critically, the settler's experience of and relations to the Australian land. The Perth writer William J. Lines (1991) for example traces the settlers' landscape views back to Enlightenment ideas of rationality. By the middle of the 18th century, the new natural and social sciences provided justifications and methods for human (or ethnocentrically European) domination of nature, and were put to work in a capitalist system of profit and expansion (Lines 1991, pp. 16-19). Francis Bacon's metaphors of natural conquest, Carl von Linné's taxonomic ordering of nature, and Adam Smith's 'discovery' of the capitalist market economy's 'invisible hand' all combined to form the basis of an exploitative conquest of the new continent. Lines thus claims that 'Australia's prosperity to 1890 depended on the reckless exploitation of untouched natural wealth' (Lines 1991, p. 128) through practices such as mining, farming, lumbering, whaling and the herding of cattle and sheep. Furthermore, Eurocentric views on what constituted civilization led to an official denial of Aboriginal presence on, and rights to, the land. Australia was constructed as a *terra nullius*, a land that 'belonged to no one and could be occupied on the basis of first discovery' (Lines 1991, p. 28)⁶.

⁶ Line's view of the Enlightenment rationality is based on the views of critical theorists such as Theodor W. Adorno and Max Horkheimer. In their seminal work *Dialectic of Enlightenment* (Adorno & Horkheimer 1944), they argue that during the Enlightenment, a definition of rationality had become dominant in Western societies that focused on utility, efficiency and functionality. This instrumental reason paved the way for a pattern of 'blind domination' of nature in a triple sense: 'the domination of nature by human beings, the domination of nature within human beings, and, in both of these forms of domination, the domination of some human

A recurring argument in post-colonial academic writing is that many settlers felt a sense of estrangement and a lack of appreciation of the new environment, as they struggled to transplant their European culture and landscape ideals upon the Australian landscape (Davis 2008; see for example Dunlap 1999, Lines 1991). Against this view, Jane Davis (2008) argues in a recent thesis that the settlers not always had negative views of the landscape. Her analysis of personal writings from settlers in Southern West Australia demonstrates how many eventually 'developed an affinity with environments that at first were unfamiliar and frightening' (Davis 2008, p. 3). While a utilitarian view of the land as a productive landscape was evident, Davis shows that a parallel picturesque and aesthetic view of the land was also present, illustrated for example by men growing flowers in their gardens⁷.

Colonial texts show us a productive nature, and a site of place attachment both in a negative and positive sense. The selected segments of bush poetry demonstrate that the natural environment was at once a threat, an unknown, hostile place, and a place of admiration, endless possibilities, beauty and real Australian character. An aesthetic view of nature is thus also present.

Critical re-examinations of these views by post-colonial and often Marxistically influenced theorists portray practices of domination and exploitation. Taking ownership over nature is seen as a central element of the colonial project. Recent research has confirmed ambiguities regarding place attachment and identity, and shown that leisure uses of nature were also present.

The orientalist paradigm most aptly describes the view the first settlers had of the Australian continent. They were sent to explore and conquer the new continent, to search for valuable resources, to subdue the 'primitive' Aboriginals who were seen as part of nature rather than civilisation, and to till the land by means of imported technologies and introduced species. An othering of Australian people and nature was underlying this view. However, paternalist tendencies can also be traced, as settlers from their own point of view assumed a stewardship

beings by others.' (Zuidervart 2011). Exploitation of the environment and of people(s) is thus seen as two sides of the same coin, resting on an Enlightenment conception of 'instrumentalised reason that has become irrational' (Zuidervart 2011).

⁷ Davis also explores how gender roles were transformed through the settler's relations with the land.

over the land, turning it into a civilised nature through cultivation. But with their ideas of an ideal nature being based on the English landscape, the paternalist has also proved highly problematic.

Timber and trains- conquering the Darling Ranges

Soon after the colonisation of Western Australia in 1827 (see chapter 2.2) , search expeditions were sent inland to explore the new colony. The wooded Darling Ranges⁸ were named and crossed in the search of more arable land, which was found some 100 kms inland at York. A main road was built from Fremantle, through the Darling Ranges to York , and then to Albany on the South coast, thus opening up the Hills early in the history of the colony (Stannage 1981, p. 80; see pages 45 and 47 for location maps).

At the settler's arrival, the Darling Ranges were covered by jarrah forests⁹. Jarrahs are wide-girthed, up to 40 metres tall, and can grow many centuries old, giving a dark, extremely durable and heavy hardwood similar to mahogany. The early settlers were 'in awe' of the trees (MHHS 2010), and soon started to fell the trees in order to export the timber, thus founding what was to be one of WA's first export industries (Lines 1991, p. 144-145).

But the settlement of and resource extraction from the Hills did not gain momentum until the arrival of trains. The first main train line was built from Fremantle through Perth to Guildford in the 1880s, encouraging residential development inland and allowing for more efficient transport of goods and produce from the agricultural hinterlands to the city centre (Houghton 1990). The line was extended to York a few years later, crossing the Hills on its way, followed by another line to Kalamunda in the early 1890s. With the transport problem solved, the timber industry exploded, and small settlements appeared throughout the hills (Lines 1991).

⁸ The Darling Ranges is a low mountain range East of Perth, generally 250-400 metres high towards Perth, and marking the end of the coastal plain . 'The Hills' is the colloquial name for the areas of the Darling Ranges close to the city.

⁹ Aboriginals of the Noongar tribe had lived in the area for an estimated 40.000 years, using fire to periodically manipulate the vegetation. The forests were thus neither uninhabited nor untouched by humans hands (Hallam 1975).



Steam train at the zig-zag trail in Kalamunda, 1890s ©Pickering Brook Heritage Group

By the early 1900s, the jarrah forests were rapidly declining in size¹⁰. As the forest was cleared, agriculture could take its place. Extensive fruit orchards soon covered large areas of the hills and shaped the landscape, while poultry farms produced eggs and chicken (MHHS 2010). The trains again provided swift transport to costumers in the growing city and to the harbour for export. Quarries were established to supply the city, which was located on the sandy coastal plain, with granite from the rocky Hills area.

In the 1890s, gold was discovered 400kms inland in arid Karlgoorlie. But the town was without water. In what has later been celebrated as a heroic engineering feat, a dam was built in Mundaring in the central Hills to form a reservoir, out of which water was pumped in a pipeline

¹⁰ Only a handful of old-growth jarrah trees still stand in the Hills today, the most famous being 'King Jarrah' in Sawyer's Valley which is an estimated 400 years old.

all the way to the goldfields¹¹. The 'Golden Pipeline' stretches inland for over 560kms. It fed the booming eldorado of Karlgloorlie, and allowed for the wide-scale establishment of farms and stations in what is today known as the Wheatbelt (National Trust of Australia 2003). John Forrest, the State Premier of the time, proudly announced the project with these words: ' Future generations will bless us for our farseeing patriotism; and it will be said of us, as Isaiah said of old, 'They made a way in the wilderness, and rivers in the desert'' (William, T. 2003, p. 88)

By the turn of the century, the Hills had thus been exploited for various resources. While lumbering first drew people to the Hills, fruit trees soon took over for the jarrah. Water from the Hills allowed the settlement of the inland regions, and the ground of the Hills was opened up for use as building materials. The Hills and its natures were thus productive landscapes, providing valuable export and building resources, as well as feeding the city.

In 1902, an organisation was formed to lobby for the public takeover of the railway line servicing Kalamunda. Besides the economic potential and public interest in the upkeep of the line, the Upper Darling Ranges Railway League also 'drew attention to the natural beauty of the area serviced by the line and its recreational potential for the people of Perth' (Pickering Brook Heritage Group 2008), thus pointing out the direction for a new period in the history of the Hills.

Gardening: the front and backyard

'Surround a home with slums and you produce moral and physical weeds and stinging nettles. Surround a home with a garden and you produce the moral and physical beauty of the flower and the strength of the oak.'

(From the cover of the 1918 constitution of the Town Planning Association of Western Australia. Lever, cited in Gaynor 2007)

¹¹ Lines (1991, p. xx) sees the dam and pipeline as 'icons to a rational and technical order under construction in Australia', and describes how in the 1950s and 1960 Perth school children were bused to the Mundaring weir to marvel at this wonder of technology.

Gardening has been an important part of Australian engagement with landscape and the natural environment since colonisation (Davison 2005; Gaynor 2006; Timms 2006). In Europe and Britain, the respective continent and country of reference for the settler gardeners, gardening had a long history. With its earliest roots in the neo-lithic revolution and the resulting spread of agroecological landscape types (Nolet, R. 2004)¹², continental gardening in its current form probably first appeared in monasteries in the early Middle Ages. The monastery gardens were both productive and aesthetic, including edible plants as well as purely ornamental plants. The aesthetic aspect was later developed in aristocratic 'pleasure gardens' which became popular during the Renaissance, and were later combined with scientific principles in botanical gardens and English picturesque landscaping (Nolet 2004; Whitbread 2010).

In Perth, as in other Australian cities, the dispersed (sub)urban fabric with single-family houses on large plots of land had dominated the city since its inception (see Chapter 2.2), and made private front and backyards, or gardens, an inextricable part of the built environment. Building mainly on British gardening traditions and imported species, which often produced unforeseen ecological problems (Gaynor 2006; Timms 2006), gardening can be seen as a logical step in the colonisation of Australian nature, a form of ecological imperialism taking place in the private sphere of the backyard.

Both the ornamental and private backyard garden were common in Perth from colonial times (Gaynor 2006; Davis 2008). Rose gardens were popular, and for settlers these ornamental gardens were instrumental in creating a sense of belonging and place attachment to the new environment (Davis 2008). Recent research has confirmed the continuing importance of gardening in the process of migrant's 'coming to terms' with the Australian environment, in creating a sphere of familiarity in the backyard based on gardening traditions and ideal of the home country (Head et al 2004). But many people also had vegetable patches and chicken pens in their backyards, even those living close to the city centre. Rather than being created out of pure

¹² The neolithic revolution describes the shift from hunter-gatherer to agricultural societies, occurring at several places from around 8-5000 BC (Nolet 2004). Agroecology refers to landscape types formed through the interplay of agriculture and ecological environment. The agroecology of rural landscapes was long the main focus of environmental history, which only recently has turned towards urban environments (see Worster 1990; Rosen 1994).

subsistence needs, the 'veggie patch' and 'chooks' were seen as a means to achieve independence, an expression of a Protestant work ethic and ideals of thrift (Gaynor 2007).

As a regular pattern of suburban housing developed from the turn of the 19th century, the dominating plot size was a spacious quarter acre (1011 square metres), uniformly rectangular in shape. Houses were regulated to be set back a couple of metres from the street, giving properties both a front- and a backyard. The frontyard was smaller, facing the main street, and was mainly aesthetically gardened. The backyards was more spacious, located towards the back alleyways, and mainly used for utilitarian purposes such as the growing of vegetables, keeping poultry, washing clothes and repairing things in the now-iconic backyard shed (Mullins & Kynaston 2000, p. 148).

Gardening is thus both a material practice that has shaped the Australian environment, an agent in place attachment, and an expression of colonial and cultural ideals. Functional as well as aesthetic in nature, it embodies orientalist views in dominating and shaping the environment, as well as paternalist views in forming bonds between people and the environment while helping nature 'find its path'. In the Hills, with its historic fruit orchard industry and the agricultural hinterlands of the city in the Swan Valley located near the foothills, gardening has particular salience for understanding the relationship to the productive landscape.

Lifestyle

Suburban living, gardening, the bush, rural life and outdoor recreational activities such as surfing or bush walking are in the Australian media and academia often discussed in terms of lifestyle (for academic examples, see Brown 2008; Davison 2005; Timms 2006). Nature, and human relationships with nature, are thus an important element in Australian conceptions of lifestyle. Lifestyle is here predominantly framed in a leisure context, as leisure and recreational activities are increasingly seen as defining who we are.

In a review article on lifestyle and leisure, Tony Veal (2000) notes several key characteristics of lifestyle. These include: activities and behaviours, bound to certain values and attitudes; the

purported internal coherence the above; individual as well as social aspect, as people define themselves as individuals or members of a group; and the element of choice, which is being questioned as perceived rather than real. Lifestyles are also heavily intertwined with consumption patterns and marketing, particularly so in rural Australia, where lifestyle-led leisure activities and tourism are an important source of local employment and income (Wamsley 2003).

Along with city beaches, the Hills are often described as one of Perth's main lifestyle localities. Kennewell and Shaw for example write in their Perth city profile: 'The low altitude Darling Ranges offer lifestyle opportunities for those who wish to live in a bushland setting' (Kennewell and Shaw 2008, p. 244). The 'Hills lifestyle' is central to the self-representation and marketing of the Hills as an inviting, community-oriented, environmentally pleasing residential area that combines the best of two worlds: 'Country living, City style' (Moore & Smith 2007). This is also picked up by the real estate industry. With construction and property being among the largest sectors in the Western Australian economy (Weller 2009), and the city of Perth growing rapidly, the Hills contain prime real estate for those searching for quieter surroundings, and don't mind commuting.



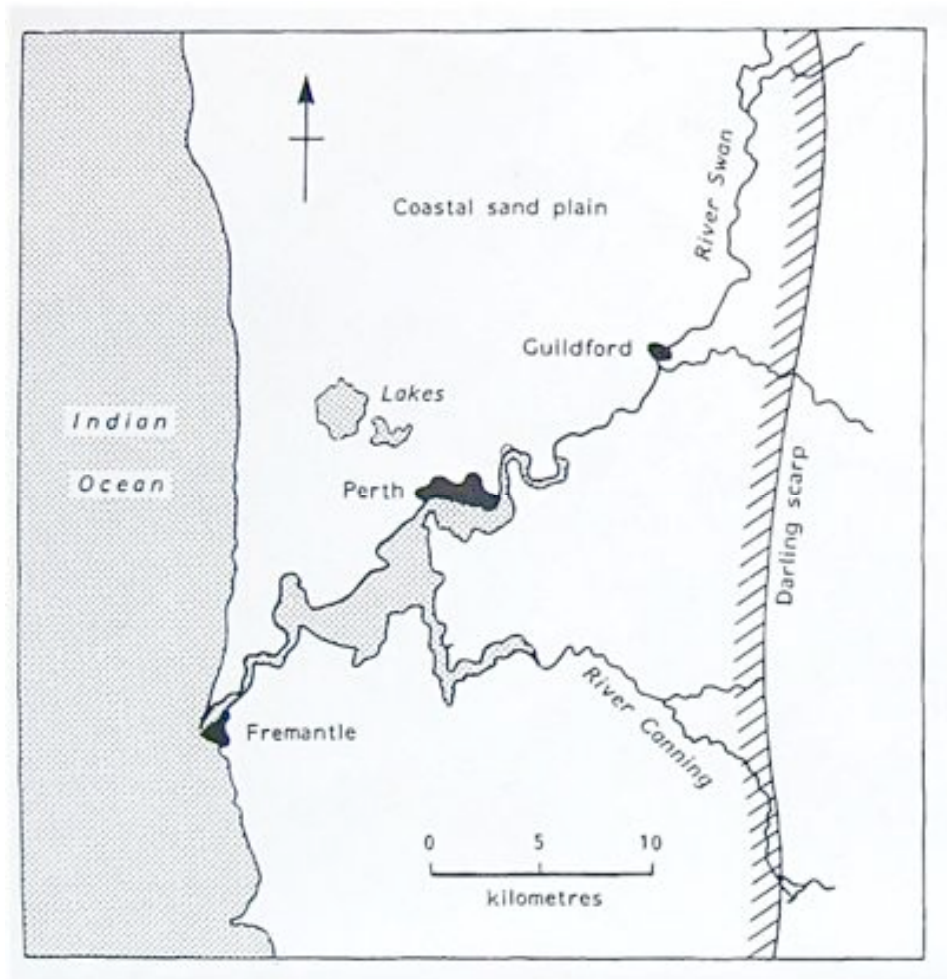
Rural estate in Piesse Brook in Kalamunda, with fruit orchards in the front, and jarrah and karri forests in the background. ©Jeremy Adams

2.2 PERTH and the HILLS- The Built Environment

Perth-early colonial history

Myths and stories about a great *Terra Australis Incognita*, the unknown south land, had been circulating since the times of the ancient Greeks (see for example Lines 1991). However, the first known reports of European contact with Western Australia only date back to the 17th century. Dutch, French and English ships explored the shores on various occasions, but left the land unsettled, as 'the dry soil of the coastal plain seemed unsuitable for agriculture and there seemed little hope of profitable trade with Aboriginals' (Crowley & Garis 1969, in Houghton 1990). It was the British who in the end took the step to colonisation. The Australian East Coast had been settled by Captain Cook at Botany Bay in 1788, and Tasmania in 1804, and the British now wanted to extend their control to the western part of the continent. In 1826, a mission led by Captain James Stirling explored the Swan River. Stirling enthusiastically reported that the area provided 'every attraction that a country in a State of Nature can possess' (Stirling, in Whitbread 2010, p. 43), and Western Australia was officially settled in 1827. Perth was founded in 1829 as the capital of the new colony (Houghton 1990; Kennewell & Shaw 2008). Perth is thus a young, colonially founded city, only 182 years of age.

Stirling founded three distinct towns. Perth, the seat of government, was located along the Swan River halfway between the ocean and the hills of the Darling Ranges. The location was strategic, protected from seaborne attacks as the Swan river mouth was blocked by a shallow limestone bar (Houghton 1990). Fremantle was founded as a port city at the rivermouth. And to the north-east, further up the Swan River, Guildford was founded as an agricultural centre on the more fertile soils of the Swan Valley (Houghton 1990). These three settlements were thus located for, and closely interconnected through, reasons of trade, security and food supply, and have 'formed the basis of a diffused settlement pattern that has persisted into this day' (Kennewell & Shaw 2008, p. 245).



Perth, Fremantle and Guildford in 1850, with the Darling Ranges to the east
(Houghton 1990, p. 100)

From settler colony to city

Perth remained a small town until the 1890s, when gold was discovered 400kms inland at Kalgoorlie. The city quickly turned into the booming centre of the ‘Gold Rush’, and its population increased rapidly. Whereas the gold mining activity gradually decreased in the first decades of the 20th century, agricultural expansion in the city’s hinterland on the Coastal Plain, in the Swan Valley towards the Darling Ranges, and eventually in the inland areas of WA today known as the Wheat Belt, secured stable economic and population growth for the city until the onset of the Depression, which hit the city particularly hard (Houghton 1990).

Population growth Perth 1911-1986 (Houghton 1990, p. 101)

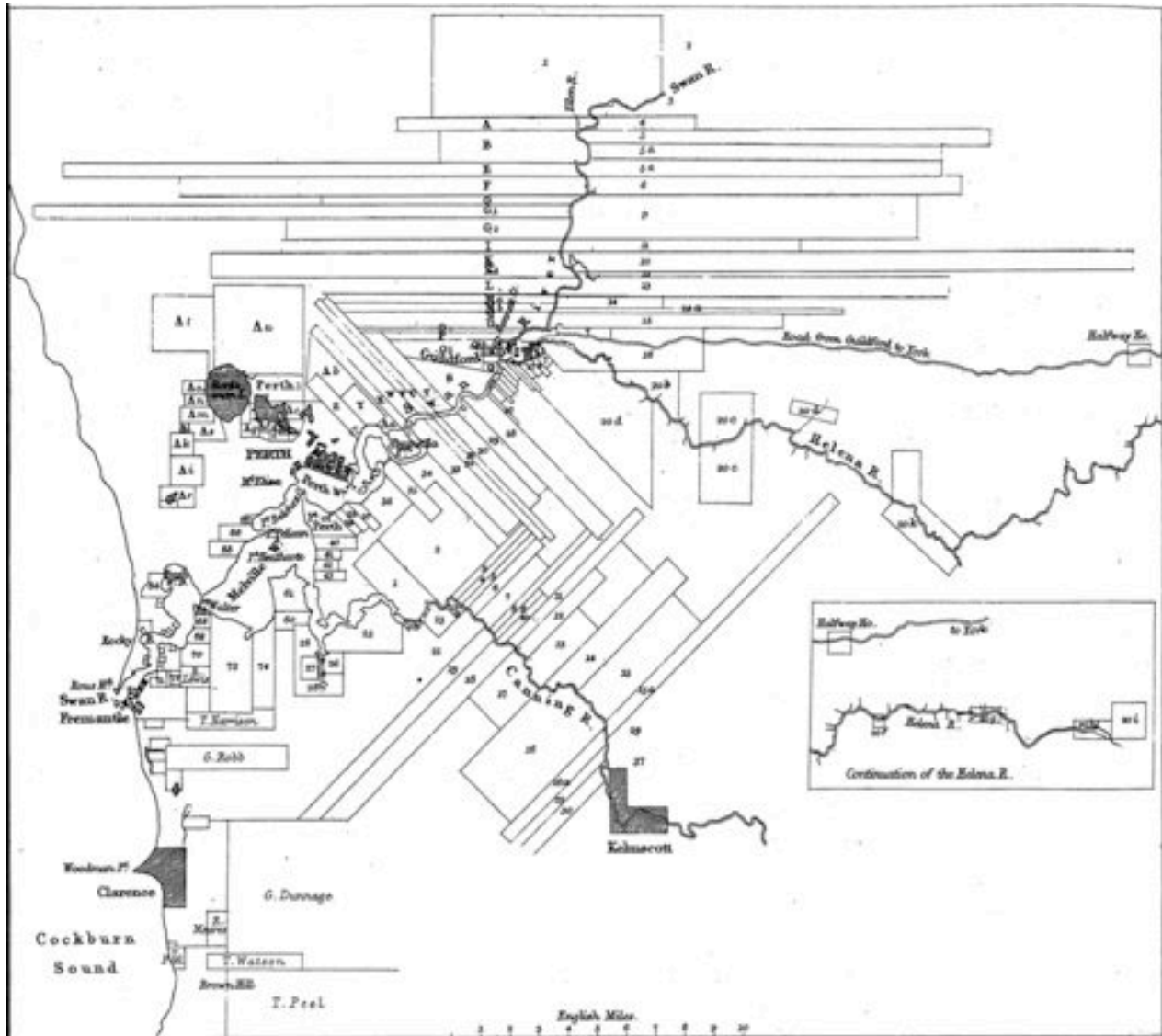
1911	116.000
1921	170.000
1933	230.000
1947	303.000
1954	395.000
1966	559.000
1976	805.500
1986	1.050.000

As Perth developed into a city at the turn of the century, its colonial foundation continued to make a lasting influence on its built environment. As Catherina Kennewell and Brian J. Shaw have argued:

'The origins of Australian urbanisation can be described as a transplanted colonial planning experiment. The extensive use of the grid structures whereby surveyors delimited blocks of land, reserving spaces for public buildings and leaving further development in the hands of property owners, provided ad hoc development in cities, which, by the early 20th century, were seen to lack symbols of civic pride' (Kennewell & Shaw 2008).

Upon colonisation, the Crown claimed ownership over *all* land¹³. The state decided on its uses, such as agriculture or public land reserve, and sold land grants, giving exclusive right to ownership, to individuals (McLeods 2002). The grid and strip pattern were used in the towns and rural areas respectively to divide the land into parcels, blocks or lots, turning the landscape into rationalised and geometrically based units of ownership. In her historical study of landscape architecture in Perth, Helen Whitbread sees the grid pattern as a way of introducing familiarity, certainty and a sense of order into an unknown, foreign landscape (Whitbread 2010, pp. 48-52).

¹³ As Britain was a monarchy, land owned by the British state was and is referred to as Crown land. Today, the term Crown land in Australia refers to land owned by a *state* such as Western Australia, or to *federal* land owned by the Commonwealth of Australia (McLeods 2002).



The first land grants in Perth in 1839 ©wikicommons

Suburban roots

Dispersed settlement has dominated Perth since its colonial foundation (Brown 2008; Weller 2009, p. 19; Kennewell & Shaw 2008). The early towns of Fremantle, Guildford and Perth had small town centres with dispersed settlements, mostly of a rural character, stretching between them. These developed into a more uniform and extensive fabric as Perth's population grew rapidly during the Gold Rush from the 1890s and onwards. With no sewerage and no running water, private septic tanks and wells to the abundant groundwater reservoirs were the favoured

solution in the sandy soils of the coastal plain. This posed the threat of groundwater contamination from one's own sewerage, which lead local authorities to demand a minimum plot size. The recommended minimum was a quarter acre¹⁴ (Hedgcock & Hibbs 1992, p. 62).

While some villa suburbs developed in Perth as in other cities, Australian suburbs were generally not an upper class phenomenon. Settlers, often working class and from the increasingly industrialised and overcrowded urban areas in Britain, had travelled halfway around the globe to start a better life¹⁵ (A. Davison 2005; G. Davison 1995). Graeme Davison argues that '[h]igh among the goals of the self-improving workman was a home of his own' (G. Davison 1995, p. 54). In Australia and Perth, they found 'cheap and plentiful' land (Weller 2009, p.) with favourable conditions for buying and building, laying the foundation of what has later been described as a 'democracy of home-owners' (G. Davison 1995).

The garden suburb ideal

Town planning had a slow start in Perth, where 'land development came first and planning later' until the period after WWI (Barker 2007, p. 5; Brown 2005). While no official regional planning legislation existed yet, an interesting case of local suburban planning occurred with the Endowment Lands project at the beachside suburbs of City Beach and Floreat. The beaches here had already become popular for recreational use by the city population, with up to 4000 people reported to make use of the beach on weekends. On land owned by the City of Perth, a competition for two residential neighbourhoods was launched. The winning proposal envisaged two satellite towns, connected to the mother city of Perth by main roads. The proposal drew heavily on design ideas from the Garden city and garden suburb. Carefully laid out streets were interspersed and surrounded by picturesquely landscaped public green space and lakes. In his study of the garden suburb ideal in Perth, Lee Stickells argues that whereas the kinship with the

¹⁴ The quarter acre is today an icon of Australian character and lifestyle, and entire books have been written on the subject! See for example Halkett 1976; Timms 2006

¹⁵ In contrast to the states New South Wales, Queensland and Tasmania, Western Australia was not founded as a penal colony, but settled by free individuals. The state did however receive around 10.000 British convicts in the 1850s and 1860s, most of which were put to work in public construction projects (Brake & Sherriff 2006).

Garden city was one of form rather than (socioeconomic) reform, the project embodied ideals of a well-designed suburb that was 'envisaged as a blueprint for the city's future' (Stickells 2004 p. 133). The Endowment Lands project thus established a picturesque aesthetic standard for Perth and its suburbs. Widely discussed in the media in a city that had only recently battled typhoid outbreaks and seen new slums appear, the project was also presented as forwardlooking, creating healthy and socially uplifting neighbourhoods, with these ideals intrinsically coupled to the design and layout. The Land Endowments thus connected healthy living with an adapted garden suburb, contributing to an 'underlying conservatism' of rural suburban ideals 'just as Perth was on the cusp of encountering modernism' (Whitbread 2010, p. 118).

Economically, the second city-defining boom for Perth began in the post-war years with the discovery and exploitation of minerals in the northwestern part of WA, bringing 'remarkable economic growth' (Houghton 1990, p. 101) to the region and spurring rapid population growth in Perth, both of which have lasted in to the present day. Increasing real wages and the spread of the car were two contributing conditions to the increasing popularity of new suburban developments, which peaked during the 1960s (Davison 1995).

Town planning from the 1950s- public open space and protected areas

The first planning legislation in W.A. was adopted in 1928, but had little influence on developments as planning was voluntary at the municipal level (Barker 2007). As Perth was, and still is, divided into an everchanging number of municipalities¹⁶, a regional approach to planning was needed. The Perth Metropolitan Region Planning Authority (MRPA) was thus established in 1959, coordinating and masterplanning the development of the whole metropolitan region. Its first plan, the statutory Metropolitan Region Scheme of 1960, was largely based on the Stephenson-Hepburn report. This report had been written by prominent planners from Liverpool and Sydney on commission of the state government (Houghton 1990, p. 104). In its recommendations, the report drew heavily on the Greater London Plan of 1944, which had

¹⁶ Today there are 30 municipalities, or Local Government Areas, in the Perth Metropolitan Region.

embodied many of the regional planning principles set out by Ebenezer Howard, first and foremost green belts and satellite towns.

The regional plan the led to the establishment of Kwinana to the south as a new satellite town based around an oil refinery, whereas older regional centres such as Midlands, Armadale and Kalamunda were encouraged to grow into independent towns. The plan saw green space and naturally vegetated areas as an important social and environmental element of the city. Drawing on experiences from Britain, Stephenson and Hepburn argued:

'In countries where open land is limited, and in cities where extensive urban sprawl has reduced enjoyment to an occasional glimpse of park, countryside, river or sea, the lesson has been learnt and the painfully difficult process of reclaiming enough land for a minimum amount of recreation has begun.'

(Stephenson & Hepburn, in Whitbread 2010, p. 78)

Private gardens were considered the 'primary source of outdoor recreation', and 10% public open space was established as a minimum for new developments (Stephenson & Hepburn, in Grose 2010, p. 55). This space was mainly seen as an arena for active recreation, which in practice meant sports such as Australian rules football or cricket, resulting in extensive open turf-covered grounds. Green belts were also set aside within the (sub)urban fabric, as the state and region stepped up their role as conservationists. With revenue created from a new property tax, tracts of land were bought, protected and put under state or regional administration (Weller 2009, p. 29).

In particular, the coastal and river foreshores, as well as the Darling Ranges were identified as landscapes of great importance; many of the Hills' national and regional parks were thus established in the 1960s and 1970s as. These parks typically feature bushland, re-growth jarrah and karri forests, walking trails and picnic areas, and today cover a total of 24.000 hectares, or 240 square kilometers, in the Darlin Ranges (Mitchell 2008). The 1960 Metropolitan Region Scheme thus provided the foundation of 'a system of regional parks, protection of areas of high landscape value [...], extensive regional and local sports grounds, and nature reserves' that define the landscape of today's suburbs (Whitbread 2010, p. 78).

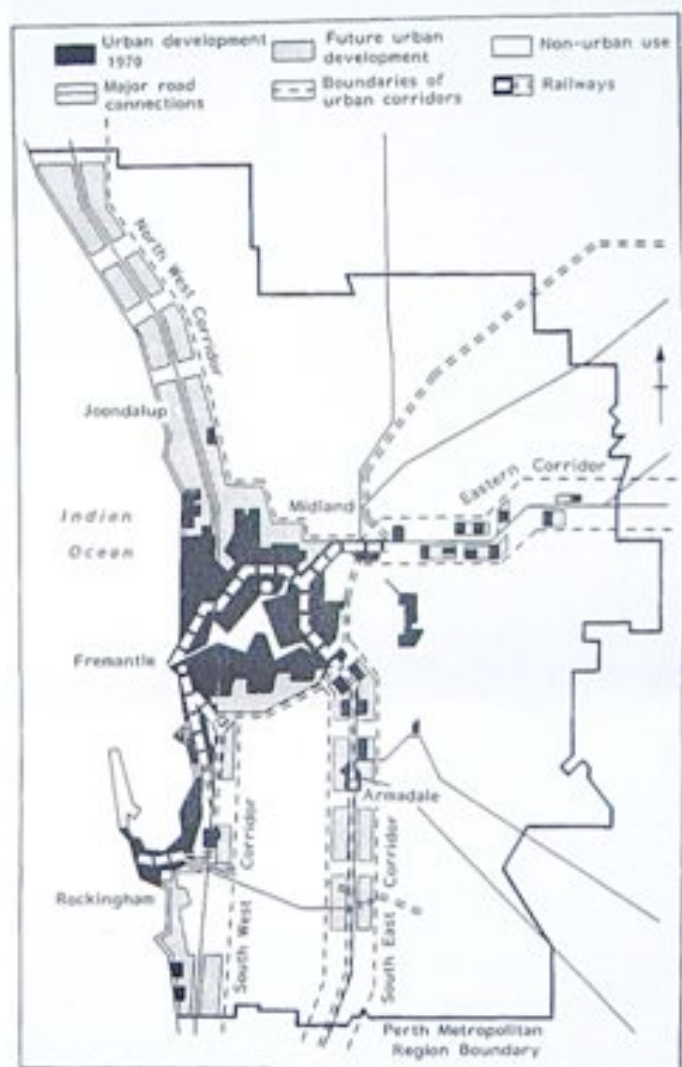


The Stephenson-Hepburn Plan 1955 (Brown 2008, p. 28). Existing residential areas in black, proposed residential areas in grey.

The Corridor Plan

The second regional plan for Perth, and the one that has probably had the most lasting influence on the built environment of Perth, was the Corridor Plan of 1970. Published at a time of exploding suburbs and a broad enthusiasm for the private motor vehicle, suburbia in a modernist regional planning framework was the essence of the plan. It suggested the future development of Perth along major automobile transport routes, stretching from the city centre to the north-west, east, south-east and south-west. Sub-regional centres or satellite cities were to be established in each of the corridors to form 'counter-magnets to the city centre' (Houghton 1990, p. 104) that were consolidated in the following decades; Joondalup to the north, Armadale and Midlands to the east and southeast, and Rockingham and eventually Mandurah to the southwest.

The corridors were not planned as a continuous urban fabric, but rather as self-contained communities interspersed by rural land. A clear thread back to Howard's ideas of new-founded satellite towns, surrounded by rural land and connected by major transport routes, can thus be traced. Yet these ideas were adapted to a modernist, car-oriented planning framework. In the words of Kennewell and Shaw, the planning approach of the Corridor Plan 'now represents the apogee of low-density, private car-oriented Perth' (Kennewell & Shaw 2008, p. 249). Two of these regional centres, Armadale and Midlands, are situated at the foot of the Hills, connected to Perth via the new suburban railway system, and only minutes away from the hills by car. Since the 1970s, these centres have expanded drastically, and the continuous suburban fabric has now in many places reached the foothills. In Armadale, extensive suburban development into the Hills proper was begun in the 1970s, generally with a larger plot size than in the lower-lying suburbs on the Coastal Plain. The current fear among many Hills residents in other municipalities that their forested surroundings might soon turn into continuous suburbia, are thus well-founded from a historical perspective.



The Corridor Plan 1970 (Houghton 1990, p. 110)

Consolidation and infill?

With a sustained mining boom and changing immigration laws, Perth's population continued to grow. The first million was reached in 1985. Suburbs with single-story, single family housing were still the preferred housing type, and the urban agglomeration kept on expanding. The next major strategic plan for the Perth metropolitan region was issued in 1990, and contained a new

strategy, at least in theory. Consolidation and infill¹⁷ were the new buzzwords, but had little effect in practice. The vast majority of housing was and still is located adjacent to existing urban development, and single-story, single-family suburban homes continue to be the preferred type of housing (Adams 2010; Houghton 1990; Weller 2009, p. 81). Urban expansion has thus mainly followed the directions laid out by the Corridor Plan. An exception is the North- Eastern Corridor, which was initially planned to reach far into the Hills in Mundaring along the former railway line and current highway to the east. Here, development has been slow, and the several smaller areas that have been developed are of low density even by Perth standards. As contributing factors to the lack of development one can name the increasing regional importance of the area's rich agricultural land, a lack of suburban railway service, which terminates in Midland, and recent strong resistance by neighbourhood associations against all forms of development.

Save Perth Hills!

One of these organisations, Save Perth Hills, has been particularly active in gaining popular and political support for the conservation of the Hills over the past few years. Based in Mundaring, one of the first settlements in the central Hills and now a small rural town with dispersed suburbs set in forests and farmlands, the organisation has chapters in all of the Hills' six municipalities. Born out of a progress association¹⁸, Save Perth Hills describes itself as 'dedicated to preserving the Perth Hills Region environmentally, socially and economically' (Save Perth Hills 2011), and has raised concerns about numerous development and other issues in the Hills. These include proposed new suburbs, roads, infrastructure, waste incinerators, land fills and bauxite mines, as well as existing quarries and local lumbering. In short, the organisation is now a collective organ for Hills NIMBYism. Scepticism of local municipalities is strong: 'All they want to do is increase their rate-payer's base by building new suburbs' (Interview with spokesperson of Save Perth

¹⁷ In Australia, the term consolidation is used to refer to the densification of the built environment, aiming amongst other at a higher population density. Infill describes the process of building on un-occupied areas within the existing urban agglomeration rather than on greenfield or other sites outside the existing agglomeration.

¹⁸ Progress associations exist in most Australian municipalities, and are neighbourhood groups advising the municipalities on local needs.

Hills). As many municipalities are also major property owners, selling off plots for development or subdividing existing plots is another way for municipalities to create substantial revenue.

The Hills Bill

However, the organisation recently found an listening ear in the state government, where a member from the Green party, in close cooperation with Save Perth Hills, has set out to legislate a planning bill that will allow for the creation of a legally binding strategic plan for the Perth Hills zone (see map; Interview with member of Government of Western Australia). Posing the question of 'what's the future for this beautiful, semi-rural environment?', planning principles of increased environmental and heritage protection are given as the answer (Xamon 2011).



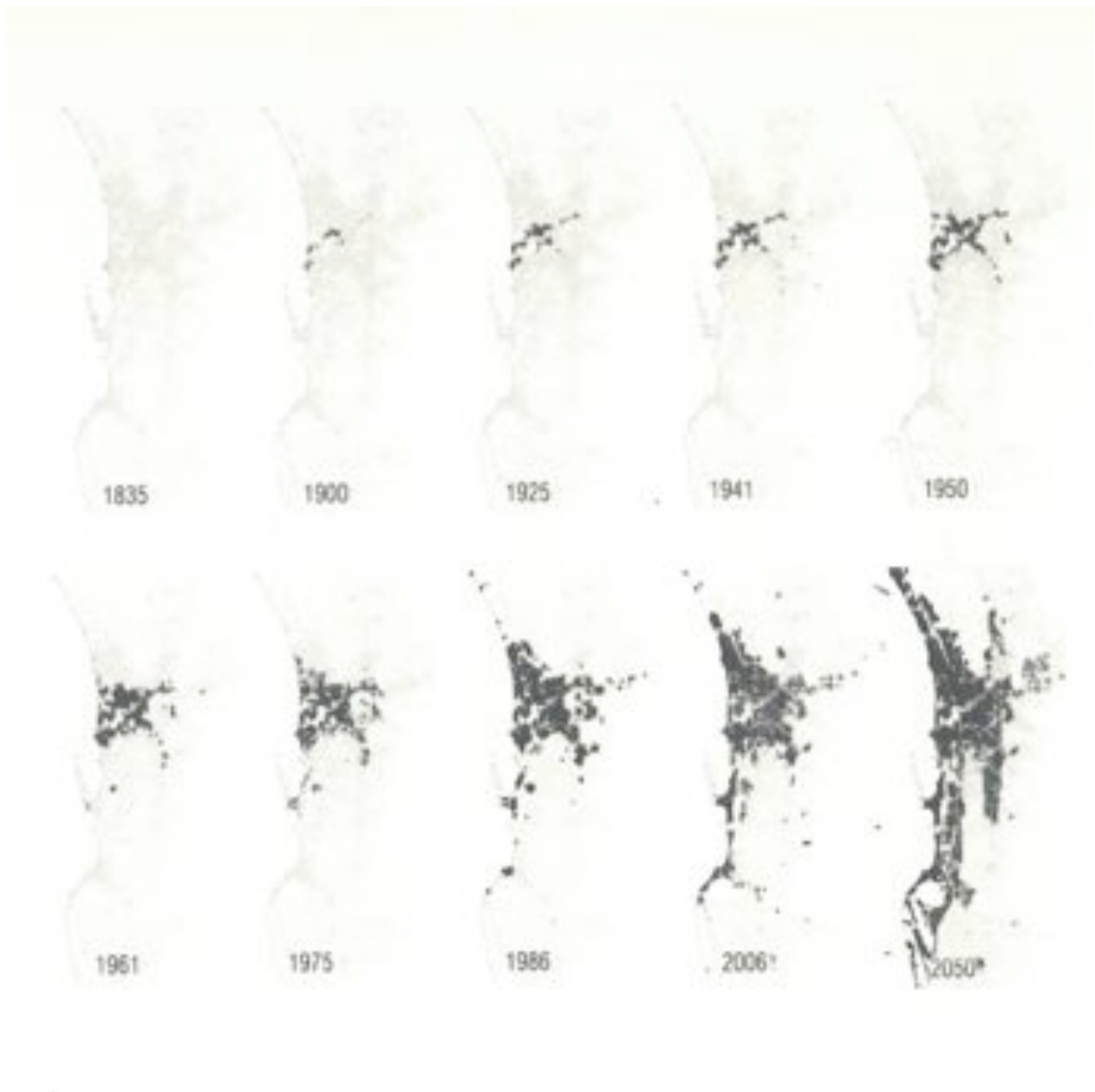
Indicative Perth Hills Zone Boundaries (Xamon 2011)

The proposed Hills Bill will allow for a regional check on all development applications within the Hills zone. Applications will have to be reviewed by a Hills council, and be found in accordance with a strategic plan for the entire Hills zone. Objections of the council will be directed straight to the state minister of planning. Ostensibly, the plan also aims at a more participatory planning approach through including residents and environmental experts in the council. The members of this council however will not be elected, but appointed by the state minister of planning, thus in effect giving the state government greater influence over local land uses in the Perth Hills zone. A similar planning bill was passed in the 1990s in the neighbouring municipality of Swan for a mainly agri- and viticultural area along the Swan River, with a council representing amongst other tourism, viticultural, equestrian, commerce and Aboriginal interests (Government of Western Australia 1995; Government of Western Australia 2011). The nature of the Hills is thus truly being contested, as different interests representing various views on nature are fighting for decision-making power.

Boomtown

The land and its resources continue to be of lasting economic importance for Perth and the state of Western Australia. The mining industry remains the corner stone of the local economy, directly and indirectly employing around 20% of the state's population, and representing just under half of the Gross State Product through exports. Agriculture is also an important sector, with half of the livestock and produce¹⁹ being exported overseas and representing around 10 % of Western Australia's annual exports (Weller 2009, pp. 88-93).

¹⁹ Sheep, cattle, wheat and vegetables are the main products. These imported species are causing considerable damage to the Australian environment. Sheep and cattle pastures occupy vast regions in the semi-arid inner regions of the state, degrading the land through treading damage caused by the livestock's hard hoofs in a continent with no indigenous hard-hoofed species (Drewry 2005). Deforestation and bush clearing to make room for agriculture have in many places resulted in groundwater salinity (Martin & Metcalf 1998) in a state with extremely limited water resources.



The urban fabric of Perth from 1835 to 2006, with a projection of what Perth will look like in 2050 if it continues to sprawl (in Weller 2009, p. 26).

Greater Perth today resembles 'the type of post-industrial urban form most commonly associated with southern California'. In a 'string of seemingly endless low-density suburbs, bounded in the west by ocean, and in the east by hills' (Kennewell & Shaw 2008, p. 246), Perth's population of 1.7 million now expands over an area of 1100 square kilometres (ABS 2011; Adams 2010). The

city is increasingly being questioned as unsustainable, particularly in respect to the state's limited water resources, and its dependence on cheap oil to fuel its enormous car fleet. There are no signs that the mining boom and the correlated population growth will come to an end any time soon. Thus, for Perth, the question of the day is 'to sprawl or not to sprawl'(Weller 2009).

CHAPTER 3- OSLO and MARKA

3.1. OSLO and MARKA- Views on Nature, Activities in Nature

'Green gold' - Marka until the 19th century

The oldest archaeological traces of human existence in the forests around Oslo date back to the Stone Age some 5000 years ago. Whereas the fringe areas of the forest were used for summer pastures by transhumance farmers, permanent settlements were only established in the 17th century (Frislid 1996, p. 44). The land had until been under varying forms of public ownership by the Crown and the Church since the Viking Ages, but was a commons in practice, with public user rights including fishing, grazing and hunting (Frislid 1996, pp. 43-50).

Large parts of Nordmarka were first put under private ownership in the middle of the 17th century. Norway, at the time under the Danish rule, had been on the losing side of the 30-years war, and was in dire straits financially. To fill the treasury, large amounts of Crown lands were eventually sold, and two investors from Christiania²⁰ (the most notable being Christian Anker) acquired ownership over large parts of Nordmarka (Frislid 1996; Jerman 2004; Moland 2006). With the introduction of the sawmill in the 15th century, lumbering had turned into an industry, and Nordmarka's 'green gold' (Frislid 1996, p. 43) awaited large-scale rationalised harvesting. Forests on the European mainland and the British Isles had been rapidly de-forested in the Middle Ages (Nedkvitne & Nordseng 1991), and by the end of the 18th century, Norway was one of the largest exporters of timber in Europe (Jarman 2004, p. 309). Through its timber trade based in Nordmarka, the Anker family became one of the richest and most influential in Christiania, and even received the noble title by the Crown in 1787 (Moland 2006, p. 5).

Expansion into the iron industry was a next logical step for the forest owners. Iron works had been in operation in Nordmarka since the mid-16th century, placed in the forest for easy supply of charcoal, in a country poor of (geological) coal. For a forest owner, iron works and the timber

²⁰ Christiania was the name for the city from 1624 (see chapter 3.2) until 1925, when the original name Oslo was brought back.

industry worked in economic symbiosis. High quality wood was used for timber, lower qualities for producing charcoal (Jerman 2004). The timber and iron industries changed the landscape of Nordmakra drastically. First and foremost, large areas of forest were cleared during lumbering and for burning charcoal. Furthermore, as fleeting was the preferred way of timber transport, the waterways were manipulated through riverbed clearing, dams and slides to allow a steady flow of water. Main roads to the iron works were constructed, leading all the way from the forest and to the coast for shipping access.



'Maridals Hammeren' 1836, lithography by P. F. Wergmann (in Moland 2006, s. 13). This large water mill-driven hammer in Maridalen was used in the production of wrought iron

From the 17th century and onwards, settlers also changed the landscape, although on a smaller scale. Tenant farmers settled in isolated farms, often combining subsistence farming with lumbering, fleeting and the maintenance of waterways (Frislid 1996, p. 53). Settlements were few

and isolated though, often connected only through horse tracks and foot paths, and mostly consisting of a single family in a farmhouse (Frislid 1996; Moland 2006, ch. 2)

By the end of the 18th century, the forests around Oslo had thus truly turned into a productive, and at places industrialised landscape. It was molded and exploited through practices such as farming, lumbering, fleeting and charcoal burning, and thus seen as a rich subsistence as well as economic resource. As the landscape had been increasingly culturised, an uncontested orientalist view on nature pervaded. The latter began to change during the 18th century.

National romanticism and the Norwegian landscape

After 400 years under Danish rule, Norway was in 1814 'given' to Sweden after Denmark had been on the losing side in the Napoleonic wars. The same year, the first independent Norwegian constitution was written and ratified. While the union with Sweden continued until Norwegian independence in 1905, Norway now had its own constitution, parliament and government, and a proper capital Christiania.

In the political and cultural climate of a young nationstate searching for a distinct identity, the broad European cultural and philosophic currents of Romanticism were adopted in a nationalistic framework. Landscape painters, writers and composers of the national romantic period turned to nature, fairytales and folk songs for inspiration (see for example Bø 1998; Hodne 1998).

Two stories about Marka were published by Peter Christian Asbjørnsen in collective volumes of Norwegian fairytales and folk stories of the time²¹. 'A night in Nordmarka' (*En nat i Nordmarken*, first published in 1845) starts as a get-away from the city:

²¹ Asbjørnsen was one half of the duo Asbjørnsen & Moe. Followers of the German Gebrüder Grimm, the duo travelled through Norway and collected local stories and fairytales throughout the middle of the 19th century.

'A day in July [...] a random scent of pine awakened in this hot summertime in this nauseating city my want to wander and my longing for forest and the countryside. I had and wanted to head out and breathe the fresh air of the river and the pines.' (Asbjørnsen 1845)

Asbjørnsen hikes up to Bjørnsjø, catches some trout on his fly rod, and lyrically describes the nightfall scenery:

'The sun was setting, its light playing between the treetops, while the dark blue of the sky, the glory of the evening clouds and the dark pines surrounding the lake were mirrored in the blank surface' (Asbjørnsen 1845)



'Fortjærnsbråten', J. F. Eckersberg 1848. (in Moland 2006, p. 32)

At night, Asbjørnsen meets two local fishermen who share their fishing adventures and stories about elusive treasures and mythical forest creatures around the campfire. Interestingly, both Asbjørnsen and his fellows in their stories comment on how the fishing has been affected by the manipulation of waterways for the purpose of timber floating.

In 'A Summernight in Krokskogen' (1848), Asbjørnsen describes the landscape of Krokskogen thus:

'Red-painted farms were laying so beautifully and Norwegian on the green hills down there, where men and women were taking in the hay. From the chimneys the smoke rose blue and light against a dark background of pine-clad hills. A peace and tranquility rested over the valley, that one would not have guessed that the capital was so close.' (Asbjørnsen 1848)

An important aspect to be drawn from these stories is the aestheticisation of nature, and the 'underlying connection between landscape and people' (Moland 2006, p. 35) that Asbjørnsen tries to portray. The texts establish an important connection between people and nature on a humanist as well as culturalist basis. The view from, and positive contrast to the city, and the framing of the landscape in a leisure context through fly-fishing as recreation, further demonstrate two aspects of an emerging landscape view.

Another story about Nordmarka, but conveying a completely different ambiance, was written by Asbjørnsen's contemporary Bernhard Herre. 'In Nordmarka' (*I Nordmarken*, 1849) is the tale of a hunter's long day's trek through the forest. Where Asbjørnsen emphasised the idyllic and mythic, Herre saw the dark and realist sides of nature. He recounts the 'dark grey sky over the undescribably melancholic landscape', forming 'a desert of dark forests' (Herre 1849). The hunter, all alone and roaming the landscape for his lost dogs, cannot help but feel 'shadowed by the dark nature'; 'the silent tristesse that rests over the poor landscape, depresses even a gay spirit' (Herre 1849). The characters the hunter meets include two raggy kids living in a make-shift shed in the thickest woods with their mother and grandmother. For Herre, the landscape acts as a carrier of feelings, an extension of the state of mind of the viewer. A humanist view thus pervades, the landscape and its inhabitants de-mythologised, and described in realist rather than romantic terms.

Moland (2006) refers to the above stories by Asbjørnsen and Herre as 'ur-texts' of Marka. While communicating different emotions, the authors share the view from the city, and the exploration of the forest on a recreational basis. Through Herre, and even Asbjørnsens folk-mythology, the

forest is de-mythologised by making the unknown known, thus 'opening up the landscape' of Marka for future generations (Moland 1996, p. 38). Lasting connections between the landscape of Marka, its archetypical Norwegian landscape and its people are drawn, while simultaneously establishing Marka as a place of aesthetical admiration and recreation for the people of Oslo.

Outdoor sports

Regarding nature and leisure activities, the late 19th and early 20th century in Oslo is first and foremost marked by the advent of *friluftsliv*, which eventually turned Marka into the recreational playground that it is today (Moland 2006; Frislid 1996; Jerman 2004). *Friluftsliv* literally translates to 'outdoor life', and refers to certain types of low-impact, low-technology and publicly accessible recreational activities such as touring, hiking, skiing, camping, fishing, hunting and berry-picking (Fedreheim & Sandberg 2008). The term carries specific cultural connotations as well as having a normative dimension, both of which will be explored in the following and in the discussion²².

Rune Slagstad draws an intimate connection between ways of viewing nature and the new forms of outdoor sports that appeared from the middle of the 19th century in Norway. Slagstad posits the landscape painter tradition and the rise of cartography as expressions of two complimentary views on nature, one rationalised and utility- oriented, the other aestheticising and romantically oriented. The landscape painters and cartographers explored new territories, laid the foundation for the 'tourist gaze' later popularised through panorama postcards, and eventually opened up natures such as the Alps and the Norwegian high mountains for touring and climbing during the 19th century. Mountains and forests were now explored for pleasure. Infused by British aristocratic conceptions of 'gentleman's sports' and 'sporting life', activities such as sport fishing and hunting also gained in popularity, yet like touring and climbing primarily amongst the upper classes (Slagstad 2010).

²² For ease of reading I will use the term 'outdoor sports' as a translation of *friluftsliv* in the following.

Skiing was also an ancient activity that went through a modern revival, in Norway mainly in the form of crosscountry skiing and ski jumping. A handbook on skiing published in 1893 described the new sport in the following terms: 'While skiing before was practised most by those, who needed the ski during their daily work, most people today participate in this sport for sake of their pleasure and health' (Urdahl, in Slagstad 2010, p. 218). In 1888, the Norwegian adventurer Fridtjof Nansen crossed Greenland on skis in a scientific exploration of the inland ice. Upon returning, Nansen was celebrated as a national hero (Moland 2006), and wrote a bestselling book about his 'ski trip'. Here, he posited the expedition as 'entirely derived from the Norwegian skiing tradition' (Nansen 2003, p. 39), thus setting the scene for a 'national sport of nature that in its new, modern version gave a cultural identity' (Slagstad 2010, p. 218).

Whereas the health- and stealth-giving properties of skiing were what mattered most to Nansen (Moland 2006, p. 77), his expedition writings also depict timely views on nature. 'Civilisation' and the urban did not interest him, as people here were removed from nature and the instincts it bred (Nansen 2003; Sundby 2006). But of course Nansen, having grown up in Oslo, was himself an 'urban observer of nature', 'seeking recreation and pleasure in the sublime landscape surrounding him' (Sundby 2006, p. 73). The urban-nature contrast, and a longing back to a time when humans were more in touch with nature, were thus also perpetuated, and connected with skiing through Nansen. Epitomised through Nansen's role as a national hero, his focus on the physical and psychological benefits of skiing, and the increased view of nature as a contrast to the city, skiing can thus be understood as a modern nationalistic ideology (cf Ringerike 2006).

Everyman's right to access

How, then, did these new activities come to define the forests around Oslo, if these were mostly in private hands²³? Here, the public right of *allemannsretten*, literally translating to 'everyman's right', played an important role. Based on ancient Nordic common law, *allemannsretten* gives everyone the right to free access in most natural areas, including limited user rights such as camping, gathering food and fishing in the sea (Justice and Police Dept. 2007; Fedreheim &

²³ From the late 1880s, municipalities started buying land in Marka (see the following); the lion's share of the forests however stayed in private hands.

Sandberg 2008)²⁴. While free passage is given on publicly owned land in most countries, the *Allemannsrett* extends these rights to include cultivated land in winter, and outfields all year round. An outfield is privately owned land which is not cultivated, thus including areas such as pastures and forests. While the *Allemannsrett* was not codified until 1957 in form of the recently revised *Friluftsloven*, it was widely practiced as a common law (Fedreheim & Sandberg 2008), and allowed people to roam the forests and mountains practicing the new outdoor sports. Since the large-scale protests for the protection of Marka in the post-war years (see the following), the popular slogans 'Marka for Everybody' and 'Marka is Ours' (Larre 1986) demonstrate the collective feeling of ownership over Marka that has developed in Oslo, and can be seen as a strong expression of the *Allemannsrett*.

Spectator sports

Whereas *Allemannsretten* provided the legal basis for the popularisation of outdoor sports in Nordmarka, a growing interest in skiing as a spectator sport, coupled with the politicisation of sports, brought the outdoor sports to all strata of the population. The world's first crosscountry skiing competition had been held in Tromsø in 1843, and in 1879 the first on the annual Husebyrennet ski jump competitions in Nordmarka already attracted thousands of spectators (Slagstad 2010, p. 293). By the turn of the century however, the ski jump arena of Holmenkollen that was the focus of attention. Husebyrennet had given way to the immensely popular Holmenkollrennet, which in 1897, the year before being connected to the tramway network of Christiania (see chapter 3.2), attracted an estimated 20-30.000 spectators in a city of roughly 220.000 inhabitants (Slagstad 2010, p. 294; Lorange & Myhre 1991, p. 132).

²⁴ A common law is an uncoded right, and is not to be confused with rights pertaining to commons (as described in the above). In commons, a *defined group of people*, for example the farmers of a village, are given user rights for an area. A public right gives a certain right to *everybody* (Brox 2001, p. 18).

Public health

On the political level, the outdoor sports came to be seen as an important contribution to public health. A growing understanding of medicine as a science led to the development of a 'sanitary technology of society' that had 'light, air, cleanliness, nutrition and good health' as central elements (Slagstad 2010, p. 350)²⁵. By the interwar years, these ideas had resulted in an intricate link of sports, health and politics. Sport became part of the worker's movement as a 'health-giving activity' that could 'promote a healthy, viable and socially aware people' (Hofmo 1933, in Slagstad 2010, p. 366), and was thus promoted on both local and national political levels through direct funding, the building of sports facilities and other incentives. The 1952 Winter Olympics in Oslo were in many ways the synthetic culmination of the popularised spectator sports and politicised public health; the games were substantially justified by public health motives (Kvarv 2006), and attracted around 120.000 spectators for the main ski jumping competition in Homenkollen (Norwegian Olympic Museum 2011).



1952 Olympic Winter Games ©SkiVM

²⁵ These ideals are also reflected in 19th century urban planning ideas, which increasingly incorporated considerations of sanitation. In continuation, sanatoriums can be seen as the architectural pinnacle of these ideas.

Thus, while activities such as hiking, fishing and hunting had 'always' been a part of rural life, these activities were now imagined and practiced in new ways, and for purposes of recreation, health and natural admiration rather than communication and subsistence. The outdoor sports, and skiing in particular, were symbols of a nation, popularised as participant as well as spectator sports, and politicised through public health. Importantly, with the exception of ski jumping competitions, these newly popularised recreational activities were not stadium sports; they depended on nature as their arena.

Protests against modernisation

In 1946, the year after WWII had ended, the largest demonstration in Oslo's history so far took place. An estimated 30.000 protesters took to the streets in Oslo to protest a proposed power line through Marka, which would leave a 100-meter wide clearing crossing Nordmarka from the south to the north (Moland 2006, p. 140). The protests can be understood as a combination of a venting effect after 5 years of Nazi occupation, a post-war framing of Marka as a landscape of special significance to Oslo and Norway²⁶, and a general protest against modernity and the technologisation of nature (Moland 2006; Frislid 1996). Before the war, there had also been discussions about a highway straight through Nordmarka, and protesters feared the scenario of Marka being consumed by power lines, highways and other major infrastructural projects such as dams and railways. They wanted Marka preserved as a natural recreational backyard for the city.

Environmentalism

As environmentalism as a social and political movement first swept across Europe and North America in the 1960s and 1970s, the nature of Marka again became increasingly contested. Embodying a fundamental critique of the scientific and technological-capitalistic society that was seen to over-exploit natural resources and offset the ecological balance of the world's ecosystems, the environmental movement had ecocentrism as its core value. Ecocentrism is a

²⁶ During WWII, numerous Norwegian resistance groups had been stationed in Marka (see Christensen 1993)

world view that 'start[s] from concern about non-human nature and the whole ecosystem, rather than from humanist concerns' (Pepper 1996, p. 15). In Norway the movement was strongly influenced by the philosopher Arne Næss both in theory and in practice. His evolving thoughts on deep ecology provided a holistic environmental philosophy, and Næss' championing of civil disobedience as a powerful tool in environmental protests was embraced by the movement. With deep ecology, Næss argued that humans are part of nature, that nature has intrinsic value, and that nature has certain rights that need to be protected (Næss 1974). Deep ecology thus developed an environmental ethics, an ethics centred around the environment rather than around humans only. It drew heavily on the land ethic of Aldo Leopold, who in the late 1940s had called for a new way of looking at humans and their relationship with nature: 'We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect' (Leopold 1949, p. ix). This was a purely communalist view of nature, one that eschewed all forms of othering of nature.

In Oslo, environmentalists joined the fight of the outdoor sports enthusiasts, and sought to protect Marka from road projects, dams and industrial lumbering. Demonstrations, acts of civil disobedience and protester tent camps in the forests were the means through which Marka as a productive nature was being contested, mostly by students. The protests came to a head in the early 1970s, with Løvenskiold, owner of 400 square kilometres of land in Nordmarka, and his forest workers on one side, and environmentalists and outdoor recreationalists on the other side. The aim of the protesters crystallised into two main demands: to protect the borders of Marka so as to avoid urban expansion, dam building and other construction, and to regulate the forestry, which by the 1970s was in the process of becoming more industrialised, with heavier machinery that demanded more roads and eventually allowed grand-scale clear-cutting (Moland 2006; Frislid 1996; Syse 2000).

User conflicts in contested natures and fragmented landscapes

Over the last decades, new types of recreational outdoor sports have gained popularity in Norway and Marka that in many respects differ from, and challenge, the 'traditional' outdoor sports that developed from the late 19th century (Kaltenborn & Vorkin 1993). Some activities, such as

jogging, bikeriding, bouldering and orienteering have readily been adapted into the imagery of healthy outdoor sports (see for example Frislid 1996). Other activities such as downhill skiing, snowboarding and mountain biking have caused considerable conflicts, particularly over the last few years, and figure high in the Oslo media. I discussed some of these conflicts in an interview with the leader of the environmental organisation Naturvernforbundet Oslo og Akershus (NOA), which has been highly active in Marka since 1969:

'Today, the traditional concept of outdoor sports is being watered down by new, diffuse forms of sports. Everyone now wants to be seen as part of the outdoor sports, snowboarders, downhill bikers... We support the simple outdoor sports, where experiences are central, and where there is little need for facilities and gear.'

Mountainbiking, especially in the form of downhill biking which uses heavy bikes in steep slopes at high speeds, is seen as destroying the footpaths, as well as being a potential safety hazard to foot tourists who are travelling on the same paths (see for example Nævdal 2011 for a recent newspaper debate on the issue).

The winter sports of downhill skiing and snowboarding have a more ambiguous relation to the traditional outdoor sports, ostensibly being part of the Norwegian skiing tradition. Yet they are sports that in most cases need a supportive infrastructure of ski lifts and roads, which is land-consuming, creates fairly exclusive sports arenas, and changes the landscape permanently²⁷ (cf. Dolinger 2004).

Sports such as jogging, biking and skiing are also increasingly being practiced as training exercises rather than simply outdoor activities. There are numerous competitive skiing associations using Marka as their training ground, and individuals decked out in the latest running- or crosscountry race skiing gear often dominate the buses and trams heading to Marka on weekends and on weekday afternoons. An informant I went skiing with told me she uses

²⁷ The practice of ski and snowboard freeriding, taking place off-piste with riders often hiking up mountains in order to find untouched snow, is now challenging this critical view. Freeriding can be seen as one of the new extreme sports characterised by Slagstad (2010, p. 794) as sharing a dionysian affirmation of life and a return to nature.

Marka mainly for short trips after work, and that she thought that it was 'nicer to get outside than to always work out at a gym'. Outdoor activities are thus framed as training, with Marka taking on the functions of a gym for busy city-dwellers.



The city of Oslo seen from Vettakollen in Nordmarka. The city centre is further to the left.

© Panorama

3.2. OSLO and MARKA- The Built Environment

Oslo-early history

The area around Bjørvika²⁸ was used as a trading centre since before the Viking Ages. Sitting at the end of a long fjord that reaches deep into the country from the south, the location formed a natural connection between the Sea and the inland forests and valleys. Viking Kings resided here from around 1050, the city received its first bishopry soon after, and the fortress of Akershus was erected at the beginning of the 14th century after the city had been made the official capital of Norway in 1294. The vibrant trade and religious hub was hit hard by the 'Black Death' in 1349-50, wiping out large numbers of the population, and later often seen as marking the beginning of centuries of decline for the city. King Christian IV 'founded' a new gridiron-layout city after a devastating fire in 1624, thereby forming the centre of the modern city which he unashamedly named Christiania after himself (Lorange & Myhre 1991; Nedkvitne & Nordseng 1991).

19th century Christiania

From the middle of 19th century, urbanisation in Norway increased rapidly. The existing towns grew both in total numbers and in proportion to the rural population (Lorange & Myhre 1991).

Christiania population 1815-1880 (including 'suburbs' within the municipality, excluding Aker):

1815	14.000
1835	25.000
1850	38.000
1880	119.000

(adapted from Myhre 1990)

²⁸ Today site of the new National Opera House and the 'barcode' highrise development in central Oslo.

Christiania started growing even earlier, in the beginning of the 19th century. In fact, it was one of the fastest growing non-industrial cities in Europe of the time (Myhre 1990, p. 33). Since the 17th century, the city had grown wealthy through shipping and timber trade, and was now experiencing further growth as seat of the Norwegian government from 1814 and onwards (Myhre 1990). As the population was growing, and building in the city was expensive due to building legislation demanding brick to be used in the city to prevent fires, the city spread outwards. The city was surrounded on three sides by Bymarka, an area consisting mainly of agricultural lands which had been commons but were now increasingly privatised. Still, dispersed suburbs and shantytowns on squatted land popped up throughout Bymarka, in what was an uncontrolled expansion of the city. This process was being addressed by (as yet relatively inefficient) regulations from the 1820s (Myhre 1990, pp. 56-58), which can be seen as part of a move where cities now began to 'recognize that suburbs were an expression of urban growth, a problem to be dealt with' (Lorange & Myhre 1991, p. 122) on an urban level, for example through building regulations or through incorporating the suburbs into the city. The latter happened twice in Christiania during the 19th century (Myhre 1990).

Apart from the increasing spread of the city into the countryside, two other features of the built environment should be pointed out. The first is tenement housing which started to dominate the built environment of the central city from the 1840s and onwards (Myhre 1990, p. 181). The buildings were generally three to five stories high and located around an inner courtyard. The tenement buildings lead to a residential densification, thus releasing some of the expansion pressure on the outskirts of the city.

The second is the appearance of country houses for the urban aristocracy. In the decade between 1832-41 for example, 58 new country houses were erected in Bymarka as rural getaways from the city. In comparison, 321 other houses were built in Christiania over the same period (Myhre 1990, p. 57).

Regarding the built environment, the city was thus marked by a rapid increase in urban population, urban expansion into the surrounding Bymark, and a densification of the central areas. Recreational country houses were built by the wealthy in the rural areas surrounding the city, displaying a growing interest in nature as idyllic rurality.

Municipal ownership of the forest

Until the end of the 19th century, the forests around Oslo were privately owned and used primarily for lumbering. Towards the end of the 19th century however, surrounding municipalities started acquiring large properties, in particular in Nordmarka. In 1889, the municipality of Christiania bought Frognerseterskogen, an area on the southern fringe of Nordmarka towards the city. With the acquisition, the municipality wanted to 'encourage the dawning outdoor sports' (Slagstad 2010, p. 231). As the mayor of the time put it after the acquisition of Frognerseterskogen: 'Thus, Christiania has been secured the preservation of these forests, which are an ornament for its surroundings, and a cherished refuge for its inhabitants' (Frislid 1996, p. 51).

In the following decades, the municipality consolidated its role as forest owner, for two main reasons. One was the new increased interest in using the forests as a recreational arena, politicised through public health and a sanitary view on nature. The other main reason was to secure the water supply of the city (Frislid 1996; Moland 2006). The city had for centuries received water from the river Akerselva flowing through the city. With increased industrialisation in the 19th century, and many factories initially located along the river to power their water mills, this was no longer a viable option as the water was being increasingly polluted. So the water supply had to be secured at the source, which is Maridalsvannet in the agricultural valley Maridalen in the southern part of Nordmarka. Large tracts of land were bought in the water catchment area of Maridalsvannet, and regulations were put on the other land owners within the catchment area to avoid pollution (Frislid 1996). Major parts of the fringe and water catchment areas of the forests were thus acquired by the municipality, whereas the central and outer parts of the forests stayed in private hands.

Tramway to the outdoors

In 1898, Nordmarka was first made an integral part of the city through the establishment of the suburban tramway line Holmenkollbanen. The first electric passenger tramway in Christiania had opened in 1894, and went from the central station to Majorstua four kilometres northwest of the city centre. Four years later, Oslo's first suburban tramway was built from Majorstua up to Nordmarka, close to the ski jump arena Holmenkollen and Frognerseterskogen, and extended in 1916 to lead all the way up to Frognerseteren in the municipally owned forest. The contemporary press saw the line as providing citizens with 'easy opportunity to come out to this delightful park of nature' (n.a., 1892). 'Scandinavia's first electrical tourist tramway' (n.a., 1898) even featured ski and bobsleigh racks. The tramway was built to transport people *out* of the city and *into* nature, thus differing from suburban tramways in other European cities which were primarily built to transport people from the suburbs and into the city. By applying modern technologies to connect the city to its recreational hinterland, Holmenkollbanen can also be seen as an example of an often overlooked 'dialectic between domination over nature and experiences of nature, between instrumentalism and romanticism' (Slagstad 2010, p. 226)²⁹.

A whole network of six suburban passenger tramway lines sprung up in the first decades of the 20th century in Christiania. These tramways were also instrumental in the spatial expansion of the city; the company behind Holmenkollbanen even sold properties along its line for villa developments, realising the value of suburban residents as a steady customer complimentary to the 'Sunday tourism' (Slagstad 2010, p. 224; Kjeldstadli 1990, p. 400). This can be seen as part of a growing trend of urban dispersion. Christiania, perched at the end of a fjord, was on three sides surrounded by mostly farmland. This land was however not part of the municipality of Christiania, but belonged to Aker³⁰, which formed a crescent around the city. Aker grew from

²⁹ Another example of this dialectic is the conquest of the Alps through the *Seilbahn* and later the ski lift, beginning in the same period.

³⁰ From Norse *akr*, meaning field.

23.000 inhabitants in 1900 (Oslo, Aker & Bærum³¹ total 250.000) to 90.000 in 1930 (370.000), and by 1946 had grown to be the second most populous municipality in Norway with 133.000 inhabitants (420.000) (Kjelstadli 1990, p. 392; Lorange & Myhre 1991).



Oslo and Aker in 1928 (in Kjelstadli 1990, p. 393). From black to white: the built-up area, garden cities, industry, villas/farms/parks.

Rural villas

Thus, as Christiania developed into a small metropolis, Aker accommodated a proportionally large amount of the population growth. Within the borders of Christiania, housing was relatively dense, with apartment buildings of three to five floors dominating the cityscape in the outer central areas. The development in Aker was much more dispersed, with small suburbs and clusters of houses dotting the rural landscape. By the 1930s, the transition of Aker 'from rural society to

³¹ Bærum is the municipality bordering Aker to the east, and had become part of the dispersed city in the first half of the 20th century (Kjelstadli 1990).

villa society' was almost complete (Kjelstadli 1990 p. 392), as the middle and upper classes were increasingly seeking out of the city and into the green. These suburbs were modelled on bourgeoisie utopian images of suburban living (Kjelstadli 1990, p. 409-410), first formulated and popularised by the Englishman John Claudius Loudon in the 1830s: 'A suburban residence, with a small portion of land attached, will contain all that is essential to happiness'. Here, 'man may approach the simplicity of nature and attain the enjoyments and pleasures of pristine innocence' after long hours of work (Loudon 1838, in Davison 1995, p. 44).

Better living

As the central city grew more congested with crowded, low-standard apartments, new forms of urban housing, securing better living standards for all classes in society, were sought after. The old, dense apartment buildings of the central city seemed increasingly outdated (Lorange & Myhre 1991). In the municipal and private building of new housing of the period between 1910 and 1940, Knut Kjeldstadli (1990) identifies three architectural responses to this challenge. All three responses aimed at better incorporating nature and green space into neighbourhoods. The first response was based on the traditional apartment buildings, yet with a much larger courtyard, often publicly accessible and with open green space instead of sheds and dividing walls. The second were garden suburbs, loosely based on Howard's Garden City principles, with either two or three-story apartment blocks or small single-family houses, spaciouly spread out in landscaped surroundings. Minimum profit for the developer, high rates of home ownership, and plenty of beautifully laid out green space were the guiding aims. The third response was influenced by the functionalistic principles, and eventually by le Corbusier's modernism. Apartment blocks up to eight stories high were to be placed adjacent to each other, aligned north-south for a maximum of sunlight, and have open green space between them.

Planning for Greater Oslo

In the late 1920s, a vision of Oslo as a metropolis was first forcefully formulated. In the spirit of the contemporary emerging theories and practices of urban and town planning, the Oslo architect

Harald Hals presented a comprehensive planning scheme for Oslo in a book entitled *From Christiania to Greater Oslo* (1929). Here, he applied and explained ideas from amongst other Howard's Garden City and le Corbusier's modernism (Lorange & Myhre 1991, pp. 141-142; Kjeldstadli 1990, p. 381) to create in Oslo the future 'green capital of Europe', with housing situated in a 'woven fabric of green... It will be town, but country- it will be country, but town' (Hals, cited in Lorange & Myhre 1991, p. 410-411). Oslo's first regional (inter-municipal) plan was presented a few years later in 1934, drawing on many of Hals' ideas, yet had no statutory power. It nonetheless introduced the idea of a planned metropolis with functionally separated areas, including areas designated to outdoor recreation (Kjeldstadli 1990, p. 381), which will be returned to in the following

As the population of Oslo grew in the 1930s and 1940s, the continuous urban fabric kept closer and closer to the municipal borders. Whereas there was still plenty of room to build on in the first decades of the 20th century, particularly along the fringe areas of the municipality, by the late 1940s the borders had been reached in most places (Kjeldstadli 1990, p. 364-365). In 1948, 290.000 inhabitants were living within the Oslo municipality of 17 square kilometres, at a density of over 17.000 residents per square kilometre (Kjeldstadli 1990, p. 154; Hellerud & Messel 2000, p. 281). If the occupation years had seen a standstill in all things planning, the post-war years saw an increased enthusiasm for the matter. The first important step was the merger of Oslo and the surrounding municipality of Asker in 1948. Overnight, Oslo's territory had grown to 450 square kilometres, most of it forest, much of it agricultural land with dispersed settlement. The economy was on its way up, as was the population, and an acute shortage of housing was looming on the near horizon (Kjeldstadli 1990; Hellerud & Messel 2000). The city was ready to burst open.

Decentralisation and satellite towns

The first statutory strategic master plan for Oslo came in 1950. The plan, revised in 1960 and characterised by de-centralisation of the city and dispersion of the built environment, 'became the guiding instrument for the expansion of Oslo in the following decades' (Lorange & Myhre 1991, p. 148). Edgard Benum (1994, p. 40) writes that the plan envisioned a city that was 'communally

oriented, zoned, and turned towards nature'. Satellite towns³² of 5.000-20.000 people, containing everything a community was seen to need except for industry, were to be constructed on the former farmlands and towards the lower-lying fringes of the forest along major public transport routes (Lorange & Myhre 1991; Hellerud & Messel 2000). These satellite towns were built mainly through the cooperative housing association OBOS, based on the Swedish example of public housing, with the municipality giving the financial guarantees. The towns were meant to provide affordable, practical housing without delay. Apartment blocks, generally up to 5 stories high, but with some modernist-inspired projects of up to 15 stories, were the chosen means (Benum 1994).



The social-democratic version of the post-war suburban dream? 'Lambertseter' by Arne Stenseng 1957 (in Hellerud & Messel, 2000, p. 277, 282)

³² The Norwegian term is *drabantby*, from Danish *drabant*, meaning satellite (Big Norwegian Lexicon 2011); *-by* means city. The other less commonly used term is *forstad*, which translates to suburb, but does (understandably) not carry the North-American and Australian connotations of single-family housing

Nature in the city

Apart from the satellite towns, the 1950 regional master plan also contained another interesting element drawing on Hals' 1929 proposal. Connecting the city with Marka, it defined interconnected green corridors criss-crossing the city, surrounding islands of built-up environment. The corridors were landscaped and laid out with foot- and bike paths. Including the parts of Marka that were within the borders of the municipality, these areas made up some 300 square kilometers of the city's territory (Lorange & Myhre 1991, p. 148). The borders of Marka, defined from the city as the outer border of the built environment, were also kept, and have since mostly been kept by municipality.



Park-plan for Oslo 1950 (in Lorange & Myhre 1990, p. 148)

Frameworks for conservation

Originally in the 1934 masterplan, the 'black line' was drawn at 220 meters above sea level for lack of pressure in the water mains above this elevation. The line fell onto the outer ridges of the forested hills of Marka, and was soon embraced by outdoor sports organisations and environmentalists as a golden opportunity to protect Marka. Lobbying for a *markagrense*, a border of Marka defined by law rather than zoning, had initially been fuelled by the proposed but never realised highway through Nordmarka which also was part of the 1934 masterplan. With the protests of the 1940s and 1970s described in Chapter 3.1, the demand for a border received increased public and political attention, and eventually culminated in the demand for a special law regulating Marka (Moland 2006; Ramsøy 1986).



The eight forests of Marka in 1941, enclosed by the 'black line'. Today's Marka borders largely follow the borders drawn here (in Moland 2006, p. 245).

Until then, the forests had been planned and regulated mainly through two separate sets of laws: the Forestry Law of the Department of Agriculture, setting the standards for lumbering on a mainly economic basis; and the Plan-and Building Laws which allowed for Marka to be zoned on a municipal level as an area for 'agriculture, nature and outdoor sports', and thus off-limits for urban expansion. Albeit this never happened, conservationists rightly argued that the zoning could potentially change one day, or that the border could be moved. An inter-municipal or national legal framework that allowed for the permanent conservation of Marka, while simultaneously taking into consideration the interests of foresters, outdoor recreationalists and environmentalists, was absent. The newly founded national Department of Environment was thus in the 1970s put on the case to design a special law for Marka (Interview at Department of Environment; Ramsøy 1986).

The first round for a Marka Law came to an end in 1981. After years of work, the final law proposal was put aside after a change of national government. Even though a multi-purpose plan for Oslomarka had been developed by 1976³³, environmentalists and outdoor recreationalists felt they had lost; the foresters had to make only minor concessions in the form of small adjustments of their lumbering methods, and no law defining the Marka borders was ratified. A powerful coalition of forest owners, forestry worker organisations and the Department of Agriculture proved too strong for the protectionists and the Department of Environment (Larre 1986; Moland 2006; Ramsøy 1986). The conflict is important to discuss here, as it forcefully demonstrates where power over urban nature ultimately lay. The view of nature as private property, an economic resource and a work place had prevailed on and trumped the view of the forest as a common good of mostly aesthetic, recreational and ecological value, even though the latter view was arguably dominant amongst the population of Oslo.

³³ The multi-purpose plan was never ratified, but concluded that a special law for Marka was needed (Halvorsrud 2007). The 1976 multi-purpose plan contained many elements that were eventually incorporated in the final special law of 2009.

A 'sacred' Marka

From the late 1960s and into the early 1980s, population growth in the municipality of Oslo stagnated (Benum 1994). The surrounding municipalities however were still growing, which was partially the result of a regional strategy for checking the population growth in Oslo by stimulating growth in the other towns in the region around the city (Lorange & Myhre 1991, p. 155). However, new family structures with smaller families kept the demand for new housing up, and the built-up area kept on expanding (Benum 1994). The border to Marka however was not moved. Even the two agricultural valleys Maridalen and Sørkedalen in and adjacent to Nordmarka were left untouched, even though they had been suggested for development already in the 1934 plan. Marka had become 'sacred',³⁴.

The border and the Law

In the late 1990s, a new push for a Marka Law was initiated by the environmental organisation NOA. Marka's biodiversity and potential for nature experiences were given as main reasons necessitating conservation, and again the forestry industry was seen as the main opponent (Interview with NOA; Moland 2006;). After almost a decade of discussions where all land owners, foresters and user organisations were involved, the Marka Law was finally ratified in 2009, fronted by prominent national politicians under great media coverage. § 1 of the law reads:

'The objective of the law is to promote and facilitate for outdoor sports, nature experiences and sport. The law is to secure the borders of Marka, and preserve a rich and varied landscape and natural- and cultural environment with sites of cultural heritage. At the same time, consideration is to be given to the sustainable use for other purposes.'

(Department of Environment 2009)

³⁴ Marka as something 'sacred' came up repeatedly during conversations with users of Marka and in interviews. The leader of the environmental organisation NOA and the leader of natural administration in the Department of Environment both brought it up without being asked, as did a former Nordmarka forestry worker that I talked to.

The law posits a general building ban, excluding public works, agricultural and forestry structures, which are nonthelss heavily regulated. However, a clause allows for giving dispositions from the general building ban. So far, major dispositions have been given to allow the expansion of two large downhill skiing areas and a new ski jump arena at Norway's most visited tourist attraction, the Holmenkollen ski jump arena, site of the 2011 Nordic Skiing World Championships.

Oslo today is a city of around 600.000 inhabitants within the municipal borders, 900.000 in the urban agglomeration, and 1.5 million in the wider city region (Statistics Norway 2011, 2008). Its population is again growing substantially, with annual growth rates between 1.8 and 2.7 % over the last 5 years, and recent projections estimating a population of 800.000 within the municipality by 2030 (Oslostatistikken 2011). Urban consolidation and densification have emerged as key points in municipal planning, along with an increasing focus on triple bottom line sustainability (Municipality of Oslo 2008). The municipal forests are now run after principles of sustainability. And, with an estimated 250.000 people (Aftenposten 25.1.2011) out and about in Marka on a sunny weekend day, Marka is as popular as ever.



Winterly view from Glotjernkollen in the central part of Nordmarka. ©kjentmannsmerket

CHAPTER 4- DISCUSSION and CONCLUSION

Discussion

In the two previous chapters, the environmental histories of two cities have been re-created and analysed. A quick comparative discussion of main similarities and differences will now ensue.

In the analysis of the Perth and Hills case study, I have tried to explain why is suburbia such a powerful concept and popular way of living in Australia. One of the main reasons is that land was seen as an unlimited resource, the very foundation of colonisation, to be conquered and subdued. In Perth, with such a short history of settlement, most of the land that is now occupied by the city had never before been cleared or farmed; it was 'wild' bushland. In Oslo, this was not the case, as the expanding city had to adapt to its existing surroundings, to villages, farms and small communities. Oslo in the 19th century was surrounded by Aker's farmlands, and the agricultural way of life here could hardly be transformed overnight and replaced by a sprawling city. A gradual densification of the city thus occurred until the city slowly spilled out into its surroundings, before expanding more rapidly as Aker became a part of Oslo in the post-war years.

The different adaptations of Garden City and Modernist planning principles are also noteworthy. In Perth, the garden suburb ideal was applied in a context of Australian suburbanity, with large plots of land, private gardens and individual independence and quality of life as central parameters until the present day. In Oslo, garden suburbs were seen as a way of improving the collective quality of life, with medium density housing in landscaped public green space. In the period of rapid urbanisation after WWII, modernist planning principles were increasingly being applied, intermingled with remnants of Howard's ideas. In Perth, the car was seen as the most functional way of serving the already dispersed city, with highway transport corridors as backbones to new developments. The satellite towns provided the growth centres for an enormous expansion of the urban agglomeration outwards and into the bush, while also leaving more green space open in the city. In Oslo, modernist principles were applied in the form of functionalist architecture to provide reasonable housing in healthy surroundings to the masses.

Relatively high residential densities in the larger satellite towns have allowed for Marka to remain off-limits to expansion.

With the current questioning of the social, economical and environmental sustainability of urban sprawl and suburbanisation, and to a lesser extent satellite towns, the Garden City has in many ways come full circle. First envisioned as a remedy to the ills of the dense, industrial city, the decentralized suburban metropolis exemplified by Perth has now created new types of social and environmental problems, un-anticipated by its creator. One of these problems is of particular relevance to this thesis; the realisation that land is not an unlimited resource.

Here one might of course argue, as did Lewis Mumford, that '[t]he Garden City, as conceived by Howard, is not a loose indefinite sprawl of individual houses with immense open spaces over the whole landscape: it is rather a compact, rigorously confined urban grouping' (Mumford 1946, p. 34). While this is also true, the influence of Howard's ideas on urban decentralisation and sprawling suburbs full of gardens and green space is hard to deny, and can figure as a prime example of the permutation, local adaptation and spatio-temporal evolution of an applied theory of urban planning.

Regarding the politicisation of urban natures, today's debates about the protection of the Hills in many ways mirror the processes of protection that have been taking place in Marka since the 1930s. In both cases, a higher level of regulation is and was called for; in Oslo the national level as Oslomarka spreads over three counties and 19 municipalities, in Perth the state level as the Hills spread over seven municipalities. The claims made by protectionists are the same. A more coordinated planning approach is called for to avoid the particularist influences of private land owners, businesses and municipalities. Non-economical interests are to be given greater consideration. Recreational and aesthetic qualities of the landscape are seen as the most important ones, and the natural areas are to be understood as landscapes of regional and even national importance. The Hills Bill and Markaloven thus share striking similarities, despite having developed in different cultural contexts and in historical periods several decades apart.

One explanation of these similarities are the parallel underlying changes in views on nature and landscape which occurred in both places in the course of the 19th and 20th century. From a

mainly orientalist view on nature as a resource until the end of the 19th century, aesthetic and recreational views gained popular foothold in the 20th century, eventually positing nature in terms more paternalistic and communalistic.

In Perth, this shift occurred later, mainly because of its recent colonial history based on resource exploitation and later urban growth. Around 1900 for example, as Perth first boomed during the Gold Rush, large parts of the state still lay unexplored and unsettled. Natural resources seemed endless, and through mining continue to drive the West Australian economy to the present day. In Oslo, the timber trade provided the economic wealth of the city much earlier, from the 17th to the first half of the 19th century, when demand and prices for Norwegian timber steadily decreased. In terms of urban growth, the population of Greater Oslo was larger than that of the Perth Metropolitan Region until some time in the 1960s, when Perth zoomed past. Oslo had around a quarter million inhabitants in 1900, and a predominantly and increasingly urban population, as Perth was just rounding the 100.000 mark and still had a largely rural character. The 'view from the city' on nature thus developed much earlier in Oslo than in Perth, as an increasing population was seeking out of the city and into nature for recreation.

Various interest groups are continuously contesting the natures of Marka and the Hills, and sometimes this contestation even comes from within what seem to be the own ranks. Marka for example has been conserved mainly for recreational purposes, but there is now a growing debate over what type of recreational activities are the right ones, as cross-country skiers and environmentalists are fighting the expansion of a downhill skiing area at Tryvann near the border of Nordmarka (see OOF 2010). Several dispositions from the building ban of the Marka Law have already been given for such facilities, most notably the reconstruction and expansion of the national ski jump arena Holmenkollen for the 2011 Nordic Ski World Championship, a mega-project that ended up costing 1,8 billion NOK (235 million EUR). Thus, while Marka is protected for recreational and sports purposes, some recreational activities such as downhill skiing are easily commodifiable, highly profitable, 'land-hungry' and relatively exclusive in their land use, thus undermining the original purpose of the protection of Marka; to keep the forests alive and accessible for all.

In the Hills, many established residents are now fearing new suburban or urban developments in their much-beloved rural-style residential areas, threatening the dream that they once themselves were able to fulfill. William J. Lines (1991), who grew up in a newly founded outer suburb in Gosnells at the foot of the Hills in the 1960s, vividly describes this process in the introduction to his postcolonial critique of Australian nature. Through greenfield development and plot subdivisions, his childhood paradise of nearby swamp and bush was lost, and the suburb grew denser. Many of the original residents eventually moved even further out of the city, including his family, who bought a new house in a 'tranquil bushland setting in the hills'. But as Lines soon realised: '[E]ventually, of course, suburbanisation caught up with all the movers' (Lines 1991, p. xix). This 'paradox of suburbanisation' (Hays 1987) can be seen as an example of popular amenities turning into *disamenities* through increased use (van Auken & Rye 2011), which unfortunately is a recurrent problem in many human-nature relationships.

An important difference between the case studies is that in the Hills, development is mostly discussed in relation to the interests of *residents*, whereas in Marka *users* are the main interest group. Being tied to the land through dwelling in one case, and passing-through in the other, has also resulted in different conceptualisations of nature and landscape. For the residents of the Hills, who are dwelling on the land, a strong sense of private ownership has developed in the form of the suburban or rural dream home with surroundings. For the users of Marka, who are only passing through, a strong sense of collective ownership has developed, as from the urban user-perspective, 'no-one' owns the land.

In Oslo, the current coalition of environmentalists and outdoor recreationalists is based on the shared belief that 'use is the best protection'. Even environmentalists argue that lasting protection is only guaranteed if people continue to use Marka for outdoor sports and other forms of low-impact recreation. While the passing of the Marka Law has shown that this is true at least politically speaking, what will happen if Oslo continues to grow at the current rate of over 2 % annually, which is seen as a likely scenario? The gloomy words of Aldo Leopold can serve as a thought-provoking setting:

'All conservation of wildness is self-defeating, for to cherish we must see and fondle, and when enough have seen and fondled, there is no wildness left to cherish.'

(Leopold 1949, p. 49)

Conclusion

Throughout this thesis I have argued that views on nature and landscape have had an immense influence on the historical development of cities. At the hand of the environmental histories of two cities, I have explained and analysed these influences.

I have shown that while orientalist views on nature pervaded well into the 19th century, paternalist and even communalist views on nature gained force in the 20th century. Nature went from a resource to a place of aesthetic and recreational value. The aesthetic values had nationalistic undertones in bush poetry and national romanticism, and were connected to recreational values through activities such as gardening and outdoor sports.

As cities developed, these new views were expressed in the built environment, both at the micro scale of the home, and at the macro scale of the urban agglomeration. In Perth, I used suburban living as a main point of reference in which the various views on, and activities in nature, were expressed. In Oslo, I examined the new outdoor sports closely as a regulator of urban expansion. Theories of urban planning have also been tied to views on nature, as I have shown how ideas first developed by Ebenezer Howard and le Corbusier were locally modified and implemented in important strategic plans.

Lastly, I have demonstrated that urban natures as important carriers of meaning have been highly contested and politicised in processes relating to urban development.

References

Academic Articles and Books

Adams, T. 2010. 'Taming an Urban Frontier? Urban Expansion and Metropolitan Spatial Plans in Perth 1970-2005', in Alexander (ed.), *Planning Perspectives from Western Australia*, Fremantle Press, Fremantle.

Adorno, T. & Horkheimer, M. 1972 [1947]. *Dialectic of Enlightenment*, trans. J. Cumming, Continuum, New York.

Agency of Environmental Management Norway 2003. *Marka*. Planlegging av by- og tettstedsnære naturområder. Håndbok 24. Direktoratet for Naturforvaltning, Oslo.

Altman, I. & Low, S. M. (eds) 1989. *Place Attachment*, Plenum, New York.

Barker, M. 2007. 'How Planning and Environmental Laws has Shaped our Cities'. Conference proceedings from the 2007 *Planning Institute of Australia National Congress*, Perth.

Blake, A. & Sherriff, J. 2006. *Building a Colony: The Convict Legacy*. Centre for Western Australian History, Perth

Bogner, A. & Menz, W. 2005. 'Das Theorigenerierende Experteninterview', in A. Bogner (ed.) *Das Experteninterview*. Verlag für Sozialwissenschaften, Wiesbaden.

Bø, G. 1998. 'Land og lynne- norske diktere om nasjonal identitet', in Ø. Sørensen (ed.) *Jakten på det norske*, Gyldendal, Oslo.

Braun, B. 2005. 'Environmental issues: writing a more-than-human urban geography', *Progress in Human Geography*, vol. 29, iss. 5, pp. 635-650.

Brown, S. 2008. *'Imagining 'environment' in Australian suburbia: an environmental history of the suburban landscapes of Canberra and Perth, 1946-1996'*. PhD thesis, University of Western Australia, Perth.

Brox, O. 2001. *Vår Felles Eiendom: Tar Vi Vare på Allemannsretten?* Pax, Oslo.

Castells, M. 1996. *The rise of the Network Society*. Blackwell, Oxford.

Castree, N. 2003. 'Geographies of Nature in the Making', in Anderson, K. et al (ed.) 2003. *Handbook of Cultural Geography*, Sage Publications, London

Christensen, T. 1993. *Marka og Krigen: Oslomarka 1940-1945*. Christensen, Oslo.

Cosgrove 2003. 'Landscape and the European Sense of Sight', in Anderson, K. et al (ed.) 2003. *Handbook of Cultural Geography*, Sage Publications, London.

Creswell, T. 2003. 'Landscape and the Obliteration of Practice', in Anderson, K. et al (ed.) 2003. *Handbook of Cultural Geography*, Sage Publications, London.

Davis, J. 2008. *Longing or Belonging? Responses to a 'new' land in southern Western Australia 1829-1907*. Ph. D. thesis, School of Humanities, University of Western Australia.

Davison, A. 2005. 'Australian Suburban Imaginaries of Nature: Towards a prospective history', *Australian Humanities Review: Eco Humanities Corner*, iss. 37, December 2005. Available from: <http://www.lib.latrobe.edu.au/AHR/archive/Issue-December-2005/davison.html> [Accessed 16 January 2011].

Davison, G. 1995. 'Australia: The First Suburban Nation?', *Journal of Urban History*, vol. 22, no. 1, pp. 40-74.

Descola, P. 1996. 'Constructing natures: symbolic ecology and social practice', in *Nature and Society: Anthropological Perspectives*, eds P. Descola & G. Pálsson, Routledge, London/New York, pp. 82-102.

Dittmar, H. & Ohland, G. (eds) 2004. *The New Transit Town: Best Practices in Transit-Oriented Development*, Washington, Island Press.

Dollinger, F. 2004. 'Wahre Landschaft und Ware Landschaft'. Complimentary text to the exposition *The leisure landscapes of winter tourism in the region Zell am See/ Kaprun*, C. Wittwer. Culture-Nature, Pinzgau. Available from: <http://culture-nature.com/kulturlandschaft/wahre-landschaft.pdf> [13.3.2010]

Drewry, J. J. 2005. 'Natural Recovery of soil physical properties from treading damage in pastoral soils in New Zealand and Australia', *Agriculture, Ecosystems & Environment*, vol. 114, no 2, pp. 159-169.

Dunlap, T. 1999. *Nature and the English Diaspora*, Cambridge University Press, Cambridge

Elder, B. 2008. 'In Lawson's Tracks', *Griffith Review*, vol. 19, pp. 93-95 & pp. 113-115.

Elliot, B. 1941. 'Australian Paterson', *The Australian Quarterly*, vol. 13, no. 2, pp. 43-50.

Fedreheim, G. E. & Sandberg, A. 2008. 'Friluftsløven i Et Samfunn i Utvikling', *Utmark*, vol. 9, no. 1. Available from: <http://www.utmark.org/> [13.6.2011].

Frislid, R. 1996. *Nordmarka: Natur, historie og friluftsliv*. Gyldendal, Oslo.

Gaynor, G. 2006. *Harvest of the Suburbs: An Environmental History of Growing Food in Australian Cities*. University of Western Australia Press, Perth.

Gaynor, G. 2007. 'His Own Vine and Fig Tree', *Eco-Humanities Corner*, iss. 41. Available from: <http://www.australianhumanitiesreview.org/archive/Issue-February-2007/EcoGaynor.html> [13.4.2011]

Grattan, C. H. 1938. 'On Australian Literature, 1788-1938', *The Australian Quarterly*, vol. 10, no. 2, pp. 19-33.

Gregorey, D. 2001. '(Post)Colonialism and the Production of Nature', in *Social Nature: Theory, Practice, and Politics*, N. Castree & B. Braun (eds.). Wiley-Blackwell, Oxford.

Grose, M. J. 2009. 'Changing Relationships in Public Open Space and Private Open Space in Suburbs in South- Western Australia', *Landscape and Urban Planning*, vol. 92, iss. 1, pp. 53-63

Halkett, I. 1976. *The Quarter Acre Block*, Australian Institute of Urban Studies, Canberra.

Hall, P. & Ward, C. 1998. *Sociable Cities: The Legacy of Ebenezer Howard*. Wiley, New York.

Hall, T. 1991. 'Is there a Nordic Planning Tradition?', in P. Hall (ed.) *Planning and Urban Growth in the Nordic Countries*. Chapman & Hall, London, pp.247- 259.

Hallam, S. J. 1975. *Fire and Hearth*. Australian Institute of Aboriginal Studies, Canberra.

Halvorsrud, F. R. 2007. *Forvaltningen av Oslomarka*. Master thesis, University of Oslo, Oslo.

Hays, Samuel (1987) *Beauty, Health, and Permanence: environmental politics in the United States, 1955-1985*. Cambridge, New York & Melbourne, Cambridge University Press.

Head, L., Muir, P. & Hampel, E. 2004. 'Australian Backyard Gardens and the Journey of Migration', *Geographical Review*, vol. 94, no. 3, pp. 326-347.

Hedgcock, D. & Hibbs, T. 1992. 'Perth's Suburban Tradition', in D. Hedgcock & O. Yiftachel (eds.), *Urban and Regional Planning in Western Australia: Historical and Critical Perspectives*. Paradigm Press, Perth.

Hellerud, S. V. & Messel, J 2000. *Oslo: Tusen Års Historie*. Aschehoug, Oslo.

Heynen, N., Kaika, M. & Swyngendouw, E. 2006. 'Politicizing the production of urban natures', in *In the Nature of Cities*, E. Swyngendouw & M. Kaika (eds.), Routledge, New York.

Hinchliffe, S. 2003. 'Inhabiting- Landscapes and Natures', in Anderson, K. et al (ed.) 2003. *Handbook of Cultural Geography*, Sage Publications, London.

Hodne, Ø. 1998. 'Sagn og eventyr som nasjonalkultur, in Ø. Sørensen (ed.) *Jakten på det norske*, Gyldendal, Oslo.

Houghton, T.S. 1990. 'City Profile: Perth', *Cities*, vol. 7, iss. 2, pp. 99-116.

Howard, E. 1946. *Garden Cities of To-Morrow*, London, Faber & Faber.

Inglis, D. & Gimlin, D. 2009. *The Globalization of Food*. Berg, Oxford.

Jacobs, J. 1962. *The Death and Life of Great American Cities*. Jonathan Cape, London.

Jerman, G. 2004. *Løvenskiold-Vækerø: En familiebedrift gjennom 355 år*. Løvenskiold-Vækerø, Oslo

Kaltenborn, B. P., & Vorkinn, M. (ed.)1993. 'Vårt friluftsliv. Aktiviteter, miljøkrav og forvaltningsbehov'. *Norsk institutt for naturforskning Nin. Temahefte nr. 3*

Keller, C. 1993. 'Arkeologens kulturlandskap', in Sandaas, (ed.) *Våre sårbare kulturlandskap*, Environmental Dept. Oslo & Naturvernforbundet in Oslo og Akershus, Oslo.

Kennewell, C. & Shaw, B. J. 2008. 'City Profile: Perth, Western Australia'. *Cities*, vol. 25, iss. 4, pp. 243-255.

Kjeldstadli, K. 1990. *Oslo Bys Historie 4*. Cappelen, Oslo.

Kvarv, S. 2006. 'De Olympiske Vinterleker 1952: Politisk Legitimering og Debatt', *Nytt Norsk Tidsskrift*, vol. 23, no. 4, pp. 368-275.

Jerman, G. 2004. *Løvenskiold-Vækerø: En familiebedrift gjennom 355 år*. Løvenskiold-Vækerø, Oslo

Larre, E. S. 1986. 'Marka for Alle', in F. Funder (ed.), *Markagleder*, Grøhndal, Oslo.

Le Corbusier 2010 [1925]. 'The City of Tomorrow', in G. Bridge & S. Watson (eds) 2010. *The Blackwell City Reader*. Wiley-Blackwell, Oxford, pp. 345-354.

Leopold, A. 1949. *A Sand County Almanac*. Oxford University Press, New York.

Lines, W. J. 1991. *Taming the Great South Land, A History of the Conquest of Nature in Australia*, Allen & Unwin, North Sydney.

Lorange, E. & Myhre, J. E. 1991. 'Urban Planning in Norway' in P. Hall (ed.) *Planning and Urban Growth in the Nordic Countries*. Chapman & Hall, London, pp. 116-166.

Macnaghten, P. & Urry, J. 1998. *Contested Natures*. Sage Publications, London.

Mitchell, S. 2008. 'What's in a Name? Parks of the Darling Range', *Landscape*, vol. 24, no. 2, pp.40-46.

Moland, T. 2006. *Historien om Nordmarka gjennom de siste 200 år*. Christiania Forlag, Oslo.

Mullins, P. & Kynaston, C. 2000. 'The Household Production of Subsistence Goods: The Urban Peasant Thesis Revisited', in P. Troy (ed.) *A History of European Housing in Australia*, Cambridge University Press, Cambridge.

Mumford, L. 1946. 'Modern Planning', in Ebenezer Howard, *Garden Cities of To-Morrow*. London, Faber & Faber.

Myhre, J. E. 1990. *Oslo Bys Historie 3: Hovedstaden Christiania*. Cappelen, Oslo.

Næss, A. 1999 [1974]. Økologi, samfunn og livsstil. Universitetsforlaget, Oslo.

Nævdal, E. 2011. 'Arrogante terrengsyklister', *Aftenposten*, 11.5.2011. Available from: <http://www.aftenposten.no>

Nansen, F. 2003 [1890]. *På Ski over Grønland*. Kagge, Oslo.

Nedkvitne, A. & Norseng, P. G. 1991. *Oslo Bys Historie 1: Byen under Eikaberg*. Cappelen, Oslo.

Nilsen, P. 1993. 'Etnologens syn på kulturlandskapet', in Sandaas, (ed.) *Våre sårbare kulturlandskap*, Environmental Dept. Oslo & Naturvernforbundet in Oslo og Akershus, Oslo.

O'Reilly, K. 2005. *Ethnographic Methods*. Routledge, Oxon.

Pálsson, G. 1996. 'Human-environmental relations: orientalism, paternalism and communalism', in *Nature and Society: Anthropological Perspectives*, eds P. Descola & G. Pálsson, Routledge, London/New York, pp. 63-81.

Pepper, D. 1996. *Modern Environmentalism: An Introduction*. Routledge, London.

Ramsøy, F. 1986. '50 år for Marka', in F. Funder (ed.), *Markagleder*, Grøhndal, Oslo.

Ringerike, G. S. 2004. *Ut på tur, aldri sur- Ut på ski, alltid bli: En studie av de kulturelle læringsprosessene rund overføringen av en skikultur*. Master thesis. University of Oslo, Oslo.

Robin, L. & Smith, M. 2008. 'Australian Environmental History: Ten Years On', *Environment and History*, vol. 14, no. 2, pp. 135-143.

Rosen, C. M. 1994. 'The Importance of an Urban Perspective in Environmental History', *Journal of Urban History*, vol. 20, no. 3, pp. 299- 310.

Rundle, G. E. 1996. 'History of Conservation Reserves in the South-West of Western Australia', *Journal of the Royal Society of Western Australia*, vol. 79, iss. 4, pp. 225-240.

Slagstad, R. 2010. *Sporten*. Pax, Oslo.

Stannage, T. 1981. *A New History of Western Australia*. University of Western Australia Press, Perth.

Stickells, L. 2004. *Form and Reform: Affective form and the Garden Suburb*. Ph. D. thesis, University of Western Australia.

Sundby, H. 2006. 'Nansens 'På Ski over Grønland'', *Nordlit*, no. 20, pp. 69-84.

Syse, K. V. L. 2000. *Lende og landskap*. Master thesis, Institute for Cultural Studies, University of Oslo, Oslo.

Timms, P. 2006. *Australia's Quarter Acre: The Story of the Ordinary Suburban Garden*. Miegunyah Press, Melbourne.

Trevoe, H. 2003. 'Nature Strip: Australian Suburbia and the Enculturaion of Nature', *Thesis Eleven*, vol. 74. no. 1, pp. 54-75.

Tuan, Y. 1974. *Topophilia: A Study of Environmental Perception, Attitudes, and Values*. Columbia University Press, New York.

van Auken, P. M. & Rye, J. F. 2011. 'Amenities, Affluences and Ideology: Comparing Rural Restructuring Processes in the US and Norway', *Landscape Research*, vol. 36, no. 1, pp. 63-84.

Veal, A.J. (2000). 'Lifestyle and Leisure: a Review and Annotated Bibliography', On-line Bibliography 8. School of Leisure, Sport and Tourism, University of Technology, Sydney. Available from: www.business.uts.edu.au/leisure/research/bibs.html [13.6.2011]

Walmsley, D. J. 2003. 'Rural Tourism: a Case of Lifestyle-led Opportunities'. *Australian Geographer*, vol. 34, no. 1, pp. 61-72.

Ward, S. V. 1990. 'The garden city tradition re-examined'. *Planning Perspectives*, vol. 5, iss. 3, pp. 249-256.

Ward, S. V. 1992. *The Garden City: Past, Present, and Future*. Taylor & Francis, Abingdon.

Webb, E.G. & Kalamunda and Districts Historical Society 1996. *Rails in the Hills : a History of the Railway from Midland to Karragullen, 1891-1949*. Kalamunda & Districts Historical Society, Kalamunda.

Weller, R. 2009. *Boomtown*. University of Western Australia Press, Perth.

Whatmore, S. 2003. 'Culturenatures', in Anderson, K. et al (ed.) 2003. *Handbook of Cultural Geography*, Sage Publications, London.

Whitbread, H. T. R. 2010. *Landscape Architecture in Western Australia: Mapping the Core Narratives*, Ph. D. thesis, University of Western Australia, Perth.

William, T. 2003. 'No. 1 Pump Station', *Architecture Australia*, vol. 92, iss. 5, pp. 88-90.

Williams, R. 1973. *The Country and the City*. Paladin, Herts.

Worster, D. 1990. 'Transformations of the Earth: Toward an Agroecological Perspective in History', *Journal of American History*, vol. 76, no. 4, pp. 1087-1106.

Zuidervaat, L. 2011, 'Theodor W. Adorno', *The Stanford Encyclopedia of Philosophy (Summer 2011 Edition)*, Edward N. Zalta (ed.). Available from:
<http://plato.stanford.edu/archives/sum2011/entries/adorno/> [13.6.2011]

Reports and Planning Documents

Department of Environment 2009. 'LOV 2009-06-05 nr 35: Lov om naturområder i Oslo og nærliggende kommuner (markaloven)', Lovdata. Available from: <http://www.lovdata.no/cgi-wift/ldles?ltdoc=/all/nl-20090605-035.html> [2.3.2011]

Government of Western Australia 1995. *Swan Valley Planning Committee*. Available from: http://www.planning.wa.gov.au/dop_pub_pdf/svpc_info.pdf [1.7.2011]

Government of Western Australia 2011. *Swan Valley Planning Committee Members*. Available from: <http://www.planning.wa.gov.au/717.asp> [1.7.2011]

Justice and Police Department Norway 2007. *Den Nye Sameretten*. NOU 13. Available from: <http://www.regjeringen.no/nb/dep/jd/dok/nouer/2007/nou-2007-13/9/6.html?id=492045>. [13.6.2011]

Moore, M. & Smith, R. 2007. 'The Perth Hills- A Whole of the Hills Approach', Save Perth Hills Inc., Perth. Available from: www.saveperthhills.com [14.6.2011]

Municipality of Oslo 2008. *Kommuneplan 2008- Oslo mot 2025*. Byrådsavdeling for Finans og Næring, Oslo.

Oraug, J., Østensen, E., Lind, T., Rosenfeld, I. S. 1974. 'Forventninger til rekreasjonsmiljøet i Oslomarka', report from the project *Friluftsliv i skog*, Norsk Institutt for By- og Regionforskning, Oslo.

Oslostatistikken 2011. 'Befolkningsrøfreskriving Oslo 2012-2030', Agency for Development and Competence Oslo. Available from: [http://www.utviklings-og-kompetanseetaten.oslo.kommune.no/getfile.php/utviklings-og-kompetanseetaten%20\(UKE\)/Internett%20\(UKE\)/Dokumenter/Oslostatistikken/Befolkning/Befolkningsframskrivninger/2011/Befolkningsfreskrivning%20Oslo%202012-2030.pdf](http://www.utviklings-og-kompetanseetaten.oslo.kommune.no/getfile.php/utviklings-og-kompetanseetaten%20(UKE)/Internett%20(UKE)/Dokumenter/Oslostatistikken/Befolkning/Befolkningsframskrivninger/2011/Befolkningsfreskrivning%20Oslo%202012-2030.pdf) [1.8.2011]

Statistics Norway 2011. 'Folkemengd 1. januar 2011 og endringane i 2010'. Statistisk Sentralbyrå, Oslo. Available from: <http://www.ssb.no/folkendrkv/tab-2011-02-24-02.html> [22.3.2011]

Statistics Norway 2008. 'Tettsteder. Folkemengde og areal, etter kommune'. Statistisk Sentralbyrå, Oslo. Available from: <http://www.ssb.no/emner/02/01/10/bef tett/arkiv/tab-2008-06-20-01.html>, [22.3.2011]

Xamon, A. 2011. *Perth Hills Planning Bill*. Save Perth Hills. Available from: <http://www.saveperthhills.org/> [1.7.2011]

Other Sources

Asbjørnsen, P. C. 1845. 'En nat i Nordmarken', from *Norske Folkeeventyr 1841-1844*. Available from: <http://runeberg.org/folkeven/127.html>. [3.6.2011]

Asbjørnsen, P. C. 1848. 'En sommernat på Krokskogen', from *Norske Folkeeventyr 1841-1844*. Available from: <http://runeberg.org/folkeven/036.html>. [3.6.2011]

Big Norwegian Lexicon 2011. 'Drabantby'. Fritt Ord. Available from: <http://snl.no/> [3.8.2011]

Herre, B. 1849. 'I Nordmarken', from *En Jegers Erindringer*. Available from: <http://www.maridalensvenner.no/i-nordmarken.4890539-108160.html>. [3.6.2011]

Hoad, T. F. 1986. *The Concise Oxford Dictionary of English Etymology*. Clarendon Press, Oxford.

Lawson, H. 1892. 'The Drover's Wife'. *The Bulletin*, 23. July 1892. Available from: <http://alldownunder.com/australian-authors/henry-lawson/drovers-wife.htm>. [Accessed 19.5.2011.]

McLeods 2002. 'Property Notes: Land Tenure Systems in Western Australia', *McLeods Barristers and Solicitors*. Available from: http://www.mcleods.com.au/IMG/pdf/Property_Notes.pdf [13.7.2011]

Mundaring and Hills Historical Society 2010. 'Local History Exposition' (cur. P. Bridges), Mundaring District Museum. MHHS, Mundaring.

n.a. 1892. 'Elektrisk Sporvei i Kristiania', *Teknisk Ukeblad*, vol. 10, no. 42, pp. 177-178. Available from: <http://runeberg.org/tekuke/1892/> [13.6.2011]

n.a. 1898. 'Holmenkolbanen', *Teknisk Ukeblad*, vol. 16, no. 28, p. 225. Available from: <http://runeberg.org/tekuke/> [13.6.2011]

National Trust of Australia 2003. *The Golden Pipeline*. Available from:
<http://www.goldenpipeline.com.au/00/index.shtml> [3.7.2011]

Norwegian Olympic Museum n.d. *Oslo 1952*. Available from: <http://maihaugen.no/no/Norges-Olympiske-Museum/Vinterleker1/Oslo-1952/> [14.6.2011]

Oslo og Omegn Friluftsråd 2010. *Tryvann Vinterpark, tilleggssuttalelse*. Oslo og Omland Friluftsråd, Naturvernforbundet i Oslo og Akershus, Naturvernforbundet Oslo Vest & Den Norske Turistforening Oslo og Omegn, Oslo. Available from:
<http://www.markanytt.no/pub/oof/main/?cid=144#oof>. [23.3.2011]

Paterson, A. B. 1889. 'Clancy of the Overflow', *The Bulletin*, 21. December 1889. Available from: <http://www.wallisandmatilda.com.au/clancy-of-the-overflow.shtml>. [Accessed 19.5.2011]

Parks Victoria n.d. *Dandenong Ranges National Park*. State Government Victoria. Available from: <http://parkweb.vic.gov.au/explore/parks/dandenong-ranges-national-park> [22.7.2011]

Pickering Brook Heritage Group 2008. *Railway*. Available from:
<http://pickeringbrookheritagegroup.com/railway.html> [3.7.2011]

Save Perth Hills 2011. *Save Perth Hills*. Available from: <http://www.saveperthhills.org/>
[1.7.2011]

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