CONSERVATION THROUGH RECREATION: HOW AN URBAN PARK PROMOTES AND SHAPES A CONSERVATION ETHIC

Richard Lyon BA (Hons)

This thesis is presented for the degree of Doctor of Philosophy of The University of Western Australia
School of Social Sciences
Anthropology and Sociology

February 2016
ABSTRACT

The role of urban parks and botanic gardens in this current age of environmental awareness is increasingly significant in promoting and shaping a conservation ethic. In this thesis I address the factors that have influenced the development of Kings Park and Botanic Garden in Perth, Western Australia, in its transition from a fashionable colonial recreation area to a world-class environmental conservation centre. Unique in prioritising only Western Australian flora and promoting its use for domestic gardens in preference to introduced species, the park not only draws the attention of locals and visitors, but also has an international reputation in the environmental science, botanic and socio-environmental communities.

Along with recreation and commemorative functions, the park also has a strong didactic role focusing on the natural environment. I ask then, to what extent does this park promote and shape a conservation ethic? Rather than being merely an addition to the urban scene, and a symbol of a purported ‘civilized’ society, I argue that Kings Park and Botanic Garden is also an indicator of environmental consciousness.

I draw on Agrawal’s theory of ‘environmentality’ to see the park as a source of modification of human behaviour that leads to the attribution of a certain set of cultural values to the natural landscape. It is thus a space of governance in the cause of conservation of the natural environment (Agrawal 2005a, p. 55).

By becoming involved in the Kings Park community as a Friend of the park, working as a volunteer guide, conducting interviews and a survey providing elementary descriptive statistics and qualitative information, I was able to assess the role of the park. I found that the park places a very high priority on promoting conservation of the local natural environment. I also found that while interest in the local native flora is gaining momentum in Perth, the use of local native plants in home gardens as an exclusive alternative to exotics was limited. The general preference was for a ‘cosmopolitan’ type garden with a mixture of local native flora and imported exotics.

The use of native flora by home gardeners is dependent on a number of factors, including an understanding of plant requirements on the impoverished soil of the Swan Coastal Plain, the availability of suitable species, generational influence and the future availability of water for domestic garden use. I contend that the continued influence of the park on visitors and local gardeners is important in promoting the cause of conservation of the natural environment in general and, in particular, the native flora of Western Australia.
# TABLE OF CONTENTS

**ABSTRACT** .................................................................................................................. III

**LIST OF FIGURES** ........................................................................................................ IX

**LIST OF TABLES** ......................................................................................................... IX

**ABBREVIATIONS** ......................................................................................................... X

**ACKNOWLEDGEMENTS** ............................................................................................... XI

**STATEMENT OF CANDIDATE CONTRIBUTION** .......................................................... XIII

**PREFACE** ......................................................................................................................... XIV

**CHAPTER 1 – INTRODUCTION - A MODERN URBAN PARK** .......................................... 1

  - Introduction ............................................................................................................. 2
  - Gardens and human behaviour .............................................................................. 6
  - Location .................................................................................................................. 8
  - Cultural significance .............................................................................................. 9
  - Methodology .......................................................................................................... 10
  - Positionality and participation ............................................................................. 11
  - Thesis structure .................................................................................................... 18

**CHAPTER 2 – PARKS AND CONSERVATION** ................................................................. 25

  - Introduction ........................................................................................................... 25
  - Environmental concern ......................................................................................... 26
  - Urban parks and the Garden of Eden .................................................................... 29
  - Wild gardens .......................................................................................................... 33
  - Nature, parks, cities and nature ............................................................................ 38
  - Nature and humans, the relationship ................................................................... 39
  - Healthy parks, healthy people ............................................................................. 41
  - Use of local native species .................................................................................... 42
  - Flora as a national emblem .................................................................................. 44
  - Australian flora as symbols in literature ............................................................... 48
  - Conclusion: Social significance of urban parks and gardens ............................. 49

**CHAPTER 3 - KINGS PARK & BOTANIC GARDEN – THE SETTING** ............................... 52

  - Introduction ........................................................................................................... 52
  - Innovative institutions ............................................................................................ 54
  - Aboriginal displacement ......................................................................................... 61
  - Mount Eliza (Mooro Katta), Aboriginal sacred site ............................................. 62
  - Reconciliation Action Plan .................................................................................... 64
Foresight of early planners .......................................................... 68
Early Botanic Garden .................................................................... 71
The park as a place for public entertainment ................................ 74
Vandalism in the park ................................................................... 74
Commemoration site .................................................................... 75
Gender role in the park ............................................................... 77
Conclusion: History and development .......................................... 81

CHAPTER 4 - KINGS PARK SPACE AS A SPECIAL ‘PLACE’ ......................... 86
Introduction .................................................................................. 86
Making sense of place ................................................................... 88
A community asset ...................................................................... 89
Socio-environmental location ....................................................... 92
A place of remembrance .............................................................. 94
Flowers and war .......................................................................... 94
Nations born of war .................................................................... 95
War memorials ............................................................................ 96
A place of floral display ............................................................... 96
Area dedicated to women of the State ........................................ 97
Catering for visitors in the park ................................................... 100
Plant demonstration area ............................................................ 101
Policy change to displaying Western Australian flora ............... 103
Political use of green space ......................................................... 104
International policy for conservation ........................................ 105
Conclusion: A place of cultural value .......................................... 108

CHAPTER 5 - A DIDACTIC RESOURCE .................................................. 112
Introduction .................................................................................. 112
Environmental Education ............................................................. 112
Teaching children conservation – a challenge ......................... 114
Naturescape ................................................................................ 115
The Education Centre ................................................................. 118
(Botanic Gardens & Parks Authority 2010, Connecting with Children) 121
Recreational and demonstration areas ....................................... 121
Attracting birds .......................................................................... 123
Research – Biodiversity Conservation Centre ............................. 127
# Introduction

Fostering commitment to conservation .......................................................... 192
Social capital ................................................................................................. 194
Volunteer groups .......................................................................................... 195
Motivations to volunteer .............................................................................. 197
Volunteer Functions Inventory ...................................................................... 198
Kings Park Volunteer Handbook ................................................................... 199
Official opening of the Botanic Garden ......................................................... 200
Friends of Kings Park .................................................................................. 203
Gardens as a form of social control ............................................................... 204
Native plant sales at Kings Park .................................................................... 205
Kings Park Volunteer Guides ........................................................................ 208
Visitor Information Centre ........................................................................... 209
The committed .............................................................................................. 210
Influential factors .......................................................................................... 211
Conclusion: Volunteers ............................................................................... 212

## CHAPTER 9 – CONCLUSION: INFLUENCE OF AN URBAN PARK

Interpretation of the findings .......................................................................... 218
  Volunteers ..................................................................................................... 220
  Education ...................................................................................................... 220
  Native plant sales ........................................................................................ 220
Water conservation .......................................................................................... 221
Limitations of the study ................................................................................ 221
Suggestions for further research .................................................................... 222
Concerns for future population growth ......................................................... 223
Summary ......................................................................................................... 224

REFERENCES ................................................................................................. 228

APPENDICES ................................................................................................. 251

Appendix 1: Survey Form .............................................................................. 251
Appendix 2: Collections and promotion of Western Australian flora .......... 252
Appendix 3: Inspiring conservation of biological diversity ......................... 253
Appendix 4: Recreation and tourism ............................................................... 254
Appendix 5: Conservation of landscape and amenity of designated land ...... 255
Appendix 6: Conservation of native biological diversity on designated land 256
Appendix 7: Cultural heritage ................................................................. 257
Appendix 8: Terms and Conditions .......................................................... 258
Appendix 9: A letter from a grateful grandparent ...................................... 263

LIST OF FIGURES

Figure 1 - Kings Park in relation to Perth city and suburbs ......................... 1
Figure 2 - Boer War memorial ................................................................. 56
Figure 3 - Allegiance to British Imperialism ............................................ 57
Figure 4 - The main avenue Kings Park early 1900s .................................. 60
Figure 5 - View of Perth 1905, Anglicisation of the environment ................ 69
Figure 6 - Queen Victoria statue 2015 ..................................................... 70
Figure 7 - Queen Victoria's view from Kings Park in 1911 ........................ 71
Figure 8 - The world made safe: the view from Kings Park 1967 ................. 93
Figure 9 - A tidy public green space shows a strong impression of social order 105
Figure 10 - The ‘mound’ for display purposes ........................................ 122
Figure 11 - Reny's native garden .............................................................. 187

LIST OF TABLES

Table 1: Country of origin ....................................................................... 17
Table 2: Biophilia values ........................................................................ 41
Table 3: Gender division of customers surveyed at the native plant sales .... 80
Table 4: Plants on display at the Zamia café garden ................................ 102
Table 5: Main activities of botanic gardens ............................................ 108
Table 6: Kings Park education program ................................................ 121
Table 7: Respondents’ region of origin .................................................. 133
Table 8: Age group of respondents ........................................................ 134
Table 9: Residence of respondents .......................................................... 134
Table 10: Frequency of visits to plant sales .............................................. 135
Table 11: 2 examples of plant details for sale on the Kings Park website ..... 140
Table 12: Percentage of area allocated to native plants ......................... 141
Table 13: Response to water usage .......................................................... 155
Table 14: Influenced by Kings Park ........................................................ 157
Table 15: Volunteer Functions Inventory ............................................... 198
Table 16: Plant sale revenue 2009-2014 .................................................. 207
Table 17: Visitor Information Centre statistics ....................................... 209
ABBREVIATIONS

BGCI – Botanic Gardens Conservation International
BGPA – Botanic Gardens and Parks Authority
CEO – Chief Executive Officer
CREC – Commemoration, Recreation, Education, Conservation
GSPC – Global Strategy for Plant Conservation
IAPT – International Association for Plant Taxonomy
IUCN – International Union for Conservation of Nature
KPBG – Kings Park and Botanic Garden
VFI – Volunteer Functions Inventory
VIC – Visitor Information Centre
**ACKNOWLEDGEMENTS:**

Firstly, I would like to record my thanks to the Albany City Council for negotiating with The University of Western Australia (UWA) to establish a centre within the Albany city area. The centre is now housed in what was once the Post Office, a beautiful old building dating back to 1869. That is where it all began. Were it not for the opportunity to further my education in a friendly and supportive environment as a ‘mature age’ student, this project would never have happened. Therefore, my eternal gratitude goes to the administrative staff and tutors of the Albany UWA Centre, who guided me through my first degree in particular Yann Toussaint and Harry Fremantle. My transition from that environment onto the main UWA campus at Crawley was daunting yet quite appealing. The financial support provided by the university during this project is gratefully acknowledged.

My supervisors, Assistant Professor Greg Acciaioli and Associate Professor Katie Glaskin will be forever remembered for their patient perseverance, their good humour and advice for this project, which at times progressed at a glacial rate: my thanks to them both. To my harshest critic and strongest supporter, my wife Patricia, I am eternally grateful for her tolerance and understanding throughout this project. I appreciate her companionship on the ‘practice’ guided walks through Kings Park, which were an essential component of my fieldwork. To my son Sam and my daughter Estelle, who would listen painstakingly with glazed eyes, discrete yawns and considerable patience to my stories of life as a doctoral candidate, I thank you for your understanding and encouragement.

I am also indebted to Mark Webb, the Chief Executive Officer of Kings Park, for his support and continued interest in this project. Also, my gratitude must go to Grady Brand the curator of the Botanic Garden for his professional advice and comments. To all my colleagues of the guides and Friends of Kings Park groups, who would persistently ask ‘How is the thesis going?’ and listen sympathetically to my dramatic response, I thank you. I owe a great debt of gratitude to my dear departed friend Dr Michael Crouch who offered friendship, constructive suggestions and moral support.

I doff my hat to those unsung heroes of the university, the ever obliging, and helpful librarians who would often go to great lengths to find rare books or documents for me. In particular, I would like to acknowledge Jenny Golding the librarian who introduced me to the ways of the Reid Library and encouraged me to continue with my
education. Likewise, I am indebted to the staff of the State Library for providing me with copies of some very early photographs of Kings Park for inclusion in the thesis.

I have benefited greatly from the workshops, short courses and presentations provided by the graduate education officers of the university. I have also benefited from the *Limina* conferences provided by the Institute for Advanced Studies and, in particular, a master class presented by Professor Jonathan Rigg.

I acknowledge the valuable contributions of the people who were prepared to answer my survey questions without warning and the interview respondents who gave of their time generously imparting details and experiences with gardening in general, and native flora in particular. These garden enthusiasts gave me a valuable insight into the trials and tribulations often experienced by the local gardening community.

Last, but certainly not least, my eternal gratitude to all those unsuspecting visitors and tourists who were interested enough to follow me on my guided walks through the park and Botanic Garden as part of my fieldwork. Their interest and enthusiasm for Kings Park and Botanic Garden and our local native flora were very encouraging.
STATEMENT OF CANDIDATE CONTRIBUTION:
I hereby declare that the work herein, now submitted as a thesis for the degree of Doctor of Philosophy of the University of Western Australia is the result of my own investigations, and references to the ideas and work of other researchers and authors have been acknowledged.

Richard Lyon (BA Hons.)
**Preface**

Even though I came to Australia from England over five decades ago I am still fascinated by the vast amount of native flora in Western Australia. At the same time, I am concerned by much of its loss due to indiscriminate land clearing for agricultural purposes. My early experience of land ‘development’ in Australia (1959 – 1970) was the mass clearing of virgin bush for agricultural purposes. There was little awareness at the time of the devastating consequences this would incur.

In just three decades after World War II, more land was released to agriculture in South Western Australia than in the previous 130 years of white settlement. To clear ‘a million acres, a year’ was the catch-cry in what became one of the heaviest assaults on ‘virgin’ land in Australian history (Rijavec & Saunders 2002, p. 3). The region now recognised as one of the top 25 biological hotspots on the planet was opened up for broad acre farming, resulting in serious environmental and social problems. This broad acre clearing resulted in dryland salinity and wind erosion, which rendered many acres unproductive and unsuitable for farming; at the same time subjecting many plant and animal species to the risk of extinction (Rijavec & Saunders 2002, pp. 3-4).

In addition to my first-hand experience with land clearing, I worked with the Agriculture Protection Board and the Department of Agriculture of Western Australia as a field officer for a number of years and this added considerably to my experience with the natural environment. It is with this background, combined with my own experience of domestic gardening in remote areas with challenging climates, limited rainfall and extended long hot summers in areas such as the Eyre Peninsula on the south western coast of South Australia and the inland Goldfields of Western Australia, that instigated my interest in pursuing the subject matter of this project in an academic context. To this end, I started the process of investigation with a thesis for my honours degree focusing on the eco-tourism industry in the South West of Western Australia. This gave me some background into the community interest in bio-diversity conservation of the area.

Kings Park, by promoting conservation of the remaining bio-diversity hot spot that constitutes the South Western Floristic Region (SWFR) of the State, and following a policy of promoting conservation of the natural environment and the use of native flora for domestic gardens, provided an ideal location for following my interest.
CHAPTER 1 – INTRODUCTION - A MODERN URBAN PARK

“When Ages grow to Civility and Elegancie, Men come to Build Stately, sooner than to Garden Finely: As if Gardening were the Greater Perfection.”

Figure 1 - Kings Park in relation to Perth city and suburbs.
Sourced from Google maps of Australia and Perth 2013
Introduction

In recent years, there has been a growing interest across a number of social science disciplines in environmental conservation matters. This development is evident in studies by anthropologists at various sites around the world (West & Brockington 2006, p. 609; Brosius 2006, p. 683). Since the 1970s, anthropologists have become increasingly involved in scientific and political issues involving the loss of biological diversity and conservation of the natural environment (Orlove & Brush 1996, p. 329).

As Mascia et al. (2003, p. 649) acknowledge, conservation is about the behaviour of people as much as species and ecosystems. This point is reinforced by Brockington, who states that ‘a study of conservation is therefore a study of both nature’s dynamics and people, of how they are affected by conservation, cope with it and negotiate with its advocates’ (2002, p. 5). Conservation is about handling change, not trying to stop the impact of humans on nature, but about mediating the impact (Brockington 2002, p. 123). This suggests a significant shift in the nature and use of science in conservation. Therefore, to preserve the biodiversity of the planet, social sciences must play an active role in environmental conservation (Mascia et al. 2003, p. 649).

The analytical tools of social science disciplines such as political science, anthropology, sociology and geography can explain patterns of human behaviour. These tools are crucial to the success of conservation policies at local, national and international level. In particular, research by anthropologists can detail socio-cultural, socio-environmental and spiritual values of the natural environment. Alongside other social science disciplines, anthropology can also identify the cultural beliefs, norms and rules associated with conservation that are the foundation for laws and regulations governing protected areas (Mascia et al. 2003, p. 649).

In the twenty-first century, more so than at any other time, we are confronted with the critical issue of conservation of the natural environment. Issues such as climate change, limited water supplies, depletion of natural resources, species extinction and an increasing human population are constantly being raised. For example, a considerable amount of literature has been published on the environmental and social significance of urban parks and gardens (Altman & Zube 1989; Burchardt 2002; Fardin 1992; Mulcock & Toussaint 2002; Summers 2007; Low & Lawrence-Zuniga 2003; Chiesura 2004). These studies show that urban parks and gardens, in addition to being indicators of civility and civicness (Low, Taplin & Scheld 2005, p. 59; Summers 2007, p. 2), are
strategically important for the quality of life and develop a high level of human well-being by improving health and reducing stress associated with urban living.

Although extensive research has been carried out on the cultural significance, population health, design and social influence of parks and gardens throughout the ages (Burchardt 2002; Maller et al. 2008; Mosser & Teyssot 1991), scant attention has been given to the effect when parks might or might not have on the development of a conservation ethic among those people associated with them. Research is also very limited on the influence that the promotion of local native species of flora by urban parks may have on a domestic gardening culture. The following chapters of the thesis will address that gap.

In this thesis I argue that Kings Park is a catalyst of a conservation consciousness and environmental responsibility. The important role that this park plays in what is now recognised as a modern growth industry for plant diversity science, conservation and utilisation is significant. The work done by the park promoting conservation of the natural environment is done in the context of one of the world’s important bio-diversity hotspots (Hopper 2015). Emphasising the uniqueness of local native flora and the importance of conserving that flora, the park is a leading facility in conservation research. The Kings Park Botanical Conservation Centre has done a substantial amount of scientific research over a number of years into the nature of local native flora, many of them rare and endangered species, found only in the State of Western Australia (Bunn, Turner & Dixon 2011; Dixon 1990; Dixon & Pate 1984), a point I refer to in Chapter 5. Because of declining plant diversity, due to inappropriate and accelerating human use of land and water, the threat of extinction of many species is real. Extinction is irreversible (Hopper 2015, p. 9).

Contributions from the social sciences into aspects of Kings Park include work by Summers (2007) into the value of Perth Parks, including Kings Park, as places for the ‘education of a physically healthy and moral citizenry.’ According to Summers, parks have become symbolic of the city, icons for commemoration of the community and celebrations of city status (Summers 2007, p. ii). Likewise, Erikson (2009) has written about the history and development of Kings Park, highlighting the unique location of the park and its progression as a public icon through various phases of development. However, there has not been any previous work done into the role the park has in promoting and shaping a conservation ethic.

This study focuses on the role that Kings Park and Botanic Garden in Perth,
Western Australia, plays in the promotion and shaping of an environmental conservation ethic among the volunteers and visitors to the park. As the foundation for this project, I draw on Leopold’s (1949, p. 207) definition of a ‘conservation ethic’ as ‘a state of harmony between man [sic] and the natural environment.’ A conservation ethic is one of responsible resource use, with a primary focus on maintaining the health of the natural world. Leopold states:

All ethics so far revolved around a central premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to co-operate (perhaps in order that there may be a place to compete for). The land ethic simply enlarges the boundaries of the community to include soils, water, plants, and animals, or collectively: the land… In short the land ethic changes the role of Homo sapiens from conqueror of the land community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such. (1949, p. 203)

Leopold states that an ethic in the context of conservation ethics functions as a guide for considering new ecological situations and is the foundation for ‘community instinct in the making’ (Leopold 1949, p. 204). A conservation ethic requires being morally responsible towards the natural environment. Weber (Gerth & Mills 1948, pp. 267-301) asserts that ethical considerations are based on religiously determined systems of life-regulation, a set of prescriptions for certain types of behaviour. An ethic stems from a concern about the right and wrong of various actions and the subsequent consequences of those actions (Hospers 1977, pp. 214-215).

The development of a conservation ethic, in addition to Leopold’s interpretation, must take into consideration a number of values, for example, the biological value of conservation and life, as raised by Fletcher, as well as Holland and Rawles (Fletcher 2010, p. 175; Holland & Rawles 1996, p. 10). They argue that a precondition of conservation as a desirable objective is to sustain life; basically it is to aid and support the process of life. There is also the ecocentric value, which is paramount when considering the viability of human social and economic systems that are dependent on the resilience of biological systems. As Huxley states, this raises the ‘question of questions’ about ‘mans [sic] place in nature’ (cited by Holland & Rawles 1996, p. 15), a point also raised by Fletcher (2010, p. 177). One of the further points is that the cultural case for conservation that asserts its aesthetic value (Holland & Rawles 1996, p. 19). It is not simply a visual value, but also a tangible one: for example, to smell a flower or touch a tree. The aesthetic value of nature perhaps more than any other nourishes the world of artists and their paintings. The impressionists’ fascination for gardens, parks
and flowers provide a good example of this. Monet, Manet, Pissarro and many others made gardens their subject matter to illustrate human activities (Willsdon 2004). As advanced by Sagoff (1974, p. 245), the symbolic significance of the environment is one of the major arguments for conservation. This argument shows that the natural environment is important in that it holds signs and symbols of cultures and contributes to the human experience. Therefore the significance of these values is a primary incentive to promoting a conservation ethic. A conservation ethic is based on the understanding that humans are a part of society, which includes plants and animals and asserts the value of maintaining the diversity of those flora and fauna. These items are a very important part of the world, with human life regarded as a functional part of this larger world. Thus, it is essential that every human being respect and honour this diversity and dealing with all these creatures from a moral perspective grounded in conserving their diversity, thus changing humans from regarding themselves as conquerors of the environmental community to functioning as environmental citizens within it. As Leopold (1949, p. 204) states, ‘[i]t implies respect for his [sic] fellow members, and also respect for the community as such.’

Within the context of this thesis the ethical dimension is one that determines our standards of behaviour towards the conservation of the natural environment, in particular the environment of Kings Park. To provide a sound ethical framework for the use of the park a comprehensive set of policies and terms and conditions have been formulated (Appendix 2, 3, 4, 5, 6, 7, 8) (Botanic Gardens & Parks Authority 2015b). These rules and regulations governing the purpose of the park, which also prescribe the expected behaviour of users, produce the park as an ‘ethical landscape’, a term used by Gabriel when describing a similar park (2011, p. 136). Such a park is a place where an official version of ‘respectability and civic identity’ is conveyed, a place to demonstrate a strong sense of civic pride (Hoskins 2003, p. 7). These policies also describe its restrictions, its intention and the motivations behind those who maintain it.

In addition to being a place of commemoration, social interaction and recreation, as in the past, this urban park now provides an opportunity for promoting a conservation ethic to a wide audience. Kings Park and Botanic Garden plays a major role in educating students, the public, and park volunteers in a conservation ethic, with a primary focus on the conservation and maintenance of the local natural world, its forests, habitats and biological diversity (Milton 1993a, pp. 11-15; Hunter 1996; Callicott 1990, pp. 15-20).
The park has gone through a significant transformation since its foundation, emerging from the legacy of a British colonial park, to a place which not only provides social and recreational facilities for the local population and visitors, but which places much emphasis on the conservation of the unique native flora of Western Australia, as well as on how some of those species can be used for domestic gardening purposes. The quest to depict how Kings Park and Botanic Garden, as an instrument of government, promotes native flora, and conservation of the local natural environment, as well as its subsequent influence on the gardening culture of volunteers and visitors to the park, provides the narrative backbone of this thesis.

Gardens and human behaviour
Urban parks and gardens have historically been seen as one of the few areas in which city people have an opportunity to interact with nature. This makes them sites in which ideas about humans' role in the environment are formed and acted on (Gabriel 2012, p. 7). They focus the art of place-making, or landscape architecture in the way that poetry can focus the art of writing (Hunt 2000, p. 11). As Hunt states, ‘it seems to me that we need what might provisionally be understood as an anthropology of the garden’ (2000, p. 13). Gardens in various forms have been associated with different cultural systems since the beginning of recorded history; they have been included in folklore narratives and used as social symbols of power and control. Ballard and Jones contend in their study, that gardens ‘convey particular identities and can simultaneously display aesthetic, social, and market values’ (2010, p. 134).

Considerable academic research has gone into the effectiveness of urban parks and gardens as a modifier of social behaviour (Kuo & Sullivan 2001; Maller et al. 2008; Reeves 2000; Gabriel 2011; Osborne & Rose 1999; Holbrook 2009; Loukaitou-Sideris 1995). The city and its open urban space of the late nineteenth and early twentieth century have recently been analysed as spaces of governance, a ‘way of diagramming human existence, human conduct, and human subjectivity… in the name of government’ (Osborne & Rose 1999, p. 737). Drawing on Foucault’s (1978) work on ‘governmentality’ there are a range of political and governmental techniques for producing urban space as a means of modifying group and individual behaviour (Gabriel 2011, p. 126; Fletcher 2010, p. 1). Early park designers and managers recognised urban parks as some compensation for the gap between work and leisure; they were a response to the rapidly increasing changes in urban living, spaces where
workers could relax away from the pressures of the factory and living conditions of the period. Gabriel (2011, p. 124) cites Rosenzweig’s study, *Eight Hours for What We Will (1983)*, to illustrate that parks were a socially complex area formed as a result of class struggle. Political ecologists argue that urban nature is ‘constituted through the social mobilization of metabolic processes under capitalist and market-driven social relations’ (Heynen, Kaika & Swyngedouw 2006, p. 5). They further argue that the interest of the elite is served in developing urban nature in the form of city parks and that they are a direct consequence of urban development and the class struggle of the period. Therefore, parks can be regarded as spatial devices used for bio-political control imposing order on society ‘via the materialisation of scientific colonial planning rationalities’ (Bennett 1997, pp. 161-190). Parks were areas for *ex situ* conservation of plants and animals and as a site for knowledge democratisation and social reform (Certomà 2015, p. 34). Bennett identified parks as a means of converting knowledge into power ‘able to gather, display, scrutinise, exploit and modify nature – and, thus symbolically and materially supporting liberal governmentality’ (Bennett 2004, p. 5). Nonetheless parks, whether in the city or outside the city do form a way of thinking about nature (West & Brockington 2006, p. 611).

Following Agrawal’s interpretation of Foucault’s (1978, pp. 87-88) ‘governmentality’ as an approach interested in understanding ‘the forms of action and relations of power that aim to guide and shape (rather than force, control or dominate) the actions of others or oneself’ (Bennett & Carter 2001, p. 178), I argue that efforts of the staff, volunteers and the governing authority of Kings Park and Botanic Garden attempt to modify the behaviour of others through a process of ‘environmentality’ (Agrawal 2005a, p. 8).\footnote{Environmentality is an application of the Foucauldian concept of governmentality to the context of environmental concerns.} In Agrawal's Northern Indian case he depicts the process through which villagers' positions as environmental subjects have shifted through the production of new forms of knowledge and practice that ascribe a particular set of cultural values to the non-human landscape and produce a community-based forest conservation apparatus (Agrawal 2005a). The implications for Kings Park are that through this process of ‘environmentality’ the users of the park will be more environmentally conscious and better able to appreciate the significance of and contribute to the conservation of the unique native flora of Western Australia.

\footnote{Lat - 31.9528536 degrees, Long 115.8573389 degrees.}

\footnote{Temperatures in excess of 40° are frequently recorded during summer months.}
Through a process of government influence, the Botanic Gardens and Parks Authority (BGPA), as a government agency, has attempted through the efforts of staff and volunteers, to modify the actions of others in the cause of environmental conservation by biodiversity education and promoting local native plants as a viable alternative to introduced exotic plants for domestic use. Milton (2002, pp. 71-91) has argued that if people can identify with aspects of their ecological environment as being like themselves in one way or another, they are likely to treat that environment as they might themselves or another person. Practical involvement by people in conservation of the natural environment, then, can significantly modify their attitudes, from being indifferent to developing an environmental consciousness.

**Location**

Kings Park and Botanic Garden is situated on the limestone ridge of Mount Eliza overlooking the Swan River and Perth, Western Australia, a city with a backdrop of the Darling Range on the eastern horizon and bounded on the west by the Indian Ocean. The light sandy soil on the ridge undulates to a deeper sandy soil to the west (Erickson 2009, p. 11). Perth is located in the southwest region of Western Australia on the Swan Coastal Plain. The Perth region has a Mediterranean climate characterised by mild winters and long, hot and dry summers. Landforms of the Swan Coastal Plain are limestone ridges interspersed with dune systems, interdunal lakes and swamps running parallel to the coastline (Seddon 1972, p. 7).

The region is part of the South Western Floristic Region and is one of the world’s important bio-diversity hot spots on one of the world’s most phosphorus (P)-impoverished soils; nitrogen (N), potassium (K) and micronutrients are also severely deficient (Lambers et al. 2014b, p. 101). Such low soil fertility would normally restrict plant growth and limit such growth to a few specimens that have evolved over millennia and adapted to grow in these limiting conditions. Instead, there is a vast and diverse range of plants thriving in the environment, many of which are unique to the area. The greatest diversity of plants occurring are non-mycorrhizal species that are resistant to fungi and have adapted to low fertility soils by developing a cluster roots system (Lambers 2014b, pp. 102-105). Cluster roots release vast amounts of carboxylates, which in turn mobilise P (phosphorous) which is absorbed in the soil particles, and then

---

2 Lat - 31.9528536 degrees, Long 115.8573389 degrees.
3 Temperatures in excess of 40⁰ are frequently recorded during summer months.
becomes available for uptake by the roots. In effect ‘mining’ P (phosphorous) which would otherwise be unavailable for plants (Lambers et al. 2014b, p. 103). Extreme infertility of the soil is caused by weathering over extended periods and an absence of any soil-rejuvenating processes (glacial or volcanic activity), resulting in the loss of any rock that produces nutrients. In addition, the sandy soils of the kwongan4 ‘typically have a low-water holding capacity and tend to be water-repellent’ (Lambers 2014b, p. 129).

Cultural significance
The cultural significance of the park to the people of Perth has been well-documented (Erickson 2009; Seddon 1972; Stannage 1979; Bolton 2011) and focuses on the evolution of the area from its earliest acknowledgement as a public facility in 1831 by Surveyor General John Septimus Roe, to its current state as an internationally recognised multifunctional park focusing on a socio-environmental theme. The park was formally gazetted in 1872 (Erickson 1997, p. 8).5 Often referred to as ‘the bush in the city – in the city in the bush’, Kings Park and Botanic Garden is a major tourist attraction (Erickson 2009, p. 9). Surveys conducted by the park record approximately six million visits a year, from local, interstate and overseas visitors (Botanic Gardens & Parks Authority 2011/2012, p. 35).

One of the few large urban areas in the world with an extensive open area in the city dominated by natural bushland, Kings Park is a combination of developed parkland and visitor facilities including restaurants and a gift shop, memorials, a botanic garden, recreational areas and natural bushland. The total area of the park is 400.6 hectares,6 making it one of the largest inner city parks in the world. The natural bushland area is a combination of Eucalyptus-Banksia-Casuarina woodlands (Ladd, Enright & Crosti 2007).

Its location adjacent to the central business district of Perth city makes the park unique (Erickson 2009, p. 9). Viewed by many as a site for secular meditation, the park and Botanic Garden is for some a place of quiet contemplation and reflection, and an

4 kwongan, is a type of unique heathland found on the coastal plains of Western Australia: The name is derived from the language of the Noongar people (Lambers et al. 2014. pp.1-4). Following Lambers and Hopper, the spelling of kwongan is with a lower case ‘k.’
5 With residential West Perth and Subiaco threatening encroachment, Crown Reserve 11A of 432 acres (175ha) on Mt Eliza was gazetted as a Public Park and recreation ground by Governor Weld following a survey by Surveyor General Malcolm Fraser (Erickson 2009, p.13.).
6 37 ha developed parkland, 17 ha botanic garden, 346.6 ha natural bush land.
escape from the vagaries of an ever-changing world. For others the park presents a place for social interaction by providing facilities for barbeques and family-friendly play areas. For the sports minded, the opportunity to exercise is accommodated by paved walkways and sandy trails, as well as cycle tracks around the perimeter of the park. Other walkways, paved and unpaved, intersect the bushland area, thus giving visitors the opportunity to appreciate and study the natural flora and fauna of the area.

Situated in one of the most remote capital cities in the world, the park identifies Perth as a city very much aware of the surrounding natural environment within the agricultural and pastoral surroundings of the vast State of Western Australia. It is a pleasant refuge, a sanctuary, physically close to, but in many ways far removed from, the traffic, noise, rush, hassle and pollution of the city (Seddon & Ravine 1986). The governing body of the park, the Botanic Gardens and Parks Authority (BGPA), has well-defined policies on conserving the landscape and amenities of the park’s designated land (Appendix 4, 5, 6).

For students at all levels, the Botanic Garden and natural bushland of the park provide an ideal opportunity to further their interest in the natural world. A modern solar-powered education centre provides programs for students from kindergarten to tertiary level.\(^7\) Delivered by qualified educators, the programs are linked to the Australian schools’ education curriculum. Free professional learning opportunities are available for teachers throughout the year.

Urban landscapes can develop a distinct identity, a ‘sense of place’, with the residents of a city and the development of its landscapes. Perth city has as its primary icons Northbridge, Fremantle, the Swan River, the golden sandy beaches on the Indian Ocean coastline and Kings Park. The river and the coastline have defined the layout of the city and the way it has grown, but the park has stimulated the development of an Australian garden and landscape approach to urban design, together with a strong environmental conservation ethic focusing on Western Australian native species (Ladd, Enright & Crosti 2007, pp. 121-123).

Methodology
The qualitative methods used to collect data in this research project are advocated by a number of academic authors (Foddy 1995; Denscombe 1998; Taylor & Bogdan 1998).

\(^7\) The solar-powered building is the Southern Hemisphere’s first interactive, underground, environmental learning space.

10
They are methods that I considered appropriate for a research project of this scale. They included, participating in the Kings Park community as a park guide, joining the Friends of Kings Park, administering a survey of customers at the plant sales, talking to visitors in the park and visiting the domestic gardens of some Perth residents in order to observe their gardens and interview them concerning their choice of plants for their gardens. The methods, described by Taylor and Bogdan as ‘going to the people’ in the field, have been readily accepted by anthropologists for many years since Boas (1911) and Malinowski (1932) established participant-observation as a legitimate anthropological endeavour (Taylor & Bogdan 1998, p. 5). It is a ‘cost efficient way of gathering information about behaviour, experiences, beliefs, values and attitudes, for example; subjective variables that cannot be measured directly’ (Foddy 1995, p. 1).

The purpose of using these methods was to get to know the participants on a personal level and to be familiar with their attitudes regarding conservation of the natural environment and the use of native flora in home gardens. Because of my own gardening background I felt I was able to relate to the participants and discuss the subject matter in a normal conversation. In doing so I was able to participate and observe on a level that stayed close to the empirical world (Blumer 1969 as cited by Taylor page 9).

**Positionality and participation**

The participants in this research were home gardeners interested in environmental conservation in general and the use of Western Australian native flora in home gardens in particular. The majority came from a white middle-class background with a British heritage, others originated from many different parts of the world, yet all had a common interest in gardening and the use of native flora as an alternative or addition to exotics. As a middle-class Anglo-Australian myself, researching a topic based on the conservation of the natural environment in what was once a British colony, I had to be aware of my relationship with the cohort that would be central to the research and also be aware of my personal biases. How did I relate to them? Was I an insider or an outsider? Was I ‘one of them’ or was I an intruder? What role did my past experience in gardening play and how does my positionality influence the interactions that I have with the participants? These were questions I had to consider when viewing the course of this research. Examining the research process in the context of my positionality was reflexive in part, involving a certain amount of self-scrutiny, and an awareness of the
relationship between myself, the researcher, and the participants who were kind enough to share their time and thoughts with me. I expected my position as one interested in gardening and the use of native flora would aid me in connecting with the participants. This expectation proved to be correct and in part was based on the logic that people tend to gravitate to those who share a common purpose (Bourke 2014, p. 4). This common bond of gardening interest assisted greatly in conducting the interviews and survey with both Anglo-Australian participants and those coming from a different background. Gardening, and an interest in using native flora, was the primary commonality we all shared. The willingness of participants to be involved in the research process was evidence of this. I found my positionality was an incentive rather than an impediment to conduct this research; it converged with that of the participants. I therefore felt a sense of solidarity with them.

This study has largely been undertaken through direct contact and personal involvement with the Kings Park community, home gardeners and visitors to the park. This has been augmented by library research examining the discourses relevant to the use of urban parks and gardens as a socio-environmental medium.

Originally I envisaged a comprehensive study of the socio-environmental aspects of the park and its effect on visitors. Realising that this would not be achievable given research constraints, I confined my task to a cohort of people interested in both environmental conservation and growing native species for domestic gardens. The subjects included members of the Friends of Kings Park, Kings Park guides, staff members of Kings Park and Botanic Garden, visitors, and customers of the ‘native plant’ sales. Working as a volunteer guide provided the opportunity to obtain anecdotal information from visitors to the park on the significance of urban parks such as Kings Park in its function as a promoter of a conservation ethic. This also gave me the opportunity to more accurately assess the effectiveness of native plant use for home gardens within a manageable cohort and obtain wider views on the significance of urban parks, in particular Kings Park, in a didactic role.

Urban parks and gardens have long been places for social and recreational interaction and for reflective and aesthetic appreciation of natural surroundings, as a number of authors have discussed (Altmann & Zube 1989; Low, Taplin & Scheld 2005; Mosser & Teyssot 1991). For example, Mosser and Teyssot (1991, p. 17) when referring to gardens of the Western tradition from the Renaissance to the modern era, irrespective of which social class utilises them, state that their intention is always the same: to
provide ‘a place of sanctuary…a setting for theatre and display’ (1991, p. 17) However, in a more contemporary setting and in the context of Kings Park and Botanic Garden, along with other urban parks of this modern era, we see a new feature in the purpose of urban parks and gardens, that is, environmental conservation.

Nowadays with large populations concentrated in municipal areas, humans are becoming more urbanised at the cost of experiencing nature. This, in turn, has led to a concern for ecological restoration, placing emphasis on the role that such parks and gardens can play in promoting the cause for conservation. Although Kings Park and Botanic Garden fulfills the traditional role of parks and gardens as defined by historians of the subject, such as a retreat to an ancient Arcady, an Hermitage, a place of solitude, an inseparable connection with philosophy, its role is now very much extended to one promoting the cause of conservation (Brook 2003; Burchardt 2002; Dodd & Jones 2010; Mosser & Teyssot 1991).

This thesis is focused on that conservation role, particularly its effectiveness with regard to the domestic and garden scene. How effective is Kings Park and Botanic Garden in promoting a conservation ethic by means of advancing the cause of using native species in domestic and public gardens as an alternative to exotics? To what extent are the gardeners of my defined cohort committed to growing local native species? To answer these questions it was necessary for me to become familiar with the policies of the Botanic Gardens and Parks Authority (BGPA) and to become involved in the Kings Park community. In keeping with the anthropological methodology of participant observation, this was achieved by joining the Friends of Kings Park and by volunteering to become a Kings Park Guide.

To gain access to the public and members of the Kings Park community for ethnographic research purposes, it was necessary to gain authorisation from the University ethics committee, the governing body of the Kings Park and Botanic Garden via the Chief Executive Officer, the Friends of Kings Park committee and the Kings Park Volunteer Guides committee. Authorisation from these bodies was crucial in a number of ways for my research in the park. Firstly, it alleviated any anxiety authorities may have had about my *bona fides*. Secondly, formal authorisation to conduct research in the park, although not giving me a totally free reign, did give me access to personnel involved in the activities of the park I would not otherwise have had access to, for example, researchers, scientists, senior personnel, executives and staff responsible for
the Botanic Garden. Additionally, becoming involved at this level gave me access to members of the volunteer guides group and the Friends of Kings Park.

My involvement with the Friends of Kings Park included working as a volunteer gardener in the Botanic Garden for one half day a week and assisting customers at the native plant sales. I was introduced to the role of volunteer gardener by the curator of the park Grady Brand, and one of the overseers. My duties involved tasks such as weeding, dead heading,\(^8\) planting seedlings, pruning and general care and maintenance of the garden beds. The tasks were not onerous. Sometimes I worked on my own, at other times I worked as a group member with other volunteers and staff. When I worked in a group, it gave me the opportunity to be involved in discussions with full-time staff, and other volunteer gardeners. Opinions varied on the benefits of native flora as an alternative to introduced species for the home garden. However, there was a distinct preference for a ‘cosmopolitan’ type garden, which provided the opportunity to display both native flora and exotics, as I will discuss further in Chapter 6. This preference is also evident in the data captured in my interviews and surveys. The results of these interviews and surveys fall within the scope of qualitative data given the limited number of variables and the relatively small number of participants. The survey results have thus been used to provide only basic descriptive statistics, rather than being subjected to numerical analysis characterising more quantitative statistical methods.

My role as a volunteer guide in Kings Park involved taking tourists and visitors around the Botanic Garden and the bushland area of the park. In addition to identifying the unique characteristics of the local native flora, a feature of this role was to explain the priorities of the Botanic Gardens and Park Authority (BGPA); my other duty was to attend the Visitor Information Centre (VIC). It was also expected that I attend monthly guides meetings, receive additional training and attend social functions. This role enabled me to become involved in the community of the park and to come in close contact with other volunteers, staff, visitors to the park and tourists, many from interstate and overseas. These people, together with those surveyed at plant sales and those interviewed at length, were the primary participants in this research.

As well as participating as a volunteer in Kings Park, I also employed two other primary methods for this research project. For collecting data I used a brief survey form (see Appendix 1) and recorded interviews with selected subjects. For data capture, there was little difficulty in getting participants to talk about their interest in their gardens and

\(^8\) Dead heading, is removing dead flower heads.
environmental conservation. Most of the participants in the research were women and they were the primary instigators in their households determining a preference for native plants. In addition to the formal qualitative survey processes, information was also gathered by informal discussions with other volunteers, visitors, and staff members. Attendance at the monthly guides meetings provided an opportunity to observe (and at times to be involved in) the functioning of the group. As well as providing an opportunity to become ‘embedded’ in the Kings Park community, it gave me a chance to acquire botanical knowledge, with which I was previously unfamiliar.

The process of selecting a section of the community for ethnographic research on the topic of promoting native plants for domestic gardening was done with a view to getting as close as possible to the core of the subject matter: environmental conservation, particularly the use of native flora as an alternative to exotics for domestic gardens. The variety of participants involved in the surveys, not always gardeners, gave the research project a broad profile. For example, apart from those people committed to growing native plants, there was also a number of people who were in categories best described as ‘general’, native gardeners, and ‘non-native’ gardeners, or indifferent (Head & Muir 2007, p. 55). This gave the project a greater cross-section of gardeners within the specified cohort. Therefore, the research included those dedicated to the cause of growing native plants, and those people who liked native plants but also liked exotics – as one person who was surveyed said, ‘Yes I like native plants, but, oh, I do love my roses’ - and those who were just curious and prepared to experiment. Also in the survey group were people at the plant sales who ‘just happened to be around at the time’ (customer at a plant sale, pers. comm. September 2013).

For my survey, two hundred and three participants were selected after they had made purchases from one of six native plant sales. This was done over a period of two years. Native plant sales are held four times a year in the park, during the months of March, May, September and November. The September sale is held over a period of three days during a public holiday long weekend and coincides with the annual Kings Park wildflower festival and school holidays.

I had no predefined criteria for those sale customers who would be selected for the survey questions. It was simply a case of approaching participants as they came through the exit gate after making their purchases. All of those who were approached were willing to answer the survey questions on the form. Although the majority of customers at the plant sales were Anglo/Australian from the middle to senior age demographic,
people from a younger age group, non-Anglo-Australian and migrant backgrounds were surveyed as and when the opportunity arose.

After answering the survey questions, many participants continued the conversation on gardening in general and about using native species for domestic gardens in particular. The majority of participants were in couples, husband and wife or partners, or two women shopping for plants together, mothers and daughters, or friends. A high proportion of single men approached for the survey were professional gardeners, landscape gardeners, or nurserymen purchasing plants on behalf of clients.

The survey questionnaire was easy to follow, although some of the questions had to be modified for the sake of clarity. For example, a question referring to the use of native plants to reduce water consumption had some people confused; many did not know how to answer, yet others said a definite ‘yes’ and some said a definite ‘no.’ The ‘no’ cases often referred to the period when getting the native garden area established required constant watering, especially during our severe summer heatwaves. A box indicating ‘not sure’ was added to the responses. A number of participants had access to groundwater pumped up from their own bores; in these cases water usage was not an issue, at least so far. However, if our pattern of very hot and dry summers continues, due to global warming (Oreskes & Conway 2010), even this may become an issue because of the reduction of the groundwater levels. I discuss the future availability of water in Chapter 6.

Some of the participants in the survey were purchasing native plants to replace ones that had not survived the previous summer. Others expressed difficulties in getting native species established, but were prepared to persevere. Women, whether or not their husband or partner accompanied them, were the driving force behind purchasing native species and wanted to master the growing and caring technique of using native plants; many had a good knowledge of the various types of native plants available and their suitability for the Perth environment. The men who were surveyed had a high regard for local native species and were keen to be involved; some displayed a high level of botanic knowledge. Use of formal botanical names (Linnaean taxonomy) was frequent. Some of the men accompanying their wives minimised their role in the garden. As one man said, pointing to his wife, ‘I just do the hard work in the garden, she does the plant selection.’ A male visitor from Texas made a similar comment during a discussion on home gardening while we were on one of my guided tours of the Botanic Garden.
Customers surveyed were from different age groups and many originated from different countries before settling in Australia (See Table 1).

Table 1: Country of origin

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>Age Group</th>
<th></th>
<th></th>
<th></th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20-30</td>
<td>31-40</td>
<td>41-50</td>
<td>51-60</td>
<td>61+</td>
</tr>
<tr>
<td>AUSTRALIA</td>
<td>12</td>
<td>31</td>
<td>23</td>
<td>32</td>
<td>29</td>
</tr>
<tr>
<td>CHINA</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIJI</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRANCE</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GERMANY</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NETHERLANDS</td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HONG KONG</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDIA</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDONESIA</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IRELAND</td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KENYA</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KOREA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALAYSIA</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEW ZEALAND</td>
<td></td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PNG</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POLAND</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SINGAPORE</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOUTH AFRICA</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>USA</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZIMBABWE</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Grand Total</td>
<td>19</td>
<td>39</td>
<td>39</td>
<td>55</td>
<td>50</td>
</tr>
</tbody>
</table>

Fourteen people volunteered to be interviewed at length on the topic of planting native species in home gardens. These interviews were recorded at the homes, in the gardens, or offices of the volunteers and transcribed into a 70,000-word document for further analysis. The volunteers for the qualitative interviews were from a range of backgrounds, but with a common interest: gardening. Five of the interviewees were selected as they came out of one of the Friends of Kings Park native plant sales. Others were selected for their academic interest in gardens and gardening. For example, two of the interviewees held senior executive positions in the bio-diversity conservation community and two of the interviewees had written either books or journal articles on the topic of gardens and gardening. Dedicated park volunteers and home gardeners made up the remainder of the interviewee group. The interviews were open-ended and
tailed to cover the interest and involvement of the interviewee. The interviewee cohort was made up of seven women and seven men.

In my role as a volunteer guide I found there was a range of opinions on the appeal and use of native flora. After I explained my combined role as volunteer guide and a researcher, visitors were willing to talk about their experiences with native flora. Opinions were often expressed without any prompting and a general willingness to assist in my research was evident. Comparisons with overseas and Eastern States parks and botanic gardens and flora often featured in these discussions. I classify this information as ‘anecdotal.’ This is important in that the visitors were not inhibited by the formality of a survey form or a face-to-face recorded interview, thus allowing the visitors to give opinions quite freely, adding depth to the ethnography.

As well as the research I undertook with people I also gave consideration to the extensive botanical research currently being conducted at the Bio-diversity Conservation Centre, focusing on the phenomena of the vast quantity of taxa\(^9\) flourishing on the nutrient-impoverished soil of the *kwongan*, and the Southwest Australian Floristic Region in particular.

My previous work as a field officer with the Agriculture Protection Board and the Department of Agriculture had necessitated meeting farmers to discuss control techniques for introduced plant species. This experience taught me how to approach and talk to people about environmental conservation issues, and these skills proved invaluable when conducting my survey at the Kings Park native plant sales and also for interviewing gardeners for the qualitative research section of this project. My years spent living and working in remote bushland areas with challenging climatic conditions gave me an appreciation and familiarity with the resilience of native flora. Coupled with my personal participation in the park and its functioning, these experiences led me to better understand the importance of environmental conservation.

**Thesis structure**

In the following chapter I review literature that focuses on the social, cultural and environmental components of parks and gardens, which puts the thesis in context. I discuss the background history and significance of urban parks to societies from Western cultural traditions from the early nineteenth century. I consider the issue of the Judeo-Christian Edenic narrative as a significant element of cultural interest in parks

---

\(^9\) Taxa are groups of one or more populations of organisms seen by taxonomists to form a unit.
and gardens and contrast this with the National Socialist party’s policy of ‘Blood and Soil’, a policy which had aimed to identify local native flora with racial purity. I also consider the impact of urban parks on the quality of life and the health of the community in the chapter.

In Chapter Three, I examine the background of Kings Park, its history at a time when capitalism and colonialism were expanding and some of the political implications of the male-dominated governing body of the past. In the forefront of philosophical and theological thought at the time of the park’s foundation was the belief that the natural environment would have an uplifting effect on the human spirit. The displacement of the local Aboriginal group the Wadjuk, a sub group of the Noongar nation, and their claim on spiritual grounds to the site of the old Swan Brewery on spiritual grounds is discussed as part of Kings Park history. The foresight of early planners is examined in this chapter as this has contributed greatly to the popularity of the park. Although initially designed to reflect images of English and Mediterranean gardens, the trend now is to focus on the Western Australian natural environment.

I discuss the sense of place related to the park in Chapter Four, not only identifying the socio-environmental role of the park, but also discussing its multifaceted role as a feature of colonial heritage, tourist attraction and a site of commemoration, as well as the interest of the local gardening fraternity in using local native flora for garden plants as an alternative or in addition to exotic plants. I also examine the commitment of the park to international policy promoting conservation.

I address the challenges faced by teachers when educating children to be aware of the natural environment in Chapter Five. Featuring significantly in this chapter is the innovative education area in Kings Park known as Naturescape, which is framed as providing an opportunity for children, in particular city children, to gain access to a ‘bush’ environment they may not otherwise have. It is not a playground as such, but part of the education facility in the park. The facility has proven to be a very popular as a means to teaching children the value of the natural environment and as part of the Kings Park Education Centre nature activities follow the school curriculum closely. Providing over thirty curriculum-linked programs, the centre caters for children from kindergarten to year twelve plus advanced programs for tertiary students and adults. These components of the park’s activities are considered as an essential part of promoting a conservation ethic to coming generations.
In this chapter I also present aspects of Synergy Parkland, which is a family friendly area yet at the same time promotes the natural environment. Adjacent to the area is a café fronted by a plant demonstration area displaying many plants available at the plant sales, which are suitable for home gardens. A geological timeline (3-3.2 billion years) is engraved on metal strips embedded in the walkway showing the age of the park location and surrounding landscape. In keeping with the didactic theme of this chapter the work of the Biodiversity Conservation Centre is also included. The issue of attracting native birds into home gardens, as an added incentive to grow native plants, is a point I also raise in this chapter.

In Chapter Six I focus more explicitly on the link between the park and the role domestic gardens can play in environmental conservation. I make use of data tables to identify the country of origin of the people surveyed during my fieldwork, their age groups, type of residence and the frequency of their visits to Kings Park plant sales. This gives an indication of the broad scope of the informants for my research. Knowledge of the local natural environment held by visitors to the park and how that knowledge is acquired is also discussed. I also refer to the uniqueness of the plants of the kwongan and the role home gardeners can play in conserving them. Although this prospect has proven attractive to many well-intentioned gardeners, micro variation in the types of plants suitable to the impoverished soil of the locality has rendered such efforts at conservation in the home garden context problematic. As many of my informants are from a British background, there is an attachment to plants that are familiar and reflect a comfortable home feeling, rendering problematic the cultivation of a similar feeling from planting a garden of local native flora. I also consider in this regard the symbolism of plants, in particular the rose, and the use of plants as metaphors in literature.

Focusing on home gardens, in Chapter Seven the discussion centres upon personal approaches to gardening in Perth by selected gardeners who have a penchant for growing local native flora as an alternative, or in addition to, exotics. The influence of family members on gardening interest is evident in my discussions with these gardeners. This gives a view of the importance of using space as a place where social usage can have an influence on how we can understand nature. Reflecting on the ‘cultural cringe’ theme introduced by A. A. Philips (1950), which referred to the perception that the arts in Australia were inferior to those of other countries, in particular Britain, and Europe more generally, I relate this concept to the Australian native landscape. I have coined
the phrase ‘horticultural cringe’ in reference to the attitudes of many gardeners, that is, the evaluation that the native plants of the Australian landscape, because of their appearance at times of being ‘straggly’, ‘dirty’ and ‘unkempt’ or ‘formless’ are somehow inferior to the familiar plants of British gardens (Webb 2013, p. ix). Although this attitude is diminishing, the connection to a familiar British garden is still a powerful determinant of aesthetic evaluation. I also focus on the challenge Perth residents face adjusting to a drier climate and subsequent water restrictions. I examine the attitudes of individual gardeners and their approach to gardening in a climate that is often unsuitable for imported exotics and the problems they have with growing local native plants.

Following this in Chapter Eight I identify the volunteer groups in the Kings Park community and the crucial role they play, as a component of an environmental authority oriented to promoting environmentality, in the park community. The volunteers work in a face-to-face situation with the many visitors to the park and highlight the park’s focus on the native flora of Western Australia. Putnam’s work on social capital is invoked in this chapter, highlighting the effect of volunteer work on participants (Putnam 2001). I also identify the significance of the Kings Park native plant sales as a venue for furthering the cause of growing native species of plants for the home garden. I also raise the point that gardens can be seen as a form of social control.

In Chapter Nine, the conclusion to this thesis, I review the progress of the park since its colonial beginning and point out that in recent times there has been an increasing academic interest in the role urban parks and gardens play in conservation of the natural environment. By highlighting the concept of ‘environmentality’ I emphasise the role that Kings Park has in educating the public in the significance of conservation of the natural environment. It is this component, education, that is a significant feature of the parks’ role in promoting and shaping a conservation ethic. I also identify the changing policy of the park that in the past displayed plants from other similar Mediterranean zones, to one promoting the native flora of Western Australian. I then reiterate my findings gathered during the survey process and interviews with informants. This chapter also acknowledges the limitations of the overall study. However, through the process of developing this thesis a number of opportunities for further research have come to light. These are duly identified in this concluding chapter.

During the course of this thesis I use the term ‘conservation’ as distinct from ‘preservation’ in the same way that Milton (1996, p. 74) and Freitag (2011, pp. 1-3)
distinguish them. That is, conservation aims to protect the natural environment as a resource for human use, whereas preservation is to protect nature from human use.
CHAPTER 2 – PARKS AND CONSERVATION

Introduction
This thesis is largely guided by the framework of Foucault’s ‘governmentality’, as interpreted by Agrawal’s ‘environmentality.’ In this chapter I provide an appraisal of literature relevant to the topic of urban parks and their influence on conservation, as well as on the social structure of communities. This includes focus on the social, cultural and environmental components of parks and gardens. Although urban parks and gardens in various forms date back many centuries and involve different cultures I have focused specifically on gardens from a western cultural tradition from the early nineteenth century. As an element of cultural interest in parks and gardens from the Western tradition I include the influence of the Judeo-Christian Edenic narrative. As a contrast to this influence I refer to the early twentieth century National Socialist Party’s policy of associating native flora with racial purity.

The use of local native species of flora for domestic gardens is highlighted in this chapter as a prelude to the primary argument of the thesis, which revolves around ‘how an urban park promotes and shapes a conservation ethic.’ As the majority of the cohort taking part in the research was from a British background, either born there or have British ancestry, I discuss the sentimental attachment to ‘home’ style gardens in an alien environment of harsh summers and impoverished soil types. The impact of urban parks on the quality of life and health of park users is considered, and the popular use of Native flora as emblems identifying various states and government authorities is also discussed in this chapter.

The framework of considering environmentalism and conservation from the viewpoint of Agrawal’s environmentality is identified as the principal component of the thesis because of the previously mentioned transition of the park from primarily a recreational facility for early colonial settlers to a well-recognised environmental conservation facility. This environmental conservation framework is highlighted in the work done by the Botanic Gardens and Parks Authority in promoting the native flora of Western Australia.

A number of authors have identified that there is now a strong relationship between urban parks and gardens, on the one hand, and environmental conservation, on the other (Loukaitou-Sideris 1995; Low, Taplin & Scheld 2005; Walker 2008; Young 1995). However, this has not always been the case. This discussion of relevant literature will
provide a broad overview of the evolution of urban parks and gardens through their social and cultural significance to the contemporary use of local native plants as national and regional symbols.

**Environmental concern**

One of the most discussed topics in the world is the conservation of the natural environment (Agrawal 2005a; Callicott 1990; Milton 1993b; Ryan 2005; West, Igoe & Brockington 2006; Ingold 2002). Environmental sustainability is an issue which has become much politicised and has often led to conflicting views on the significance of global warming and its effect on the life of the planet (Foss 2009, pp. 21-40). However, the vast body of evidence now available has brought about a general belief that global environmental degradation can no longer continue at its current rate (Oreskes & Conway 2010, pp. 266-276). Edmonds (2010, p. 143) makes the point:

One thing that seems increasingly certain is that the ‘science’ of sustainability is not our greatest challenge. In almost all ‘areas’ of sustainability, we know scientifically and technically what we need to do and how to do it; but we’re just not doing it.

Over the last few decades, social scientists have increasingly paid attention to environmental issues, recognising the role social science can play in the current debate. Milton’s (1996) point of view is of particular significance when viewing the relationship between human culture, human ecology and the natural environment. Approaching the issue from an anthropological perspective, she shows how anthropologists using cultural theory can make a significant ‘contribution to environmental discourse’ (Milton 1996, p. 3). Emphasising that environmental problems cannot be solved by technology alone, she points to the fact that although slow to receive recognition in the field of environmental concerns, social sciences have gained a significant foothold in the discourse.

In the current political climate, the term ‘environmentalism’ (Agrawal 2005a) evokes many conflicting emotions and has differing social implications. Numerous academic articles in recent years have focused on the topic (Brosius 1999; Little 1999; Blaut 1999; Gaynor 2006; Grove-White 1993). Milton’s characterises environmentalism this way:

Environmentalism in its grass roots form has been a vector for the selection and definition of the particular risks, which have become magnets for social anxieties aroused by vulnerabilities inherent in the technological commitments in which our societies are, willy-nilly embedded. (Milton 1996, p. 26)
Rapidly gaining momentum from the middle of the twentieth century with the advent of global warming concerns, a vast amount of literature has been produced as a growing cultural movement became aware of the need to protect the natural environment against the harmful effects caused by human action (Cronon 1996, p. 25). This movement has gathered impetus to a point where new academic articles are appearing on a daily, if not hourly, basis, as our concern for the viability of the planet increases. Cronon (1996, p. 25) raises the point that much of this concern for the environment appeals to ‘naïve realism.’ That is, it works on the assumption that we can recognise the natural world when we see it, and in turn make easy choices between the good of nature and the bad of unnatural things. Cronon points out that the persuasive authority of environmentalism is derived from its view that nature is a stable source of values against which human activity can be judged without uncertainty. In identifying environmentalism as a secular religion for many, he states: ‘It is capable of doing great good if it can teach us the stories, as religions often try to, that will help us to live better, more responsible lives’ (Cronon 1996, p. 50).

While often playing devil’s advocate, Foss (2009) gives what I believe to be a well-balanced view of both sides of the environmental debate. He argues that, contrary to popular belief, nature may not be in a state of crisis, pointing out that environmentalism is becoming more a matter of faith than of reason and that contemporary environmentalism has blinded many of us to the facts (Foss 2009, p. 30). He offers a modified view on the environmental issues confronting society by providing a foundation for reasonable scientific and productive debate. Referring to Lovelock’s (2006, pp. 21-23) ‘Gaia’ hypothesis as one example of understanding and viewing environmentalism, he emphasises that we need to study the environment closely to achieve the ultimate value, which is environmental health. Unfortunately, as Foss states, ‘environmental health is ill-defined’ and becomes problematic in that every goal is a function of values. This then leads to conflicting consequences in that, although many try, no particular environmentalist can speak with any authority about environmental values. Foss continues, saying, ‘there is no science of values, no evidence that can be adduced to support a value’ (2009, p. 43). Values are a matter of choice and the individual’s perception of good. Consequently, environmental experts,

---

10 Gaia was the primal Greek goddess personifying Mother Earth and used by Lovelock (2006) as a metaphor for the living Earth.
like us, are not experts on morality and so it is questionable whether they can dictate what is good for a healthy environment (Foss 2009, p. 45).

The early foundations of contemporary environmentalism as ‘a means of safeguarding and nurturing the natural order’ (Grove 1995, p. 229) are difficult to identify with any degree of certainty. It is evident, though, that concern for the conservation of the natural environment covers a large spectrum of socio-cultural interest from antiquity to the present day. While being subject to various criticisms in the past, such as Richard Neuhaus’s (1971) argument that the environmental sentiment is exploited at the cost of social justice (see Luke 1999, p. 121), the environmental movement appears to be firmly entrenched in contemporary society.

Concern for damage to the natural environment by humans is well documented, going as far back as the writings of Theophrastus of Erasia in classical Greece (Grove 1995, pp. 1, 20; Hughes 1985, p. 298). In his review of Grove’s book *Green Imperialism*, Hughes (1996, p. 315) states:

> Environmental doctrines were articulated long before the mid-nineteenth century, and the evidence that stimulated them was gathered not only in Europe and in North America, but in remote corners of the globe that colonisation had brought to the attention of science and philosophy.

Grove (1995) discusses at length the history and evolution of environmentalism, readily identifying the spread of colonialism and its associated capital interests as one of the main factors responsible for environmental degradation. He also raises the significant point that there is ‘historically a strong correlation between those advocating environmental protection and those pursuing social reform’ (1995, pp. 14-15). Furthermore, Grove (1995, p. 4) regards as highly debatable the view offered by earlier writers (Petulla 1976, p. 28; Glacken 1967, p. 150) that a considerable amount of blame for the current environmental problems can be laid squarely at the feet of the Judeo-Christian ethic. However, Glacken’s work (1967) is a significant contribution to explaining the relationships among people, nature and God in these terms.

In pursuing the historical aspect of environmentalism, one of the most significant features in the debate on environmental degradation is the effect of European colonial expansion. From the fifteenth century onwards as colonialism spread throughout the world, the European perception of nature as resources to be exploited and the associated responsibilities that went with it became a concern for the early environmentalists. Forging a path into the tropical regions of the world, the colonists increasingly utilised the new environment as a symbolic representation for, as Grove (1995, p. 3) argues, ‘the
idealised landscapes and aspirations of the western imagination.’ This was the intention of the early colonial developers of Perth Park, later known as Kings Park. As colonial expansion continued these aspirations became widespread and significantly influenced the way in which lands and their indigenous populations became organised and exploited, a point I discuss further in Chapter 3.

**Urban parks and the Garden of Eden**

In the context of environmental concerns, the history of gardens and human history are strongly connected. Doolittle states ‘the history of gardens and the history of humans are linked inextricably, especially in the context of environment’ (2004, p. 391). Within the Western Judeo-Christian perspective, there are numerous differing views on the influences of garden development through the ages, not least of which is the desire to create representations of the Garden of Eden here on Earth, (Doolittle 2004, p. 391). European thought surrounding the Edenic narrative originated from the early belief that the rivers of Eden originated in the exotic East (Prest 1981). In her study of the sociology of gardens, Hondagneu-Sotleo observes that ‘gardens evoke Eden’ (2010, p. 499). This representation is often apparent in many of the better managed and cared for urban parks and botanic gardens, notably those of Western cultures, such as Kings Park and Botanic Garden, which often display overtones of an Edenic narrative. For example, the landscaped area in Kings Park known as the Pioneer Women’s Memorial Garden, with its ornamental lake, sculpture, fountains, trickling watercourse and pavilion, evokes an image of Eden. According to Prest (1981) the general principles of the early botanic gardens were to identify with the many faces of God in creation and restore a perpetual spring. This reinforces the theory that the ‘religious significance of nature is the key to the development of botanic gardens, rather than any scientific or economic interests’ (Summers 2007, p. 5). In examining the enclosed gardens of medieval England, Prest (1981, p. 24) equates them with acknowledged representations of the Garden of Eden with all the qualities of an earthly paradise. Drayton (2000) also identifies the enclosed garden as symbolic of the Christian ideal of the Garden of Eden and Paradise, yet at the same time becoming associated with ‘pagan idealism’ when considered in the context of the efforts of Lorenzo and Cosimo de’ Medici’s attempt to recreate the Academy of Plato at their villa. Thus, one enclosed garden (*hortus conclusus*) would be a universal collection of God’s intended creations (Drayton 2000, p. 6). Reinforcing the Edenic concept, Hunt (2000, p. 109) discusses botanical gardens
of the seventeenth century and sees them as an attempt to restore Eden in all its unspoilt innocence before the Fall of Man.

Slater (1996, p. 115) refers to ‘Edenic narratives’ as representations of what appears to be natural landscape, which may consciously or unconsciously produce a manifestation of the biblical version of Eden. Slater identifies two main themes in these stories. One assumes a perfect state of harmony in which humans live with other ‘divine creations,’ and the notion that humans are separate from, and masters, of the natural environment (Slater 1996, p. 115). The other identifies nostalgia for the past and hopes of returning to a state of innocence, by embracing nature at the same time as focusing on the building of a new Eden by an alliance between nature and technology (Slater 1996, p. 116). Merchant also examines the Edenic narrative in a similar vein, but extends the discussion to the ambition of the colonists to reinvent the New World in the image of the Garden of Eden (1996, pp. 132-159). From the early seventeenth century to the present day, botanical parks, gardens and zoos influenced by the Christian doctrine of redemption and aided by science, technology and capitalism have created imaginative evocations of Eden coupled with a passage through the Elysian fields, hence a synthesis of biblical with classical notions. Merchant (1996, pp. 132-159) examined some of the historical bases for these ideas, specifically about Eden and the Fall, and the way in which Enlightenment thought attempted to recover Eden, and thus a pure human society, as identified by the need to reinvent Eden through the ‘improvement’ of nature (Summers 2007, p. 4). This ‘improvement ethos’ is highlighted by Summers (2007, p. 4) by referring to the writings of John Locke, James and John Stuart Mill, and Jeremy Bentham. They believed that societies and environments could be ‘modified and altered through direct interventions, such as acclimatisation, and rigorous enforcement of specific rules’ to the benefit of all (Summers 2007, p. 4; Williams 1982, p. 79).

Mosser and Teyssot (1991) give a definitive account of garden history from the sixteenth century, identifying gardens as an outward expression of inward grace suited to inner reflection in a place of the aesthetic ideal, where place means a ‘space’ imbued with meaning. Vanclay (2008, p. 3), defines ‘place’ as ‘referring more to the meanings that are invested in a location rather than to the physicality of the location.’ Focusing on garden design in the Western tradition from the Renaissance to the present day, Mosser and Teyssot, drawing on Lionello Puppi, contend that the initial concept of a

---

11 The tradition of continental Europe, Great Britain and the United States of America.
garden is ‘inseparable from philosophy’ which in turn has developed a doctrine of aesthetics (Mosser & Teyssot 1991, p. 17). Irrespective of for whom the garden is intended, whether for the use of nobility or commoners, a garden has a singular purpose, that is discovering nature as a retreat or place of sanctuary in an ancient Arcady, or in the Eden of early humanity, a Hermitage, a haven of solitude and reflection (Baltrušaitis 1989, pp. 138-181).

It is recognised in current literature that the parks and gardens designated in urban sites of the industrial era of Great Britain, Europe and the United States were originally intended to improve inner city hygiene and improve the moral standards of the working classes (Ponte 1991, p. 373; Reeves 2000, p. 157; Burchardt 2002, p. 47). Burchardt refers to the influence of parks and gardens of the industrial revolution in urban England as designed by the upper and middle classes as an antidote to the supposed vices of the ‘working class,’ in order to make them ‘morally better, less base and ignoble in their aspirations, more refined and respectable’ (Burchardt 2002, p. 47).

In an 1856 report to the California Park commission for Yosemite, Olmstead makes repeated references to the recreational benefits for the upper classes of the British landscape parks (Cronon 1996, pp. 386-390). Olwig notes the existence in Britain of ‘more than one thousand private parks and notable grounds devoted to luxury and recreation’ (1996, p. 386). These parks were so valuable that the annual cost of their maintenance was ‘greater than that of the national schools’ (1996, p. 386). He criticises the fact that the enjoyment of the ‘choicest natural scenes in the country’ was the monopoly of ‘a very few, very rich people’ (Olwig 1996, p. 386). Equally critical was Loudon, who wrote:

Civilisation…. in this country [England] has now nearly arrived at that point, when the higher classes find that while they enjoy the luxuries and indulgencies of their station, it is their duty, as well as their interest, to see that the whole mass of society be rendered comfortable. (Loudon 1835, p. 337 of the 1982 edition)

For the public, in the mid-nineteenth century, interest in urban parks and botanic gardens spread rapidly throughout the English-speaking world. In Australia, for the city dweller, the increasing popularity of open-air pursuits within a city environment, as provided for by public parks and gardens, reflected the same concern for public health and the dangers of living in crowded cities as their European and American

12 The first recorded public garden in Europe was that of Lorenzo Medici 1533 in Florence. Public gardens at Oxford and Kew Gardens in London were established in the mid-eighteenth century.
13 Noblesse oblige.
counterparts. Fresh air was considered good for health and a park with its plants and pleasant landscaping was an ideal place to enjoy the benefit, as Olmstead claimed:

> Air is disinfected by sunlight and foliage. Foliage also acts mechanically to purify the air by screening it. Opportunity and inducement to escape at frequent intervals from the confined and vitiated air of the commercial quarter, and to supply the lungs with air screened and purified by trees, and recently acted upon by sunlight, together with the opportunity and inducement to escape from the conditions requiring vigilance, wariness, and activity toward other men – if these conditions could be supplied economically, our problem would be solved. (Beveridge & Hoffman 1997, p. 182)

Although at the time parks were often seen as places of amusement and physical activity, there was still the scope for quiet reflection and respite from the challenges of city life, and, as Whitehead (2001, p. 62) puts it, ‘regard for nature.’ Whitehead’s comment is significant, in that it hints at conservation concern in a period when nature, in a managed situation was primarily for human enjoyment.

As an interesting comparison, I refer to Belinda Yuen (1996), who illustrates the Singapore experience with parks and gardens in the middle of the twentieth century. Under the direction of the then president Lee Kwan Yew, the city began its conversion from what was little more than a landscape of slums and squatter settlements, to a vibrant green city of gardens within a ‘high-rise high-density’ environment of business and housing (Yuen, Kong & Briffett 2000, p. 323). Yuen (1996, p. 955), recognised that parks of the British industrial era were built for a number of reasons, such as providing clean air as the ‘lungs of the city’, and that they also included a philosophy of social reform. In contrast, she identifies the Singapore experience of parks and gardens as based on a philosophy of technology aimed at economic development, rather than for environmental or social reasons (Yuen 1996, p. 957).

The expression ‘Garden city – City in the Garden’ for Singapore has a similar ring to the expression ‘The bush in the City – in the City in the Bush’, which is often used to describe Perth’s Kings Park and Botanic Garden. However, the cultural and environmental contrast between the parks and gardens of Singapore and Kings Park and the Botanic Garden of Perth is significant. According to Yuen’s (2000, p. 330) research, the use of parks and gardens in Singapore, which she describes as ‘cosmetic’, is primarily focused on aesthetics and is used for recreation and physical activity. The focus in Kings Park Perth, a more natural landscaped area, is a broader combination of recreation, physical activity and conservation of the local natural environment by the displays and promotion of native flora. Native plant species in the Kings Park Botanic Garden are displayed in abundance throughout the area of the garden, and further
promoted by quarterly plant sales to the public for domestic garden use. Yuen’s research revealed that although Singaporeans are not totally desensitised to the natural environment and its beauty, they do not favour direct contact with nature (Yuen, Kong & Briffett 2000, p. 330). Neither do they have the opportunity for the use of domestic gardens, such as those associated with the suburban block of land, as do the residents of Perth. Recognising that a similar type of ‘domestic garden’ in Singapore is a rarity, and that the main housing situation is intense, high-rise, high-density living, the prospect for ‘in-house’ gardens in the form of container plants is more in keeping with the domestic situation. Whether or not the greening of Singapore over the last few decades has had a ‘flow-on’ effect to the domestic environment in the way of increased houseplant use and whether or not conservation awareness has evolved raises interesting points and could set the questions for further research.

Representations of nature in contrived situations such as parks and gardens have often been associated with institutional power and ideology. These sites, although seemingly designed to ‘tame’ nature, are also serving as a ‘taming’ medium for human populations. Visitors to parks and gardens are expected to adhere to a socially acceptable standard of behaviour. These parks and gardens are, in fact, institutions of exhibition, as are museums, panoramas and other sites open to the public gaze. These sites comprising the ‘exhibitionary complex’ are involved in displays in open and public arenas where they broadcast messages of power and knowledge through to the community (Bennett 1988, p. 73). For example, the war memorials and the imposing statue of Queen Victoria with four cannon, and of the surveyor and politician John Forrest, which are placed in strategic positions to gain maximum exposure in Kings Park, illustrate this point by sending a message of power and social control.

**Wild gardens**

Both Helmreich (Helmreich 1997) and Mosser and Teyssot (1991) note that in the latter part of the nineteenth century the fashionable ‘wild gardens’, designed by William Robinson (1870) and promoted in his book *The Wild Garden*, so popular in Britain at the time, corresponded with the social and aesthetic needs of the viewers (Helmreich 1997, p. 81; Mosser & Teyssot 1991, p. 375). At the time, a release from the formal social structure and regimented garden designs of the Victorian era was starting to appear. Richard Mabey in his introduction to the 1983 edition of the book *The Wild Garden* quoted:
Tender and often rather garish flowers from Imperial outposts were laboriously raised in greenhouses, planted out in dead straight rows and symmetrical formations (with the exact spaces between each plant kept quite bare for contrast), were allowed their brief season of brilliance and then ripped out again. Gardeners were not so much plant stewards as drill sergeants [sic]. (Maybe 1997, p. xvi)

Robinson’s intention was to release plants from this regimentation and let the plants themselves and their natural growth habits determine the planting design (Turek 1993). This was in complete contrast to the popular garden designers and landscape architects of the day. In their extensive study of garden design from the Renaissance to the present day, Mosser and Teyssot (1991) explain that in the same period of the nineteenth century, garden designers were producing designs based on alternative concave and convex forms. These shapes allowed the scheme to be laid out in a circular fashion, which would accommodate the agreeable nineteenth-century pastime of walking in the park, a replacement to the *promenade*, which had been so popular since the seventeenth century. At the time, the centre of many parks featured an arabesque, which allowed all elements to associate with the overall design and produce a ‘curvilinear network over the entire area’ (Mosser & Teyssot 1991, p. 18). This resulted in time and space losing significance, in turn creating an infinite variety of viewpoints. Such was the impact of the central park arabesque that it gave the impression of a moving crowd. Referring to the ‘man in the crowd’ of Edgar Alan Poe and the *flâneur* of Charles Baudelaire, Mosser and Teyssot (1991, p. 18) see the central area of the park as expressing ‘in its labyrinthine forms the quality of feeling aroused by the city itself: intensity, sonority, lucidity, agitation, profundity, and resonance in time and space.’

A further example of the formal regimented style gardens still very much in vogue at the time, and in total contrast to William Robinson’s ‘Wild Garden’ concept, is aptly described by Anna Neal (2005, pp. 243-246) in her journal article, ‘The garden designs of Edward Le Trobe Bateman.’ Bateman, a Yorkshire man by birth, had significant influence on the design of mid-nineteenth century gardens of the Australian colonies. Leaving Britain in 1852 for Australia, he used his skills as a landscape and botanic artist to design parks and gardens that conformed to the traditional layout redolent of those of the mother country, reflecting the idealised image of the English gardens for the wealthy colonialists of the time. The demand for contrived images of English gardens following a formal style, elegantly laid out with fluid shapes and well-ordered plantings, was in keeping with the social attitudes of the day, ‘conformity’ being the keyword.

---

14 An ornamental design consisting of intertwined flowing lines.
15 A man who saunters around town observing society.
Following the theme of a nature garden concept Hermand (1997, p. 35) examines the influences of Rousseau, Goethe and Humboldt, and the significant changes from ‘anthropomorphic-aesthetic to biocentric-ecological’ over the last two and a half centuries. He describes the concept of a ‘nature garden’ as a place where the human spirit can be freed from the shackles of absolutism and ecclesiastical restriction. Originating from the eighteenth-century Enlightenment phase of the Age of Sentimentality, the concept was developed by the English to provide an ideological, social and socio-economic foundation (Hermand 1997, p. 35). Influenced by liberal thinkers of the early to mid-eighteenth century\textsuperscript{16}, this concept of a new type of garden did not adhere slavishly to the strict rules of the absolutist desire to conquer nature but developed in the form of a more rational concept, the imitation of nature (\textit{imitatio naturae}). The fashionable tastes of the nobility, as well as those of the bourgeoisie, increased demands for the new style of garden, which they believed would reflect the principles of enlightened tolerance, and in turn would provide space for the casual promenaders to reveal themselves as liberated, independent thinkers (Hermand 1997, p. 36). Although these gardens were interspersed with imposing statues of mythical beings and obelisks, they provided the facility for the wealthy parvenus to experience a feeling of refined country life, previously only the realm of the nobility.

Hermand (1997, p. 36) contends that the concept of the ‘natural garden’ in France of the eighteenth-century had very different implications. The comparative freedom of opportunities for the upwardly mobile middle-class English businessman, due to the ambitious development of a colonial empire, was not available to the French. Still heavily under the influence of the monarchy, any thinkers contributing to the cause of realising Enlightenment ideals would be socially ostracised or expelled. Having only the ephemeral realm of a utopian literary world to live out their vision of Enlightenment, they were dependent on the good grace of like-minded nobles (Hermand 1997, p. 36), thus placing severe limitations on the freedom of garden design.

According to Gert Groening and Joachim Wolschke-Bulmahn, during the pre-World War II period in Germany, there was a rise in a so-called ‘natural garden’ movement based on nationalistic and racist ideas (Groning 1997, p. 221). These ideas became government policy under the National Socialist Party. To guard against external influences, the gardens of the time were designed to avoid foreign plants and formality in layout; these were condemned as both ‘anthropocentric’ and as having a weakening

\textsuperscript{16} Anthony Shaftsbury, John Locke, Alexander Pope and Joseph Addison.
influence on the Nordic races (Pollan 1994, p. 3). This theme was raised again in a paper by Olwig (2003, pp. 61-74), which discusses the Danish instance of melding Science, Nationalism, Xenophobia, and Racism. In the article, he raises the issue of the legitimisation of racist and nationalist arguments by comparing the issues raised by scientists regarding ecological imperialism and the perceived threat of alien species to the threat of foreign races and cultures to the native citizens of the country.

The introduction of things foreign was not in keeping with the Nazi principles of racial purity (Groning 1997, p. 191). It was the intention of a group of landscape gardeners of the time to ‘give the German people its characteristic garden and to help guard it from unwholesome alien influences’ (Pollan 1994, p. 3). Comprised of native species, and designed to represent the untended German landscape, it was identified by Brüggemeier (2005, p. 12) as the ‘Blood and Soil’ (Blut und Boden) doctrine. However, according to Bramwell (1985, p. 6) the phrase was originally coined in the 1920s by an unnamed ‘renegade Social Democrat’ and later became associated with National Socialist ideology. Simon Schama (1995, pp. 82, 119-120) argues this evolved into the Nazis’ belief in the relationship between their superior racial qualities and the German landscape, creating an insidious connection between ‘barbarism and reverence for nature within the Third Reich’ (Closman 2005, p. 19).

In her book *Blood and Soil: Walther Darré and Hitler’s Green Party*, Anna Bramwell (1985, p. 71) extends the debate by suggesting that many of the ecological phrases and arguments put forward by the contemporary Greens throughout the industrialised nations are similar to those used by Darré and the German National Socialist Party of the 1920s and 1930s. Others have argued that to claim any link between the Green policies of that era and those of today is both socially and morally irresponsible, as well as historically defective (Closman 2005, p. 19; Dominick 1992, p. 111). For example, according to Dominick, inferring any similarity between the Nazi Green policies and contemporary Green thought shows a limited understanding of the background and global view of today’s Greens (Dominick 1992, pp. 111, 222). Dominick further states that the officials who drafted the Reich Nature Protection Law (Reichsnaturschutzgesetz or RNG) ‘had no prior organisational and only weak ideological connections to the Nazi cause’ (Dominick 1992, p. 111). He suggests the senior Nazis who promoted Naturschutz (environmental protection) were simply going through a superficial display and capitalising on the popularity of the conservation laws for propaganda purposes (Dominick 1992, p. 108). During the Berlin conference of
2002 to assess the impact of National Socialism on the environment, Karl Ditt noted that although the Reich Nature Protection Law was a significant and forward-looking measure it was ‘remarkably un-ideological’ (Brüggemeier, Cioc & Zeller 2005, p. 19). Although there was a leaning by the Nazi state to adopt some of the major environmental laws, the demands of Germany’s wartime effort far exceeded any advantages to be gained by the Naturschutz legislation.

In analysing Bramwell’s argument about the connection between the Nazis’ environmental policies and today’s Green environmental policies, Piers Stephens (2001, pp. 173-174) raises three main points. Firstly, drawing any connection between nature conservation and nature holism with the philosophy of National Socialism wrongly interprets the foundation of German thought on ecology and the ideology of the National Socialist movement (Stephens 2001, p. 174). Secondly, drawing any link between Steiner’s (Staudenmaier 2008, p. 4) early twentieth century school of anthroposophical (biodynamic) farming17 and the Nazi Party’s ecological concerns ignores significant facts. Historical records show that although some leading party officials saw a connection between environmental purity and racial purity, the Nazis’ views on biodynamic farming were not consistent throughout the party (Gerhard 2005, p. 138). Stephen’s (2001, p. 174) third point is that Bramwell’s attribution of the motive behind Nazi ideology to Social Darwinism, in that nature was somehow implicated in National Socialism, does not correspond with contemporary Green thought. Stephens concedes there may be some commonality in a few conceptual points in reference to purity, but they are negligible and any guilt by association can be ignored. He concludes by arguing that Bramwell does not demonstrate any relationship between National Socialism and ecologism and that Nazism had very different roots culturally and psychologically to those suggested by Bramwell (Stephens 2001, p. 174).

Contributing to the theme of invasiveness, nativeness, and nation, Head and Muir (2004, p. 199) put forward the point that ‘plant nativeness’, or a plant’s connection with a specific location, has become associated with national connection due to two main facts. In the latter part of the nineteenth century and the early decades of the twentieth century, most of Europe was in a phase of defining nations. At the same time, it was a period for establishing areas for researching the ecology, sociology, and geography of plants. In the European context, the relationship between nation and ecology had created a particular management problem, as a number of nations lay in a similar ecological

17 Anthroposopohical farming is a system influenced by Rudolf Steiner's Anthroposophy.
zone, yet were distinct from one another (Head & Muir 2004, p. 201). However, in Australia, the situation was the reverse. The nation covers a number of different ecosystems ranging from harsh desert, to temperate, tropical and alpine systems; yet the boundary of the Australian nation has the same boundary as an isolated, but ecologically distinct continent (Head & Muir 2004, p. 202).

As is clearly illustrated, within the sphere of human/nature relationship, urban parks and gardens play a varied yet very significant role. From an anthropological perspective, the roles of parks and gardens have long had a strong influence on the social life of urban dwellers.

**Nature, parks, cities and nature**

Advocating a focus on promoting environmental conservation in urban areas, Luck (2008, pp. 1-3) argues this will ensure a fitting awareness of the significance of the diversity of nature and will translate into an increased awareness of the need to formulate appropriate conservation policies. Citing Kings Park as an excellent example, he further argues that areas set aside for nature conservation and at the same time allowing human-nature interaction need to be well managed.

The relationship between nature, parks and cities is examined in detail in the collection of essays in Cronon’s edited book, *Uncommon Ground* (1996). Cronon focuses on the theory that nature is a human construction and that cities are landscapes reflecting the culture of the inhabitants. A city is a landscape that is ‘designed and created intentionally by humans’ and has ‘an active social role in contemporary society’ (Cronon 1996, p. 25). One of the features of city design and planning is the concept that nature can be ‘tamed’, selected for human use, and can be held as the ultimate expression of civilization. Nature, Cronon (1996, p. 25) says, is ‘a profoundly human construction’, a view previously examined by Williams (1982). Milton (2002, p. 41) also argues that nature is a personal human construction. It therefore follows, according to Helmreich, (1997, p. 81), that if nature is personally or socially constructed, then gardens are to a certain extent a reflection of the political and economic conditions of the time. Not discounting the economic considerations of society, we can conclude that gardens are constituted by an ideological paradigm (Certomà 2011, pp. 977-978).

In addition, and within the context of a city such as Perth, parks and gardens are as much a construct of human technology as the buildings surrounding them, as Summers (2007, p. 2) argues. They are specifically designed in such a way as to use the natural
elements in a manner distinctly affected by the current social and cultural mores to influence people passing through.

**Nature and humans, the relationship**

The theory that nature is purely a human construct is well supported in literature on urban history (Cronon 1996, p. 25). Summers describes nature as ‘a cultural landscape reflecting the degree of civilization’ (2007, p. 3). Kaplan (1989, pp. 117-175) and Kyle et al. (2004, p. 440) also focus on the significance humans attach to place. Emphasising the attraction to natural environments, their research shows that subjects experience positive, social, psychological and physiological feelings when in contact with a nature-based activity. Although well documented, this phenomenon is a subject for debate among investigators. Knopf (1987, pp. 784-785) identified two different stances in understanding the human preference for natural surroundings. The first proposes that humans are more likely to function successfully in an environment in which they have evolved, that is, the natural environment. This was necessitated by the need to conform to the natural environment for survival. For example, when researching university students from Finland and the United States, Korpela and Hartig (1996, pp. 225-227) found that the majority indicated their favourite places to be the natural environment. Places of nature were often associated with feelings of well-being, providing an opportunity to remove oneself from the trials of everyday life, providing enjoyment and an opportunity for self-reflection (Kyle, Mowen & Tarrant 2004, p. 441).

The second position put forward by Knopf was that a preference for natural surroundings was a product of socialisation (1987, pp. 784-785). This was dependent on the individual’s experience with the natural environment. For example, previous investigations showed that young children of preschool age, when compared with older children and adults, were quite indifferent to nature as depicted in photographs (Kyle, Mowen & Tarrant 2004, p. 441). The children were more interested in the size and colour of the pictures than the actual content. It was also evident in the same research that the children were also indifferent to fragrance from flowers, the smell from faeces, and the sight of dead animals. Kyle, in supporting the socialisation theory, refers to earlier research by Iso-Ahola that shows that an individual’s behaviour and needs are often a product of socialisation that can be traced back to infancy (Iso-Ahola 1980, pp.
Urban parks and gardens by their very purpose provide a sociopetal\textsuperscript{18} environment and are therefore conducive to a socialisation process (Iso-Ahola 1980, pp. 379-380).

Other theorists have further addressed human association with the natural world and conservation in different ways. For example, Fromm (1965, p. 47) raised the concept of Biophilia, ‘the love of life or living systems’, which is a psychological human tendency to be attracted to what is alive and well. Following from Fromm’s theory emphasising the need to preserve the natural environment, Wilson states that ‘a healthy environment, the warmth of kinship, right sounding moral strictures, economic gain, and a stirring of nostalgia and sentiment are the chief components of a “surface ethic”’ (1984, pp. 138-139), that is, ‘a conservative ethic predicated on the platitudes of human self interest, continued population and economic growth and a healthy environment’ (Burks 1994, p. 138).

This is not enough to restrict the loss of species. Wilson proposes that development of powerful moral reasoning is required to investigate the foundation of the motivation to respect and protect life and accept responsible stewardship of the natural environment.

Components of the theory of Biophilia are well demonstrated by the respondents of my ethnographic research. All respondents, as discussed in Chapter 7, indicated adherence to some or all of the Biophilia values, as identified by Kellert (cited by Simaika & Samways 2010, p. 904):

---

\textsuperscript{18} A sociopetal environment is one that promotes social interaction among people because the environment is suitable to do so: it is an arrangement so that each person can see and interact with the others.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilitarian</td>
<td>Practical and material exploitation of nature</td>
<td>Physical sustenance and security</td>
</tr>
<tr>
<td>Naturalistic</td>
<td>Satisfaction from direct experience with nature</td>
<td>Curiosity, outdoor skills, mental and physical development</td>
</tr>
<tr>
<td>Ecologistic-scientific</td>
<td>Study of structure, function and relationship in nature</td>
<td>Knowledge, understanding, observational skills</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>Physical appeal and beauty of nature</td>
<td>Inspiration, harmony, peace, security</td>
</tr>
<tr>
<td>Symbolic</td>
<td>Use of metaphorical expression, language, expressive thought for nature</td>
<td>Communication, mental development</td>
</tr>
<tr>
<td>Humanistic</td>
<td>Strong affection, emotional attachment, love for nature</td>
<td>Group bonding, sharing, cooperation, companionship</td>
</tr>
<tr>
<td>Moralistic</td>
<td>Strong affinity, spiritual reverence, ethical concern for nature</td>
<td>Order and meaning in life, kinship and affiliation ties</td>
</tr>
<tr>
<td>Dominionistic</td>
<td>Mastery, physical control, dominance of nature</td>
<td>Mechanical skills, physical prowess</td>
</tr>
<tr>
<td>Negativistic</td>
<td>Fear, aversion, alienation from nature</td>
<td>Security, protection, safety</td>
</tr>
</tbody>
</table>

**Healthy parks, healthy people**

In an extensive report, Maller and colleagues (2008) argue that the significance of ‘the health and well-being benefits from interacting with nature, including in park settings, the implications for public health, and the need for collated up-to-date information on this topic cannot be over-estimated’ (Maller et al. 2008, p. V). In the study, Maller argues that parks and nature are undervalued as benefactors to health and well-being. Although advising that more research is required, the findings of the report so far are sufficient to place parks on a high level of public interest as a resource for positive health (Maller et al. 2008, p. 21).

There is a considerable amount of literature advocating the physical, mental and social health benefits of green life and green spaces for urban-dwellers (Louv 2005; Maller et al. 2008; Barlett 2005; Holbrook 2009; Walker 2008; Giles-Corti et al. 2005; Giles-Corti & Donovan 2002). Richard Louv’s study (2005), for example, emphasises the ever-increasing need in contemporary society for children to become acquainted with the natural environment. Coining the phrase ‘nature deficit disorder’, he examines the declining opportunities for children to experience the benefits of natural surroundings. In bringing together innovative research Louv (2005) shows that direct exposure to nature is essential for healthy child development - physical, emotional and spiritual. He argues that nature is a potent therapy for depression, obesity and attention-deficit disorder, and that environment-based education dramatically improves...
standardised test scores and grade point averages, and develops skills in problem-solving, critical thinking and decision-making. Even creativity is stimulated by childhood experiences in nature (Louv 2005, pp. 47-53).

Childhood experience with nature is given a high priority by the Kings Park and Botanic Garden authority. As a result, a significant development within the park precinct is an area dedicated to the involvement of children with nature, as discussed in detail in Chapter 5. Naturescape, as the area is called, has been developed in recognition that over the last four decades there has been considerable loss of engagement by children with the natural environment. This has been due primarily to the shift of people away from rural areas to the city (Louv 2005, p. 25) and the mesmerizing of public education by ‘Silicon faith: a myopic focus on high technology as salvation’ (Louv 2005, p. 136). Echoing the importance of child involvement in nature activities, studies conducted by Fjørtoft (2001; 2004) focused on the impact of playing in a natural environment and the physical development of children. Her conclusion was that there is a direct relationship between playing in the natural environment and motor fitness in children. She identified a beneficial effect on coordination and balance among children who used the natural environment of a woodlands and areas of mixed topography as playgrounds (Fjørtoft 2004, p. 39).

**Use of local native species**
One of the main policies of Kings Park and Botanic Garden in Perth is to advance the use of local plant species as suitable for domestic gardens in the Perth metropolitan area. Although many parks and gardens throughout the world emphasise, ‘exotic’ or unusual plants from other geographic regions, in Western Australia, there is a strong trend to realise the value and significance of local species of flora. Many authors recognise the value of promoting local species for very practical reasons (Summers 2007; Trigger & Mulcock 2005b; Seddon 2005; Morgan 2011; Trigger et al. 2008). For example, Seddon (2005, p. 12) strongly presents the case for the use of what he refers to as ‘indigenous’ plants. He argues that, as such, these plants have little more than basic water requirements; they are ideally suited to the current conditions of water scarcity in many areas of Australia. Additionally, Seddon sees ‘indigenous’ plants as

---

19 The term ‘indigenous plants’ was confusing for some of the respondents I interviewed during my research; the plants immediately became associated with Aboriginal usage. The respondents preferred the term ‘native’ plants.
environmentally friendly by virtue of the fact that they are relatively resistant to local pests and will not require the use of toxic pesticides. Furthermore, another advantage of using local species is that they are unlikely to get out of control if kept within the confines of their natural locale. Mulcock (2008, p. 183), points out that planting ‘native’ species is not the same as planting ‘local’ species. Plants from any part of the continent constitute an Australian plant, but a local plant is specific to particular biophysical locations. Advocates of the ecological reasons for planting local Australian native plant species from the Perth region emphasise, as Seddon (2005) and Mulcock (2008) do, that locally evolved species are more suited to the soil and climatic conditions.

Even though many gardeners in Australia still pay allegiance to the idea that connection to homeland is expressed through the traditional English garden theme, there is now a strong interconnection of Australian native gardening with visions of nation and colonialism. Cerwonka (2004) draws attention to the idea that an Australian native garden is a means by which ‘people crafted a vision for Australia and contested other political agendas’ (Cerwonka 2004, p. 103). Referring to the East Melbourne Garden Club, she identifies how the members of the club and the wider community have used the native garden as a means of forming a national identity in response to the forces of British imperialism and at the same time forming an association with the Australian environment.

The fusion of nativeness and nation is a popular topic in much of the current garden literature. To illustrate this, Olwig (2003, p. 61) maintains:

…discourses concerning the threat of alien species to national landscapes have a curious tendency to bleed into discourses concerning the threat of alien races and cultures to the native people and culture of these same nations.

Seddon adds a note of caution to this nationalistic fervour in his prologue to Diane Snape’s book *The Australian Garden* (2003):

To write or speak of Australian plants is to use a convenient fiction, sometimes useful, sometimes not. The term has its uses, but its use always requires caution. The caution is needed because plants know nothing of nationality. Nations and nationality are the outcome of political history, of conquest, invasion, change, chance, all of which in our own case might have led to quite different boundaries. (Seddon, prologue in Snape 2003, p. 8)

Seddon argues that the French may well have settled the western side of the continent and the Dutch Van Diemen’s Land and the Indonesians or Japanese the northern part. In this case, the term ‘Australian plants’ may well have applied to only the southeastern section of the continent. Brook, adding a further note of caution, points out that ‘debate
around invasive species needs careful handling for both ecological and social reasons’ (2003, p. 227). Rhetoric about invasion and degradation is often applied to both ecology and culture and, as previously discussed, can be linked to racism. Brook (2003, p. 229) refers to the example of Nazi Germany, where the rejection of anything not born of place was extended to the culture, which in turn should ‘develop authentically in the context of place.’ Although acknowledging that rejecting anything that is not born of place is a case of guilt by association and can be easily dismissed, however, ‘it does seem to linger insidiously in the debate like poisonous gas’ (Simberloff 2003, pp. 181-182).

**Flora as a national emblem**

During the period of Federation between 1890 and 1914, references to indigenous flora became commonplace in colloquial speech, alongside the decorative and applied arts. Australia at the time was seeking a new identity and independence. In the search for appropriate symbols reflecting the national spirit of the time, the unique flora of the ‘new’ country became increasingly popular (Crone 2001, p. 77). Crone (2001, p. 77) claims there were four key factors promoting the acceptance of Australian flora as suitable emblems of Australian nationalism. Firstly, the education system at the time vigorously furthered the cause of nature study, with gardening skills developed by virtue of the school gardens playing an important role in the curriculum. At the same time, many of the technical education establishments were offering courses in design and decorative arts. These courses were of particular interest to the women of the period who now had more leisure time. This combination was a driving force in moulding popular taste in the decorative and applied arts of the period. Also included, and given high priority in the school calendar, was the celebration of Arbor Day, the Day of Trees and Wattle Day.

Secondly, there was a strong desire by the industrially developed countries of Europe, Britain, and the United States to display their technical advancement and modern social policies by displaying their floral wares at international displays. As a colony, Australia regularly sent examples to these overseas functions, yet at the same time held exhibitions on home soil in the major capital cities during the latter part of the nineteenth century. These exhibitions were foremost in developing public taste and inspired national pride (Lindsay & Washington 1952, pp. 2-7). Thirdly, women of the time found the local flora incorporated readily into typical Australian designs, thus
furthering a sense of national pride in the newly developing nation. The fourth factor in promoting the cause for indigenous flora in Australian national motifs was that it could be stylised to conform to the fashionable art nouveau style of European and English arts and crafts movement of the time. The European tradition of *belle époque*, an era of artistic and cultural refinement in a society, quite readily accommodated the sinuous forms of gum leaves and flowers. Crone (2001) uses the examples of the petals of Flannel Flower (*Actinotus helianthi*) and the curvaceous form of the New South Wales Waratah (*Telopea speciosissima*) to illustrate the point (Crone 2001, p. 82).

Head and Muir (2004, p. 202) provide a number of examples of association between nation and nativeness and the symbolic use of local flora to demonstrate Australian nationalism, by illustrating the regular use of indigenous plant species on various levels of national motifs. Crone (2001, pp. 75-90) refers to the traditional rivalry between the States of Victoria and New South Wales, which can be seen in their respective use and promotion of Wattle (*Acacia decurrens*) and Waratah (*Telopea speciosissima*) as contested symbols of nation. The Sturt’s Desert Pea (*Clianthus formosus*) is also an ever-popular flower used in nation-defining motifs, as are the gum leaves, gum nuts and Flannel Flowers (*Actinotus helianthi*) (Crone 2001, pp. 75-90).

Head and Muir (2004) suggest that gum leaves and gum nuts perhaps best describe the strongest connection between nation and continent because their many species cover a wide range of ecological zones (Head & Muir 2004, p. 202). Doughty (2000, pp. 144-158) described *Eucalyptus* as an Australian plant, often maligned as an environmental weed, which can cause serious damage to ecosystems in overseas habitats. For example, the ‘East Bay Hills Fire’ report states; the fires in the Berkeley Hills, California area between 1970 and 1991, were exacerbated by the Eucalyptus trees’ high concentration of flammable material (Routley 1991, pp. 8, 16). Such trees are no longer planted in those hills.

The *Technical Gazette of New South Wales* also played a significant role in promoting native flora as national symbols. R.T. Baker, a prominent economist and botanist of the period, contributed three illustrated articles to the magazine lauding the Waratah (*Telopea speciosissima*) as a potential national emblem for Australia. Although he presented persuasive arguments as to the suitability of the Waratah (*Telopea speciosissima*), the case was eventually lost in 1912 to the Wattle (*Acacia pynantha*) (Whitehead 2001, p. 85).

---

20 *Belle époque* was the period of settled and comfortable life preceding the First World War.
In her research into heterotopic\textsuperscript{21} gardens of the postcolonial period, Cerwonka (2004) found that although nationalism was often interwoven with practices to restore native flora of Australia, there was some criticism of what she described as ‘excessive nationalism and egoism of the push for native gardens’ (Cerwonka 2004, p. 125). In one of her interviews with a member of the East Melbourne Garden Club, it became apparent that the enthusiasm for planting Australian native species as national symbols was at times misguided. This was not so much because of their desire to rectify the errors of earlier generations of colonial gardeners and to be seen as ‘Australian’ in a national sense, but that people often took the national boundaries of Australia to be its ecological boundaries. Eva, Cerwonka’s interviewee, had strong views on the issue of using ‘Australian native’ plants, arguing that many people made the ecological mistake of planting species in the wrong environment. Simply planting Australian natives in Australian soil does not guarantee success. For example planting a species suited to the harsh dry conditions of Western Australia in the cool temperate conditions of some of the Southeastern States simply does not make sense. Such practices ignored locally differentiated ecosystems within the country, and at times became problematic (Cerwonka 2004, p. 126).

Using native flora as symbols of nationalism enjoys continuing popularity. Their use has been extended to bouquets being presented to medal winners at the Sydney Olympic Games in 2000 and in 2001, to celebrate the Centenary of Federation, each Australian state nominated a suitable local species for representation. The Western Australian choice was King’s Park Federation Flame \textit{Anigozanthos rufus}, ‘a special orange flowering form of the Red Kangaroo Paw’ (Fagg 2003, p. 2). The State committee recognised that a floral motif for the Centenary of Federation was just as powerful a symbol as was ‘Federation wheat’ in 1901. A primary focus of the Centenary of Federation program was to support community involvement in the celebrations. A crucial component of Australia’s identity is the blending of traditions and the need to be seen as an inclusive and tolerant society. Designed to show the community’s commitment to form a unique Australian identity, and the obligation to conserve the natural heritage through sustainable development, the ‘Kings Park Federation Flame’ features prominently throughout the park and is keenly sought by native garden devotees for their own gardens (Fagg 2003, p. 2).

\textsuperscript{21} Spaces that exhibit dual meanings.
Although the popularity of Australian native plants has been apparent in the research conducted on issues of gardening preferences in Australia, including among the informants of my own research, an adjustment to what is possible given the local soil and climatic conditions has still been necessary for people from a British background.\textsuperscript{22} The preference for certain familiar types of plants is a desire for people to feel comfortable and ‘at home’ in their present place of living. This often leads to the introduction of plants that hold memories from elsewhere. However, this sentimental attachment to plants from elsewhere is slowly being replaced by an acceptance of Australian flora for garden plants. Urban locations reveal a great deal about an Australian view of constructed landscapes and how cultural identities are developed (Trigger & Head 2010, p. 233). There is an evolving interest in ‘nativeness’ in the natural and cultural worlds, but various cultural preferences for introduced species and familiar landscapes remain strongly linked to individuals developmental years (Trigger & Head 2010, p. 233).

This was highlighted by a number of my informants, as they recalled their earlier years of gardening experience as being formed in a British garden environment under the tutelage of a parent or grandparent.\textsuperscript{23} As a consequence, they were trying to develop a garden in Australia that was culturally familiar.

Alternatively, one English-born informant was gardening under the guidance of her Australian-born son. Over a period of years he had modified her English gardening preferences to a style more suited to her present gardening conditions. By teaching his mother an understanding and appreciation of Australian plants, he was in turn developing, for her, a sense of feeling Australian in a Perth suburban environment. Even her highly valued roses, as they yielded to the salt-laden air of coastal breezes, were being replaced with Grevilleas (\textit{Grevillea.sp}) and other hardy species. Her now diminished rose garden, which in the past had been an important part of her life and a link to her original home background, is being modified to one more suited to her present garden environment.

To take but one example, the significance of roses to a person coming from an English background is important in that it shows an embedded historical cultural attachment, a link to ancestry (Seward 1960, pp. 157-158). The rose has long been used in a number of societies as a symbol of love and beauty and is sacred to various

\textsuperscript{22} 88\% of the informants were either born there or were British descendants.
\textsuperscript{23} This applied to Australian-born gardeners with British-born parents, or grandparents.
goddesses including Isis, the ideal mother and wife and patron of nature in ancient Egypt (Brenk 1990, p. 221). A rose would have particular resonance to someone from an English background who would be familiar with the dynastic War of the Roses (1455-1487) fought between the houses of Lancaster and York, a popular history subject taught in English schools. People from an English background would thus be familiar with literature that often highlights the rose as a symbol. A rose is the national flower of England, and the expression ‘an English rose’ is frequently used to describe feminine beauty. It is a symbol of love, and in contrast, is used as an emblem for the English national rugby union team. To have a rose garden is typically English, but is at variance to promoting the use of Australian native plants for home gardens in a Western Australian climate.

**Australian flora as symbols in literature**

Australian writers have frequently used Australian native flora to establish a metaphor for human activities. For example English-born May Gibbs (1918), who authored numerous books for Australian children and spent some of her early life in the southwest of Western Australia, uses examples of native flowers, seedpods and leaves to clothe her Australian bush characters. She spent some of her early life in the southwest of Western Australia. Her best-selling stories feature Gumnut babies, their friends and their adversaries. The Gumnut babies, Snugglepot and Cuddlepie, the main protagonists of Gibbs’s stories, are small humanoid forms born from Eucalyptus (Eucalyptus sp.) trees. The opening paragraph of her book *The Adventures of Snugglepot and Cuddlepie* reads:

> When Cuddlepie was very small – that is, when he had only been out of the bud a few hours – a great wind arose and, lifting him out of his mother’s arms, carried him far across the tops of many trees and left him in a spiderweb. (Gibbs 1918, p. 3)

The male characters in the book are clothed with a leaf for a loincloth and a flower cap (operculum) for a hat. The females have their hair, hats and skirts, modeled on Eucalyptus (Eucalyptus sp.) flowers. The villains of her stories are modeled on the appearance of aged Banksia (Banksia sp.) cones, using the follicles of the cone as eyes and other facial features. Her stories are set in bushland and feature the active life of a human society. The locale is distinctly Australian in its thematic preoccupation, as well

---

24 A red rose was the symbol of the house of Lancaster, and a white rose the symbol of the house of York.

25 A Gumnut is the hard woody fruit of trees of the genus Eucalyptus.
as its natural symbols (Hamilton 1975, p. 84). A number of Australian visitors to the park have told me they are very familiar with Gibbs’ stories, and recount how the tales made them aware of various native plants growing in the bush in their younger years.

Many of her characters are based on the scenery and native flora found in the natural bushland near Bunbury in Western Australia, a major town in the bio-diversity hotspot of the South West Floristic Region. Her books have established an enduring mythology of the Australian bush for generations of young people raised on a tradition of Western European fairytales (Hamilton 1975, p. 84; Gibbs 1918, pp. 245-247). Her stories are of interest to anthropologists in that they reflect culturally distinctive features of Australian society formed by a unique but brief history.

Despite her strong affection for the Australian bush and associated myths, May Gibbs could not shed her English sense of home and still grew familiar English roses in her garden at Nutcote, her harbour-side home in Neutral Bay, Sydney, New South Wales (Gibbs 1918, p. 245). Nonetheless, her stories give children brought up in an Australian literary environment a culturally familiar identity.

**Conclusion: Social significance of urban parks and gardens**

In this chapter I have introduced the literature which highlights the importance of urban parks and gardens as a signifier of civility, civicness (Summers 2007, p. 4) and environmental consciousness. A major trend in the evolution of the Western Judeo-Christian urban environment was the idea that parks and gardens would not only meet aesthetic needs, and the desire to recreate the garden of Eden here on Earth, but also satisfy the conviction that the beauty of nature could be improved by human hand. With the intention of fulfilling a need for peace and tranquility and an escape from the vagaries of an ever-changing world, an urban park and garden was, and still is, a place of social and cultural interaction, as well as having a utilitarian function.

In contrast to the theme of spirituality evoked by parks and gardens, they have at times been used as symbols of political ideology. One theorist, Bramwell (1985), uses the German National Socialist Party pre-Second World War policy of designing gardens that avoided foreign plants to illustrate nationalist and racist ideas that guarded against outside influences. Olwig (2003, pp. 61-74) also raised the theme of legitimising racist and nationalist arguments by comparing ecological imperialism and the perceived threat of alien plant species to the threat of foreign races, and cultures to the native citizens of the country in his paper treating the Danish context. I believe the example used by
Bramwell demonstrates how one possible application of the principle of environmentality, that is the influence of an arm of government to further the cause of environmental conservation, has been used in a way to promote ideas that are not universally acceptable. A less insidious example of the ideological use of parks and gardens, using the principles of environmentality, is the ‘greening’ of Singapore, which was intended to further the economic development of the country by providing an environment that was designed to increase the productivity of the population.

Health factors associated with parks and gardens feature significantly in the literature researched, not least of which is the health of upcoming generations. Research into the health benefits of open space parks and gardens for children is identifying a significant trend to combat the modern day malaise of what has been described as ‘nature deficit disorder’ (Louv 2005, p. 98).

In furthering the cause for conservation, Kings Park has gone through a transition from a park originally designed to cater for the tastes of the early colonials, with flower beds of familiar plants and trees to one which is now focused on Western Australian native flora. Recognising that endemic flora has become of increasing interest over the last few years and each Australian State now uses a specimen of their local native flora as a state emblem. For example the Western Australian floral emblem is the red and green Kangaroo Paw (*Anigozanthos manglesii*). This establishes an Australian allegiance by a population whose majority has ancestral connections to other places.

The geographic location and setting of Kings Park is one of its most appealing and important features in bringing nature to the people, a factor in the overall argument of this thesis concerning how an urban park promotes and shapes a conservation ethic. The following chapter will elaborate on the setting of the park and will highlight its significance to the people of Perth.
CHAPTER 3 - KINGS PARK & BOTANIC GARDEN – THE SETTING

Introduction

This chapter is focused on the history and development of Kings Park. Drawing on Foucault’s concept of governmentality and Agrawal’s variation on the theme, environmentality, I argue that open green spaces within a city can be seen as a shaping of human conduct and subjectivity in the name of government. I highlight a number of themes that are relevant to the focus of this thesis, that is, ‘conservation through recreation: how an urban park promotes and shapes a conservation ethic.’ The natural elevated position of Kings Park supports this concept, by sending a subliminal message of control over nature and the population.

As the development of the park over the years from early nineteenth century is discussed in this chapter, the resultant displacement of the original inhabitants of the area, the Wadjuk Aboriginal people, is brought to the attention of the reader. As a British colonial outpost the influence of sentimental ‘homeland’ factors is also identified.

The didactic role of the park is discussed as an effective dissemination mechanism for a conservation ethic. Contrasting climate and soil types of the area are pointed out as significant features in the effective understanding of the conservation of native flora. Other social and community components of the park, such as the commemorative sites and the use of the park for social gatherings, are also discussed.

The Botanic Gardens and Parks Authority (BGPA or Authority) manages Kings Park and Botanic Garden. The Authority sits within the Western Australian State Government portfolio of the Minister for the Environment. The strategic direction of the Authority is largely dictated by the Botanic Gardens and Parks Authority Act 1998 and Regulations 1999 (Botanic Gardens & Parks Authority 2013b). Kings Park and Botanic Garden is located on an elevated natural site overlooking the central business district and inner suburbs of Perth, Western Australia. The park, situated as it is, gives a powerful message of control over nature. Following on from Foucault’s theory of governmentality and the application of that theory by Agrawal in his conceptualization of environmentality (Agrawal 2005a, pp. 198-199), the park also exercises a certain influence over the human population in regard to conservation of the natural environment, as the results of my research show, a point I discuss further in Chapter 6.
Developed at a time in the mid to late nineteenth century when capitalism and colonialism were expanding – the park was formally gazetted in 1872 - one of the objectives of park design at the time was to arrange land ‘to adapt it most conveniently, economically, and gracefully, to any of the varied wants of civilization’ (Foglesong 1986, p. 90). Along those lines it was framed as an attempt to bring a rural idyll not only to the urban gentry, but also to the working class, linking it to social control in the hope of breaking down class barriers and to ‘civilize and refine the national character’ (Foglesong 1986, p. 94). It was the belief that a good, morally ordered society would develop if a ‘city was connected to a “country like nature” in parks’ (Young 1994, p. 158).

A growing urban population and the need to interact with the natural environment are among the most significant considerations for the designers and managers of urban parks and gardens. Developing Kings Park at the same time as the park movement in America, the planners in Perth had a similar philosophical, theological and nationalistic outlook, that is, the belief that the natural environment had an uplifting effect on the human condition (Low, Taplin & Scheld 2005, p. 20).

Bridgewater (2014, p. 1) suggests that often when the topic of environmental conservation and parks is brought up in general conversation the immediate image that springs to most people’s mind is that of the world’s large national parks and reserves, such as those covered by anthropologists such as West, Igoe, and Brockington (2006). However, when the topic turns to local urban parks, some people respond with comments such as, ‘Oh not those pocket-handkerchiefs’ or ‘Urban parks? Oh you mean those areas with grass and swings?’ or worse still, ‘Yeah I like to go there but they’ve nothing to do with conservation’ (Bridgewater 2014, p. 1). Although many urban parks do have a focus on recreation for both children and adults, others do have areas of remnant vegetation that is kept as close as possible to its original natural state, as well as a botanic garden area. With today’s increasingly urban population, contact with nature is generally in an urban environment with the ‘bush’ experience confined to an occasional holiday in the country (Bridgewater 2014, p. 1).

Nonetheless, as my analysis of literature demonstrates, parks and gardens have long been important signifiers in social and environmental endeavours, not least of which, in more recent decades, has been their role in the conservation of the natural environment. In this chapter, I focus specifically on Kings Park, Perth, Western Australia, its history and its social context from the early colonial days to a
contemporary world-class park, as well as a conservation and research centre. I begin by identifying the park as a crucial urban institution that has gone through transitions from being purely a place for leisure to a place of environmental conservation, research and education as well.

**Innovative institutions**

Parks and gardens throughout the ages have long been associated with the social and cultural life of many communities and are generally associated with a ‘sense of peace and a peaceful life’ (Kuzevanov & Sizyhk 2006, p. 113):

> Botanic gardens are innovative institutions that can help people in many ways via the introduction of new economically valuable plant species, a creation of a friendly and secure environment, an improvement and beautification of settlements, a city greening, a restoration and repatriation of rare plants, horticultural therapy, education and public awareness. (Kuzevanov & Sizyhk 2006, p. 113)

Dating back many years, records of parks and gardens reveal them as symbols of power and possession, (Fardin 1992; Hunt 2000; Malchow 1985; Mosser & Teyssot 1991; Neale 2005). However, a complete history of urban parks and gardens dating back to earliest times is not within the scope of this project. Although conservation of the natural environment was occasionally a topic of attention considered in earlier periods, this thesis will focus on environmental conservation issues from the beginning of the nineteenth century, and within the context of a Western tradition.

The classical English garden evolved in keeping with the climatic conditions, an attitude of mind and a taste for the ‘irregular and the asymmetric’ (Mosser & Teyssot 1991, p. 14). Developed in a time when the wealthy and aristocratic were investing heavily in agriculture and horticulture, the development of early parks and gardens was mainly funded and developed by private landholders. An early definition from 1839 describes a garden as: ‘land…laid out as a pleasure ground…with a view to recreation and enjoyment more than profit’ (Graham 2011, p. xii). Its primary function was one of social activity or, as Graham (2011, p. xii) further describes it, ‘a miniature utopia, a diorama of how its makers see themselves and the world.’ Although referring mainly to private gardens, the same theory would have applied to the early public urban gardens of the period. This was indeed the case for Kings Park, whose recent history dates back to the settlement of the colony of Western Australia in the early nineteenth century.

---

26 In 1829 Captain James Stirling selected the site for the capital in the lee of the bluff of Mount Eliza.
(Erickson 1997; Stannage 1981). Following on the same theme of a pleasure ground and utopia, Erickson et al. refer to the proposal by Governor Weld in 1871 that the area of Mount Eliza, now Kings Park, be set aside ‘in the romantic spirit of the age’ for ‘the purposes of a public park and recreation ground’ (Erickson 1997, pp. 2,3).

The relatively modern history of urban parks and gardens, from the nineteenth century shows that little serious focus was directed at the potential these parks and gardens may have had for promoting conservation of the natural environment until the mid-twentieth century. Attention was primarily directed at aesthetics, leisure, entertainment, and means of escape from the realities of daily life, a desire to experience a duality of existence, a common feature of the human condition (Mosser & Teyssot 1991). As the colony of Western Australia was established and initially populated by people from Britain, it was natural that the history of Perth Park on Mount Eliza, later known as Kings Park, would run parallel to that of the British tradition. Many among the early pioneers were imbued with ‘Romantic’ ideals of the period. Situated overlooking the Swan River, the park area offered a unique viewing point of the new town of Perth and its surroundings. Historian Tom Stannage writes:

Since the beginning of the settlement of Swan River, local people and visitors walked, rode or drove up to the top of Mount Eliza (Kings Park) and looked back at the town and the river… The scene itself is an arcadia – a statement of the ancient pastoral of Virgil and the landscapes of Claude and his British and colonial followers through to the city planners of the last quarter of the twentieth century… In short Perth forms part of the great western tradition which was to the gentry’s quest for internal peace and belief in a harmonious society where men [sic] were at one with each other and with nature. (Stannage 1979, p. 329)

Commenting on the conservation movement and perception of landscapes, Fardin states:

In recent years, the conservation movement has increased the awareness of the contribution of significant layers to the overall fabric and character of society. It has also sought to broaden the criteria by which it assesses the cultural value of designed landscapes. (Fardin 1992, p. 14)

The relatively recent evolution of the conservation movement has brought about significant changes in management attitudes to the role of urban parks and gardens. From the late 1970s, with the rise of the modern conservation movement, academic and conservation interests involved in making plant culture a resource for public information and study, vied with the creation of attractions for recreation and enjoyment (Erickson 1997, p. v). Within the context of this research, which is specifically focused on Kings Park, the managers of the park have adopted a balancing process, taking into account a number of functions, namely: commemoration, recreation, education and
conservation (CREC). My research, through involvement with the Kings Park community has shown there is consideration by the various parties for the existence and requirements of each other, though at times large gatherings of people, for commemoration ceremonies, can impede the flow of visitor traffic.

The commemorative memorials blend with the socio-environmental theme of the park. For example, the main commemorative area of the park around the cenotaph and Court of Contemplation stands prominent in its role of remembering the fallen in armed conflicts of the past. Classical commemorative monuments, tastefully displayed in private and public parks, have long been lauded for ‘aesthetic didacticism’ (Summers 2007, p. 202); in this case, they perpetuate the Australian bush-hero legend, for example: the memorial to the 10th Light Horse Regiment, an essential ingredient of national identity. This highlights the popular myth of ‘the boys from the bush.’ These together with monuments to the Boer war (Figure 2), and the statue of Queen Victoria (Figure 3) with the prominent display of cannon are symbolic of allegiance to British Imperialism of the period. Strategically placed on the Fraser Avenue entrance to the park, they ‘reflect modern values of control and colonial fantasies of conquest’ (Neves 2009, p. 146) including conquest of the natural environment by exploiting the natural resources.

![Boer War memorial](image2.jpg)

Figure 2 - Boer War memorial.

Photo courtesy Greg Acciaioli 2015
On the eastern side of the cenotaph is an escarpment, which is covered with local native shrubs and native wisteria, a vigorous creeper (*Hardenbergia violacea*). Within the proximity of the cenotaph and surrounding area are specimens of Jarrah (*Eucalyptus marginata*) planted in 1995, Lemon Scented Gums (*Corymbia citriodora*) planted in 1938; Red Flowering Gums (*Corymbia ficifolia*) planted in 1982 and a Red River Gum (*Eucalyptus camaldulensis*) planted by Queen Elizabeth II and the Duke of Edinburgh in 1954. Additionally there are specimens of Hills Weeping Fig (*Ficus microcarpa var. hillii*), Lacebark Tree (*Brachychiton discolor*) planted in 1959, Swamp Sheoak (*Allocasuarina obese*), Illawara Flame Tree (*Brachychiton acerifolius*), Sausage Tree (*Kigelia pinnata*) and African Tulip Tree (*Spathodea campanulata*) (Botanic Gardens & Parks Authority 2012). Many of the specimens were planted before the current policy of using local native flora and trees was implemented (Appendix 2).

Likewise, the emphasis on recreation and conservation has evolved as an agreeable compromise between the two ideals. The structure of the park and its surrounds has led to a socio-environmental atmosphere that satisfies the recreational requirements of an urban park, yet at the same time promoting conservation, with a strong emphasis on the
local natural environment. The landscape planning of the park, influenced strongly by surveyor John Forrest, whose statue is prominently displayed in the centre of the park’s largest roundabout, is an example of the human hand bringing order and control over the natural environment for display purposes. A significant feature of the commemorative component of the park is the placement of name plaques in front of Eucalyptus trees, which bear the name of one or more service persons, killed in both world wars. These trees are planted along the main avenues of the park and are known as ‘living memorials.’

The power of gardens is well expressed by Hunt:

Gardens are privileged because they are concentrated or perfected forms of place making. This concentration takes various shapes: the representation of many topographical features (valleys, hills, plateaus, springs) of the display of various organic and inorganic forms (shrubs, woods, waters, rocks, earth) can achieve that sense of plenitude which has been associated with gardens ever since the first one (Eden contained, of course, “every tree that is pleasant to the sight”). (Hunt 2000, p. 11)

In Kings Park the displays of forms, ‘organic and inorganic’, and the topographical features assume the function of representing the unique variety and abundance of the local native flora in a setting representing the topography and geomorphic features of Western Australia. Very much achieving the privileges expressed by Hunt (2000), the park and the Botanic Garden display many of the thousands of different species growing in Western Australia in a representation which identifies the various geographic and climatic zones of the State. This is done by identifying the various regions of the State with each having a separate area within the botanic garden and growing within each of these areas only plants peculiar to that specific geographic area. Strategically placed along a meandering footpath favoured by visitors on self-guided walks and by groups being conducted by volunteer guides, these areas are designed to exhibit the regional flora for public inspection. This exhibitionary system allows people en masse to view displays and acquire knowledge, ‘to become subjects rather than the objects of knowledge’ (Bennett 1988, p. 76) and communicating social codes of moral enlightenment (Hoskins 2003, p. 16).

Subdivision of the Western Australian Botanic Garden into geographic regions exhibiting flora endemic to each particular area is intended to assists visitors to better understand the location and diversity of local native flora. These regions, range from the far north of the State - Kimberley, Pilbara, Gascoyne, Midwest, and Goldfields - to the southern regions of the Wheatbelt, Southwest and Great Southern. According to my discussions with the some of the road-travelling visitors from the Eastern States, they
generally tour in an anti-clockwise direction. That means they would first experience the Kimberley region in the north of the State. As they move down south they would follow the regions down through the State, connect to the Eyre Highway, and travel back to the Eastern States through South Australia. Travelling in this direction would give the tourists a firsthand experience of the conditions that many of the plants on display in Kings Park would be capable of tolerating in their natural environment.

Having the technology, such as laptop computers, readily available gives the traveller instant access to details of the plants observed, and, in turn, they would be able to appreciate the displays in Kings Park and Botanic Garden. Visitors to the Information Centre in the park frequently comment on the plants and flowers they have noticed on their journey from the north of the State. I see this whole process of environmental awareness effected by following the circuit structure of floral exhibitions in the park, which is an instrument of government, as an exemplification of Agrawal’s concept of environmentality where the ‘individuals become self-disciplining subjects’ (Gabriel 2012, p. 65).

Historically, the park displayed flora from many different parts of the world with a Mediterranean climate. In 1961 the policy was changed to feature only Western Australian flora:

The original vision for Perth Park, later Kings Park, was of a European style garden with lawns, shady trees and flowerbeds. Recognition of the climatic differences and the low nutrient soil changed this vision and, in 1965, the 17-hectare Western Australian Botanic Garden was opened. Initially, the beds were created to display flora from the Mediterranean climatic regions of the world (the Mediterranean, California, South Africa and Western Australia). Western Australia has half of Australia's 25,000 plant species and most of those are found nowhere else on Earth. A greater appreciation of the diversity and uniqueness of Western Australian flora has seen the redevelopment of the Botanic Garden into a showcase of flora from around this vast State. (Botanic Gardens & Parks Authority 2013k)

There are still a few remnants in the South African section; these will be phased out in due course and replaced by local species.

An important feature of Kings Park and Botanic Garden is its significance to the social and cultural life of Perth citizens, both past (Figure 4) and present.