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MELBOURNE'S INDIGENOUS PLANTS MOVEMENT:
THE RETURN OF THE NATIVES

By

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Submitted in fulfilment of the requirements
for the degree of Doctor of Philosophy

DEAKIN UNIVERSITY

JUNE 2005
I certify that the thesis entitled 'Melbourne's Indigenous Plants Movement: The Return of the Natives'.

submitted for the degree of Doctor of Philosophy

is the result of my own work and that where reference is made to the work of others, due acknowledgment is given.

I also certify that any material in the thesis which has been accepted for a degree or diploma by any other university or institution is identified in the text.

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(Please Print)

Signed

Date 14 August 2005
SUMMARY

This thesis examines Greater Melbourne’s indigenous plants movement from the 1930s to the early twenty-first century. It demonstrates the important scientific and educational role of the public intellectual, Professor John Turner, and of the Melbourne University Botany School which he led for thirty-five years. The case study of the movement within the City of Sandringham and its successor the City of Bayside reveals how the inhabitants of an urbanised area responded to threats to the indigenous trees and wildflowers of their neighbourhood, stimulating botanists to assist them and using political means in order to achieve their conservation objectives. The thesis draws upon a range of local archives, conservation literature and private papers.
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Special thanks to my family for their interest and enthusiasm. I dedicate the work to them and in memory of my parents, R. H. and Marina Clayton, who introduced me to the bush and its wildflowers.
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V. Tarrant photograph
INTRODUCTION

A botanist feels only acute sorrow at the passing of the heathland vegetation that once covered hundreds of square miles, and an even larger number of kilometres against the eastern shore of Port Phillip Bay. For this was the most colourful, exciting wildflower country anywhere near Melbourne - our nearest approach to the rich sand-plain floras in Western Australia, and a potential source of attraction to tourists in springtime. When colonists first arrived here, at least 500 different kinds of native flowering plants and ferns peopled the sandy heaths of Port Phillip.
J.H. (later Dr. J.H.) Willis. 1965.1

Melbourne’s indigenous plants movement has a recent history but its roots are in the ancient past. In its concern with the local and the individual it cuts across the grain of globalisation and homogeneity. At the same time local and regional developments have been affected by national concerns and by overseas influences and demands, especially in the colonial period and to the mid-twentieth century, by relationships with Britain. Aboriginal Australians saw the plant communities of their homelands as a necessity of life, but faced newcomers with another set of values. Since, from the late eighteenth century, British occupiers of the land regarded the continent’s indigenous trees and wildflowers from the perspective of their own fundamentally different culture, much of the flora was soon under threat. A few newcomers demonstrated love and respect for native vegetation, but the majority, as was common in ‘colonies of settlement’ or ‘neo-Europes’, determined to clear it away and attempt to reproduce the products and landscapes of other countries. Immigrants from other parts of the world, including Asia and the Americas have generally held similar attitudes.

This thesis investigates the movement concerned to conserve indigenous plants, one which therefore runs counter to efforts to clear away local flora and replace it with species from overseas. The study makes an innovative contribution to environmental history and to the

1 J. H. Willis, B.Sc., ‘Native Plants of Brighton’ in the Supplement to the Brighton Historical Society Newsletter, No. 9, November 1965, Brighton Historical Society, Melbourne.
2 See Graeme Davison, ‘Environment’ in Graeme Davison, John Hirst & Stuart Macintrye (eds), Oxford Companion To Australian History, Oxford University Press, Melbourne, 1998, pp. 217 - 219, for a succinct account of the state of the land from 'deep time' to the late twentieth century, and a summary of how humans have dealt with it. And see Tom Griffiths and Libby Robin (eds), Ecology and Empire: Environmental History of Settler Societies, Melbourne University Press, Melbourne, 1997, for comparative studies, particularly Thomas R. Dunlap, Chapter 5, ‘Ecology and Environmentalism in Anglo Settler Colonies’: those described by the American environmental historian Alfred Crosby, as 'neo-Europes' and by the Australian, Geoffrey Bolton as 'colonies of settlement': those which retained ties with Britain.
history of urbanization through an examination of people’s changing perceptions of the ‘natural world’ within the boundaries of a metropolis. While the work by its nature involves the contribution of botanists, it is not a history of science. Men and women who placed value on the local flora of their land became increasingly active in efforts to develop new attitudes, policies and practice within governments and among the general public. The major focus of the thesis is on Greater Melbourne and the change from growing ‘any natives’ to the formation of policies and implementation of practices favouring the indigenous. For example, while most of the original vegetation of inner Melbourne was destroyed, the Royal Botanic Gardens, South Yarra, recently re-created two indigenous plant communities.\textsuperscript{3} There is a national and a global dimension to such endeavours, as efforts to grow indigenous plants have been made in other parts of Australia, including the Sydney region\textsuperscript{4} and overseas, in Central Park, New York\textsuperscript{5} and in the Royal Botanic Gardens at Kew, London.\textsuperscript{6} A ‘Growing Wild Flowers’ exhibition mounted at Kew in 2003 referred to the increased ‘concern about the loss of British biodiversity’ that has motivated gardeners and landscapers to use native plants.\textsuperscript{7}

Examination of Melbourne is important for the light it throws on developments in the urban environment of a post-colonial society. Providing a broad perspective, McNeill notes a trend in United States environmental history, ‘conspicuous by the 1980s’, for concern with urban subjects.\textsuperscript{8} Tom Griffiths\textsuperscript{9} draws attention to Dan Coward’s \textit{Out of Sight: Sydney’s Environmental History} (1988) and Stephen Dovers’ \textit{Australian Environmental History} (1994), but research has not revealed an examination of the kind undertaken in this thesis. Melbourne grew from a mid-1830s illegal settlement that served the pastoral expansion to the rapidly expanding city of the 1850s gold rush to the ‘Marvellous Melbourne’ of the 1880s boom. Melbourne and its Metropolis was admired for the transformation from what non-Aboriginal contemporaries regarded as ‘wilderness’ to a

\textsuperscript{3} Frances Saunders, ‘Planting the Seeds of the Past’, \textit{Age}, Domain, p. 8, 23 July 2003.
\textsuperscript{7} ibid.
\textsuperscript{9} Griffiths in \textit{Oxford Companion}, p. 220.
thriving modern city. In the light of this background, examination of the indigenous plants
movement is valuable through its investigation of change and the extent to which such
change indicates a reversal of certain earlier values and accompanying practices. I have
chosen to make a case study of City of Sandringham (later City of Bayside) conservation
because of the character of the area. Close to the shores of Port Phillip Bay, the city
contains a diversity of suburbs and both foreshore and inland reserves that are home to
indigenous plant communities. These include areas that have evolved with little
disturbance since the era when the Boonerwrung Aboriginal Australians inhabited the land
and those that have relied on recent efforts to regenerate or restore the plant communities.
Sandringham became known for its conservation movement, including the establishment
of a pioneer indigenous plant nursery in the late 1970s. The study enables examination of
people’s cultural values, including attitudes to the natural world, their efforts to bring about
change through such means as education, political action, and practices involving
regeneration of indigenous vegetation.

The main time frame of the thesis is from the 1930s to the early twenty-first century. There
is reference to earlier decades in order to show change over time in perceptions of the
natural world and in responses to it and to consider continuities. As Crosby points out
‘environmental changes are rarely affairs of days, weeks or even years and are often only
discernible regionally or even continentally’.¹⁰ This study therefore covers a considerable
time span.

I have made extensive use of unpublished archival material. The John Turner Papers¹¹
reveal the seminal work of this English botanist who moved from Cambridge to Melbourne
University, becoming a strong influence in the movement to care for local vegetation and
landscapes both within the academic world and in the public domain. I have used the
archives of societies working to conserve indigenous plants. These archives have proved to
be an invaluable means of gaining insight into the values, motivations and methods of
members. Investigation of the collections of the Beaumaris Tree Preservation Society,
found in 1953, its successor the Beaumaris Conservation Society,¹² established in 1970

100, No. 4 (October 1995), p.1181.
¹¹ J. S. Turner Collection, Second Accession, Accession number 91/118, University of Melbourne Archives.
¹² Beaumaris Tree Preservation Society Collection and Beaumaris Conservation Society Collection, c/- Mr.
Ken Rendell, 35 Clonmore Street, Beaumaris, 3193, Australia.
and of the associated organizations within the City of Sandringham has revealed both the growing interest in indigenous plants and the efforts to influence government policies and to implement education projects. Research has revealed for the first time many of the important links, or what I have called 'creative connections', between professional botanists and the amateurs whose knowledge of local plants derived from affection allied to careful observation. Members of grassroots societies called on the expert knowledge of scientists, partly for its inherent value, partly in order to add weight to their proposals. Professional women and men, particularly botanists, learned about indigenous plant communities from local people and were motivated to share their skills through lectures, writings and demonstrations.

I have drawn in three ways on my contribution as a participant in environmental conservation, including the indigenous plants movement. The first is through membership of local conservation organisations with accompanying learning in botany and ecology, indigenous plant propagation and hands-on work in inland and foreshore bushland reserves. The second is through a role in environmental education. My book, *Conserving Australia*, 13 was designed to introduce secondary school students to the interest and delight of 'wild' areas and to an understanding of controversies surrounding land use. It presents a study from each state, the Victorian chapter by Alex Lyne is on an urban subject. I wrote 'The Bay and the Bush: The Education Enterprise of the Port Phillip Conservation Movement' as part of the requirement for a master's degree. 14 As co-author of *Bayside Reflections*, 15 I learned about the character of Melbourne's bayside area and its inhabitants and included stories of successful outcomes to conservation campaigns, with the objective of providing interest, and knowledge of conservationists' motivation and modus operandi. The third is through chairmanship of the Sandringham Training and Employment Project, which was funded by governments and combined environmental education with practical work for previously unemployed people in order to restore degraded sections of the Sandringham foreshore.

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The participant experience is valuable first in its grounding in learning about the land and its vegetation. The learning has included seed collection, propagation of indigenous species, their planting and nurturing, participation in planning and carrying out controlled ecological burns and discovering the role of fire in regeneration. Hancock’s experiences in the High Mountain Country provides an example of learning from the ground up.\textsuperscript{16} Tom Brooking more recently used his first hand knowledge of eroded hillsides in the North Island of New Zealand in his environmental history.\textsuperscript{17} The participant role has been important, secondly, through opportunities for experience of the development and operation of networks and political systems. Thirdly, it has allowed for investigation of change both in the natural world and in the values of people involved in the indigenous plants movement and of those who remain indifferent or in opposition. A noble tradition of historians has adopted R. H. Tawney’s advice to get their boots on. Keith Hancock tramped through Tuscany, South Africa and Australia’s Monaro District, in order to understand the environments that were the part of his histories.\textsuperscript{18} He became a passionate participant historian through the writing of \textit{Battle of Black Mountain}\textsuperscript{19} in which he recorded the fight of the historians ‘Bruce Kent and Others’ (of whom he was one), to stop the construction of a telecommunications tower on one of Canberra’s famous hills.\textsuperscript{20} Donald Worster dedicated his \textit{Dust Bowl} to his parents, ‘who went through it’, stating that his book was ‘undertaken for a selfish and private reason’: he ‘wanted to see the plains again’.\textsuperscript{21} The participant historian may be accused of bias, but the participant need not become a one-eyed partisan and historians can balance personal belief and preference with the skills of the craft. These concepts underpin the participant role in this thesis. Hence I


\textsuperscript{17} Eric Pawson and Tom Brooking (eds), \textit{Environmental Histories of New Zealand}, Oxford University Press, Melbourne, 2002. p.xi.


\textsuperscript{19} W. K. Hancock, \textit{Battle of Black Mountain: An Episode of Canberra’s Environmental History}, Department of Economic History, Research School of Social Sciences, Australian National University, Canberra, 1974.

\textsuperscript{20} Humphrey McQueen in his analysis of the public intellectual refers to Hancock’s judgement that participation can destroy ‘detachment as an observer’, pointing out that ‘one might suggest that fate overtook Hancock himself in his opposition to the Black Mountain tower’. He indicates that Hancock’s experiences as a skier had already provided observation used in \textit{Discovering Monaro}. McQueen considers that the extent of participation is the issue, but also shows from his own experience that participation can be valuable in providing information that ensures objectivity. McQueen, ‘Professions of Power’ in Tim Bonyhady and Tom Griffiths (eds), \textit{Prehistory to Politics: John Mulvaney, The Humanities and the Public Intellectual} pp. 238-239.

support the judgement of environmental historians, Drew Hutton and Libby Connors, who affirm their involvement in the conservation movement but reject the suggestion that a bias resulting from their activity in the movement negates the value of their interpretation. They argue that as green activists they are ‘no different from European scholars who have written histories of their national environment movements despite their partisan involvement’.22 They point to leading European intellectuals such as Marcuse and Touraine ‘who have contributed to the development of social movement theory [and] have also been active in the movement for many years’.23 Furthermore, I have attempted to develop the empathy recommended by R. G. Collingwood in order to understand a diversity of values and practices. Thus it is possible to grasp reasons for a Sandringham City Engineer’s project of dumping rubbish on the foreshore despite having, as a member of a conservation society, at the time, opposed that project.

‘Melbourne’s Indigenous plants movement: the Return of the Natives’ incorporates a synthesis of three strands of environmental history. It is firmly based in the material world through its connection with the land and its clothing of vegetation. It is concerned with cultural, scientific and intellectual issues including values placed on the natural environment through the investigation of the role of professional botanists, both within and outside the university, in the movement to conserve local trees and wildflowers, and through examination of grassroots organizations established in order to care for such indigenous plants. The thesis evaluates the extent to which local groups employed the expert knowledge of naturalists and of university staff in the development of policies and the implementation of practices favourable to indigenous vegetation. It is concerned with cultural changes that reflect developing affection for the non-human natural environment, new learning about indigenous plant communities, and determination to conserve them partly through efforts to alter commonly held values. It examines conservationists’ role in politics and evaluates their influence. I argue that consideration of the motivations and work of the women and men who created the indigenous plants movement leads to the judgment that they belong with the historian Eric Hobsbawm’s concept of ‘Uncommon People’:

23 Ibid., p.3.
collectively if not as individuals, such men and women are major historical actors. What they do and think makes a difference. It can and has changed culture and the shape of human history and never more so than in the twentieth century.\textsuperscript{24}

This study thus belongs with J. R. McNeill’s judgment based on his recent survey of twenty five years of environmental history. McNeill concluded that the discipline includes three main varieties - one centred on the material, the second on cultural/intellectual issues, the third political.\textsuperscript{25} He comments on how Donald Worster in his \textit{Dust Bowl}\textsuperscript{26} ‘bounces around among all three’. Worster’s work is firmly based in the material world as he deals with prairie soils, climate and agro-systems; he reveals the importance of the cultural/intellectual milieu in his concern with prevailing ideas about land and climate and addresses political issues through his analysis of American resource politics.\textsuperscript{27}

The thesis explores several contexts – the world of ideas communicated through written works, visual material and the media, the imperial connection, the economic, social and political world in which the indigenous plants movement developed. The work embodies what the environmental historian, John Mackenzie sees as the modern tendency in environmental history ‘to consider constructions of nature as well as realities’. Hence as well as material factors, beliefs about the non-human natural world and the value placed upon it are important. Mackenzie also points to the tendency to ‘set environmental issues in their full economic, political and cultural contexts’.\textsuperscript{28}

The study of necessity includes the small scale as well as the large. This approach enables close examination of the ways in which individuals and groups have experienced the preciousness of indigenous flora and gradually learned how the plant communities operate and what is needed for their survival. Their new perceptions and learning are reflected in changed methods of land management, some resembling those of the first inhabitants whose practices were swept aside and largely forgotten. The issue of scale, claims McNeill is one that ‘environmental historians have not systematically confronted’.\textsuperscript{29} He points out that the tendency to choose the nation state as the unit for investigation may be appropriate.

\textsuperscript{25} McNeill, p. 6.
\textsuperscript{26} Worster, \textit{Dust Bowl}.
\textsuperscript{27} McNeill, p. 6.
\textsuperscript{28} John Mackenzie, ‘Empire and the Apocalypse’, in Griffiths & Robin (eds), \textit{Ecology and Empire} p. 224.
\textsuperscript{29} McNeill, p.35.
for island countries but not for other areas where natural processes cross boundaries. McNeill affirms his belief that environmental history can be ‘usefully written on any scale, from the most micro to the global (and beyond)’. At a recent Environmental History Conference, James Beattie, a New Zealand scholar, reflected on ‘the perennial fascination in environmental history to be found in scale’ and discussed new perspectives beyond the nation state. Such perspectives may involve international connections. They also include the small scale at a local level, as this thesis demonstrates.

People who discover the beauty and character of plants frequently gain the intimate knowledge that leads to the sense of their value. Hancock had dealt in his histories with great themes and events but made a productive shift, in his later years, to the investigation of the Monaro and the High Country. His undertaking incorporated environmental history at a relatively small and local level. An example from the bayside area of Melbourne during the 1990s provides an apt illustration of intimate knowledge. Along one border of the George Street reserve, Sandringham, a few centimetres from the inside of the perimeter fence, a fine colony of Greenhood Orchids (Pterostylis nutans) about two square metres in size, flourished for many years. Friends of the reserve and other visitors admired the small, translucent, beautifully formed green and white hoods of the flowers that emerged every year, and became concerned at the likely threat from a project to demolish the fence and replace it with a new one. Finally, co-operation between friends, the local council and the fencers led to the survival of the Greenhoods: the local council’s bush crew carefully dug up the orchids with their tubers still embedded in the soil, cared for them and then replaced them inside the new fence. The orchids soon re-established themselves and since then the colony has increased in size. Griffiths affirms the importance of the intimate and the local, referring to the words of Richard Mabey who warned nature conservationists against becoming ‘too preoccupied with the exotic and rare’ and he points to Mabey’s sense of the importance of the local - bluebells and owls, endangered species. Griffiths suggests that

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30 Ibid.
31 James Beattie, 'Sources and Scale in Environmental History: Some Reflections', 'Is It Environmental History?' Conference, Melbourne University, 11-12 October 2004.
32 Pers. Obs. as Joint Convenor of Friends of George Street Reserve 1990 to the present.
conservation whether of natural or cultural heritage - is legitimately about familiarity, personal values and meanings, local knowledge and associations. This thesis tests this claim.

The American conservationist, Aldo Leopold, encapsulated affection for a wildflower, which was similar to that of the Greenhood lovers, but without the satisfactory conclusion. Leopold wrote his lament for the loss of the Silphium that flowered wonderfully with ‘saucer-sized yellow blooms’ and whose strong ‘sweet potato’ roots reached deep into the prairie soil. He regularly visited one plant surviving on the edge of a graveyard, but one day discovered that a road crew had mown down the Silphium. Leopold’s response to this action adds an important dimension to environmental history, taking it beyond the written word into the land itself and illustrating the importance of my examination of indigenous plant communities and the people who work to conserve them in illuminating both past and present values and practices.

The Highway Department says that 100,000 cars pass yearly over [the] route during the summer months when the Silphium is in bloom. In them must ride at least 100,000 people who have ‘taken’ what is called history, and perhaps 25,000 who have ‘taken’ what is called botany. Yet I doubt whether a dozen have seen the Silphium, and of these hardly one will notice its demise. If I were to tell a preacher of an adjoining church that the road crew has been burning history books in his cemetery, under the guise of growing weeds, he would be amazed and uncomprehending. How could a weed be a book ...

Leopold identifies two characteristics of ‘mechanised man’ which affect vegetation: one is pride in ‘cleaning up’ the landscape, the second is ignorance - ‘he’ is ‘oblivious of floras’. People who ignore, despise or destroy Greater Melbourne’s indigenous plant remnants possess at least one of these characteristics, often allied to determination to reproduce the flowers, trees and landscapes of overseas lands.

It is important to distinguish the term, ‘indigenous’ from ‘native’. ‘Native’ is commonly applied to any plants that grew in Australia before British settlement. The native Wattle has become a well-known symbol of the country through Wattle Day celebrations, the

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34 ibid.
36 ibid., p. 46.
wearing of Wattle by mourners for Australian victims of the Bali terrorist bombing and with the colours of Wattle adopted by the Olympic team. Libby Robin has explored the cultural history of the Wattle, concluding that it is an appropriate ‘floral emblem’ for a settler society. Morton and Smith consider the idea that ‘gradual infiltration of native plants in our suburban gardens’ may reflect positive changes in Australians’ relationship with the landscape, ‘an easy acceptance of nature’ and ‘a simple triumph of Australian nationalism’. The term ‘indigenous plant’, however, embodies a relationship between a plant community and a locality, rather than a nationalistic concept. ‘Indigenous’ and ‘native’ are not interchangeable terms. For example, while the famous avenue at ‘Cruden Farm’, Langwarrin, Victoria, was planted by Dame Elisabeth Murdoch with native Australian trees, these lemon scented gums were not part of the original vegetation of the area. The indigenous species are found in the nearby heathlands, which make up a large part of the Cranbourne Annex of the Melbourne Royal Botanic Gardens. The movement to undertake conservation and regeneration of indigenous plant communities in many cases grew out of a concern for native plants in general, but involves a qualitative difference in its concern for plants originating in a particular place and for growing them in that area and no other. It may incorporate, as well as large projects, smaller scale efforts - along a roadside, a group of trees, a single wildflower representing the last known example of its species.

Australians, including historians, frequently overlooked the importance of plant life in the millennia preceding British settlement. Geoffrey Blainey, however, in his *Triumph of the Nomads* employed a wide range of scholarship to bring to popular attention the success of Aboriginal Australians in their use of the resources of their lands including the plants. Since then work, particularly from indigenous sources, has demonstrated the range of valuable plants used by the original inhabitants. Knowledge of indigenous plants was an integral part of the life of these Aboriginal peoples who inhabited the land before 1788

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because their survival depended on close detailed information about the seeds, fruits and tubers that provided them with food and also supported the animal population. Wood, leaves and grasses were the raw material of artefacts. The women who dug for tubers and the men and women who used fire created a kind of land management that operated for millennia. Recent research has indicated that the concept of explorers and settlers going into a wilderness was wrongly based as was the idea, influential in the twentieth century conservation movement, that in Australia ‘wild nature’ was untouched by the hand of man. Tom Griffiths draws attention to the work of the anthropologist Rhys Jones, who used the term ‘firestick farming’ to describe Aboriginal land management’, applying the word, ‘farming’ to people generally considered to be without agriculture'. Recent change in attitudes to Australian Aboriginal land management is reflected in a 1990s publication. Joan Vickery considered it

quite funny to think that Koorie people were good farmers and to realize that western farmers were the people who changed the environment with their grazing animals which ate up many of the natural foods in the ground ... I believe our ancestors were hunter-gatherers, but they were also farmers, never destroying vegetation in any one area, making sure that plenty was left for others the next time around

Vickery acknowledged that her people were hunter-gatherers, but emphasized their additional role in terms applicable to agriculture but not commonly used in descriptions of Australian Aboriginal land practices. Early explorers and the majority of British settlers and the immigrants who succeeded them did not view the life-style they encountered in Vickery’s terms. They were intent not on adapting to the land and its people but on making both accommodate to them. Tim Low has pointed out that in the early ‘near-starvation years’ of the Sydney settlement, First Fleeters, especially convicts, did eat local food plants, although generally they were not those used by local Aboriginal Australians. However, he comments that ‘the wild greens, although important do not seem to have been popular among the officers’ and the foods did not become part of food production in the colony. As part of the British Empire, new settlers established European style buildings,

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42 Joan Vickery - Gunditjmara Diabetes Co-ordinator, Koorie Health Unit Victoria in Nelly Zola and Beth Gott, *Koorie Plants Koorie People: Traditional Aboriginal Food, Fibre and Healing Plants of Victoria*, Koorie Heritage Trust, Melbourne, 1992, p.vii. Dr. Beth Gott, a botanist at Monash University, has undertaken extensive research into indigenous species and established a garden of Aboriginal food plants at her University.
roads, agriculture, industry and commerce. Through responses to the demand for fine wool which resulted in the squatting expansion and in responses to the discovery of gold and other minerals, colonists created new regimes in the land that were important in the economy but initially destructive of the environment.

In the 'new Australia', from the late eighteenth century, botanists, botanical artists, painters and field naturalists contributed to knowledge of indigenous plants and to the sense of their value that was a part of the later indigenous plants movement. Joseph Banks and the Swedish naturalist, Daniel Solander, who accompanied him on Cook's first voyage of discovery (1768-1771), made extensive observations of flora and produced large collections. Banks was notable for his patronage of other collectors and through his work at the Royal Botanic Gardens, Kew. He established 'an unrivalled herbarium and library'. Later, colonial botanists discovered a great diversity of specimens and prepared them for dispatch to Britain. These women and men thus became part of a wide scientific world. Women who participated in such work included Georgiana Molloy who acquired what was for the time 'an encyclopaedic knowledge' of the flowers of the south-west of Western Australia. For the first four decades of the nineteenth century, botany rather than zoology dominated scientific enterprise in the colonies. Sir William Jackson Hooker, who became director at Kew after Banks’ departure, considered the flora of Australia the most remarkable ever known. He saw the reason for this in the descent and modification of species and his observations published in 1859 gave support to Darwin's theory of evolution. Banks' *Florilegium* and the work of successive botanical artists provided the visual material which opened the eyes of scientists and the general public to the character of Australia's plants.

Baron Ferdinand von Mueller, Director of the Melbourne Royal Botanic Gardens, made extensive studies of indigenous plants and forwarded specimens to botanists at Kew for

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45 ibid., p. 51.
46 ibid., p.109.
47 ibid., p. 47.
48 ibid., p. 49.
classification. He was enthusiastic about the Eucalypt and influenced the American pioneer conservationist, George Perkins Marsh. Marsh endorsed the adaptation of Australian trees as part of afforestation in the arid southwestern United States, at a time when acclimatisation of introduced plants and animals had become a popular project in pursuit of what was regarded as improvement to the original flora and fauna. Ian Tyrrell's chapter, 'Renovating Nature: Marsh, Mueller and Acclimatisation' in his True Gardens of the Gods examines the movement, which was later condemned for the invasive qualities of many of the imported species. Eric Rolls' They All Ran Wild provides the best demonstration of the destructive impact of species introduced into Australia.

A number of artists have been important through their depiction of local landscapes and flora as subjects of beauty and interest. In the colonial world, two outstanding and adventurous women depicted in their paintings a variety of scenes, trees and flowers from outlying parts of the continent, as well as those close to cities. Marianne North, in the mid-nineteenth century, met Charles Darwin and followed his advice that she ought not 'attempt any representation of the vegetation of the world' until she 'had seen and painted the Australian which was so unlike that of any other country'. North painted many Australian plants, including Flannel Flowers in the Blue Mountains of New South Wales, Eucalypts at Fernshaw and Tea-tree at Brighton, Victoria. More than 800 of her works are displayed in the gallery which she planned and financed at Kew Gardens. In 1880, in Western Australia, North met the Australian painter, Ellis Rowan, who became known as 'the wildflower hunter' and who contributed to Mueller's work on Australian flora. Although less known than the Heidelberg school paintings of the late nineteenth and early twentieth centuries, her work has been exhibited widely and a collection of her paintings is

49 At Kew, the Hookers: father and son, undertook classification. Mueller hoped that his work would eventually be published under the joint names of himself and the eminent botanist George Bentham, but to his disappointment the seven volume Flora Australiensis carried Bentham's name only. Mueller was the author of The Flora of Victoria., Moyal, p.151.
51 Eric Rolls, They All Ran Wild: The Story of Pests on the Land in Australia, Angus and Robertson, Australia, 1969.
housed in the National Library of Australia in Canberra. Rowan’s niece, Maie Casey, wrote of watching her paint with ‘the speed and concentration’ needed to ‘capture the wildflowers, those timid untamed plants that wither almost as soon as they are picked’. In the late twentieth century, the botanical artist, Celia Rosser, established a world reputation for outstanding work in creating the *Banksia Project*, commissioned by Monash University. The life-sized paintings of each of the species, checked for accuracy by the botanist, Alex George, depict the life-cycle of every one of Australia’s Banksias, and both the originals and reproductions have added to the consciousness of the character and value of the plants. In his ‘Banksias thrive in paint’, Peter Timms drew attention to the role of art in attempting to ‘deal with our relationships with the natural world, since true understanding of environmental issues can arise only from close attention to nature.’

The observations and writings of field naturalists have provided knowledge of indigenous plants which has proved valuable both for its historical interest and as a source of information for those wishing to rejuvenate bushland with local species. Field naturalists gained intimate knowledge of indigenous plants and their writings reveal the detail of their learning and their passion for the areas explored on their excursions. The Field Naturalists’ Club of Victoria founded in 1880 produced the *Victorian Naturalist*, which has provided valuable information to members of local conservation groups. In 1911, C. S. Sutton produced lists of Bayside flora which became important in the indigenous plants movement of the area from the 1970s. In 1918, Mr. J.W. Audas reported on an expedition to Black Rock, where naturalists found orchids, including Waxlip and Sun Orchids and other wildflowers, including Wedding Bush and Egg and Bacon Pea. Audas also observed that, having gained a ‘splendid view’ of the country from a hill-top, members noted the ‘much increasing building operations’. Despite the increase in building, numbers of people, including naturalists and residents explored the area and found a great variety of wildflowers. In 1932 at Sandringham’s first Wildflower Show, Mr. Tadgell displayed 140 plants collected within three miles of the Sandringham post office. Interestingly, the list provided in the article from the *City of Sandringham News*, contained imported species, including New Zealand Coprosma, along with indigenous flora, for example, Drooping

56 Age, 19 July 2000
and Black Sheoak [sic] and Fringe Spider Orchid. It appears that Tadgell was unconcerned about the Coprosma which would in the early twenty first century be regarded as an ‘invasive species’.

In 2003 Hart’s ‘The Yellow Box and a Lost Vegetation’ (Victorian Naturalist, 1939) was used by the Friends of the Higlett Grassy Woodland in their effort to gain conservation status for a remnant in the CSIRO site in Higlett, Melbourne. This thesis includes an investigation of these and other attitudes to the natural environment and the diversity of relationships formed since the coming of first inhabitants.

My study embodies the concept of the natural world as having a role as an ‘actor’ in the developments described. I affirm the importance of empirical evidence, accepting Crosby’s judgement that environmental historians tend to be ‘more interested in dirt than in perceptions of dirt. They have no doubts about the reality of what they are to deal with ... nor about their ability to deal with it ... They do not suffer from epistemological malaise’.

McNeill judges that environmental history, as distinct from other types of history, is distinguished by its character as the ‘history of mutual relationships between humankind and the rest of nature’. His statement is important in its balancing of the roles of humans and the world of non-human nature and its inclusion of mutuality, and this study belongs within such a framework.

While the field of environmental history is relatively new, Griffiths points out that ‘the writing of Australian history has always been suffused with a sense of the land and its difference - the perceived peculiarities of antipodean nature, but it was not until the 1970s and 1980s that ‘environmental history as conscious sub-discipline’ emerged’. Concern with the land is apparent in two earlier general histories, W. K. Hancock’s Australia and the later Australia by Max Crawford, for example. Hancock, in 1930, entitled his first chapter ‘The Invasion of Australia’, the term ‘invasion’ unusual at the time, showing recognition of the culture of Aboriginal Australians in relation to land. He anticipated part

58 ibid., pp. 10-11, re-print of article from City of Sandringham News, 21 October 1932.
60 See Griffiths, ‘Environmental History’ in Oxford Companion, pp. 219-220.
61 Crosby, pp. 1187 - 1188.
63 Griffiths, Forests of Ash, p. 189.
of his *Discovering Monaro* (1972), in which he saw ‘man’ as ‘destroyer’ as well as ‘restorer’ and ‘improver’.

The very soil has suffered from the ruthlessness of the invaders ... They ruined valuable timber to make a few wretched farms ... Placid low-banked rivers frequently gave way to water channels ... threatening ruin to good alluvial land.

Hancock’s history did not concentrate on environmental decline however; it adheres to the Whiggish tradition, embodying pride in the achievements of Australians and optimism about the capability of the land to adapt to the new inhabitants and their practices. Hancock concluded that ‘it would probably be reckoned that alien men and animals and vegetation have enriched the soil more than they have impoverished it’. He is one of many historians presenting evidence to indicate that in colonial and post-colonial Australia, attitudes and practices of the majority of ‘transplanted Britons’ favoured the removal of vegetation and the introduction of familiar trees, flowers and crops. Hancock wrote of ‘the aim of so many - to forget that they are exiles, to fence from the wilderness a little corner of England’. Dingle, however, demonstrates that there were in colonial society ‘defenders of the bush’ and indigenous trees ‘had their admirers’. Tim Bonyhady has also shown how certain men and women valued their new home and its trees and wildflowers, pointing out that:

Many colonists were alienated by their new environment, others delighted in it. The standard test is the settlers’ response to the gum tree ... many members of the First Fleet lauded the gum tree for its distinctiveness...

One settler, Rachel Henning, appears to have changed her attitudes whilst living in the colonies. She wrote in 1855 from Appin, New South Wales, that while at ‘Home’ every wildflower ‘seemed like a friend’, she did not care sufficiently about Australian flowers to make a collection. However, later she recorded that she wished her ‘Dearest Etta’ could

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64 Hancock, *Discovering Monaro*.
66 Ibid., p. 23.
67 Ibid., p. 40.
69 Ibid., p. 140.
see her handsome wildflowers, picked every day for the house. The modern indigenous plants movement belongs in this less known tradition.

Crawford in his first chapter, ‘The Land’, places Australia firmly in the British imperial context, referring to its role in response to the ‘economic revolution’ and as home for migrants, bond and free: ‘Australia’s growth responded step by step to developments in the old world’. Crawford acknowledged the work of the geographer, Griffith Taylor, who, in opposition to those who wanted ‘to fill up the empty spaces’ expressed concerns over Australia’s ability to carry a large population because of environmental constraints. The controversy over Australia’s ability to overcome the constraints of aridity and nutrient deficient soils continues.

The nature of general histories of Australia did not allow for close study of particular environments. By contrast, a regional and a local history, published in the early 1960s - Kiddle’s Men of Yesterday and Bate’s History of Brighton both open with descriptions of the country in which their histories were made. Kiddle recreated pictures of the Western District environment and its inhabitants, evoking the beauty of the flora: ‘There were bright pincushions and smaller flowers like blue stars. Frail terrestrial orchids flowered in rock crannies and Greenhoods sheltered beneath the trees’. Bate drew on Dr. Hart’s account of three hundred species of native flowering plants in and around Brighton, ‘including fifty of the eighty orchids then known in Victoria’.

Such flora became increasingly rare in settled areas, particularly in urban environments. Recent environmental historians have emphasised the massive changes resulting from imperial expansion from Europe into America, Asia, Africa and Australasia. Griffiths refers to the ‘competing realities of geography and history, land and culture’ that confronted post-1788 Australian settlers and to the ‘fundamental tension between origins

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72 ibid. p.114.
75 Weston Bate A History of Brighton, Melbourne University Press, Melbourne, 1983 (first 1962),
76 Kiddle, p.7.
77 Bate, p.4.
78 See Griffiths and Robin, Ecology and Empire.
and environment’ which create part of the background to this thesis. David Lowenthal concludes that while common images emerged from the history of Old World discoveries there were profound differences and therefore a need for ‘in-depth specific histories’. For instance, each of the settler societies of the past five hundred years was established in differing environments. The colonists who crossed the Atlantic from Britain and Europe made their new homes in the northern hemisphere where, even though the vegetation was different, the seasons were similar. Settlers in New Zealand and Australia, by contrast, faced Christmas in summer and the challenge of living under unfamiliar skies in lands where the plants and animals were vastly different from those of their countries of birth. Lowenthal concludes: ‘We cannot understand the general ecology of empire without chronicling its particulars throughout Australasia, and America, Africa and the Pacific’.79

This thesis embodies a close investigation of a particular Australian environment.

Geoffrey Bolton’s book published in 1981 created a ground-breaking account of the relationship over two centuries between Australia’s peoples and the environment.80 *Spoils And Spoilers* originated in a pioneering course in environmental history at Murdoch University, where Bolton was foundation professor of history, and his work brought a new kind of general history into the mainstream. The title itself challenged the idea of success through ‘taming the land’ in the interests of pastoralism, agriculture, mining, and urbanisation and drew attention in a moderate manner to environmental damage. Recognizing reciprocities between disciplines, Bolton acknowledged the historical geographer, Joe Powell, whose work investigates policies, management and actions affecting the environment. Bolton’s work had a different focus. He included stories, including a narrative of the battle to save Lake Pedder in Tasmania’s south-west and the story of Jack Mundey. Mundey led a successful fight to save Kelly’s Bush on the shores of Sydney Harbour from development by means of an unprecedented alliance between Hunter’s Hill residents and Builders’ Labourers with their now celebrated Green Bans.81

In Bolton’s work, early naturalists and others interested in conservation gain recognition but as Bolton points out most of these people were concerned mainly with the bush outside cities, rather than implementing projects within urban boundaries in the interests of indigenous vegetation. He considers that ‘the front garden was the conventional but deeply important means of self-expression for most Australians ... the private environment which still followed English canons of taste ... native flora were held in scant respect’.\textsuperscript{82} Bolton’s mainly broad brush approach to the large subject of two hundred years of environmental history means that small scale less publicised efforts to conserve indigenous plant communities in Beaumaris, Black Rock, the Dandenongs and other areas within the boundaries of Greater Melbourne are not included.

This thesis deliberately employs narrative in order to communicate the dynamic of individuals and groups working to conserve indigenous plants within urban boundaries, and also that of opponents to their projects. Environmental historians, including Bolton, have told stories. These stories illuminate the motivations of the actors in environmental history; they convey their desire to bring about change and the nature of their efforts. Cronon affirms that ‘scholars of environmental history ... maintain a powerful commitment to narrative form’, claiming that ‘when we describe human activities within an ecosystem, we seem always to tell stories about them’. Cronon’s judgement is expanded by his analysis of the narratives in Worster’s \textit{Dust Bowl} which he contrasts with other stories relating to the same subject.\textsuperscript{83}

A number of Australian environmental historians have focused on those controversies of the second part of the twentieth century which centred on land in places outside cities rather than on those in small urban areas. The fight to save Kelly’s Bush is an exception. Bonyhady has explored this fight and a number of other battles, addressing the working of law and its role for conservationists in their protests, which included the major campaigns waged over twenty five years, including those in defence of Fraser Island, Lake Pedder and the Gordon and Franklin Rivers. He points to the growth in the numbers of people belonging to environmental groups which grew from 100,000 in 1974 to 500,000 in 1982

\textsuperscript{82} \textit{Spoils and Spoilers}, p.130.
and to 700,000 in 2000,\textsuperscript{84} indicating the increasing importance of environmental concerns in that period. The Melbourne indigenous plants movement shared with the battlers for ‘wild places’ the sense of the value of Australian landscapes and vegetation but the movement is distinctive in its urban setting and in its concern with the small-scale.

Several recent works drawing attention to the detailed history of diverse environments in Australia include the kind of personal stories and sense of locality, which form part of this thesis. They include Seddon’s \textit{Searching for the Snowy},\textsuperscript{85} Robin’s \textit{Defending the Little Desert},\textsuperscript{86} Griffiths’ \textit{Forests of Ash}\textsuperscript{87} and Sinclair’s \textit{The Murray: a River and Its People}.\textsuperscript{88} Seddon in a discussion of his own writing of environmental history, referred to the problem resulting from the ‘linearity of language’, where he wanted to write a ‘polyphonic account’.\textsuperscript{89} He decided to create several important dimensions to his work, following a geographic sequence interposing several themes, including personal accounts, one of which derives from stories about the first canoe trip down the river in 1937.\textsuperscript{90} Seddon relates to the major issue of public concern over the Snowy dying in its upper reaches and the request to release more water,\textsuperscript{91} bringing the history into the present and reflecting changes in culture since the establishment of the Snowy hydro-electricity project which was publicised as a twentieth century wonder. Some readers have found difficulty in adjusting to the diversity of resources in the book, but Seddon’s ability as a polymath and awareness of the integral nature of the present and the past make for richness in his work and a valuable sense of how intimate the relationship with the environment can be.

This latter quality is part of Robin’s \textit{Defending the Little Desert}, in which she shows how the experience of the familiar stirred Valerie Honey\textsuperscript{92} into action in order to protect the

\begin{footnotesize}
\begin{enumerate}
\item Griffiths, \textit{Forests of Ash}.
\item ibid.
\item ibid, p. 58. In the early twenty-first century more water was released.
\end{enumerate}
\end{footnotesize}
area so that people, including herself, could continue to enjoy the bush. Honey spoke of initially not knowing the name, Little Desert, but of going out ‘into the scrub’ in the sunset, where ‘there were birds and parrots and the salt lake had just turned red .... It was the most magnificent sight’. Honey collected 4,000 signatures to a petition to accompany the case for conserving the area. Robin shows how this kind of enthusiasm and energy were combined with scientists’ research in the campaign to save the Desert from agriculture. She demonstrates the importance of knowledge of ecology and provides evidence of the role of Melbourne University botanists who, through their presentation of scientific evidence, played a vital role in the decision to conserve the Little Desert. The campaign, which was a major influence on Victorian government policies, showed the power of organised public concern combined with expert knowledge and drew attention to local flora. This thesis shows that these features were also part of the concern for indigenous plant communities in Melbourne and influenced policy and practice within its boundaries.

Griffiths’ *Forests of Ash* demonstrates the importance of the Melbourne Botany School through examination of David Ashton’s meticulous and on-going research into Mountain Ash forest. Griffiths weaves fine illustrations and a number of written responses to forests into the texture of the book, in order to provide a re-creation of the life of a forest and its inhabitants. The forest history includes accounts of fires: their tragedies and their uses in creating disturbance on which regeneration depends. Innovative welding of Griffiths’ own narrative with other people’s writings, illustrations and maps, makes for a new kind of presentation in environmental history, likely to be attractive to general readers. The Epilogue, with reflections on nature, culture, environmentalism and environmental history, takes the work beyond the local into the global. Griffiths affirms Worster’s judgement that environmental history was ‘born of a moral purpose with a strong political commitment behind it; it is a scholarly response to the sense of global ecological crisis’. This thesis, particularly in chapters four and five, includes ‘the story of the stories’ that embodied the belief of local conservation group members that they were dealing intelligently and morally with environmental problems. I concur with Cronon who argues that

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94 ibid.
environmental historians should tell ‘not just stories about nature but stories about stories about nature ... the stories we tell change the way we act in the world’.  

Sinclair’s *The Murray* is important for its consideration of the ‘water into gold’ concept that lay at the back of the conversion of the old river into a resource for irrigation: the process by which the river changed so radically that its original character was lost, arousing fears for its viability. Sinclair applies Simon Schama’s idea of exploring the links between western culture and nature and investigates diverse attitudes towards the river - not all destructive or exploitative. He includes stories to show that people close to the river have gained much knowledge and formed attachments to it, thus giving respect to the social world as well as the non-human. He points to the emergence of the science of ecology and works by writers concerned with the state of the environment, including the poet and conservationist, Judith Wright, and the zoologist, writer and editor, Jock Marshall, both of whom placed a higher value than was common on the natural world. He concludes that ‘settler Australians need to understand and mourn the immense losses they have inflicted on the river’. Sinclair ends not with a permanently ‘black armband’ attitude but on a note of hope, giving agency to the history presented through narratives that incorporate hope for better policies. He sees value in the history of the river because through the knowledge history provides, people can ‘imagine a new future for the Murray’. He suggests that Australia’s population needs to understand the importance of the health of the biosphere and work out ways of dealing with the destructive effects of developments on the natural world. His ideas are similar to those that motivate the movement to protect and regenerate indigenous plant communities in areas within the boundaries of a metropolis. Members’ stories reveal the micro-history that creates an important part of macro-history.

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97 Sinclair, p.20 and passim.
99 Sinclair, p. 114.
100 ibid., p. 176.
101 ibid., pp. 177-178.
102 ibid., p. 234.
103 ibid.
Griffiths draws attention to novelists, poets, geographers, archeologists and scientists who have shown awareness of the special qualities of the Australian environment. It is important to recognise their role in raising consciousness of the character of indigenous trees and wildflowers and the feelings the flora evoke in those people who gain intimate knowledge of them and become inspired with affection. Investigation of the work of the botanists, John Turner, Carrick Chambers who succeeded him, and the role of the Melbourne University Botany School provides examples of how University scientists contributed to the movement and thereby to the making of environmental history. A close examination of the work of botanists in the universities established more recently than Melbourne, while important, is outside the parameters of this thesis.

The thesis reflects changing attitudes towards the environment and consequent change in policy and practice. ‘Conservation’, in the second half of the twentieth century, developed from its earlier application to the care of natural resources – soil, water and forests – to include conservation of ‘wild places’ and remnant bushland. Ecologists became increasingly important through their study of relationships within communities of plants. By the late 1960s, many conservationists were becoming ‘environmentalists’, the term incorporating an activist component. Care for ‘natural heritage’ became a large issue in the 1970s and 1980s, and by the 1990s, with growing anxiety over the loss of species, the preservation of ‘biodiversity’ and policies favouring ‘environmental sustainability’ had become world concerns, emphasised at the 1992 Earth Summit: United Nations Conference on Environment and Development, held in Rio de Janeiro.

‘Cambridge and Carlton’, the first chapter of the thesis, focuses on Turner, the botanist, who left Cambridge in 1938 to become Melbourne Professor of Botany and Plant Physiology and an influential public intellectual. Turner forged important links between his first university, a world leader in botany, and his new university at the periphery of the imperial world. He adapted to his new land, learning from Melbourne scientists about the character of landscapes and vegetation, and initiated research in these areas that proved

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influential both locally and nationally. Chapter 2, ‘Our Place’, set in the 1950s, examines community conservation societies and their creative connections with the Melbourne University Botany School and others with relevant abilities who provided new learning. Investigation of the Beaumaris Tree Preservation Society, established in the City of Sandringham in 1953, reveals members’ contribution to the indigenous plants movement and the extent to which they conform to Hobsbawm’s definition of ‘Uncommon People’. Chapter 3, ‘Battles, Bushland and Botanists’, is concerned with the context of the 1960s, including a sense of urgency that developed over the challenge to conserve Australian plants and animals. Four years after the publication of the American, Rachel Carson’s seminal text, *Silent Spring*, (which Crosby sees as the transformer of environmentalism from an elitist to a popular movement), the Australian zoologist Jock Marshall released *The Great Extermination: a Guide to Cupidity, Waste and Wickedness in Australia*. This work showed what had been lost in the continent, reasons for continuing environmental destruction and why such destruction should be stopped. Developments contributing to growing interest and concern for conservation included the foundation of the National Trust of Australia (Victoria) with its Landscape Preservation Committee which Turner chaired, and the Web of Life project creating new courses with an environmental component for secondary school biological science students, which Turner also chaired. Such enterprises contributed to cultural change. The successful campaign to save the Little Desert, which included evidence of the importance of indigenous plants, became a catalyst for political change.

In chapter 4, ‘Catalysts For Change’, the focus is on the coastal City of Sandringham, which includes Hampton, Sandringham, Black Rock and Beaumaris. It presents the history of the Beaumaris Tree Preservation Society (BCS) in the late 1960s, its transformation in 1970 into the Beaumaris Conservation Society and the establishment of the Black Rock and Sandringham Conservation Association (BRASCA). These new organisations embodied action based on love of place combined with the use of professional research

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107 Crosby, 'Past and Present of Environmental History', p.1186.  
and determination to implement change in local government policy and practice in the interests of conserving indigenous plant communities. Chapter 5, ‘Growing the Local’, centres on further developments in the environmental movement within the City of Sandringham where, by the mid-1970s, due to energetic campaigns by members of local conservation societies, councillors with conservation policies were in the majority. A number of the men and women who belonged to the societies worked with the council, sharing ideas and recommending initiatives that resulted in the implementation of policies and practices favourable to the conservation of bushlands, and especially of indigenous plants. Chapter 6, ‘Action and Activism’ creates the broad context within which local groups operated. The Victorian Liberal Government, particularly during the years of Sir Rupert [Dick] Hamer’s premiership responded to concerns over environmental matters. Innovations included the establishment of the Land Conservation Council and provisions for greater community involvement in decision-making. The Melbourne University Botany School contributed to research and to conservation issues beyond the university, with John Turner himself participating and encouraging staff to become involved in the Victorian National Parks Association. Both John Turner and Carrick Chambers, who succeeded him, contributed to the affirmation of the value of local plants through involvement in the Royal Botanic Gardens Cranbourne Annex established in 1970 in a large area of indigenous heathland and woodland. Raised consciousness of environmental issues provided new incentives to local groups to expand their efforts to conserve indigenous plants.

‘Contested Spaces’, the title of Chapter 7, encapsulates the continuing differences which marked attitudes towards the environment in the 1980s. The battle over the damming of the Gordon and Franklin Rivers in Tasmania culminated in the success of widely publicised efforts to save the wild rivers and recognise the value of wilderness as the Commonwealth passed legislation affirming the sanctity of the world heritage area and over-rode the powers of the State. Positive government responses to conservation issues helped to place local concerns on the public agenda. A number of City of Sandringham conservationists involved in large campaigns gained encouragement from what they saw as successful outcomes, and created new initiatives in order to publicise the value of indigenous plants and the bushlands of which they formed a major part. Chapter 8, ‘Towards the Future’, is concerned with the consolidation of the movement to grow local

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109 The RBG Cranbourne are situated in relatively undisturbed heathland and woodland.
species, evidenced by the increasing number of indigenous plant nurseries, new publications stressing the importance of biodiversity, and government initiatives which emphasized the value of revegetation projects and provided finance for them. It is set in the context of growth in world population combined with land clearing and with increased concern over the state of the natural environment. The 1992 Earth Summit members addressed the matter of biodiversity loss and the need for policies favouring its preservation. The City of Sandringham and its successor, the City of Bayside, affirmed the importance of such policies. Conservation societies maintained a strong presence; they continued their efforts to influence local government and their determination to retain and then further develop the indigenous plants program of the community nursery.

This thesis through its investigation of the indigenous plants movement contributes to the practice of environmental history, now a firmly established discipline. It also embodies a claim for environmental issues to gain an important place in urban history, particularly as cities throughout the world continue their expansion into countryside. Research indicates that three factors considered to be necessary catalysts for the ‘rise and persistence’ of a social movement also apply to the indigenous plants movement. There was a material problem – areas of flora were being destroyed. A social base existed, one prepared to respond to the problem – community conservationists and botanists created an important part of this base. A strong open state permitted extra-parliamentary activity – such activity occurred through activist measures and education as well as through the use of official channels.

In Bayside, the institutionalisation of conservation provides a formal backing to the proponents of the indigenous plants movement and affirms the value the movement places on communities of local trees, shrubs and wildflowers. Its members have demonstrated their ability to work effectively in groups, combining the results of scientific research with local knowledge and affection for indigenous plant communities and the will to act politically. They have justified the claim that they are ‘Uncommon People’. From the early 1990s, Victorian government policy favoured higher density suburban living and developers constructed dwellings with greater site coverage and consequent loss of space.

110 Initiatives include the Commonwealth’s Natural Heritage Trust operating via Greening Australia (Victoria).
for gardens. However, by the first years of the twenty-first century, the importance placed on national parks and on smaller areas of bushland in urban areas, combined with emphasis on the maintenance of biodiversity, provides a basis for optimism over the conservation of indigenous plants in the future.
'VIEW NEAR BRIGHTON VICTORIA', LOOKING TO FORE DUNES AND SEA THROUGH FLOWERING TEA-TREE, LATE NINETEENTH CENTURY VIEW PAINTED BY MARIANNE NORTH.

CHAPTER I

CAMBRIDGE AND CARLTON

O English earth
'Mid the blown seas lying
Green, green
When the birds come flying.
Laurence Binyon, 1 England.

Underfoot wildflowers were prodigiously dusted through the grey-green grass. There was a little vivid green moss with a white flower like a flattened out bell, a beautiful small lily, pale mauve-white with purple veins, ... the blue mountain aster, yellow and white daisies and the rustling everlasting. Sometimes there were carpets of silver leaves-regal pathways for our horses' hooves.
Elyne Mitchell, 2 1942, Australia.

John Stewart Turner a leading botanist and prominent public intellectual who influenced environmental policy and practice in Australia, left Cambridge for Melbourne in 1938 to take up his appointment as Professor of Botany and Plant Physiology at the University of Melbourne. He maintained the Cambridge connection, creating a valuable relationship between his old and new universities in a manner that exemplified a benevolent aspect of the imperial world. He initiated research by staff and students within the Melbourne Botany School and engaged in large social, cultural and environmental issues in the general community. 3 He played a considerable part in the indigenous plants movement in Australia, particularly in Victoria. This chapter is concerned with an investigation of his early years and his roles both in the Melbourne Botany School and beyond the university in the late 1930s and 1940s.

At the time of Turner's arrival in Australia, the word 'conservation' generally applied to the care of resources, including soil, forests and water; by the late 1960s it was understood to encompass the movement to prevent destruction of areas of natural bushland, particularly in what were seen as wilderness areas, but also within urban boundaries. It was distinguished from 'preservation' in the sense of recognizing the

role of change. Turner was a conservationist in both senses. Concern for biodiversity as part of conservation was expressed later, particularly from the early 1990s.

Environmental historians have recognised Turner's contribution to the study of the natural environment. Hancock in Discovering Monaro acknowledges his role in High Country conservation and provides a small insight to his modus operandi, and Tom Griffiths refers to his influence on research into forests in Forests of Ash. Libby Robin gives an account of Turner and the role of the Melbourne Botany School in Defending the Little Desert and explores his influence in journal articles. Robin's 'The Professor and the Journalist' demonstrates how John Turner and Crosbie Morrison, well-known for his efforts to bring natural history to the public, 'contributed to a fruitful collaboration between ecology and conservation'. The article affirms Turner's involvement with conservation, including local issues but its focus is not on his role in the indigenous plants movement. This thesis extends the literature on the subject.

The origins of Turner's interest in the natural world lay in his family home and in the English countryside. However, his major achievements centred on his profession in Australia. Following his retirement in 1973, he undertook work as an environmental consultant in partnership with his wife Kaye, a microbiologist, and continued his contribution to the university and to government and non-government organizations. The location of Turner's family home and school were influential in the moulding of his interests. He was born in 1908 in Northern England, in Middlesborough, known for its concentration of heavy industry, but close to the Yorkshire Moors. His schooling was at Cheshire and at the Boys' High School, Sheffield. His home life and other influences are described in a contribution to a book created in honour of

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4 Hancock, Discovering Monaro, p.171.
5 Griffiths, Forests of Ash, pp. 156,161.
6 Robin, Defending the Little Desert, pp. 67-71, 72-75.
Turner and in celebration of his eightieth birthday.\textsuperscript{8} The writer, signing himself Fred Dainton, later the Lord Dainton of Hallam Moors, refers to the 'jolly couple'\textsuperscript{9} who were Turner’s parents and who made the young Dainton welcome to their home. The Turners had been used to country life in Kent but adapted to the town where they reared their four sons and one daughter. Dainton became a visitor to the Turner household, which he describes as a place where there was:

\begin{quote}
warm welcome, an unrestrained air of activity and enjoyment. One member might be playing the piano, another the flute, and another pressing flowers. These activities would only cease to give way to some furious but good-natured and humorous argument about any topic, be it art, science, literature, drama and, of course, politics.\textsuperscript{10}
\end{quote}

The writer, who explains that he came from a Methodist, teetotal background, evaluates the experiences as 'heady and exhilarating' and 'a powerful educative force' for which he is 'immensely grateful'. John Turner found these parts of his home-life to be creative, stimulating and nurturing.

Turner himself, when interviewed by Anne Latreille, the Melbourne \textit{Age} journalist, after his eightieth birthday, said he had been 'a lover of plants since early childhood'.\textsuperscript{11} At his school this love was extended and deepened through the science master, James Meikle Brown, a biologist who led excursions of the school’s natural history society on expeditions to the dales of North Derbyshire and the West Riding of Yorkshire, where boys could observe and collect flora and fauna and capture some of their leader’s enthusiasm. Dainton remembered that this teacher ‘offered to all who came in contact with him that priceless gift - an attractive invitation to

\textsuperscript{8} H. T. Clifford (ed.), \textit{Cambridge - Castlemaine: A Tribute To John Stewart Turner On The Occasion Of His 80th Birthday}, Department of Botany, University of Queensland, with support from The Contributors, 1988.

This book is edited by a former student of Turner’s and contains a number of pieces by former fellow students at Cambridge, colleagues and students from the Melbourne University Botany School. These men and women are skilled in observation, research and the evaluation of evidence, and much of the information they provide may be verified from other sources. Memories of events and personalities provide a flavour of the various milieus in which Turner operated. Because of its nature as a ‘Tribute’, one does not anticipate finding material deleterious to the subject’s reputation but I do not believe this detracts from its value, A wealth of material in the Turner Papers and the nature of his own work create pictures similar to those in the book.

\textsuperscript{9} Dainton, in ibid., pp. 17-18.

\textsuperscript{10} ibid.

\textsuperscript{11} Anne Latreille manuscript based on 1988 Turner interview. University of Melbourne Archives (hereafter UMA) J. S. TURNER Papers, Second Accession, Accession number 91/118 (Hereafter TURN) Folder 00985 (hereafter folder number only).
learning - and he did so authentically because he was actually engaged in research himself." He judged that while Meikle Brown's influence and friendship were valued by all the boys, for Turner he was a decisive influence.

John Turner kept records of those early explorations and associations, and small note-books and diaries are amongst his papers. 'Nature Observations' contains jottings about walks and rambles. He wrote of an afternoon excursion and listed a number of plants giving the botanical names of some of them, later recording a 'Solitary ramble - Top of Moors', where he observed *Bellis perennis* [daisy], *Taraxacum vulgare* [dandelion], and 'Blackbird and willow wren singing in a hawthorn'. Several entries in a 1926 pocket diary provide further evidence of his discoveries and record briefly some of the natural history excursions undertaken in that year - John Turner's last as a schoolboy. In mid-February 1926, he sent his application form to Cambridge and in mid-March, travelled to the University to sit for examinations. Botany and Chemistry he judged to be 'good', but Physics 'rotten'. On 20 March, he recorded: 'Heard at 8.30 that I had a forty pound scholarship at Selwyn. Went round to see J.M.B. and the Head.' The entry for Sunday 21 March reads: 'Cheers!'.

During his Cambridge undergraduate years John Turner studied under scientists whose influence remained for his lifetime. Professor Sir Albert Seward headed the Botany School and influential lecturers included F. T. Brooks, H. (later Sir Harry) Godwin, A. S. Watt, G. E. Briggs. F. F. Blackman, was his research supervisor and judged by Clifford Evans (Dr. G. Clifford Evans, St. John's College, Cambridge) to be 'one of the most eminent plant physiologists in the world at that time'. While Turner became a plant physiologist, he also learned through excursions and field work - held both within and outside Britain. In addition there were 'fungus forays' in October when the climate was suitable for studying fungi in the field. Evans sees the

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12 Clifford, p.17.
15 Diary, 20 March 1926, ibid.
16 Diary, 21 March 1926, ibid.
excursions and expeditions as significant, not only at the time but in the way they influenced Turner’s style of work, both at Cambridge and in his career in Australia.\textsuperscript{18}

Turner gained first class honours in the Natural Sciences Tripos, then undertook research for a Ph.D., entitled ‘On the relation between respiration and fermentation in excised carrot tissue, with special reference to the effect of mono-ideoacetate on the metabolism of tissue slices’, passing with distinction. He became a demonstrator (1934-1935) and then a senior demonstrator (1936-1938) which in his University was a position of responsibility and importance. Several of the contributors to Cambridge - Castlemaine were his contemporaries at the University and provide insights into the nature of the subject matter taught, to the methods of learning and to the friendships that developed. Evans wrote of that time:

During the … years that he worked there John Turner seems to have found the Botany School at Cambridge congenial, both in the breadth of the courses taught, and in the friendly social climate in the aftermath of the First World War - by all accounts much less starchy than it was in Edwardian times.\textsuperscript{19}

In the important area of ecology, Turner’s studies with Harry Godwin at Cambridge originated in the work of the pioneering ecologist and first president of the British Ecological Society, A.G. (later Sir Arthur) Tansley. Tansley had set up the British Vegetation Committee to oversee the systematic survey of all Britain, the research resulting in a major publication in 1939.\textsuperscript{20} Tansley’s work in ecology\textsuperscript{21} was influential and he originated the term ‘ecosystem’ in 1935. Libby Robin explains that the term ‘ecology’ was first used at an international botanical congress in Wisconsin, U.S.A., in 1893, ‘to describe a new sub-section in Botany’, distinctive because ‘it used a dynamic perspective to study changes in plant communities’.\textsuperscript{22} Tansley himself considered the foundations of modern ecology were to be found in the work of the Europeans, Warming and Schimper. Godwin qualifies this judgment, presenting evidence to indicate that ‘ecology was developing into a science independently in

\begin{footnotesize}
\begin{itemize}
\item[18] ibid.
\item[19] ibid.
\item[21] Libby Robin, ‘Ecology: A Science of Empire?’, in Griffiths and Robin (eds), \textit{Ecology and Empire}, p. 64.
\end{itemize}
\end{footnotesize}
several countries during the last part of the [nineteenth] century, and pointing out that 'in an historical sense ecology grew out of plant geography'. Tansley encouraged his student Godwin to undertake research in Wicken Fen, Cambridgeshire in an area containing the indigenous vegetation of the region, in order to interpret the 'vegetational phenomena' in the 'light of modern ecological principles.' Many members of the Cambridge Botany School made observations there. Tansley looked beyond description and recording to research into relationships and this concept was incorporated into the work of Godwin, who in turn taught Turner and some of his colleagues. Godwin recalled that experience, writing that he always aimed to:

aggregate men of similar status and ability and so manage the class that they actively pursued the logic of argument and evidence. It never worked better than with an ad hoc group consisting of men respectively from Clare, Selwyn and Peterhouse, all quite first class [of whom Turner was one] ... John Turner as Professor in Melbourne played an important part in Botany in Australia.

The principles and practice Turner learned in the Cambridge Botany School were important in his teaching and in the applied botany which eventually led to changes in policy and practices in parts of Australia.

Robin sees the origins of Australian ecology in 'empire science, involving exploration - through astronomy, geoscience and natural history especially taxonomy and systematics. British plant ecology was an outgrowth of systematics', which involved the investigation of plant species and recording of lists of their names. Robin suggests that this work could serve the needs of empire, as exotic plants could be classified and used. The process has also proved valuable in the conservation of indigenous plant communities in Australia.

The Cambridge influence, which proved important in Australia is embodied in Turner's first hand experience. Both Godwin and Alec (A. S.) Watt were leaders of ecological field work. Turner undertook research with Godwin on the acid peat at

Calthorpe Broad,\textsuperscript{28} Norfolk, and with Watt, who encouraged him in the organization of a Botany School excursion to the Oakwoods of Killarney in Ireland.\textsuperscript{29} Turner and Watt wrote of their studies of the Oakwoods of Killarney, describing the woods and human influence and showing plant succession.\textsuperscript{30} Turner also was responsible for an excursion for twenty one people to the alpine Cairngorms of Scotland.\textsuperscript{31} His ability to get on well with people and to be happy working outdoors in basic conditions proved valuable in Australia; as did his relationship with Watt, the forest ecologist who had, with Tansley in the early 1920s, studied the ecology of British Beechwoods,\textsuperscript{32} and whom Turner later invited to Melbourne. Although Turner was classed as a physiologist, he gained substantial practical knowledge in ecology and the means of introducing men skilled in the field into the Melbourne School. Excursions also proved important in the way they brought together women and men of different levels of seniority. In the middle years of Turner's research, Evans reports, one third of all research workers were women. At least one of them, Mary Rogers, remained a friend, maintaining a correspondence\textsuperscript{33} until old age and visiting the Turners in Australia. The article, 'The Ecology of a Raised Bog Near Tregarron, Cardiganshire', provides an example of the Cambridge botanists' work\textsuperscript{34} in which Turner was involved as a member of the 1936-7 expedition that investigated the bog. The report of the expedition and its findings is interesting for its innovative character, the precision of the observations and the information revealed about friendly relations with fellow scientists, including Professor H. Oswald of Sweden. One gains a sense of a network and networks were important to Turner in his own endeavours.

From the time of his arrival in Australia Turner adapted his Cambridge experience in his work as Professor of Botany and Plant Physiology at Melbourne University and

\begin{footnotes}
\item[30] ibid., pp. 224-229.
\item[33] Mary Rogers, M.A. (Cantab.) in Clifford, pp. 48-49, and UMA TURN Boxes 131, 133 & 134, passim.
\end{footnotes}
in public roles in his adopted country. He combined teaching and laboratory research with work in the bush and the development of friendly relations with colleagues, students and organizations outside the university. His colleague, Bob (Rutherford, later Sir Rutherford) Robertson comments that his appointment came as no surprise because senior demonstrators in the Cambridge Botany School often moved to professorships. Professor Samuel (later Sir Samuel) Wadham who became Melbourne Professor of Agriculture provides an example.35

In Melbourne, debate and controversy surrounded the decision-making process. Geoffrey Blainey, writing in the mid 1950s36 stated that the University Council faced one of its most difficult problems of selection and this estimate is reinforced by John Poynter and Carolyn Rasmussen37 writing four decades later. Dr Ethel McLennan worked with the previous Professor of Botany, A. J. Ewart, until his death in 1937, and wished to succeed him, although Melbourne had never appointed a woman professor. She had strong support because of her ability in work on plant pathology and her position as associate-professor. Selection committee members expressed a strong predilection for her appointment.38 However, the committee finally recommended Turner and despite an amendment moved by Dr Georgina Sweet that Dr McLennan be appointed and the deferral of the meeting till some weeks later, Priestley and Wadham moved Turner’s appointment39 and the amendment was lost. L. R. Humphreys, the biographer* of Turner’s supporter, Samuel Wadham,40 states that sixty years after the event there were academics who regarded Turner’s appointment as evidence of regrettable male chauvinism. Turner himself, years later, in an obituary for Ethel McLennan, stated:

in 1938 came the first and only check in an outstanding career, ... Dr. McLennan would undoubtedly have filled the Chair of Botany with great distinction. She had twice acted as professor for long periods and it must have been a blow to her

35 Bob Robertson, in Clifford, p. 45, and see L.R. Humphreys, Wadham: Scientist for Land and People, Melbourne University Press, Melbourne, 2000, p. 81. Humphreys quotes from a Selection Committee report before Council on 17 January 1938 - stating that J. S. Turner's subjects of plant physiology and ecology were 'eminently suitable for an Australian school at this particular stage of Australian botany', ibid., p.82.
36 Blainey, The University of Melbourne, pp.160-161.
37 Poynter & Rasmussen, A Place Apart, p 60.
38 Blainey, p.160.
40 L.R.Humphreys, Wadham, p.82.
and to her many supporters when the council after long deliberations filled the chair from England. No doubt this was in part an expression of anti-feminism but Blainey's account seems to indicate that the title of Ewart's Chair ... may have influenced all those men on the committee and council ...

As the plant physiologist finally appointed, I am in the best position to record that from the moment she met me on the ship, Dr. McLennan not only offered a warm genuine friendship to her unwitting supplanter, but for the rest of our time together in the department co-operated in every way as an associate professor in the highest sense of the title ...

[She was] a sensible feminist ... a tower of strength to women students in the University.  

The United Kingdom Selection Committee had recommended Turner and F. W. Janes as equal first in their choice of candidates. However, F. W. Brooks who corresponded with Wadham, stated that Turner was the abler and that Osborn was wholeheartedly in favour of his appointment. He wrote of Turner that he 'would provide the new ideas that Dr. McLennan lacks'. Brooks referred to Turner, who demonstrated 'excellent research in Plant Physiology (Respiration) and Ecology (Norfolk Broads and Killarney woods)' Brooks pointed out that Turner appreciated the need for Agricultural Botany and had examined with the School of Agriculture'. He considered that 'in his own field he is not less able than Dr. McLennan is in her's [sic] ... I look on him as one of the brightest botanists of the younger generation'.

Turner prepared to leave England against a background of uncertainty about the international situation resulting from, on the one hand, the growing power of Nazi Germany and, on the other, efforts to maintain peace. Turner and Robertson were members of the Cambridge Scientists' Anti-War Group. This was not a pacifist group but one which was doing experiments on the protection of the public from attacks from the air. Robertson later reported that they had been to the House of Commons, 'where John talked to the recently formed Parliamentary Science Committee about the problems of gas-proofing'. The experience foreshadowed Turner's later efforts to influence environmental policy and practice in Australia. Despite the controversy in Melbourne, on Turner's appointment, Melbourne University Botany School staff sent a letter offering 'warmest congratulations' and

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41 Turner, Draft Obituary for Ethel McLennan, D.Sc. (Melb.) Hon. LLD (Melb.) UMA TURN 00949.
42 See Humphreys, Wadham p.81
43 Robertson in Clifford, p. 44-45.
assurance of 'hearty co-operation' when he took up duty. Turner travelled to Australia, while his fiancée, Kaye Jones, remained to complete her degree in Botany and Zoology at Cambridge. She left England in 1939 under war-time conditions to marry him and become a constant support, and at times a colleague in his professional life.

Turner was fortunate in his colleagues, who included Samuel Wadham, the fellow professor who welcomed him and became an important person in his new life, introducing him to indigenous Eucalypt forests and fern gullies before the 1939 bushfires. Turner wrote home, describing Melbourne as 'a nice town' and 'the Botanical (sic) Gardens' as 'really magnificent'. He went to the bush with the Wadhams on a picnic 'up into the forested hills 25 miles [away]', and saw 'glorious fern gullies with running water (which is rare), trees 200 [feet] high and views over Port Phillip Bay.' Years later, in the 1970s, Turner wrote that following his arrival in Melbourne he was 'lucky enough to get in some bush walking with the late Professor Cheney (sic) [probably, Professor Tom Cherry, well known in the University for his mountaineering] and others'. He saw something of the Divide, the Acheron Way, Lake Mountain, Mt. Buller and the Bogong High Plains. Thus Turner gained knowledge of the local environment, especially its indigenous plant life through Wadham, Cherry and other colleagues outside the Botany School as well as from its members, including Ethel McLennan, who 'did all she could to help the 'new chum' become familiar with the Australian bush'. Turner’s enthusiasm and determination to learn about the country, as well as to share his own knowledge, are captured by a man with whom he was closely associated. Frank Moulds (later, Dr. Frank Moulds, Chairman of the Forests Commission). Moulds, who was completing a Science degree in 1939, remembered Turner, as eager to discover all about Australia, its people, fauna and its flora, about which he admitted he had much to

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44 E. I. McLennan, Reuben T. Patton, Isobel Cookson, Eileen J. Lister [probably Fisher] Melbourne University Botany School, to Turner, 22 March 1938. The Botany School was part of the Science faculty which had 489 students in 1939. UMA TURN 00937.
46 Turner, Notes made for 'The Third Ecology Symposium,' 23 March 1974, UMA TURN 00881
48 Moulds in Clifford, p.36.
learn: 'He was like an excited student on field trips and excursions - learning as much as any whilst imparting his own knowledge of botany and plant physiology.'\(^{49}\) Dr. Ducker of the Botany School recalled that Turner joined Ethel McLennan's field trips where McLennan made a vital contribution to his knowledge of indigenous flora.\(^{50}\)

Memories of Turner's early days in Australia were recorded fifty years later by a Master of Science student of the time - Dr. Gretna Weste.\(^{51}\) Weste communicated the friendliness and initiative of Botany School staff, recalling that following Turner's arrival, Dr. McLennan gave a dinner party at the Lyceum Club to welcome the new professor and was most co-operative, assisting him wherever possible. 'She remained great friends with the Turners.'\(^{52}\) Weste continued in a light-hearted vein to describe a field trip held to introduce Turner to the Australian bush. She and Margaret (later Dame Margaret) Blackwood, who was also completing a Master of Science degree, organized a weekend at Marysville camping near the Taggerty River. Weste wrote:

> Margaret drove her A-model ford (sic), Henrietta, I borrowed my parents' trailer...
> Dr. McLennan slept in the trailer which Margaret and I had set up, but not stabilized. It rocked all night. We went up to the Cumberland Falls.\(^{53}\)

Following the ANZAAS Congress in Canberra in January 1939, there was a trip to Tooradin, at the northern end of Westernport, chosen because of the aftermath of the terrible bushfires. 'There was literally no unburnt bush near Melbourne for [the Cambridge visitor, Professor Brooks] to see.' Weste remembered that she 'travelled in the boot of Professor Turner's single-seater Ford on this day, scorched by the northerly wind'.\(^{54}\)

Fire created one great environmental and social problem, erosion another. Problems resulted from erosion of soil in the catchments, and from cleared land in lower areas and Turner, in his early Melbourne experience, became involved with people seeking solutions. Wadham discussed a key issue with him: the need for plant ecological

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\(^{49}\) ibid.

\(^{50}\) Dr. Sophie Ducker, pers. comm. discussion with V. Tarrant, 19 September 2002, 36 Percy Street, Balwyn, 3103. Sophie Ducker studied under McLennan, and became her colleague and Turner's.

\(^{51}\) Weste, 'A Reminiscence and Appreciation of Professor John Turner' in Clifford, p.66.

\(^{52}\) ibid.

\(^{53}\) ibid.

\(^{54}\) ibid.
work in connection with erosion, and Turner joined Mr. Clark's [Staff Surveyor in the Lands Department] expedition to learn of the problem.\textsuperscript{55} By this time some thoughtful Melbournians had become concerned over soil erosion because of the red dust storms that blew into the city, causing people to question the policy of clearing the Mallee in the arid north-west of the State in order to establish farms. With the large roots of the Mallee Gums and other trees gone from the ground there was nothing to bind the roots into the soil which lifted in great clouds to be borne away by the wind. As early as the late nineteenth century, observers had noticed sand drift in the Mallee but no action was taken. In 1917, the Ministry for Public Works set up a committee to report on the effects of erosion but nothing followed. Wheat farmers failed to recognize the problems associated with the rotational system of burn, fallow, crop and burn, which was inappropriate to the land because humus was exhausted and soil broken down. Burrowing by rabbits, and over-cropping by farmers anxious to gain a good yield, added to the instability of the earth and to increasing sand drift.

Francis Ratcliffe's study, \textit{Flying Fox And Drifting Sand} (1938),\textsuperscript{56} drew attention to problems created by settlement, over-stocking and farming of the low rainfall areas of Australia. The first Australian edition came later, in 1947, and thereafter the book was reprinted several times, including school editions in 1951 and 1953.\textsuperscript{57} Ratcliffe, a biologist working in the field of applied ecology, demonstrated the problems caused by false expectations of the natural world that had led to stock, in times of drought, eating out the vegetation that bound the soil. He recommended that owners of properties too small to carry out realistic stocking policies should move elsewhere.\textsuperscript{58} Ratcliffe uncovered problems similar to those described four decades later in Worster's \textit{Dust Bowl}, but unlike Worster, who lays blame on the ethos and practice of American capitalism, he does not attempt a detailed analysis of the economic system in which the problems developed. In the United States of America, attempts had been made to deal with erosion during the Roosevelt years of the Great

\textsuperscript{55} Gillbank, p.140, and footnote 5, p. 316.  
\textsuperscript{58} Ratcliffe, 1953 edition, p. 331.
Depression. The efforts achieved some success but problems remained and were brought to the attention of the reading public by the novelist, John Steinbeck. Steinbeck created terrible pictures, not matched in contemporary Australian literature, in *The Grapes of Wrath*, published in 1939, in which the experiences of the Joad family brought alive the shocking situation of small farmers in the state of Oklahoma:

> The wind grew strong and hard and it worked at the rain crust in the corn-fields. Little by little the sky was darkened by the mixing dust, and the wind felt over the earth, loosened the dust and carried it away....
> Men and women huddled in their houses, and they tied handkerchiefs over their noses when they went out, and wore goggles to protect their eyes ...
> In the morning the dust hung like fog ... All day the dust sifted down from the sky ...
> Men stood by their fences and looked at the ruined corn, dying fast now ...  

In the Mallee dust storms, people tried to seal their windows and survive the loss of the soil, but problems remained.

Erosion was a problem in other parts of Australia as well. Gold mining often led to the degradation of land and logging could lead to erosion. Settlers, without knowing what would be the consequences for the soil, put their backs into clearing the indigenous vegetation, in order to create farms or to graze stock, and thus make a livelihood. In New South Wales, concerns over loss of soil led to the creation of a Soil Erosion Committee in 1933, followed in 1938 by the Soil Conservation Service under E. S. Clayton, an authority on erosion in wheat country.\(^\text{[60]}\) In Victoria, the Premier, Albert Dunstan, himself a farmer, visited the Mallee in 1935, but refused to recognize the problems which were associated with the clogging of irrigation channels and quantities of sand blowing on to roads and railway lines. He announced that he 'saw no erosion there' and gained a reputation as an 'ostrich'. However, influential individuals maintained their pressure for action, and eventually achieved some success.\(^\text{[61]}\) Turner became involved in the search for solutions to the erosion problem.

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\(^{60}\) Hancock, *Discovering Monaro*, p. 167.

\(^{61}\) Bolton, *Spoils and Spoilers*, p. 139.
The January 1939 bushfires that swept through Victoria caused destruction of life, buildings, livelihoods and vegetation and also denudation of soil, thus contributing to erosion in the hills and mountains. In his Royal Commission Report into the fires, Judge Stretton described the situation:

Where the fire was most intense the soil was burnt and destroyed to such a depth that it may be years before it shall have been restored by the slow chemistry of Nature. Acres upon acres of the soil itself can be retained only by the efforts of man against the natural erosive forces.

Erosion of soil in the catchments, and from cleared land in lower areas, had already led to the siltation of a number of rivers and fire added to the problem. In the Victorian High Country of the North-East, the soil cover had been deteriorating for decades. Graziers and farmers took their animals up to the High Plains in summer to feed from the succulent vegetation and observers became concerned that overstocking, particularly of sheep during drought years, and the practice of burning to stimulate new plant growth had led to serious erosion. The trampling of sphagnum moss beds was destructive and when those areas dried out there was no longer the sponge-like mass that had held water.

During the late 1930s and in 1940 in Victoria (Turner’s early years in Melbourne) while work was done to explore these issues, it was offset by controversy and denial or shelving of the problems by Albert Dunstan. Finally, legislation was enacted and under the Soil Conservation Act, 1940, a Soil Conservation Board was established with a full-time chairman and staff. At first, the staff was small, consisting of three members. The Chairman, H. G. Strom, became concerned about the condition of the north-eastern mountain country where the cattlemen had been established for decades in their practices of driving stock to summer pastures. The legendary 'Man From Snowy River', immortalized in A. B. Paterson’s famous poem for his capture of wild horses, had become part of an Australian identity. It appeared however, that the eating out of vegetation by feeding animals was causing disastrous loss of ground cover. The 1939 fires had destroyed much of the snow gum woodland and burnt the peat beds. At this point John Turner was approached in order to identify a qualified botanist who would make a scientific study of the area and report on the state of the

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63 Bolton, p.140.
Hume catchment. Turner looked for a suitable man but due to wartime conditions was unable to find a male botanist and recommended the appointment of Miss S. G. M. (Maisie) Fawcett (later, Carr). Her husband, Emeritus Professor Denis Carr, recorded that having graduated B.Sc., with a major in Botany, Fawcett undertook research for a Master’s degree under Dr. McLennan and then began work for a Ph.D. In 1937, she gained further experience through membership of the McCoy Society for Field Investigation and Research, founded in 1935 by Professor Wood Jones, then Professor of Anatomy, and later assisted Turner who had joined as a life member, in an ecological expedition with the Society to Sunday Island in Corner Inlet, east of Wilson’s Promontory.

Fawcett’s work shows a Botany School member making an important contribution to the Victorian environment and to new learning about indigenous plants. Since the Soil Conservation Board was reluctant to employ a woman, Fawcett’s appointment was as a research officer of the University stationed at Omeo in north-east Victoria. The University paid her salary and the Soil Conservation Board (later the Soil Conservation Authority) her research expenses, including five shillings a month for feed for her horse. In the ensuing years, from her base in a rented house in Omeo, at that time a relatively isolated place, she overcame many difficulties, including the challenge of winning the confidence of the local people. She and Turner created research projects on the Bogong High Plains that were seminal in their influence and remain significant in the twenty-first century. A major part of her work lay in organizing the establishment of plots, fenced in order to keep out the animals, so that results could be observed and accurate information gained about the vegetation and the impact of grazing. She also worked on pasture regeneration.

Maisie Fawcett’s regular letters to John Turner reveal her skill and determination, along with the nature of the life she led in the mountain country. She wrote:

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64 See Linden Gillbank in Kelly (ed.), On the Edge of Discovery. Gillbank’s account, pp. 136-154, fills out the picture of Fawcett and the nature and value of her work.
66 Carr stated that Fawcett was reluctant to accept the position but grew to like the life. Fawcett was born in Footscray but her grandmother, Annie Harriet Stinton of Claremont Nursery, Geelong, had taught her the names of garden plants and later, she ‘eventually grew to know most Victorian plants by sight’. In 1935 she went on a walking tour in the Bogong High Plains, ibid.
67 Report of McCoy Society Sunday Island Expedition, UMA TURN Box 137.
A short preliminary burst of Omeo dialect to relieve my feelings ... I carried two of those bloody evaporimeters back from bloody Mt. Mesley ... this afternoon which was the bloodiest part of a bloody awful day, which is the only kind we have had lately ... I cherish an idea that it might be interesting to compare the transpiration (sic) rates with evaporation rates ... I have been on the go a lot lately - Belostra, The Sisters, Hinnomunjie, Glen Wills, Shannonvale, The Knocker and so on. Nearly wore poor Sheila [her horse] to a skeleton but thought I was pretty good myself. Had my tea at Brandons - marvellous women - you must be taken there when you come up.  

In relation to erosion in treed areas, she observed that, 'incidentally erosion in Woolybutt areas is not serious. The only time the soil is bare is after a burn and erosion will only take place if heavy rain falls then...'.

Fawcett took some time to succeed in her plan to visit the High Plains. Dick Johnson, in his account of her work, comments on the 'unheard of practice' of riding out with the cattlemen and of the 'uneasiness among the local wives', and a letter to Turner expresses her own response, referring to one anxious wife - 'goodness knows what she is worried about. Lord knows I don't look like a dangerous woman in my usual garb up here - far from it'. Eventually, she gained their confidence.

The work of enclosing the plots took patience and time but was finally completed. The regeneration that occurred in fenced areas demonstrated the possibility of restoring the land. One enclosure in the Rocky Valley in the Bogong High Plains included the catchment of a small creek which flowed through a gauging station. Fawcett maintained work at Mt. Mesley where steep slopes had eroded and been affected by rabbits eating out the vegetation. Her work there gained her the name of 'Washaway Woman'. Turner had supported Fawcett’s efforts to get to know the cattlemen; her work demonstrated the value of allowing vegetation to regenerate and her example of co-operative effort was followed by government officers. She wrote to Turner about some of the results of her research on the High Plains:

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68 Maisie Fawcett to John Turner, February 1943, Omeo, Victoria. UMA TURN 00892
69 ibid.
71 Fawcett to Turner, Omeo, UMA TURN 00982.
72 Johnson, p.86
The plot on the High Plains is showing a marked improvement. All it shows is a greater number of inflorescences on the Poa caespitosa [Snow grass] tussocks. It is plain that where grazing takes place the grass doesn't get much chance to set seed because the cattle trim off the heads.\textsuperscript{73}

Following her 1944 Report to the Soil Conservation Board, Fawcett became the Board's first research officer but maintained close links with Turner and the Botany School. In 1945 four Botany students assisted her - Gwyneth Wykes, Jean Matheson, Honor Hebbard and Valerie Hartung.\textsuperscript{74} These 'High Plains Hounds'\textsuperscript{75} converted the Rover Scout hut into a botanical holding house for specimens in transit to Melbourne University. John Turner continued to provide support each summer and, in 1946, with a dozen visitors joined the researchers on the High Plains. The group included Botany School members, Drs. Ethel McLennan and Sophie Ducker, Geoffrey Leeper from Agriculture and James H. (later Dr.) Willis. In the same year representatives of the Board met with cattlemen who held grazing licences at the Rocky Valley enclosure and an agreement was reached about the necessity of controlling grazing in the High Plains. Judge Stretton undertook an inquiry into the state of the catchments, and the resulting \textit{The Report of the Royal Commission to enquire into Forest Grazing, 1946}\textsuperscript{76} added weight to the arguments of those concerned about the impact of grazing. Fawcett contributed to Stretton's knowledge of the area and the issues, her involvement indicating her standing as a scientist of value.\textsuperscript{77} Government departments and graziers came to modify land management practices with the banning of burning off and exclusion of sheep and horses. Cattle numbers were to remain at the same level and the length of the grazing season limited. Further changes occurred later. In the 1950s the Report of the Committee chaired by Turner into the conditions of the High Country made use of Fawcett's findings.

From 1945 onwards measurements were made periodically in the High Plains enclosures with labour supplied by the volunteers, who stayed in the Rover Scout

\textsuperscript{73} Fawcett to Turner, 19 March 1945, UMA TURN OO892.
\textsuperscript{74} Gillbank, p.147.
\textsuperscript{75} ibid.
\textsuperscript{77} See Hancock, \textit{Discovering Monaro}, p.166. Hancock considered that Fawcett's researches 'established new principles and techniques of ecological investigation in Australia'. However, botanists suggest that she followed a path already trodden by ecologists. She and Turner were the first to plan the investigations based on the High Plains plots, rather than to 'establish new principles'. 
hut. The Botany School contingent realized to the full the difficulties facing the ecologist in this country as regards the identification and classification of specimens. Fawcett identified the problem:

*It strikes me as unfortunate that Systematic Botany went out of fashion before a complete knowledge of the Australian flora was built up. What is needed is a new and accurate Flora of Victoria and this work will never be completed satisfactorily until it is done by a team of people working in the field... As I see it the job of recasting and improving Flora is one for the University.*

The letter is important, both for its estimate based on first-hand experience of the need for additional knowledge and skills, and for the insight it provides into the relationship with Turner, as she clearly believed it was worthwhile to give her opinion of a need in the Department. While the initial incentive for the High Plains work came from concern over erosion, the by-product of increased skills and information about the flora and the need for further knowledge contributed to growing interest and concern for indigenous plants. Later, Fawcett did teach Systematics, which involved precise knowledge of the characteristics of these plants and the ability to identify them.

The networks of which Turner and the Botany School were a part were vital for exchange of knowledge and the development of influence. The links Turner forged between Cambridge and Melbourne botanists were important, and a list of people visiting the High Plains project provides insight into a local network. Amongst the early parties in the mountains were John Turner himself and notables from the world of science including Macfarlane (later Sir Macfarlane) Burnet, Nancy (later Professor Nancy) Millis, Professor V. T. Hartung, (Chemistry), Dr. R. T. Patton (Botany School), James H. (later Dr. James H.) Willis, (National Herbarium) and Margaret Stones, the botanical artist. Turner believed in the importance of the 'High Plainers' work and in the conviviality engendered by their common experience, which included music and yarning round a camp-fire at night. Dr. Vera Vines, who worked for three years after World War II as Turner's research assistant and joined an early expedition to the High Plains, recalled another aspect of his ability and

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78 Fawcett report to Turner, on the High Plains work party, 14 January 1945, UMA TURN O0892
79 See Gillbank, p.151.
80 Denis Carr, Obituary for Maisie Carr, includes list of early parties of visitors to High Plains expedition UMA TURN 00951, and see Gillbank, pp. 148-149.
interest, writing that 'he would sometimes take out pad and pencil to sketch a tree, a hut, or a distant prospect. It seems he had used this aid-to-recall since he was about twelve years old'. His art shows that his integration of observation, mind, heart and hand went well beyond the creation of an 'aid-to-recall'.

David Ashton wrote in 1988 of his memories of these times. He had been a member of Turner's group on his first Botany excursion to the Dandenong Ranges in 1946 and came to regard the experience as a 'watershed', particularly because of the learning about plants and discovery that 'they were there for a reason'. As a result he changed from Agriculture to Science. In his last term, Turner's lectures on quantitative ecology caused Ashton to decide to pursue ecology rather than agricultural geology.

He showed us with elegant simplicity how precise reasoning and measurement could be brought to bear on the problems of cattle grazing on the Bogong High Plains. I had a real yearning to see this exciting country and it was a tremendous thrill to be invited to participate in the annual pilgrimage to 'the plots' ... in January 1949.

John Turner's genial approach to his fellow workers in the High Plains project as well as his wit and powers of observation are revealed in his small booklet, 'An Illustrated Artificial Key to the Ephemeral Flora of the Scout Hut Association Bogong High Plains Victoria 1947', which contains botanical names derived from the characters of the various participants, including himself 'Turnera exdomestica'. Others are - for Sophie Ducker - 'Duckera persistans', Maisie Fawcett - 'Fawcettia urbophobia', and for James H. Willis 'Willisia migrata'. Many years later Willis commented on his binomial as deriving 'from an apparently restless and itinerant disposition'. Turner nurtured interest and enthusiasm for the research and joined his own skills with an ability to bring fun and entertainment into this splendid but isolated area.

82 D. Ashton, in ibid., p. 1.
83 ibid.
84 J. Willis, in ibid., p. 69.
85 ibid.
Tom Griffiths, in his discussion of the work in the High Plains\textsuperscript{86} describes the 'plots',\textsuperscript{87} the enclosures, as 'primitive time machines' which help scientists 'to read backwards through time in order to see forwards ecologically', and pays tribute to the work of Maisie Fawcett in the research that showed how the land had altered and which demonstrated changes in the vegetation. Turner was important for his role in Fawcett's appointment and for continued support of the project. It is vital, in order to fill out the picture and gain a broader concept of the process and networks through which the work occurred, to note the evidence presented that shows Turner as a key figure.

Practical experience and the University research contributed to increasing knowledge of local flora, publications designed for the public were also important. Turner arrived in Australia at a time when interest in the natural world was stimulated by the new journal, \textit{Wild Life: Australian Nature Magazine}\textsuperscript{88} edited by the scientist and journalist Crosbie Morrison M.Sc., who succeeded the well-known Donald Macdonald as natural history columnist at the Melbourne daily, the \textit{Argus}.\textsuperscript{89} In the late 1920s when Macdonald's health was failing, Morrison worked with him in the production of his column. Donald Macdonald lived in Black Rock, noted for abundant heathland and indigenous trees. In 1929, Crosbie Morrison became engaged to Lucy Washington, whose family owned a house in the same suburb. Lucy (Washington) Morrison recalled that they would drive to Macdonald's house so that Crosbie could confer with Macdonald.\textsuperscript{90} Graham Pizzey, Morrison's biographer and fellow naturalist, wrote in the early 1990s, of Morrison's influence:

\begin{quote}
there can be few Australians over the age of fifty who do not remember either \textit{Wild Life} magazine or the remarkably successful radio program of the same name, both created by Crosbie Morrison ... [he] seemed to have the capacity to touch hidden feelings about natural Australia.\textsuperscript{91}
\end{quote}

\textsuperscript{86} Tom Griffiths, \textit{Hunters and Collectors}, pp. 270-273.
\textsuperscript{87} The Godwin plots established by Turner's mentor, Godwin, in the 1920s in Wicken Fen, Cambridgeshire, were still in existence in the early twenty-first century showing how management could alter plant communities at a given site. 'Wicken Fen Trail Guide', National Trust, UK, 2002.
\textsuperscript{89} Morrison worked for the \textit{Argus} for two stretches of time and later wrote for the \textit{Age}.
\textsuperscript{90} Pizzey, \textit{Crosbie Morrison}, p.114.
\textsuperscript{91} ibid. p. 122
The magazine was designed for readers of all ages and introduced them to a wealth of photographs and articles describing native animals, birds, wildflowers and other features of the natural world. It contained an editorial, book reviews, correspondence pages for boys and girls and for adults and various competitions. Contributors were well-known in their fields and the first edition included pieces by David Fleay, R. H. Croll and Edward E. Pescott. Pescott, author of *Native Flowers Of Victoria*, had held the position of Principal of Burnley School of Horticulture. He had been a pioneer in the propagation of native plants and produced an article, 'Wildlings in Your Garden' illustrated with a page of photographs of flowering plants, captioned, 'Wildflowers-Tamed'.

Field naturalists, wildflowers painters, walkers in the bush, such as Croll, some golfers, for example, who appreciated the spring flowering of the heath in the rough of the Royal Melbourne Golf Club, and a few of the people living in the country had shown enthusiasm for native plants but the idea of growing them in home gardens was relatively uncommon. The editorial comment contained an optimistic assertion: 'All over the Commonwealth the cult of the wildflower and the native shrub for the home garden is extending rapidly, as nurserymen succeed in establishing supplies of hardy plants', and Pescott pointed out that 'almost all of our garden plants were once "wildflowers"'. He wrote enthusiastically about a variety of Eucalypts and Wattles and suggested that in Victoria, the Grampians Thryptomene ('moon-dust' in Greek) was the most popular in gardens. He also advised on the treatment needed for native plants to thrive. The botanist, Jean Galbraith, wrote for fifty years from the mid-1920s, under the name, 'Correa' for *The Garden Lover*, recording how she had learned from Pescott's work, and describing how she and her parents created a wildflower border. However, at this time the large majority continued to plant introduced species in gardens.

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92 *Wildlife Nature Magazine*, 1, 1, October, 1938, United Press, Melbourne
94 *Wildlife*, No. 1, p.5.
95 ibid., pp. 24 & 25.
Wild Life and Crosbie Morrison's broadcasts and newspaper articles were important in raising consciousness of the natural world. Robin affirms that Morrison was a well-known radio personality. She points out that many Victorians active in conservation gave the source of their first interest in conservation as the 6 o'clock radio program on Sunday nights – the Wildlife Show - and argues that Morrison 'developed the conservation consciousness of a generation'.

Graham Pizzey lovingly described his boyhood pleasure in the first edition of Wild Life, bought for six pence at the local newsagent, and in his memory, his second purchase in the field of natural history. It is likely that John Turner also became familiar with the magazine. A. Dunbavin Butcher, Melbourne Botany School student who became Victorian Director of Fisheries and Wildlife, recalling the late 1930s, wrote 'at that time, conservation as we recognize the concept today, was not a topic for academic discussion or concern but here and there individuals were commencing to introduce some of the key issues.' He stated that on his arrival, John Stewart Turner 'immediately became one of that small group', thus suggesting the existence of a cultural milieu with which Turner felt comfortable. Butcher also recorded Turner's contribution to the moulding of public opinion. That work, however, came later.

Kingsley Rowan, a member of the first year Botany class of 1938, referred to ecology, which developed considerable significance under Turner, noting that 'ecology was virtually plant geography under Dr. Patton [the] main concern being in the structure of a number of plant associations around Melbourne.' Research, Rowan recorded, was limited at that time and the numbers of papers produced small.

Turner initiated and encouraged a number of important projects relating to indigenous vegetation. Gretna Weste recalled that before Turner's time, because of the inspiration and leadership of Dr. McLennan (who was a mycologist and plant pathologist) new graduates were likely to take up research topics in plant pathology and that became Weste's field of expertise. Permanent staff, she recorded, 'had a

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99 Pizzey, p. 122.
100 Butcher in Clifford, pp. 9-10.
101 ibid., p. 9
102 ibid.
103 ibid.
variety of research interests, such as ecology (Dr. Patton) fossil plants (Dr. Cookson), and physiology of host parasite interactions, viral and bacterial problems (Dr. Grieve). Weste herself began work in 1939 with the Forests Commission of Victoria as a forest pathologist; because of the dearth of equipment she used that of the Botany School. She wrote of Turner's influence in her career as he asked her to investigate decay in Broken Hill mining timbers. Gretna Weste became a recognized expert in the disease, 'die-back' (Phytophthora cinnamommi) that may afflict eucalyptus and other species and in ways of dealing with this menace, thus making an important contribution to the understanding and health of Australia's trees.

David Goodall came to the Melbourne Botany School to lecture in plant physiology and soon contributed to the High Plains research by employing statistical methods which improved the methodology associated with the point-quadrat system used in the study. Goodall recorded John Turner's enthusiasm for the work and his suggestion that a review of the subject be written for the Cambridge journal Biological Review. Later, Goodall further developed work in the Mallee, collecting and analysing data relating to plant associations. He considered that his stay in Melbourne resulted in developments which have been influential in vegetation ecology during subsequent years. In his transformation from a physiologist to an ecologist he saw the hand of Turner who encouraged and advised him, and produced the necessary facilities.

Turner assisted John Brookes, who returned from War service in 1945 wanting to complete his course. Due to his interest in water catchment yield Turner organized a research project in the Melbourne and Metropolitan Board of Works Wallaby Creek catchment, which involved forest hydrology, an almost unknown field at that time. Brookes worked in Ash forests where bracken grew thickly and had to invent or adapt instruments. Turner himself was one supervisor and he organized a team of

104 Weste in ibid., pp. 166-67.
105 ibid.
106 Kingsley Rowan commented on the value to field work students of experience with the Levy point analysis, Rowan, 'The Botany School, 1938-1973', in ibid., p.50.
others expert in their field to supervise and advise. Brookes expressed appreciation of Turners influence and support. In the mid-1970s Brookes became Director of National Parks in Victoria, later succeeding Dr. R. G. Downes as Director of Conservation in that State. Dr. Mary E. Dettman, in 1988, Research Fellow in Botany at the University of Queensland, wrote of Turners encouragement of research. In paleobotany, Dettman stated, his influence was considerably greater than can be measured by research papers, reports or other published documents. The studies of Dr. Isobel Cookson, assisted by and in collaboration with Suzanne Duigan, Kathleen Pike and Trevor Clifford, provided much information on the origin and evolution of Australias vegetation. Turner saw the value of pioneering research and was a key person in the setting up of a pollen research unit within the Botany School, sponsored by the University of Melbourne, C.S.I.R.O. and the State Electricity Commission of Victoria.

During the Second World War and in the post-war years, the Botany School experienced considerable change. While work undertaken did not always relate to the indigenous plants movement, it facilitated the expansion of Turners networks. Following the entry of Japan into the War in late 1941, the Melbourne University botanists became part of research vital to the campaigns in the Pacific. Work was undertaken on the tropic proofing of optical instruments, including range-finders and binoculars, for the armed services. In the hot, wet, steamy climate the lenses were subject to the growth of fungi which obscured vision. Turner, McLennan and others set out to find a fungicide which would deal with the problem; and continued with control studies after the War in locations in Papua New Guinea. They provided information to the Ministry of Munitions and published reports. In the post-war

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107 David Goodall, in ibid., pp. 26-27.
109 M. Dettman, 'John Turner and his Influence on Australian Paleobotanical Studies' in Clifford, p19.
period research expanded when six students, including Kingsley Rowan, undertook master’s degrees. The optical-mechanical workshop used for tropic-proofing remained valuable, more equipment was provided, some of it by the Commonwealth as the numbers in the department increased with the influx of ex-service personnel under the Commonwealth Reconstruction and Training Scheme. John Turner, who had been highly regarded in Cambridge for his research into respiration, had brought specially built equipment with him from England and continued the study of metabolism of tissue slices with his friend Bob (later Sir Rutherford) Robertson.

Turner was concerned with educating himself and his students. In 1943, he also became involved in secondary school science education, as the co-author of *General Science for Australian Schools, Vols. I & II*.[^111] He continued his studies of local flora and soil erosion in 1943 as one of a party intent on making investigations into the state of the Mallee in north-west Victoria. Reuben Patton led an excursion of the McCoy Society. The women and men travelled by train to Walpeup and then used local transport, consisting of sheep truck or tractor, which enabled them to see the country clearly and cheaply. They were assisted by personnel of the Mallee Research Institute and were able to observe sand drift and the problems of wind erosion in general. The team recorded observations of Eucalypts and of a variety of birds and insects, and made lists of the indigenous plants collected. The excursion was pronounced a success and Turner wrote gratefully of Dr. Patton’s excellent work.[^112] Patton had contributed to public knowledge of native vegetation through his book (in which he had described the Mallee Gum) published in the previous year, *Know Your Own Trees*.[^113] In this work he had begun the process of educating the public about the Eucalypt.

Turner used his Cambridge connection to benefit the Melbourne Botany staff and students and, in 1950, arranged a visit from Dr. Alex Watt, lecturer in Ecology at Cambridge, who had made important studies of beech forests and bracken and with

[^112]: Expedition to the Mallee*, Report of McCoy Society, 1943, UMA TURN BOX 137
whom Turner had worked in the Oakwoods of Killarney, Ireland. David Ashton considers this invitation was a 'master stroke', particularly as 'this deep thinking man' began to ask questions about the vegetation that was unfamiliar to him, questions to which people in the late 1980s were still searching for answers. He wrote that, Watt 'above all introduced us to a plant-centred view of the world' - a perspective of importance for botanists and for environmental historians. Ashton suggests that Watt’s influence remained significant in Australian universities and in the C.S.I.R.O. Ray Specht, Melbourne Botany School staff member, who became Professor of Botany at the University of Queensland, believes that young 'embryo ecologists', David Ashton, Maisie Fawcett, Trevor Clifford and John Brookes, who had been impressed and influenced by Turner himself were stimulated to great achievements in their field and were strengthened in their enthusiasm by Alex Watt’s visit.

The Melbourne University Botany School in the early twenty first century has a lecture theatre named after John Turner, but while his name would thus be known to the undergraduates of these times, it is in the memories, careers, everyday lives and other undertakings of the members of the Botany School, 1938 - 1973, that he is better known. Students and staff remember an engaging and inspirational lecturer, qualities observed at Cambridge before he left for Australia. Melbourne students who have written appreciatively of John Turner’s influence include the researchers of the High Plains and other expeditions and also those who recall his lectures. As a student, Kingsley Rowan valued Turner’s lectures in Plant Physiology Part III, which 'were a pleasure to listen to', his lectures on water relations in second year were 'beautifully presented in the days before water potential was heard of'. He later judged that John Turner combined great ability as a research worker and lecturer (and administrator). One of the best known of the early students is James Hamlyn

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114 David Ashton, in Clifford, p.2.
115 ibid.
116 Specht, in ibid., p.58.
117 Diane Cavaye, (nee England, University of Queensland Senator) recorded her memory of the 'tall, handsome young professor who wore a red tie ... [a] lively, attractive, interesting lecturer', in ibid., p.11.
118 Kingsley Rowan in ibid., p.54.
(Dr. Jim) Willis, who in 1939 was completing the third year of his BSc degree and majoring in Botany. He became Assistant Government Botanist in Victoria and in that role, in the field and as an author made a large contribution to the knowledge of indigenous plants and to the raising of consciousness and respect for native trees and plants. He wrote appreciatively of Turner, remembering half a century of friendship, support of many kinds and 'patience of almost Jobian proportions' over his 'frequent procrastinations' that delayed publication of the two volume *Handbook To Plants in Victoria*

Turner was not only skilled in his field but possessed of a love of the places and plants that formed the basis of his work. His ability to communicate effectively to colleagues and students was important in the development of enthusiasm for their research, which included the gathering of knowledge about indigenous vegetation. By 1950, he had learned much about the characteristics of Australian flora, soil and landscapes and gained some understanding of the role of fire. At this stage Turner and the Botany School were consolidating knowledge of indigenous plants as a by-product of investigation into erosion and the impact of grazing.

In today's changed cultural climate, people evaluating Turner's achievement could point to its limitations. He produced no substantial, authoritative publication. He maintained a patriarchal approach and role as 'god-professor'. In this latter respect, he was similar to a number of other department heads at Melbourne University of whom he wrote. Turner himself referred to his 'lack of success' in a particular field. However, he also spoke of efforts to keep his staff contented as well as of gaining a 'great deal of pleasure out of teaching, research ... and in the early days administration'. It is apparent that he encouraged women and men to undertake research and as a convivial member of field trips worked literally at grass roots level with colleagues and students. In the wider community, as a 'non-cloistered

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119 J.H. Willis, in ibid., p. 69.
120 Turn in his later years, referred to fellow professors, including Hills (Geology) Crawford (History) Boyce Gibson (Philosophy) Wright (Medicine) commenting that 'in those early days ... some of the profane called us God-professors. In reality each was an unholy Trinity, expected to run his department and take his turn as Dean - and some as Chairman of the Board - as well as to teach and do research.' Turner, 'Edward Sherbon Hills 1906-1986', Obituary, UMA TURN 00947.
121 Turner, speech at his retirement dinner, Melbourne University, December 1973. UMA TURN 00938.
academic" (his own term) he became a powerful influence, one well-known in a wide variety of councils, committees and other bodies, many members of which sought out and valued his contribution. The next chapter examines the manner in which he contributed to local societies concerned to conserve their indigenous plant communities and how he became involved in larger public projects.

\[122\] Ibid.

\[123\] See Carrick Chambers in Clifford, pp. 12-13. Turner himself stated, "the working university staff member and student should occasionally leave the ivory tower for the public forum ... every university graduate should do so", J. S. Turner, Senior Professor, Melbourne University, Occasional Address, Degree Day, 18 August 1973.
From left to right – Jack Newey, Botany III student; Norman Endicott, Botany III student; John Brookes, Botany III student (returned serviceman); Sophie Ducker, research assistant; John Fitzpatrick, Botany III student; MMBW worker; Professor John Turner; Iona Macleman, research student; Jean Mathieson, senior demonstrator; Associate Professor Ethel McLennan; in front – Bob ‘Tiny’ Oldham, MMBW forester, Kingsley Rowan, research student

Photograph by Professor Hartung, presented to Melbourne University Archives, Turner Collection, by Norman Endicott. Names provided by Dr. Linden Gillbank
CHAPTER 2

OUR PLACE

That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics. That land is a cultural harvest is a fact long known but latterly often forgotten.

Aldo Leopold, 1948, Madison, Wisconsin.¹

This chapter is concerned both with new community organisations developed during the 1950s in order to conserve valued indigenous bushland within the Melbourne metropolis, and with developments in the Melbourne University Botany School. In the public domain, Turner chaired the investigation into the impact of developments in the High Country that led to new understandings about the ecology and management of that region. Campaigns to conserve wild places have captured public imagination and led to changed consciousness and policies in Australia but much of the micro-history centring on groups within the boundaries of expanding cities has been neglected and needs attention. Different in character from the Botany School research, the work undertaken by people who formed new organisations was based on their strong sense of place and of the value of the local vegetation of their suburban neighbourhoods. I argue that through their ability to act in an influential manner, individually or as a group, they fit Hobsbawm’s description of ‘Uncommon People’.² Part of their effort which needs investigation depended on interaction with University staff and others concerned with native plants. These people were drawn into the community projects through the insistent demands of residents and in turn learned from them. Hence, a process of cross-fertilisation of ideas and knowledge occurred, most notably through John Turner and conservation-minded citizens in the Dandenongs Ranges, east of Melbourne, and in Beaumaris on Port Phillip Bay.

Understanding the context is important. By 1950, a new climate was developing in Australia following the defeat of Labor under Chifley and the establishment in government, under Menzies, of the Liberal Party created from the former United Australia Party. The Cold War was setting in with increasing fear in the West of the spread of communism. The dropping of the atom bombs on Hiroshima and Nagasaki had stimulated the rise of a peace movement and, conversely, the determination to maintain nuclear testing among others. Aldo Leopold’s Sand Country Almanac, published in 1949, drew attention to the preciousness of the earth and its plant life, at a time when the power of destruction had never been greater.

² Hobsbawm, Uncommon People, p. viii.
At that time, the natural environment in Australia, substantially altered since 1788 by the settlement of the diversity of people who had arrived mainly from Britain but also from countries as varied as China, Afghanistan and the United States, still contained areas including the Gibson Desert, where Aboriginal Australians maintained their long-established life-styles, largely unaware of the people and new culture that had come from overseas. Thus within the continent there existed still, an environment distinguished by indigenous trees and plants, and inhabitants who changed the landscape by fire, food gathering and art but did not build the houses, roads and other constructions integral to the lives of the new settlers. In the rest of the country vast changes had occurred with the growth of cities, spread of agriculture, the pastoral industry and modern transport, all accompanied by the introduction of non-indigenous crops, animals, birds, garden plants and weeds. Much of the 'outback' not settled by the newcomers was altered by the activity of feral animals and by plants grown from seed borne by wind or birds.³

Empire-builders whose policies and actions led to these changes generally assumed that the technologies and practices brought with them were superior to anything in indigenous culture and so the lives of the original people and the non-human biota were changed in what was seen to be improvement. Certainly, the changes made possible the introduction of a huge number of plants and animals from many parts of the world and larger human populations.⁴ The question of the sustainability of the new environment remains a matter of concern and debate, brought strongly to public attention in Tim Flannery's *The Future Eaters*.⁵ Changes to the environment in countries colonised in the past five hundred years did result in new problems. In Australia these included erosion of the High Country and new kinds of bush-fires. It was such developments that led to the Melbourne Botany School research in threatened areas during John Turner's early years at the University. High Country research continued in a different way after Maisie Fawcett returned to the university, and new projects were undertaken, some of them relating directly to Victoria's indigenous vegetation.

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⁴ See Blainey, *The Triumph of the Nomads*.
While in the fifties there was a significant growth in Australia of Commonwealth government power, at this stage its role as a legislator in environmental issues was not envisaged. This role was developed later because of new demands, notably in response to the campaign of the early 1980s to save the Franklin River in Tasmania from damming.

Post World War II demand for land and houses in Greater Melbourne meant new development in areas that had been farmland, orchards or bush. Returned service men and women and other young people wanted to establish homes and gardens after the period of restriction that accompanied the war, the majority creating gardens with lawn, flower and vegetable beds and introduced trees. There were exceptions however, and in them lay the seeds of a new kind of indigenous plants movement. Of particular importance were developments in Eltham, the Dandenongs and Beaumaris, where groups wanting to conserve their local vegetation demonstrated their power and influence.

Eltham, situated on the city's outskirts and known for its artists' colony, was loved by a diversity of residents, partly because of the community they had created but also for its gum trees, wildflowers and 'non-suburban' feeling. A number of writers, artists, builders and architects as well as botanists promoted indigenous vegetation. Well-known author, Alan Marshall, who lived in Eltham for a number of years, expressed an attitude that prevailed in that area in his Foreword to a book by Alistair Knox, the designer and builder of mud-brick houses conceived as belonging in the land. Marshall wrote of:

> the untouched beauty of Eltham’s wild places where the spirit of the place manifests itself in bird calls, drifts of wildflowers, mounds of soft, damp green moss, beneath which helmet orchids brush the legs of exploring children.\(^6\)

Knox himself described outer suburbia giving way to the red-gold colour and light of the dense native bush. He claimed that the doubling of the number of trees in Central Eltham since 1945 indicated the power of the movement to care for the 'special bushland' and explained that 'Eltham was fighting for the retention of indigenous trees'.\(^7\) Such attitudes were uncommon in Australia at that time, although a notable exception to the suburban home surrounded by lawn and formal garden with exotic trees and flowers was to be found in Castlecrag, close to the shores of Middle Harbour, Sydney. This suburb had been designed by Walter Burley and Marion


\(^7\) ibid., p. 47.
Mahoney Griffin in order to retain the bush and induce respect for the original landscape.\textsuperscript{8} While the Griffins as individuals were the prime movers in Castlecrag, Knox believed in the power of the Eltham people working together and dedicated his book to:

\begin{quote}
members of the Eltham Community who between 1945 and 1960 were not a group divided into rich and poor, wise and simple, but were one united people who advanced an Australian way of life in a way that has not been equalled anywhere else on the continent.\textsuperscript{9}
\end{quote}

Knox certainly idealised the group but was correct in his linking of their endeavours to a nationalistic feeling. Despite new development, Eltham retained stretches of indigenous vegetation, indicating that the community, some of the 'Uncommon People', gained a measure of success.

In Eltham in the early fifties, the affection and respect for the landscape and its vegetation that inspired Alistair Knox also affected Ellis (Rocky) Stones, Gordon Ford, Peter Glass and others, who created landscapes using boulders and rocks, that looked as though they belonged in the land, and planted indigenous species, often mingled with those of other native or exotic origin. Years later, Gordon Ford referred to the relationship between the work of the garden designer Edna Walling and that of Ellis Stones and wrote of Walling’s ‘strong design influence’ on Stones whose ‘natural ability for rock placement complemented her own’.\textsuperscript{10} He evaluated their interaction as 'powerful and creative' and an influence in his own work. In the early twenty first century these gardens exist.

In the Dandenong Ranges, east of Melbourne, and well-loved by residents and holiday-makers for its tall Eucalypts, wildflowers and fern gullies, as well as for gardens planted with Oak, Claret Ash, Rhododendron and other exotics, people made the unprecedented effort to retain bushland which marked the founding of one of the first conservation societies in Australia. The story of events in these 'Hills' is important firstly for what it reveals of the motivations and action of a resident wanting to stop a clearing and building project and conserve bushland, secondly for the role of John Turner and the creative relationships that developed; and thirdly, for the formation of a strong, articulate group that demonstrated the power of determined people working together. Miss May Moon, a kindergarten teacher and resident of

\begin{footnotes}
\item[9] Knox, p.ix
\end{footnotes}
Jeeves Road, close to the Mountain Highway, Kalorama, recorded the origins of the Save The Dandenongs League (SDL), which she helped to establish:

It was a Spring morning in September 1950 that I stood with a neighbour on the corner of Jeeves Avenue and Mt. Dandenong Road, Kalorama, regretfully regarding the destruction of a stand of magnificent Messmate and Mountain Grey Gums. 'Those trees over there' pointing across the road, 'are going too', said my neighbour, whose husband had been asked by the owner to clear some acres of splendid Messmate and understorey, sheltering and protecting a great variety of wildflowers, for a residential sub-division. The neighbour produced an estate agent's pamphlet with the plans for seventeen quarter acre blocks and a roadway. Miss Moon picked up the plans and declaring, 'he can't do that', ran up the hill to friends to see what could be done about this unwanted sub-division. A local man said 'you should see Professor Turner.' Miss Moon, who had never heard of the Professor was told of his position in the Botany School at Melbourne University and soon arrived there to request his assistance. She remembered the significant encounter that followed and recorded that Turner 'agreed to chair [a] public meeting. He knew the area as he had taken his students to study the great variety of native flowers there'.

The meeting held in the Olinda Hall on 13 October 1950, attracted one hundred and fifty people, and the Save The Dandenongs League was established with John Turner as one of its founding members and May Moon as secretary. Turner later became a committee member, and from 1959 till 1982 he was the president and a force in the efforts to conserve the bushland trees and flowers. Another source of influence came through people of public standing who were invited to provide support and patronage. They included Sir John Latham, chief justice of the High Court of Australia, Sir Gilbert Chandler, local horticulturist and parliamentarian, and Crosbie Morrison. May Moon's letter to Sir John, requesting his patronage of the League, indicates members' concern over the pace and character of development. They felt that with the 'subdivision of land into tiny allotments' they were in 'danger of losing forever a heritage' which it was their 'duty to pass on unspoiled to future

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11 M Moon, Hand-written manuscript, 'The first twenty seven years of the Save the Dandenongs League', UMA TURN 00887
12 ibid.
13 ibid.
14 ibid.
15 'Save the Dandenongs' League, Under the Patronage of Sir John Latham, Sir John Behan, Mr. William Ricketts, Cr. W. A. Comeadow, OBE, JP, Mr. E. F. Lord, Mr. John Farmer, Mr. Maurice Nicholls, Dr. Deborah Buller-Murphy, Professor John Turner, Mr. W. A. Dargie, Mr. Geo[sic] Allen, Mr. W. A. Campbell, League letterhead, John Latham Papers, National Library of Australia, 1009/79/6. (Hereafter Latham Papers with file number).
generations’. Members’ idea of ‘duty’ to pass on a ‘heritage’ is an early expression of values that became increasingly important in conservation statements. In pursuit of their objectives the Save the Dandenongs League aimed to prevent ‘further destruction of timber and beauty spots’.\textsuperscript{16} Latham strongly approved of the League’s goals\textsuperscript{17} and became not only a patron in name but an active supporter who negotiated with politicians\textsuperscript{18} and maintained a friendly association with John Turner.\textsuperscript{19}

A contributor to the Save the Dandenongs League (SDL) Newsletter judged that May Moon and John Turner were ‘in many respects ahead of their time in their appreciation and understanding of the environment’,\textsuperscript{20} arguing that the reserve, Kalorama Park (beside the Mountain Highway near Jeeves Road) would not exist but for the efforts of those two people'.\textsuperscript{21} The interaction between May Moon, possessed of determination to take unusual action, and John Turner, the professor who stepped outside his university role and used his expertise in botany and in the public arena, proved fruitful. Similar relationships were important in the bayside area of Melbourne.

In post-war Beaumaris near the eastern shores of Port Phillip, a new movement to care for indigenous vegetation was developing in an entirely different environment, but again the strength of group action became apparent. Some of the people who became suburban pioneers here made concerted efforts to conserve their distinctive coastal environment and minimise the destruction of indigenous trees, shrubs and wildflowers.\textsuperscript{22} Their group developed a network of advisors and supporters, known to be experts in their fields, and including members of the Melbourne Botany School. This chapter proposes to investigate records which reveal the methods of working adopted by the members of the Beaumaris Tree Preservation Society. Such investigation is valuable for what it reveals of the policies and work undertaken from the time of the Society’s establishment, and for the foundations laid, on which was built the more activist movement of some years later. Originally land held by the

\textsuperscript{16} May Moon, Secretary SDL to Sir John Latham, 11 May 1951, ibid., 1009/79/1.

\textsuperscript{17} Latham to Moon, 16 May 1951, ibid., 1009/79/2.

\textsuperscript{18} For example see Latham’s letter to the Premier, Hon. Henry Bolte, on the value of the ‘lofty trees’ and ‘fern gullies’ of the Dandenongs and of their value to tourism, 22 June 1957, ibid., 1009/79/43.

\textsuperscript{19} Turner to Latham, 15 July 1957, ibid., 1009/79/47 and passim.

\textsuperscript{20} SDL Newsletter, April 1982, UMA TURN 00886.

\textsuperscript{21} ibid. In the area of bushland close to Jeeves Road, a plaque records May Moon’s efforts, and below the Kalorama store another plaque records gratitude to John Turner. Pers. obs. 26 February 2002.

\textsuperscript{22} Disney and Tarrant, Bayside Reflections, p.176.
Ngaruk Willam clan of the Boonerwrung, part of the Kulin People, the Beaumaris Run was, from the mid-1840s, held by the Moyseys who had migrated from England, and settled near the site of the present Beaumaris Hotel in Beach Road. Later, the area became a popular holiday resort. The foreshore was clothed with Tea-tree (*Leptospermum laevidatum*) She-oak (*Allocasuarina verticillata* syn. *Casuarina stricta*), Coastal Banksia (*Banksia integrifolia*) and a diversity of smaller trees, shrubs and ground-covering plants, including the edible native spinach (*Tetragonoria tetragonoides*) also known as Botany Bay Greens or Warrigal Cabbage and Bower Spinach (*Tetragonoria implexicoma*). Inland were stretches of heathland with intermittent trees, including eucalypts and wattles. In places the Coastal Tea-tree had established itself and become highly regarded by many locals.

Many of the men and women who bought land and established homes in Beaumaris after the Second World War liked the indigenous trees, shrubs and wildflowers that distinguished the developing suburb and made considerable efforts to preserve its distinctive character, planting street verges and gardens that were notably different from those that were typical of suburban Melbourne. In January 1953, they formed the Beaumaris Tree Lovers’ Group, soon to be known as the Beaumaris Tree Preservation Society. The first president, Bea Hosking, recorded the motivations for her involvement, saying that childhood influences were important. She had grown up in the country on 'cleared farmland' but had spent time at Seaspray and other coastal places vegetated with local species. At school she had 'done nature study with a good teacher'. Other influences in her efforts to conserve the bushlands included her knowledge of the 'Griffin area in Sydney' [Castlecrag] where houses 'were built among the bush', tree lovers in Nunawading, east of Melbourne and the promise of support from the President of the Beaumaris Parents' and Citizens' Association.  

The Beaumaris Tree Preservation Society was a group of men and women able to articulate their concerns and objectives and with the means of calling on expert opinion. They demonstrated knowledge of who were key people and had the ability

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to use official bodies. Early correspondence and publications reveal members' objectives, the individuals they valued and called on for information and advice and the networks that developed. Their effort encompassed five main endeavours - to retain as much as possible of the original vegetation in gardens and on nature strips, to plant indigenous species and, in some cases, plants from other places, in bare areas, to publicise their aims and encourage new residents to develop similar practices, to develop relations with the Sandringham City Council and to gain support in their effort to plant nature strips with local flora. The Secretary communicated with the Herbarium, 'Save the Forests' and the Forests Commission of Victoria with the objective of gaining relevant information about the habits of native trees and flowers and especially about planting techniques. The letter stated that the group had been formed by Beaumaris citizens concerned about the gradual destruction of native trees and flowers in the area by road-making, clearing of land and other activity and explaining that their aims included assisting the preservation of native trees and flowers, and re-planting them in parklands, nature strips and on private property. At this stage it appears that the Society wanted to conserve as far as possible the local communities of plants, but also accepted the addition of certain other native Australian species.

One response led to a new source of support. The Forests Commission representative recommended that the Society 'communicate with Miss Waddell', a Toorak resident, because of her involvement with the Native Plants Preservation Society [of which she was the founder] and with the Melbourne Botanic Gardens and National Herbarium staff. Later, John Anderson, Acting Town Clerk of the City of Sandringham, reported that Miss Waddell had visited Beaumaris and suggested that a reserve be established in the vicinity of McNaught Street where the best examples of wildflowers were to be found. Eventually, in the late 1950s, Sandringham council reserved an area further south in Gramatan Avenue, with support from numbers of people from the locality and further afield. Winifred Waddell is remembered in Beaumaris because she contributed money to the project and through the naming in her memory of a section of the nearby Long Hollow Bushland.

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26 Sue McDougall, Secretary Beaumaris Tree Preservation Society, letters to the Herbarium, Save the Forests League, later the Natural Resources Conservation League and the Forests Commission of Victoria, 11 February 1953, Beaumaris Tree Preservation Society Collection/ Correspondence, hereafter Beaumaris Society/ Correspondence.
28 Long Hollow Reserve, situated near the corner of Reserve Road and Gramatan Avenue, City of Sandringham, after December 1994, part of the City of Bayside.
Winifred Waddell M.B.E., B.Sc. was one of several women important in the movement to conserve and grow indigenous plants. Born in England in 1884, she came to Australia in 1915 and taught mathematics at the Melbourne Church of England Girls’ Grammar School (Merton Hall) until her retirement in 1941, and then became a tutor in mathematics at Trinity College, University of Melbourne. She explored the bush on foot and on horseback, learning a great deal about the flora and lamenting the destruction of bushland areas. She formed the Wildflower Preservation Group of the Field Naturalists’ Club of Victoria, and this became the independent Native Plants Preservation Society of Victoria in 1952, and later the Society for Growing Australian Plants. She made great efforts to educate the public about the importance of caring for the flora of the State and was involved the establishment of sanctuaries. Waddell explained that:

Native flora was the result of ages of natural development. The unshod aborigines (sic) valued and respected it; their totemic and tribal law protected it, and grazing by native animals was part of the balance ... Such flora could not survive disturbance and intensive grazing by sheep and rabbit, nor could it compete with introduced grasses and weeds which now spring up on all broken ground ... However ... native plants flourish wherever the humus is undisturbed.  

From 1960 to 1964, she wrote articles about wildflowers, including many found in Beaumaris such as the Chocolate Lily, for the Junior Age. After her death in 1972, these were edited by another noted naturalist and writer, Jean Galbraith, and published in Wildflower Diary. Her knowledge, enthusiasm and contacts were all valuable to the Beaumaris people, to whom she showed an awareness of the struggles they were likely to face. She stressed the need to explain to the new residents that indigenous species surviving on the property are much better than anything that can be planted, adding that she was pleased to see there was a 'Battle of Beaumaris'.

Unlike Turner and the Melbourne University botanists, she was not working in a field directly related to her daily work, but was an important member of a network of people of all ages who came to know Australian trees and wildflowers, not because of their professions, but through personal observation, love and interest, at times in the company of like-minded members of the Field Naturalists’ Club, founded in the nineteenth century, or of Walking Clubs.

29 Other women important in the indigenous plants movement were Edna Walling, Jean Galbraith and Gwynneth Taylor.
31 Letter, Winifred Waddell to the Beaumaris Tree Preservation Society, 29 June 1953, Beaumaris Society/ Correspondence.
‘Beaumaris or Baremaris’

BEAU – MARIS

- OR BARE – MARIS?

Beaumaris Tree Preservation Society leaflet ?mid-1950s
Indigenous Plants of Beaumaris

These native flowers are found in Beaumaris, and could form an integral part of your garden:

**Running Postman.**

**Wedding Bush.**

**Goodenia.**

**Correa.**

**Banksia.**

**Guinea Flower.**

There are many more—look for them and keep them undisturbed.

Drawings by Moira Pye. Blocks by courtesy of "The Age."

Beaumaris Tree Preservation Society leaflet ?mid-1950s
The Society in their plan to identify plants invited co-operation from A. W. Jessup, government botanist and director of the Botanic Gardens. He provided the useful practical information that native plants could generally be grown from seed, explaining how to proceed, and thus extending the work of the Beaumaris group.  

The Beaumaris Tree Preservation Society’s efforts to learn about the propagation and care of local plants and to encourage other people to nurture and value the bushland environment included public meetings, displays of native plants and the decision to publish booklets with articles by well-known experts. Publications provided education and publicity, and the Society generated great interest, in the spring of 1954, through an address by Dr. Reuben Patton from the Melbourne Botany School and the launch of Native Plants in Seaside Gardens. This latter initiative took the concern for indigenous plants beyond Beaumaris into the wider community. A selection of people who ordered the book indicates their diversity. Dr. Galbraith wrote from the Children’s Hospital requesting eight copies in addition to the one he had been given of this 'most excellent publication' and suggesting that more native plants be introduced into the gardens of the orthopaedic section at Frankston. Frances McCallum of Toorak, an Englishwoman, commented that it was 'absurd to spend enormous amounts of money and energy persuading unsuitable plants to grow here [in Australia], particularly when so many beautiful native plants exist'. Supportive letters came from many suburbs, including Warrandyte, Glen Iris, Essendon and Kew.

The well-known architect, Robin Boyd was important in the Beaumaris movement. He gave permission to use material from the Herald or the Age Small Homes column, and the selections reveal his beliefs and attitudes, and the linking of a new movement in the design of homes with the conservation of local vegetation. He referred to Walter Burley Griffin’s use of native plants as 'a matter of course to complement his architecture'. Boyd considered that Beaumaris was unique: despite 'ravage of wildflowers, tea-tree, wattles and gum, still it manages to retain more native plants among its houses than any other suburb'. Boyd notable for his innovative designs, conceived as appropriate to their environment and often

32 A. W. Jessup to the Secretary, Beaumaris Tree Preservation Society, Beaumaris Society/ Correspondence.
33 Dr. Galbraith, Royal Children’s Hospital, Melbourne, to the Beaumaris Society, 8 October 1954, Beaumaris Society/ Correspondence.
34 Frances McCallum, Denham Place, Toorak, to the Beaumaris Society, October 1954, Beaumaris Society/ Correspondence.
35 Robin Boyd, cited in More About Native Plants and Seaside Gardens, Beaumaris Tree Preservation Society, 1956, p. 3. [editor’s name not included].
incorporating the use of northern sunlight and open planning, later elaborated in *The Australian Ugliness*:

> The essence of Australian suburban life is unreality ... [the suburb] is the bastion against the bush. In certain areas - parts of Wahroonga and Castle Crag (sic) in Sydney, Beaumaris and Blackburn in Melbourne and St. Lucia in Brisbane - gum trees prosper among the houses and a countrified air is not discouraged. But for the most part modern Australian living is represented by the shorn look.\(^{36}\)

The historian Geoffrey Serle evaluated Boyd's attitudes and values, affirming the architect's support for the Beaumaris Tree Preservation Society, but pointing out that the suburb was split into two camps - 'half a normal suburb, half a phenomenon; half cleared, half a glorious tangle of Tea-tree, Banksia and Gum trees'.\(^{37}\) The statement sits well with Winifred Waddell's earlier reference to the 'Battle of Beaumaris'.\(^{38}\) However, despite the truth embodied in the description of the opposite types of homes and surroundings, some of the society's efforts were more persuasive and educative than warlike.

Robin Boyd and John Turner both contributed to the educative and networking aspects of the Society's endeavour. Turner urged the Sandringham Council to create a heathland reserve, affirming his first hand knowledge of its value to students, its scientific importance and the case for 'the preservation of small areas if only to remind the people of Melbourne that they are living in an Australian city'. He recommended that Sandringham Council give a lead to other centres and pointed to overseas countries which were conserving natural features.\(^{39}\) In 1957, Boyd supported the campaign to reserve a section of original bayside flora on the Dunlop estate in Beaumaris.\(^{40}\) Finally the campaign proved successful and in 1958 fencing was organised for four blocks in Gramatan Avenue, Beaumaris, which became a sanctuary dedicated to the conservation of local flora.\(^{41}\)

Turner and the landscape architect, John Stevens, were invited to contribute to a Society publication after Stevens provided 'a most informative talk'\(^{42}\) at a meeting he

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\(^{38}\) The Society produced a poster featuring two houses one with trees, one without and the caption, 'Beaumaris or Baremaris'. (See illustration following p. 64).


\(^{40}\) *Herald*, 8 July 1957. (and see illustration of flora following 'Beaumaris or Baremaris').

\(^{41}\) ibid.

\(^{42}\) Letter Beaumaris Secretary, Sheila Ridland to John Stevens, 29 July 1954, Beaumaris Society/Correspondence. Stevens studied Botany at Melbourne University and graduated B. Ag. Sci.
attended with John Turner. In response to the Secretary's (Sheila Ridland's) request to write on how heathland and coastal flora had developed and adapted to their environment, Turner sent the article, 'Sand Dunes and Heathlands', that pointed to the special character and value of heaths and dunes, which in Victoria were far richer in vegetation than those of other countries:

Instead of the low grass-covered windy dunes of the English coast, Victoria has high and varied dunes with the pleasant shelter of the picturesque tea-tree and the banksia. Instead of the heath of Europe, with its brief blaze of purple heather and heaths, but its poor and restricted flora we have our local heathland, with 60 or 70 varied species of heath, tea-tree, wedding bush, legumes, fly-catchers, orchids and the like. It is a great pity that no large natural area of this kind has been reserved along the coast near Melbourne. In its place we have a few excellent golf courses and, at Beaumaris, a suburb which, to some extent at least, will retain an Australian flavour.43

Turner commented on the poor soil of the heathlands that supported the rich diversity of plants and on the way in which plants 'initiate a cycle of return in the soil', by providing minerals in the form of dead leaves so they are available for future generations. He suggested that a symbiotic relationship with fungi - a mycorrhiza - could enable the roots of plants more readily to obtain nutrient from poor soil and reported that it had been shown at the University of Melbourne that there were sixty species of fungi found in the Frankston heath soils. (Frankston was the site of many Botany School excursions). He pointed to the importance of these areas in a dual context adding weight to arguments in favour of their retention. 'The survival of heath and dune is of considerable moment to scientists as well as to those who value these areas for their scenic beauty and historical association'.44

Turner addressed the problem of weed invasion, identifying the notorious boneseed, African 'bone bush', Osteospermum monilferum (later known as Boneseed or Chrysanthemoides monilferum) and Shrubby Milkweed, Polygala myrtifolia, lamenting that the former, which he described as a 'most unattractive shrub with its bright yellow daisy-like flower, which has an amazing power of spreading and dominating' was not a declared weed.45 (By the early twenty first century, Boneseed had been declared a weed and Beaumaris conservationists along with many others, regularly make great efforts to eliminate it).

The Beaumaris publications revealed not only practical information but the range of people called upon by the Society. These include the botanist and writer, Jean

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43 J.S. Turner, 'Sand Dunes and Heathlands' in More About Native Plants and Seaside Gardens, p. 6
44 Turner 'Sand Dunes and Heathlands', in ibid., p. 8.
45 ibid., p. 7
Galbraith, who contributed a piece with advice about propagating from cuttings and complimented the society on its wildflower show.  

W. Cane, propagator of native plants at Clearview Nursery in Maffra, Victoria, gave more detailed information. Ernest E. Lord, FRHS, landscape architect and ex-curator parks and gardens, shared knowledge of Eucalypts; T. R. N. Lothian, director of the Adelaide Botanic Gardens contributed an article entitled, 'Are Australian Plants Susceptible to Artificial Fertilisers?'; J. W. Audas, who had been Senior Government Botanist at the National Herbarium, Melbourne, described 'The Culture of Native Trees and Plants for Home Gardens,' sharing the regrets of those who from childhood days had learned to love and value native plants and had found that many of their favourites had disappeared. He suggested that there was much that was beyond control but recommended the creation of a native plants collection in home gardens as a way of assisting their conservation. He described methods of transplanting, propagation and pruning and provided lists of shrubs that would grow well in Beaumaris which included the local heath Banksia, *Banksia marginata*, and a number not indigenous to the area, such as the *Eriostemon obovalis*, (Bendigo Waxflower). A. J. Swaby a member of the management committee for the Maranoa Gardens for Australasian Plants (in Balwyn, east of Melbourne) gave detailed instructions on how to propagate cuttings, recommending improvisation if no tubes were available - 'try jam or soup tins with bottoms almost cut out. For removal, roll the tin on a flat surface, pressing hard, to get the soil away from the sides'.

Landscape designer, John Stevens, gave weight to arguments in favour of retaining local plants and using them in landscaping, advising that:

>The wise person who wants [plants] to grow with minimum maintenance will select those types which are already conditioned to the circumstances of soil and climate which exist in the areas concerned. In short, he will for preference plant those species native to the place.

He added a time and space dimension by pointing to the sixteenth century Italian landscapists who chose to use Olive and Cypress native to the places where they

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47 Cane, in ibid., pp. 18-19.  
49 Lothian, in ibid., pp. 7-8.  
51 Swaby, in ibid., p.15.  
52 Stevens, in ibid., p. 9.
were working and to Capability Brown, who with others in eighteenth century England, planted the oaks and beeches that belonged in their localities. He argued that the fame of these landscapes, and the 'intrinsic excellence' on which their fame rests, relies on the fact that the designers were content to go with the natural vegetation and character of the area they were working with rather than against it; adding that it would be good to benefit from the example of old masters and use 'our own plants' to maintain a 'truly Australian flavour'.

This may have been a nationalistic argument, but not of the flag waving variety. Stevens' emphasis is on preservation of the individuality of the place and diversity in the vegetation as well as harmonising with the characteristics of soil and climate. His writing reflects sensitivity to the interest and beauty of the area and of the possibilities in the land surrounding new homes in Beaumaris:

> If you are kind and do not disturb the soil under your tea-trees and similar larger plants too much, you will find all manner of plants volunteering to come in and grace the place. Mosses and liverworts in the damp spots, cranberries [Cranberry heath] and even some of the orchids which covered the ground before bulldozing and building operations were envisaged.

The noted garden and landscape designer and writer, Edna Walling, and Frank Eyre, of Oxford University Press allowed the Society to use parts of her work in their publication:

> Men show their greatness more by circumnavigating flowers than they do by sailing over them with bull-dozers. No-one would expect that ... ground covering plants could always be left exactly where they are, but they can be taken into account ... It is precious landscaping material ... no money could buy all that grows in that first inch of topsoil.

Edna Walling was born in England but made her reputation as landscape designer and gardener in Australia. Writing about Australian species in the late 1940s, she commented enthusiastically about the beauty of the Woolly Tea Tree (*Leptospermum lanigerum*) urging people to 'guard it assiduously'. At the same time she stated the she was 'not a fanatic where native plants were concerned and 'could not manage without many plants that come from other lands'. From the early 1950s, however, Walling used native plants almost exclusively, though not necessarily those endemic or indigenous in the localities where she worked. She

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53 ibid.
54 ibid., p. 10.
57 ibid., p. 4.
wrote that Australians would one day develop a higher regard for indigenous plants, and plants in the path of a bulldozer would be rescued. Her *The Australian Roadside* and *On the Trail of Australian Wildflowers* show her delight in wildflowers growing in the bush and beside roads. At this time, the term ecology used in the Botany School was not a common word in the everyday world as it came to be later. However, Libby Robin has pointed out that Edna Walling considered ecology to be 'an essential adjunct to conservation and landscape design', and the term was 'increasingly used in field naturalist circles'.

The Beaumaris group developed interest in the relationship between the life of local birds and the plants of the district and invited three well-known men to contribute to the publications. Roy P. Cooper, vice-president of the Royal Australasian Ornithologists’ Union (R.A.O.U.) and honorary ornithologist to the museum, wrote of the relationship between birds and their surroundings, which he described as 'the ecology of birds', adding information about destructive influences that could affect birds and about ways of attracting them. He stressed the value of indigenous plants, explaining that in order to entice birds into their gardens, residents needed to recreate the original type of habitat which he defined for Beaumaris as Coastal Tea-tree, Banksia and various Eucalypts, together with many species of native flowers. He recommended planting tall trees, shrubs and native flowers even some exotics, recording that he had followed this policy in his own garden and found that many local birds were attracted. Crosbie Morrison urged people to make a bird table and included instructions, and Roy Wheeler wrote of the importance of birds in the natural economy, describing their role in pest control, in the distribution of pollen and in the delight they provided through their songs and plumage. He supported retention and planting of trees and explained the value of natural thickets, including Wedding Bush, Silky Tea-tree and Hakea which provided close shelter. Wheeler reminded readers that the future of native birds depended on residents. He provided

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58 On the Trail, p. 25.
62 Cooper, in *Native Plants*, p.2.
63 ibid.
64 Morrison, in *Native Plants*, pp. 5-6.
an impressive list of fifty land birds found in the district, including the Australian Goshawk, Tawny Frogmouth, Eastern Rosella and smaller birds - Little Thornbill, Scarlet Robin and Blue Wren.\footnote{Wheeler, in \textit{More About Native Plants}, pp. 5-6.}

Norman B. Tindale, Curator of Anthropology in the South Australian Museum, and H.A. Lindsay provided a dimension unusual in the fifties, in their reference to the 'precious heritage' of the ancient culture of Aboriginal Australians:

\begin{quote}
In all our efforts to preserve the flora and fauna of Australia, to protect beauty spots from despoliation and to secure the setting aside of adequate areas as parks and recreation reserves, we should realise that we are safeguarding what the aborigines (sic) passed on to us.\footnote{Tindale and Lindsay in \textit{Native Plants}, p. 1.}
\end{quote}

They argued that in the effort to preserve 'as much of the original Australia as possible', the reservation of small areas was worthwhile, recommending that these include Aboriginal ceremonial and camping grounds and indigenous plants. They recommended that residents plant one corner of a garden with native flowering shrubs. While lamenting that parts of 'our national heritage' were being 'trampled into the earth', they wished the Beaumaris Society every success in protecting that heritage.\footnote{ibid., p. 2.}

The tone of the article and certain of the information, (that Aborigines are now thought to have been in the continent much longer than was previously believed, and the date is set at approximately 10,000 years ago) would not be those of the early twenty-first century. John Mulvaney's work and that of his successors has uncovered a much more ancient past or 'deep past'. However, the authors' contribution brought attention to the life of Aboriginal people and its relation to the value of indigenous plants in Greater Melbourne and to the idea of 'national heritage' in an era before this was a commonly accepted concept.

By the end of the decade, the Beaumaris Tree Preservation Society, through its membership of men and women able to articulate their aims and create networks of supporters with appropriate skills, had established its place in the local area. It had developed constructive relationships with the Sandringham Council, with John Turner and with numbers of organisations and individuals outside the university who were concerned with the conservation of indigenous flora. Turner was important
through his provision of knowledge and encouragement and links with other members of the Melbourne Botany School.

Within the university, Turner contributed to development of the science and practice of botany and initiated research projects involving ecology and indigenous vegetation. Reflecting on the early 1950s, Dr. Sophie Ducker, his colleague for many years, wrote that after the great effort to assist the war effort, there were new opportunities in the Botany School and Turner was able to implement plans that had been in his mind for some time. She also recorded the challenge they had both faced as newcomers to the country in getting to know the local vegetation. The Second World War in Australia provided new priorities for Australian scientists (including the search for the solution to the problem of tropic-proofing optical instruments that was a focus in the Melbourne Science Department). Poynter and Rasmussen comment on the new level of research activity that had broad support in the University. They observed that:

The War in Australia had brought university scientists to discover unexpected strengths and a new sense of being a scientific community ... Some leading scientists, especially at the University of Melbourne showed a new confidence that they could make an independent contribution to science.

In the post war period, Turner was creating new agendas, including research into the vegetation near Melbourne. Sophie Ducker and David Ashton recorded the extent of one of his visions:

he once confided that he wished he had made every student study the plant ecology of a different area in much the same way as Professor Edwin Hills had done in Geology. In this way the ecology of the state would have been covered in the span of his professorship.

The whole of this vision did not materialise, but because Turner regarded as essential the project of describing the vegetation close to Melbourne, substantial progress was made in undertaking this work. The work of Clifford, who undertook research into Eucalypts in the Dandenongs, Brookes, Ashton and others was part of the large project. Turner wanted ecological work to be of value in land management and his association with Samuel Wadham was important in this regard.

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69 Poynter and Rasmussen, A Place Apart, p. 95. In the Botany School, post-graduate research included work undertaken by Mr. (later Doctor) Kingsley Rowan and Mr. Bert. Overell, which led to liaison with the Commonwealth Scientific and Industrial Research Organisation (CSIR O) Fruit Research unit  
70 ibid.  
Turner maintained interest in the problem of regeneration of the Big Ash forest at Wallaby Creek and in the role of dense young stands in water use, and Ashton commented on his 'physiological approach to ecology'.\textsuperscript{72} Because part of Melbourne's water supply is derived from the Wallaby Creek forests on the Great Divide, information about water use by different kinds of vegetation was important and provided motivation for John Brookes' studies.\textsuperscript{73} In the early 1950s also, Charles Elliott began work on the distribution of Eucalypts in the Gisborne-Melton area and Bob Winkworth studied heathland across southern Victoria. Ashton himself began his Wallaby Creek research for a Master of Science, continuing to complete a doctoral thesis\textsuperscript{74} and to make the investigation of Mountain Ash forests a forty year study. Ashton's persistent enquiry, physical effort and meticulous research are apparent in his doctoral thesis, which showed the necessity for disturbance in the Ash forest regeneration process. Decades after Ashton began his work he judged that it was important that he had continued for many years after completing his doctorate. Otherwise, he would not have reached the conclusion that derived from evidence collected over a long period. The statement is valuable not only because it reflects Ashton's conclusions about the need for the necessity for disturbance for the regeneration of Ash forest but also for what it reveals about process and about what may be the provisional nature of recorded results.

While John Turner was a key figure in initiating research within the University, an investigation of the movement to learn about, value and conserve Australian plants requires understanding of the breadth of his work and experience outside the University as well.\textsuperscript{75} Turner's involvement with Victoria's natural heritage was extended through his role as a foundation member of the Victorian National Parks Association (which began as a sub-committee of the Field Naturalists' Club of

\textsuperscript{72} Ashton in Clifford, p.2.

\textsuperscript{73} ibid.

\textsuperscript{74} David Hungerford Ashton, 'Studies on the Autecology of *Eucalyptus regnans* F.V.M.', Ph. D., Botany Department, Melbourne University, 1956 [Vol.1: Text; Vol.2: photographs, figures, diagrams].

\textsuperscript{75} Turner was chairman of the professorial board and a member of the Melbourne University Council in 1953-1954, acting vice-chancellor in 1953, and a commissioner in 1955 in the University of Tasmania investigation occasioned by the case of Sidney Orr. Turner maintained links with Cambridge as a visiting fellow to St. John's College in 1949. He contributed to Universities in Australia, outside his role as professor. He supported the enthusiasm of young Australians for overseas study, the mutual benefits of time spent at Cambridge, Oxford and London and the development of doctoral research in Melbourne after the introduction of the Ph.D. in 1946. Turner was active in the education of foresters as an examiner for the Creswick Forestry School.
Victoria) and with the built and landscape heritage through becoming an ex-officio member of the National Trust of Australia (Victoria) set up in 1956. The VNPA played a role in the effort the expansion of power of the State Government in the natural environment with the act to create a National Parks Authority in 1956.

In 1956, Turner’s involvement with the state of the High Country while not directly motivated by concern for indigenous vegetation nevertheless had implications for its conservation. The involvement was important also because it provided the incentive and means to further develop networks and relationships with people in positions of power. Turner became a fellow of the Australian Academy of Science (AAS), established two years before, and chair of the sub-committee working on the Academy’s first major project centring on research in the High Country. Knowledge of the situation in the High Country is important in understanding the priorities of the time and of later shifts in attitudes and values. In Turner’s position as committee chair, he was able to use, firstly, the skills and knowledge gained through the research in the Bogong High Plains and, secondly, his abilities in net-working, public relations and negotiation. The AAS Committee, was comprised of four experienced men - Turner himself, Professor R. L. Crocker, of the Sydney University Botany School, who had wide experience in the CSIRO and in America - he had been Professor of Soils in California and worked in mountains in Alaska and California, J. W. Evans, former Chief Biologist with the Tasmanian Department of Agriculture and Director of the Australian Museum, Sydney, and A. B (Alec) Costin, who had gained experience in New Zealand and Europe with leading authorities, worked with the Soil Conservation Services of Victoria and N.S.W., specialising in high catchment field work and written, The Ecosystems of the Monaro Region, judged ‘impressive’ by W. K. Hancock. 76 Costin’s qualifications 77 and the relevant qualifications of Turner were outlined in the final Report. 78 They included Turner’s ecological work in England, Scotland, Ireland and Australia, his interest in the Hume catchment and survey of that area with Mr. C. T. Clark, Deputy Surveyor- General and Mr. H. G. Strom, Divisional Engineer of the State Rivers and Water Supply, collaboration with Maisie Fawcett (Carr) and the Soil Conservation Authority of Victoria in research, a visit to America in 1949 with special attention to catchment

76 Discovering Monaro, footnote, p.170.
problems in Utah and California and discussions with scientists there and a visit to the South Island of New Zealand where similar problems were encountered.\footnote{Turner statement, UMA TURN 00732.}

An important dimension to Turner’s work in the 1950s was to link ecology with water supply catchments. Turner and his team were thus working in what was seen as a key area in Australia’s social and economic development. It was already an area of controversy because of the issue of summer grazing leases and the passionate feelings of the mountain cattlemen and their supporters towards their customary use of the High Country for summer pasture in both New South Wales and Victoria. The concerns over erosion that led to the High Plains ecological studies had similarities to those in the Kosciusko region of New South Wales (described by Hancock in Discovering Monaro, and in detail by Libby Robin)\footnote{Robin, ‘The rise of ecological consciousness in Victoria’, Chapter 7 and p. 282.} and committee members were aware of the background to the challenge of undertaking the investigation of the High Country of New South Wales and Victoria and of conflicting interests. The work involved contact with a wide variety of people in important positions in government and in other bodies of national significance, including the Snowy Mountains Authority and, in Victoria, the State Electricity Commission, which took an interest in the Kiewa catchment because of the hydro-electricity scheme dependent on the Kiewa River.

The Snowy Mountains Hydroelectric Authority had been established by an Act following agreement between the governments of New South Wales, South Australia and Victoria, and work began in 1949 in the time of the Chifley Labor Government. The ambitious plan involved the construction of a series of dams in order to hold the headwaters of the Snowy in lakes, from where water could be diverted to the Tumut River and from there to the Murray and Murrumbidgee. Downstream water could then be used for irrigation thus increasing the opportunities for growing crops. Falling water was used to produce electricity. The Kiewa project also depended on a series of dams and power stations. Both inevitably caused disturbance in the mountains. The problems that eventually arose, particularly in the Snowy were not foreseen as this dream of utilising ‘waste water’ was turned into reality. The Snowy Scheme was regarded as one of the nation’s most important post-war enterprises and one important in Australian culture, as was the Kiewa Scheme, for the bold attempt to develop a resource and also to employ a number of new migrants.
Turner used his diplomatic ability as well as his professional skills while he and the committee worked to have their findings published and used to develop improved policies and practice. Drawing on personal observation, evidence from those in the field, and on earlier research and reports, the committee produced on behalf of the Australian Academy of Science in May 1957, 150 copies of their Report on the Conditions of the High Mountain Catchments of New South Wales and Victoria. Turner’s correspondence reveals the breadth of the network in which he and the committee operated and something of the manner in which they undertook their research and planned moves to create the maximum impact for their work.

Members of the public service including H. G. Raggatt, Secretary of the Commonwealth Department of National Development provided information. Raggatt forwarded a letter from Sir William Hudson of the Snowy Mountains Authority 'concerning the question of erosion' which he thought would be useful to the Committee; referring Turner to the New South Wales Soil Conservation Service documents, important for concern over the damage believed to be caused by grazing. Hancock has described the conflicts in the region, including the words of W. R. Brown, who, in the David Memorial Lecture, condemned the destruction of the Kosciusko heritage through new roads, dams and structures, as well as through erosion. When the Kosciusko State Park had been established in 1944, for preservation of water catchments, recreation and enjoyment and controlled pastoral purposes, the care and control passed to a Trust in which the Lands Department, with a strong interest in revenue raising, maintained predominance. E. S. Clayton and B. U. Byles were the two trustees with strong conservationist convictions, but were in a minority. However, they attacked the practice of grazing above 4,500 feet and Sir William Hudson came to be of similar mind, concluding that the restoration of damage caused by bull-dozers was not enough and that the threat from eroded soil in the water storages and channels must be stopped.

The vexed questions remained an issue in Victoria also, and Turner in February 1957, asked the Premier, Sir Henry Bolte, for a statement of government policy on catchment control, explaining the role of the committee in looking into the high catchments and affirming that he had collaborated with the Soil Conservation Authority of Victoria in research on the Bogong High Plains and was therefore

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81 H. G. Raggatt, Department of National Development, Canberra to Turner, 21 February 1957, UMA TURN 00732.
82 W. R. Brown, David Memorial Lecture, delivered in the University of Sydney, 21 August, 1952.
83 Hancock, Discovering Monaro, p.168.
84 Turner to the Premier, 27 February 1957, UMA TURN 00732.
personally acquainted with problems in Victoria. In March, he wrote to G. T. Thompson of the Soil Conservation Authority suggesting that the best solution for Victoria was for the Authority to have control and take it out of the hands of the Lands Department. In April, Bolte stated that the Authority would control the higher parts of the catchment. The New South Wales situation, Turner considered, was 'complicated by the existence of the National Parks Trust'. In seeking information, he also wrote to a number of other concerned parties, including secretaries of the Monaro Acclimatisation Society, Graziers’ Federal Council of Australia, The Snow Lessees’ and Occupiers’ Association, the Director of the New South Wales Tourist Bureau and Dr. Brown of the Linnaean Society of New South Wales.

At this stage, it was problems emanating from the land use and major projects and established practices affecting the High Country and the Riverlands that motivated the research rather than a special interest in the indigenous vegetation for its intrinsic interest, beauty, heritage or landscape values. However, evidence indicated that the trees, shrubs and grasses and small flowering plants played a vital role in the health and stability of the land. The committee found:

Catchments are in danger if there is any loss in the infiltration capacity due to a deterioration of vegetative cover, and is in great danger if this deterioration is likely to lead to accelerated soil erosion which could in time, reach devastating proportions.

The final Report was sent on 17 May 1957 to members of parliament and other key people and a letter forwarded to A. A. Calwell, Acting Leader of the Opposition, requesting that he discuss with the New South Wales Premier the matter of the transfer of authority in the Kosciusko State Park to the Soil Conservation Authority. Responses included congratulation from Dewar Goode, Grazer, of 'Brim Brim', Coleraine and G. V. Lawrence, Secretary of the Murray Valley Development League, who was 'delighted to receive the Report. The Australian Academy of Science produced information for the press and radio announcing the release of the Report and the findings of 'a marked deterioration of the natural

85. Turner to G.T. Thompson, Soil Conservation Authority, Victoria, 29 March 1957, ibid.
86. The Premier to Turner, 11 April 1957, ibid.
88. Turner correspondence ibid. passim.
89. Report on the Condition of the High Mountain Catchments of New South Wales and Victoria, Australian Academy of Science, May 1957, p. 4
90. Turner to A. A. Calwell, 18 June 1957, UMA TURN 00732.
91. Goode to Turner, 15 June 1957, ibid.
92. G. V. Lawrence to Turner, 13 June 1957, ibid.
vegetative cover and associated loss of catchment efficiency' with 'serious risk of accelerated soil erosion' which could 'reach catastrophic proportions'. The committee found that major deterioration of the vegetation was due to grazing and burning.  

The committee's recommendations included the placement of catchments under the control of a single authority in each state under a head person skilled in soil conservation, exclusion of grazing animals from the land over 4,500 feet, with consideration for graziers who might need compensation, research into grazed land under 4,500 feet, prohibition of burning and re-examination of engineering works in the Snowy Mountains. Lessees cast doubt on the accuracy of the Report and opposed its recommendations. However, there was widespread support and politicians made efforts to secure its success. Calwell wrote that he would 'ask the Premier to treat the recommendations sympathetically'. The AAS published the Report [in print] in the following year and it became influential in policy making. Eventually, the recommendations were followed and the dream of an Alpine National Park became reality. The validity of the Turner committee's findings is generally accepted and his place as a valued authority established.

Although a special interest in indigenous plants was not the reason for the research, in the evolution of attitudes to indigenous vegetation, the committee's work, the issues raised and the publicity received were important for the priority placed on ensuring the survival of the Snow Gums, grasses, mosses and alpine flowers. While this survival was directly related to matters of economic significance, opportunities were opened up for the development of gentler treatment of the trees, shrubs and flowering plants, for their enjoyment and for further work on the ecology of the region. The experiences of the teams who worked regularly carrying out detailed study of the vegetation in the High Plains 'plots' were of ongoing importance.

The decade of the 1950s included considerable enlargement of Turner's activities and of the work centred in the Botany School. Firstly, new research was increasing knowledge of ecology and indigenous plants in Victoria and of questions still needing answers. Secondly, relationships were developed between local organisations and Turner and other Botany staff, particularly in Beaumaris and the Dandenong Ranges. Thirdly, the importance of the High Plains projects, carried out

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93 *High Mountains Catchment Report*, p. 27
94 ibid.
95 ibid.
96 Calwell to Turner, UMA TURN 00732.
originally by Maisie Fawcett with Turner's support, became apparent in the Academy of Science investigation and Report. Fourthly, networks developed. Key people gained new knowledge and experience of working on projects that were valuable in conserving indigenous vegetation and promoting its importance. An important feature was the manner in which local conservationists drew in University botanists and other experts in support of their efforts. Foundations laid during the 1950s provided an important basis for new developments in conservation, in particular among botanists and local people concerned with the nurture of indigenous plants.
CHAPTER 3

BOTANISTS, BOOKS AND BATTLES

There are few comparable areas in Australia more exciting to write about than the State of Victoria .... Especially is this true of Victoria’s remarkably rich flora, embracing about 2,500 different species of native flowering plants and ferns .... We need much more in the way of attractive reliable literature on every aspect of the natural scene, and time is running out.


A sense of urgency over the challenge to conserve Australian plants and animals developed in the 1960s and became more important to the general public and policymakers in the following decades. John Turner’s 1966 speech, ‘An Introduction to Landscape’, reflected the mood of conservationists of the time and encapsulates the issues addressed in this chapter. Turner quoted from the words of the Secretary for the Interior, United States of America, who had referred to a ‘quiet crisis’ in that country:

America stands today on the pinnacle of wealth and power, yet we live in a land of vanishing beauty, of increasing ugliness, of shrinking open space, of an overall environment that is daily diminished by pollution, noise and blight.

Turner considered that the words also applied to Australia and in answer to his rhetorical question, ‘what can we do about this blight?’ suggested that a ‘seeing eye’ was needed and education, particularly studies of plant and animal ecology. He spoke of the need for planning, including planning in areas close to Melbourne and dear to the hearts of both residents and visitors - the Dandenongs, Yarra Valley and Mornington Peninsula. Never a zealot, he showed recognition of the need to widen roads but recommended that when trees were destroyed he ‘would make a plan that they are not replaced with exotic trees but with trees that belong to the area’. He recommended the provision of information about landscape to the public through pamphlets, radio and television.

The speech is important in its values and in recommendations for future action. Turner in suggesting the need for a ‘seeing eye’ affirmed the value of observation - essential for botanists and for local people learning about indigenous plants. He

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1 G. R. Cochrane, B. A. Fuhrer, E. R. Rotherham and, J. H. Willis (eds), Australian Flora In Colour: Flowers And Plants Of Victoria, A. H. & A. W. Reed, Sydney, 1973 (first 1968). This work made an important contribution to public knowledge of the character, interest and beauty of indigenous plants.


3 Turner, ibid.
spoke of the need for study and for planning, including planning for plantings of local species on roadsides, thus giving a place to the role of government authorities. He stressed education of the public, and contributed himself through public addresses and writing.

Change in understanding of conservation and a new kind of activism developed during the 1960s. The public was influenced by substantial publications relating to the environment. These works reflected a growing interest in their subject matter and became influential through raising awareness of the natural world, through practical recommendations and through calls for changed policies. *Land of Wonder: The Best Australian Nature Writing*⁴ is an anthology, incorporating botanical information and the aesthetic of the natural world. Alec Chisholm, the naturalist responsible for selection and for editing the book, presented a rich heritage of writings from the late eighteenth century to 1963, aiming to provide opportunities for learning, and advancing the cause of conservation.⁵ He introduced readers to descriptions of landscape, plant and animal life on land and in waters, choosing many pieces that included a sense of delight in indigenous plants as well as information. There is a range of writings, including Edith Coleman's fascinating account of orchid pollination,⁶ Georgiana Molloy’s 'Western Wildflowers',⁷ an extract from Judge Stretton's Report on the 1939 Bushfires,⁸ and E. H. (Later Bishop) Burgmann's 'The Spell of the Bush',⁹ with the statement that 'young Australians should not be denied the privilege of really knowing the bush that is their true native land'.

While Chisholm's book invited readers to enjoy and value the wonders of the natural world, Jock Marshall’s *The Great Extermination*¹⁰ issued an alarm call. First published in 1966, Marshall's work was a landmark publication. Launched four years after Rachel Carson’s influential work, *Silent Spring*¹¹ which demonstrated the damage caused by frequently used herbicides and pesticides, *The Great Extermination* showed what had been lost in Australia's natural environment, detailed causes of continuing destructive activity and provided reasons why the destruction should be stopped. John Turner showed the value of indigenous flora

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⁵ ibid., Introduction, p. vi.
⁷ Georgiana Molloy, 'Western Wildflowers', in *ibid.*, pp. 46-48.
¹¹ Rachel Carson, *Silent Spring*. 

through his contribution of a chapter on 'The Decline of the Plants' to the book. He created an historical perspective, pointing out that when Cook, Banks and Solander landed at Botany Bay they 'opened the door to a remote continent with 12,000 species of plants mostly new to science', reminding readers of the varied responses to the 'discovery' of the new environment. He recognised that as well as people who disliked the vegetation there were those who valued it.\textsuperscript{12} Later, Bonyhady's extensive research, presented in \textit{The Colonial Earth}, also drew attention to early attempts at conservation and provided evidence that while some colonists were alienated by their new environment, others delighted in it.

'The Decline of the Plants' contained, as well as a wealth of information, an element of emotion. Turner wrote of early colonists' unflattering comments about their new environment suggesting that 'one sometimes feels that the majority of Australians today can have no feeling or understanding of their own inheritance; the wholehearted destruction of the native vegetation is almost a national pastime'.\textsuperscript{13} He did, however, point out that there were, and are, native born and newcomers to whom the bush is something to be treasured and made it clear that he was one of these people. Turner’s enthusiasm and delight in the local plants, the sense of beauty that he conveyed and the linking of the life of birds with the trees and flowers were powerful motivations for conservation and reinforced some of the points made by Marshall. Turner wrote of one experience of discovering a 'heavenly blue carpet of \textit{leschenaultia} (a West Australian wildflower) and of his appreciation of Wattle blooms.'\textsuperscript{14} He loved the English countryside, with its Oaks and Bluebells, but had come to appreciate the landscape of his new home, apparently unconcerned about its size and initial strangeness. He had also benefited from Melbourne colleagues’ readiness to share their knowledge and experience. Turner combined the skills of a botanist, which required careful attention to small detail, with a strong aesthetic sense.

'The Decline of the Plants' describes diverse types of vegetation. Turner showed where his concerns lay and made recommendations for the future. He noted the abundance of endemic species and the characteristics of Australian flora. Many plants have adapted to drought conditions and poor soils, many are fire resistant and thus hold scientific interest. Turner addressed the matter of weed invasion, to be investigated later by Eric Rolls,\textsuperscript{15} and, in the wider context of imperialism by

\textsuperscript{12} Turner, in Marshall, p. 155.
\textsuperscript{13} ibid.
\textsuperscript{14} ibid., p. 158.
\textsuperscript{15} Eric Rolls, \textit{They All Ran Wild}. 
Crosby. Turner wrote of a 'horde of weeds' many of which were likely to replace native species, and of the 'goths of the plant world', such as the South African jungle weed [Boneseed] which had exterminated tracts of natives. While he deplored the losses, he showed that over time attitudes could change.

Turner was particularly concerned by two aspects of loss. One was that rich and fascinating species, such as certain orchids, were either extinct or endangered. The second was the occurrence of needless destruction. Thus while Turner was not an iconoclast, he wanted to change the common attitudes that resulted in ignorant and thoughtless clearing. He believed that roadside verges and railway line reservations should remain as beautiful areas of surviving local plants, in some cases the last of their kind. He quoted L. Chandler's description of scenes at Redcliffs [in north-western Victoria], where:

... for several years the sides of roads were a blaze of yellow in spring with Cassias, Wattles and Hakeas. There was also a good survival of Mallee Gums, Casuarina, Saltbush, Everlasting Daisies, Goodenias, and those species often growing in masses made a spring drive round the settlement something to be remembered. Now all the roads with a few exceptions are bare to the fences or planted with exotics.

Turner recommended that when 'new' land was opened up for clearing and farms, as in the Brigalow country of Queensland and Northern New South Wales, an area should be reserved for native flora and fauna. He was not suggesting that vast tracts should be 'locked away' but that the indigenous plants had value, and that conservationists wanted neither the waste of resources nor attention given only to what were seen as immediate material needs. The biologist Francis Ratcliffe had already addressed the matter of waste caused by inappropriate land use practices through his warning of the dangers of over-stocking in semi-desert regions and recommendations for reduction in numbers of animals. Turner reinforced the validity of these findings. He furthermore argued that there should be additional national parks in arid zones and in the High Country, which he had come to know well.

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18 Ibid.
20 Ibid., pp. 164 - 165.
The paperback edition blurb described *The Great Extermination* as a 'Battle Cry for All Australians Who are Proud of their Beautiful Land'. Each of the six contributors demonstrated a high level of knowledge of the native plants and animals discussed and concern for their well-being. The Marshall chapters have the most belligerent tone, but the others sound a note of urgency. Marshall concluded that the 'future of the Australian environment lies not in penalties for its despoliation but in education' and that since conservation is the responsibility of the entire community the implementation of an appropriate national policy was essential. The reprinting of the book in 1968, two years after the original publication by Heinemann, indicates the interest it aroused. Stephen Murray-Smith called the book 'one of the first major texts on the destruction of the Australian environment'.

George Johnston’s new novel *My Brother Jack* (1964) created images of Melbourne suburbs and was ground-breaking in the world of fiction. The novel set in Melbourne in the years following the Great War and including World War II, became popular and was reprinted many times. For years it was a text for senior secondary English students and a reference for those taking Australian History. A scene that could have interested John Turner and like-minded people concerns the protagonist, David Meredith. He is depicted climbing, one Sunday morning in the 1930s, on to the roof of his house. Deaf to the calls of his wife, Helen, that he come down and clean the car, he stays on the roof and contemplates the suburb where stands their modern home. From his view of the roof-tops and gardens, he can see that there is not a single good-sized tree, and realizes that once there would have been hillocks and vegetated rises. He is struck with dislike, not only of his domestic situation, but of the area in which he lives. Descending from the roof, he sets off to a plant nursery and after some discussion with the surprised owner, buys a Eucalypt - a Sugar Gum - and to the horror of his wife, plants it in the front garden, where it flourishes. However, neighbours object to the falling leaves, the long roots and what they claim it takes out of the soil, so the tree is cut down. David Meredith’s rebellion points to a changing awareness of native plants and has a relationship to Turner’s lament in 'The Decline of the Plants'. Turner wrote: 'In the larger cities surviving patches of native vegetation still persist in parks and along rivers but they are mostly

24 Stephen Murray-Smith (ed.), *Dictionary of Australian Quotations*, Heinemann, Melbourne, 1984, p. 178. And see Robin, 'The Rise of Ecological Consciousness in Victoria', p. 262, including footnote 30. Robin quotes Turner’s judgment, which supported Sandy Marshall’s opinion, that ‘the book was before its time’. Turner commented (28/8/90) that ‘it was a shame that it had not been reprinted’ However, there were two editions, Heinemann, 1966, and Panther Paperback, 1968. I suggest that the book contributed to the changing attitudes of the times.
doomed to submergence in the suburban tide'. The word, 'mostly', is interesting, because, as Turner knew, there were areas where native vegetation had survived, and where, in future years, it came to be more highly valued, as the Dandenongs League continued to grow and wield influence, the Save the Yarra League campaign began and members of the Beaumaris Tree Preservation Society maintained the efforts begun in the early 1950s.

Members of societies such as these as well as a wider readership came to value a work published and distributed by its author, Leon Costermans. While the effect on readers of Meredith's determination to plant a gum tree, in defiance of typical Melbourne garden fashion, is impossible to determine, the response to Costermans' *Trees Of Victoria* may, to some extent, be gauged by its sales. The book is a pocket-sized illustrated field guide to Victorian trees written particularly for Scouts and fellow members of the younger generation as well as for others who took time to explore bushland. It came into book-shops in August 1966 and sold so quickly that Costermans produced a reprint in the following month and a second edition in 1967, which was reprinted twice. A third edition (1973) was reprinted three times, a fourth (1981) reprinted four times and a fifth, fully revised and entitled, *Trees Of Victoria and Adjoining Areas*, followed. The link with the Melbourne Botany School came through David Ashton's Foreword to the first edition, where the author expressed thanks to Ashton and to Jim Willis of the National Herbarium, another Botany graduate. Ashton affirmed the inevitability of the loss of native vegetation through the development of agriculture and industry, yet argued that with increasing knowledge people could avoid such past mistakes as over-clearing and over-burning with their consequent deleterious results:

> Much is being done to remedy this state of affairs, but clearly the sort of country inherited by future generations will depend on all people who have contact with the land and its vegetation. The first step toward a true appreciation of the flora is to find out more about it ... the recognition of at least the common species is within the reach of anyone.

Ashton believed that experience and knowledge of the natural world could lead to improved practices in its management. Costermans in his 1966 Introduction wrote of the rewards of learning about forests and woodlands: 'What was previously regarded

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as "just bush" will take on new character - its apparent monotony will disappear.  In 'What Makes A Forest', he wrote engagingly about the character of trees, which he described as in many ways like people, with individual features and distinctive communities. Costermans encouraged readers to ask questions as well to observe carefully.

In the Preface to the 1994 edition, Costermans commented on the large extent of the public response to the previous editions, referring to 'the much greater environmental awareness' in the community that had developed in the intervening years. He added a new aim of the book, which was to assist its users to find satisfaction not only in the naming of plants but also in 'using greater understanding as a basis for action - to preserve the constantly threatened.' The statement is indicative not only of the success of Costermans' own work but of the larger movement to value, conserve, propagate and nurture indigenous plants, discussed in later chapters of this thesis. Costermans worked as a formal teacher of students and also as an energetic leader of walks run by the Victorian National Parks Association. On these occasions in the program known as 'Walk, Talk and Gawk', he shares his knowledge and unbounded enthusiasm and introduces walkers to his books as well. In addition, he acts as the convenor of the Friends of the Langwarrin Reserve, a square mile of bushland with important local species. In this role, Costermans is active in caring for the bush, undertaking hands-on work including pulling out invasive pine seedlings. In this regard he is somewhat similar to Tawney's historian, who worked with his boots on, someone who knew from the ground up what he was writing about.

Education within the Botany School expanded in the 1960s. Ashton judged that when Turner appointed Dr. Ray Specht, a brilliant ecologist from Adelaide, as reader, a new era of ecosystem and physiological ecology was ushered in. Specht was encouraged to develop his work both within and outside Victoria and contributed to the International Biological Program (IBP) set up in 1964 by the International Council of Scientific Unions (ICSU) at a meeting in Paris, with the focus on ecology. Turner was one of the two Australian representatives and nominated Specht as the co-ordinator of the Australian part of the Program, which involved surveys of the plant communities of each State. Specht worked on this

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30 ibid., p. 5.
32 ibid.
33 I have used the present tense because Costermans, in 2005, continues in these roles.
34 Ashton, Clifford, p. 2.
while at Melbourne and for a number of years after his appointment in 1966 to the chair of Botany in Brisbane. Specht also became part of the national parks movement and a president of the Victorian National Parks Association thus further developing the relationship between the Botany School and a non-government body of people involved in the enjoyment and care of the natural environment.

Two new members of the Botany School contributed their skills to the indigenous plants movement in the public world as well as in the University. When Specht left Melbourne in 1965 for Brisbane, Turner appointed Dr. Peter Attiwell, who Ashton and Ducker judged to have 'provided a great boost to both the teaching and practice of environmental physiology and the processes of forest ecology'.  

Attiwell brought his training in forestry, research into soil fertility and plant nutrition and experience as Visiting Professor at Cornell University. Dr. Malcolm Calder, a New Zealand graduate, had worked in Britain as Senior Scientific Officer at the University College at Aberystwyth in Wales, well-known for expertise in agricultural science. With his wife Jane, also a botanist, Malcolm Calder brought to Victoria a wealth of scholarship and experience and, in addition, willingness to share with students and the general public both a growing knowledge of and enthusiasm for the Australian bush. Calder also became a president of the Victorian National Parks Association and was active in that body's campaigns.

In what he describes 'as an enormously productive decade for ecology', Ashton emphasized the important role of the Botany School with its staff members who had 'strong ecological leanings'. He described Turner as a leader 'who commanded a natural loyalty from the staff', one who attended Ashton's field excursions, and provided enjoyment in the evenings. Ashton himself was a member of the Botany staff in the 1960s, working with Malcolm Gill on Messmate forests and with Judith Frankenberg, an assistant, on studies of Lilly Pilly at Wilson's Promontory. A number of staff were employed in research relating to Victorian vegetation, including Bob Parsons on Mallee Eucalypts, Richard Groves on Heath and Grasslands, David Jeffrey and Dick Jones on Heath and Juliet Burrell on Leptospermum laeavigatum (Coastal Tea-tree) at Wilson’s Promontory. Her Ph.D. thesis demonstrated the relationship between fire and the regeneration of Tea-tree and the implications for

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36 Ashton and Ducker, AAS Biographical Memoir, p. 6.
37 Ashton, in Clifford, p. 2.
38 ibid., p. 3.
39 ibid.
40 Specht, 'Field Studies in Victoria,' in Clifford, p. 58.
management of coastal vegetation.\textsuperscript{41} Research into ecology in several areas was undertaken by Truda Howard, John Jenkin, Jenny Withers, Pauline Ladiges, Roslyn Gleadow and others. Ashton records the contribution of Carrick Chambers, also appointed in the 1960s (and in the early 1970s, successor to Turner) and of Malcolm Calder - 'both were able to enhance ecological teaching and research from their particular standpoints - namely evolution, morphology and anatomy, and whole plant physiology and experimental taxonomy'. (Other research included genecology, CO2 in forests and matters relating to wetlands, variation in eucalypts and problems of phosphorus and nitrogen cycling.)\textsuperscript{42}

The establishment of the teaching and research laboratory at Tidal River, Wilson's Promontory was of lasting importance as part of practical studies. Affectionately known as 'The Prom', this part of south eastern Victoria, surrounded by sea on three sides, and notable for its beaches, mountains, forest and heathland, was a mecca for field naturalists and other bush lovers from the nineteenth century onwards. Declared a National Park in 1898, it gained permanent status eight years later, but was not carefully managed until efforts initiated by Crosbie Morrison in the early 1950s. Morrison's efforts resulted from concerns about damage caused by the Army's commando training programs during World War II and led to the establishment of the National Parks Authority in 1956.\textsuperscript{43} The second largest National Park in Victoria (after Wyperfeld in the north-west of the State), the 'Prom' became a special place not only for field naturalists but for a diversity of children, women and men who loved camping, the adventures and challenges of living close to the Australian bush and the pleasures of undeveloped foreshores and beaches. The choice of a field station at Tidal River linked the Botany contingent to a place close to the hearts of many Victorians and to like-minded people from interstate and overseas. Specht considered that its opening in 1961 originated in Turner's fund raising initiatives.\textsuperscript{44}

Turner sought the Vice Chancellor's permission to raise funds 'from a few people or companies interested in the application of Science'.\textsuperscript{45} He considered that there was an urgent need for a field station, pointing to their existence in England, New Zealand

\textsuperscript{42} Ashton, in Clifford, pp. 2 & 3.
\textsuperscript{43} For a brief history of Wilson's Promontory see Robin, Defending The Little Desert, pp. 29-32. I have also drawn on personal observations dating from an expedition in 1950, and including 60 visits, 1950-2005, three of them field trips, 1978-1980.
\textsuperscript{44} Specht, in Clifford, p. 58.
\textsuperscript{45} Turner, 1961 Memorandum to the Vice Chancellor, 'A Biological Field Station in Victoria', UMA TURN 00925.
and other States of Australia. He argued that such facilities would improve training and attract more final year students. In addition, he judged that:

the lack of such a station is one of the reasons why so few school teachers of biology are able to interest their pupils in field studies and in conservation - here the contrast with English schools is most striking. The real ignorance of plants and animals among Australian youngsters is striking.

Turner argued that the Botany School had grown in size, that there were difficulties in finding sufficiently large suitable accommodation at the Promontory, that the School was training botanists who entered schools, universities, the CSIRO, careers in Agriculture, Forestry and Soil Erosion, that the research output was considerable, and that 460 Biology I students were now enrolled. This was approximately the number of students in the entire Science faculty when Turner came to Australia, and there were 700 Botany students altogether. He implemented the plan and raised the necessary 5,000 pounds. The project reached completion and on the 31 October 1961 the \textit{Warragul Gazette} published a photograph of the 'tradesmen built laboratory at Tidal River', thus showing local involvement. The laboratory was named after Dr. Ethel McLennan, reflecting her long-standing interest in the establishment of a field station and reinforcing a sense of her importance in the Botany School. Students undertook research into Lilly Pilly regeneration, heath nutrition and growth, landscaping and erosion control and the role of fire. One instance of work based at Tidal River was the week spent from 8 - 14 August 1970, by Botany II and IIA students with the object of gaining an awareness of the diversity of plant communities and an appreciation of the factors that control them. Two students from the early 1960s, recalled part of their experience at Tidal River:

We remember with affection our time as graduate students in the Botany Department, and especially, those (sic) evenings at the then - newly- completed Wilson's Prom. laboratory. On those occasions, humour and knowledge were interlaced as we sought to tease out the meaning of what we had observed/measured/counted that day in the field, to an accompaniment of humorous anecdote.

\footnote{46 ibid.} \footnote{47 ibid.} \footnote{48 See 'Botanical Research Work at the University of Melbourne', in J. S. Turner, 'Land Flora of Victoria', \textit{The Victorian Year Book}, 76, 1962, p. 35.} \footnote{49 ibid.} \footnote{50 ibid.} \footnote{51 'Warragul Tradesmen Built Laboratory at Tidal River', \textit{Warragul Gazette}, 31 October 1961.} \footnote{52 See Ashton, Notes for Botany II & IIA students, Excursion to Wilson's Promontory, 8 - 14 August, 1970, UMA TURN 00925.} \footnote{53 J. and S. Groves, 'An Appreciation of JST', in Clifford, p. 29.}
The Botany School’s research, particularly since the beginning of the work on the Bogong High Plains contained a public role. Such a role became important through the use of 1960s field work in the Little Desert in a parliamentary inquiry into land use in that area. An important campaign to save the Little Desert in Western Victoria developed in order to stop the area being changed irrevocably by conversion to agricultural land. It brought together farmers, local conservationists, professional botanists, lawyers and journalists in a movement that led to large changes in the political and environmental landscape. Libby Robin’s doctoral research and book, demonstrate the extent of opposition to the project which was supported by Sir William McDonald, Minister for Lands in the Bolte Government. The plan to create a farming settlement in marginal land, which held interest and significance on account of its flora and fauna, became a major source of controversy and led on the one hand to McDonald losing his seat in parliament and on the other to a greatly increased awareness of issues relating to the natural environment.

The opposition campaign was important in several ways - for the parts played by local people who cared passionately for this land (see particularly, Libby Robin’s accounts of Mrs. Val Honey) and by enthusiasts for National Parks. They included Gwynnnyth Taylor a skilled plantswoman and lover of the bush who became president of the Victorian National Parks Association, and Ronald Grant Taylor, her husband, a lawyer who investigated legal issues relating to the movement to Save the Little Desert. The Save Our Bushlands Committee spear-headed the campaign which was supported by Melbourne University botanists and many members of local associations wanting the conservation of bushland. Robin refers to Ashton's words about the connections and the differences between ecology (the concern of botanists) and conservation:

Ecology is the study of why plants and animals are where they are ...
Conservation is an appreciation of what we have and want ... You can't conserve scientifically unless you know something of the 'why'.

55 ibid.
56 ibid., pp. 1 – 2.
57 Little Desert, p.71.
58 ibid.
The study of ecology involves the ‘what?’ as well as the ‘why?’ That is it involves learning about what are the relationships between living organisms and environment and the process of change. Many people concerned about the care and enjoyment of treasured places were not skilled in ecology but had learned about the land from first hand observation. In a parliamentary inquiry, however, (in this case the hearings of the Little Desert Settlement Committee) the value of botanical and ecological evidence was of greater importance. The findings of Melbourne botanists, Calder and Attiwell with their students in the Little Desert, resulted from a scientific study, so the two botanists could show the results of meticulous research in the field.\(^59\) In presenting their findings about the plant communities they were demonstrating the conclusions of scientists who had undertaken a study apparently outside the realm of politics and public debate. The interpretation of the evidence in favour of conserving the Little Desert relied on a value system which affirmed the importance of biodiversity, a concept not highly regarded in the history of land use in Australia. Robin points to the centrality in Attiwell’s presentation of arguments in favour of preserving ‘biological diversity’ (then a less known concept than it became later). He was able to show the results of studies using the ‘point quadrat’ system\(^60\) which had been employed in the Bogong High Plains and refined by David Goodall, and argue that there was need to ‘control the quality of our environment’,\(^61\) and hence preserve the unalienated parts of the Little Desert. Research had indicated that development would threaten diversity because of the particular characteristics of each of the plant communities, and conservation of each of them was needed.

Malcolm Calder’s submission emphasised the need for ’a comprehensive policy of land use’.\(^62\) He proposed that a national park and field study centre be established, arguing that there was a responsibility to conserve large areas of the natural environment. Robin considers that Calder’s statements on behalf of the Save Our Bushlands Action Committee were ‘in a sense the culmination of all that the Turner Botany School had worked to achieve in the public sphere,’\(^63\) and it is possible that had Turner not been out of the country on sabbatical leave he would have attended the inquiry himself. This seems likely as Turner had already proven himself ready to take part in public issues. The Botany staff made a vital contribution to the campaign to conserve the Little Desert and to the decision to create a national park instead of a farming settlement.

\(^{59}\) ibid., pp. 71 - 75.
\(^{60}\) ibid., p. 62.
\(^{61}\) ibid., p. 73.
\(^{62}\) ibid.
\(^{63}\) ibid.
Turner had been active since the 1940s in another public role. Secondary school students' education was an issue in which he was directly involved as a member of the Victorian Curriculum Board (Melbourne University Schools Board) Chair of the General Science Standing Committee from 1943 to 1967 and as the co-author with international author, Frederick Daniels, of the 1943 General Science text used in 'Middle' and 'Lower Senior' levels. He became chairman, in the 1960s, of the Web of Life project designed for the last two years of schooling, and embodying innovative methods of teaching and changes to curriculum. Turner had already argued that teachers needed the experience of field work in order to teach botany effectively to students, and the establishment of the Wilson's Promontory Centre provided a means to this end. Equally important was the work of creating new courses and the production of books and other materials for teachers and students.

David Morgan of the Secondary Teachers' College, Melbourne, convened the Web of Life project, which was developed under the auspices of the Australian Academy of Science (AAS). John Turner, Chairman, and his old friend Rutherford Robertson, Deputy Chairman, were the two AAS Fellows actively engaged through the Academy's Committee for Biological Education. The members were six distinguished scientists - one from each state - and included L. C. Birch FAAS of Sydney. Turner described the motivation for the ground-breaking development in 1967, explaining that in biology there had in recent years been a major revolution which included the study of ecology. However, periodic revisions of biology curricula had not kept pace with the progress of biological discovery. He affirmed the value of the subject, Biology (which included Botany), in gaining essential understanding about the world and linked it with other sciences and the humanities as providing part of 'Everyman's' education. Furthermore, he saw it as of great professional importance. Reflecting later on the beginnings of the work on the 'Web of Life' project, he stated that it had its origins in the 1957 launch by Russia of the Sputnik and the consequent decision by America to improve the type and content of Science in schools. In 1959, the American Institute of Biological Sciences, representing 85,000 biologists, took steps to develop new methods of teaching. The American National Science Foundation gave financial support to the Biological

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66 ibid.
67 J. S. Turner, 'An Experiment in Teaching Biology,' Notes for the Academy's files and for Professor Birch, p. 4, UMA TURN 00976.
Sciences Curriculum Study, which had headquarters in the University of Colorado. One important result was the series of five Biology courses with a 'new emphasis on Biology as a process of inquiry into the living world'. Thus students were to be investigators not only assimilators of information.

Research workers and teachers co-operated in the enterprise and trials of materials were held in 1150 American secondary schools between 1960 and 1963. Turner contrasted this effort, involving 1000 research biologists and teachers and 150,000 students, with the past system where one or two people wrote school text books. He considered it important to use a similar model and therefore viewed American courses and adapted them to Australian conditions and needs. He saw the necessity for change because of the different Australian environment and because while the American course ran for one year, the Australian counterpart had to be either a one year or a two year course. As in the United States, Australian research biologists in universities and research institutions, practising teachers and educationalists were involved. Trials were carried out. Education Departments in Victoria and South Australia made staff and facilities available; the Australian Academy of Science provided a grant. The course involved laboratory and field work so that students gained direct personal experience of the living world and opportunities to develop the 'understanding and approaches of the scientist by following his [sic] methods and ways of thinking'.

Turner emphasized that the course, which employed an ecological approach, should inspire young people to search for information themselves. This reflected his own early experience. In the Introductory Message, 'To the Student', the writer's words clarified the course designers' intentions:

The book is a piece of a biology course ... It will be a very incomplete piece unless close beside it lies a student's manual, and materials and equipment for observing and investigating living things ...

The most important piece of equipment used in this course is yourself. Neither the text, the student's manual, nor any equipment ... will be of full value unless you participate fully in the work yourself using all your senses, your hands and your brain. These always have been and always will be the basic tools of the scientist.

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68 Web of Life, Foreword, first page.
69 ibid.
70 ibid., second page.
71 ibid.
72 Web of Life, 'To the Student', un-numbered page.
Chapter One of *Biological Science: The Web of Life*, portrays the approach. Students see at the beginning, a photograph of an Australian farm landscape, showing sheep under a gum tree and an expanse of paddock. They are challenged to observe the scene closely and work out the answers to the questions posed. Some of the many illustrations enlivening the book were printed in colour (less common in 1967 than later), including photographs of flowering plants.\(^3\) Thus students could do more than study the components of a flower, they could relate to the aesthetics of it, and to the fact that it belonged to Australia.

F. Macfarlane (later Sir Macfarlane) Burnet, winner of the Nobel Prize in 1960, provided an estimate of the value of the new teaching in his 1969 AAS President's Quadrennial Review:

> I believe that one of our major impacts on the community has come from the publication by the Academy of *The Web of Life*, a biology text book now being used in all states except New South Wales [it] was given a strong Australian flavour by a committee guided by Turner and Robertson with Dr David Morgan as Supervising Editor ... I was interested that the Prime Minister's [John Gorton] warmest response to the Academy was when as Minister for Education and Science he assisted at the launching of the book.\(^4\)

Burnet pointed out that it was a 'categorical imperative' that a biologist know our unique fauna and flora 'with the precision called for in modern taxonomic and biogeographical work', adding that biologists owed this to the world and that scholars expected it of them.\(^5\) The new course contributed to ecological consciousness as an increasing number of young people learned through first hand observation. Turner had participated in a change from the time when he arrived in Australia to find only a small number of Victorian school students taking Biology, which in that period was not a highly regarded subject to a time when the subject became more popular.

While developments in the exploration of outer space provided incentives for new forms of science teaching, changes in transport, particularly increased use of cars\(^6\) with a demand for wider roads and more car-parks, created increasing challenges for people who valued landscapes, including those with indigenous or native vegetation, in both urban and rural areas. Moves to sub-divide land into small blocks, making for close settlement patterns, and expansion in industry and agriculture also led to new

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\(^3\) ibid., 1967, opposite. p. 79.

\(^4\) F. M. Burnet, Australian Academy of Science, Quadrennial Review, delivered at the Annual General Meeting, 30 April 1969.

\(^5\) ibid.

challenges. A developer's decision to subdivide and chop down trees had provided the incentive for Miss May Moon to work to ‘Save the Dandenongs’ and enlist the support of Turner and a large number of like-minded people. Conservation of landscapes became an issue. Turner himself initiated moves to found a landscape preservation committee by holding a meeting in his study at Melbourne University in 1959, and became the first president of the Landscape Preservation Committee of the National Trust of Australia (Victoria). Anne Latreille in her biography of landscape designer, Ellis Stones, refers to the original concept of a tree preservation society and Turner’s suggestion, which was followed, of replacing ‘tree’ with ‘landscape’. She recorded Dr. Norman Wettenhall's recollection that many of those present were surprised to find others interested in conservation ‘which at the time was not the burning issue it is now’. From this beginning evolved the Landscape Preservation Committee of the National Trust of Australia (Victoria) which was formally established in 1960, and which became a Council in 1961 (the Trust itself had been founded in 1956). Members came from a diversity of professions. Vice-President, Dr. Norman Wettenhall was senior physician at the Royal Children's Hospital, Melbourne, the Secretary, J. F. Amos, an architect, and others came from the ranks of geologists, scientists, field naturalists, agriculturalists, landscape planners, business and legal men and women and engineers. They were to meet on a monthly basis. Objectives were - first, 'to assist in the preservation of landscape, natural and man-made, in country and town, from the dangers of over rapid agricultural, residential and industrial development' and, second, 'to promote public awareness of such dangers and to act as a rallying point in such matters'. At this time, the idea of sitting in front of a bulldozer or chaining oneself to a tree was not in the minds of the National Trust landscape preservers, nor were such methods ever considered by Turner and many of the members of the original landscape council. They were more likely to operate through education, public forums, the media and by using their networks which included members of parliament and heads of government departments.

Observation of the Greater Melbourne suburbs in which the Landscape Preservation Council members lived and of their occupations provides an indication of their social

78 ibid.
79 *National Trust of Victoria (Australia) Newsletter*, 1961, UMA TURN 00854.
80 ibid.
orientation. There was a large representation of the professions and of affluent areas, and a preponderance of men. No members lived in the west or north-west of Melbourne nor in the inner industrial parts of Collingwood, Burnley or Richmond (not yet gentrified). In class terms the majority of members could be described as upper middle class. They were men and women generally confident in their dealings with authorities and through education and other networks able to access a range of people in positions of influence. They were more likely than blue collar workers of those times to have the experience, time and energy to make an impact on public policy and practice.

The 24 members of the Council included representatives of a diversity of organisations, whose names reflected the growing concern to protect well-loved environments and to value native as well as exotic vegetation. The organisations with a local focus were: the Tree Preservation Societies of Beaumaris, Bendigo, Doncaster, Templestowe, Eltham, Heathmont and Blackburn, the River and Parklands Protection League, Save the Yarra League, Save The Dandenongs League; those with a broader membership and objectives included the Victorian National Parks Association, Native Plants Preservation Society, Royal Horticultural Society, Society for Growing Australian Plants.

A Landscape Preservation Council pamphlet contextualises the organisation in the society of the time. Patrons were leaders in their fields and included the Premier, the

81 Of the Landscape Council Executive, Professor John Turner lived in Hawthorn, Dr. Norman Wettenshall in Malvern, and Mr. J. F. Amos in Glen Waverley. The other members were - Dr. L. A. Allen, Save the Yarra League, Heidelberg, Civil Engineer, (continued over page). Theo H. Brunn Esq., Royal Horticultural Society of Victoria, Toorak. Nurseryman, W. S. Buchanan Esq., Doncaster-Templestowe Tree Preservation Society, East Doncaster, Chemist, Dr. G. Christensen, Native Plants Preservation Society of Victoria, Burwood, Research Chemist, Peter Glass Esq., Eltham Tree Preservation Committee, Eltham, Artist, Dewar W. Goode Esq., National Parks Authority, 'Brim Brim', Coleraine, Pastoralist, E. J. Hassett Esq., Beaumaris Tree Preservation Society, Beaumaris, Civil Engineer, J. B. Harper Esq., Heathmont Advancement League, Heathmont, Solicitor, Dr. J. McAndrew, Blackburn Tree Preservation Society, Blackburn, Geologist, CSIRO, Norman Oliver Esq., Bendigo Tree Preservation Society, Bendigo, City Councillor, Pharmacist, Ellis Stones Esq., River & Parklands Protection League, Ivanhoe, Landscape Designer, Hugh Wilson Esq., National Parks Association, Heathmont, Civil Engineer, J. M. Wilson Esq., Field Naturalist, Highton, Roy Simpson Esq., Chairman Survey & Identification, Toorak, Architect, E. S. McKay Esq., South Yarra, Company Director, Miss May Moon, Hon. Secretary, Save the Dandenongs League, Kalorama, G. Eckberg, Representative Society for Growing Australian Plants, Highton, Nurseryman, Mrs. Kathleen Mangan, Toorak, Secretary, Clive Turnbull Esq., Hawthorn, Journalist, Miss J. Adamson, Secretary National Trust of Australia, Company Secretary.

82 List of Organisations represented in the LPC, UMA TURN 00854.

83 'Safeguarding the Victorian Landscape', Landscape Preservation Council, National Trust of Australia (Victoria) undated, UMA TURN 00859.
harmony with other organisations (official and private) with similar objectives. As part of an emerging global movement, it made a submission to a Conference of World Organisations interested in the safeguarding of beauty and the character of sites and landscape which was held in Paris at the UNESCO headquarters in 1962.\textsuperscript{87} The submission stated that the Council worked in the tradition of the National Trust of Great Britain\textsuperscript{88}. Although the Australian National Trust operated in a different manner from the British body, which was concerned with the management of large tracts of land, the British connection was important, particularly at a time when Britain and the Commonwealth were highly regarded by most Australians.\textsuperscript{89}

Concern for conservation and methods used in pursuit of members’ objectives are apparent in the origins of two of the societies formed in the late 1950s which sent representatives to the Landscape Preservation Council in 1961. Turner was involved with both. The Blackburn Society was founded in 1959, when a number of residents discussed ways of saving what remained of the bushland atmosphere in this growing suburb to the east of Melbourne. On 16 November 1959, Turner chaired a public meeting,\textsuperscript{90} speaking on ‘Conservation and a Growing Society’. The Blackburn Society developed with the support of people at that meeting. This group published a booklet prepared by Joan Satchwell and Lois Mathieson, ‘Preservation or Desolation’,\textsuperscript{91} printed lists of indigenous plants, organised plantings and made efforts to be involved in plans for widening roads. One important effort involved Springvale Road,\textsuperscript{92} running north and south, east of Blackburn, and servicing newly developing areas. The original plan was to clear the ground from one kerb to the other. Anne Latreille describes the area in question as ‘a wide reservation with dirt roads on either side of a strip of natural bush that included mature Eucalypts, Acacias and Native Cherries’.\textsuperscript{93} The clearing plan caused alarm amongst those who valued the bush. In response the Blackburn Tree Preservation Society created a group with landscape consultants and engineers and, eventually, the landscape designer, Ellis Stones. They recommended planting clumps of Australian species designed to

\textsuperscript{87} ibid.
\textsuperscript{88} ibid. The Trust was well-known to Turner, whose papers contain booklets and pamphlets from National Trust areas in Britain, including the Lakes District, and reflect his interest and the British connection.
\textsuperscript{89} Enormous, though not universal, enthusiasm for the Queen and Commonwealth had been shown six years earlier during the 1954 visit to Australia of Queen Elizabeth and Prince Philip. See Ewan Morris, ‘Forty Years On: Australia and the Queen 1954’, Journal of Australian Studies, 40, esp. p.1.
\textsuperscript{91} ibid.
\textsuperscript{92} ibid.
\textsuperscript{93} Latreille, p.182.
deflect headlight beams but council officers opposed the plans. After consideration and lobbying by councillors who favoured Stones' ideas, his plans were implemented. The local council's Superintendent of Parks and Gardens, George Harding, added new plantings of native species. Landscape preservationists developed friendly relations with staff and councillors of the local council (Nunawading City Council) gaining sympathy for plans to retain the unique environment.

The plantings were significant, both for the negotiation and lobbying that led to the Nunawading Council's agreement to Stones' plans and for the character of the design for the median strip, planned to include remnant bush and new native plantings. Stretching from south of the railway line near Whitehorse Road to Canterbury Road, the median strip was later extended to Waverley Road. Latreille points out that it became a model for the planting of median strips throughout Victoria, thus affirming the value of local vegetation in contrast to the older concepts which commonly incorporated exotics. In 1966, the Tree Preservation Society's president George Cox was elected to the local council, creating a closer link between that government authority and the tree preservationists. Political connections of this kind proved valuable and in the 1970s became more common.

Further efforts of the Blackburn Society demonstrated individual and community commitment to the local landscape and its vegetation. One involved the Blackburn Lake, another a private venture. A committee, in which the Tree Preservation Society was represented, managed the Blackburn Lake which is surrounded by bushland containing many indigenous species. Conservationists planted indigenous flora in the area, created a 'heritage walk' and publicized the value of the 'Blackburn Lake Sanctuary' as an area of natural bushland. The Society also supported Mr. and Mrs. Hookes' presentation of bushland to the council. They wished this land to be managed as representative of original flora and for the enjoyment of local men, women and children and visitors. It became the Wandinong Sanctuary and is maintained with tracks providing easy access.

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94 ibid., p. 183.
95 da Costa, p. 129.
96 Latreille, p. 183.
97 ibid., Latreille stresses Stones' interest in roadsides and comments on his role in suggesting Eucalypt plantings along the Tullamarine Freeway.
98 See this thesis, Chapter 5.
100 Da Costa, p. 160, pers. obs. 9 July 2002.
The Save The Yarra League, founded in 1958, grew out of the extreme indignation of Ellis Stones and others at developments along Melbourne's major river. In August 1954, Stones had written to the Argus newspaper, 'surely it is time we, as a nation, began to preserve rather than destroy', which appears to be the first public statement of his views. Latreille comments that his reference to 'the overall good of Australia' added a dimension unusual at the time. Stones became first president of the Ivanhoe Parklands Protection League in 1955, and was involved with plans to care for the Yarra and its environs beyond Ivanhoe and Heidelberg. He suggested fencing off some areas temporarily in order to allow regeneration of River Red Gums and tried to protect virgin bush. He opposed plans by the Heidelberg City Council to alter the character of an area known as Chelsworth Park, through rubbish dumping in a billabong. Councils were committed to dealing with rubbish, but at this time frequently were insensitive to the character of local bushlands, creeks, rivers and foreshores. The Save the Yarra League under its president, Dr. Len Allen, improved attitudes and practices involving the Yarra, and these efforts eventually proved successful.

By 1966, the Landscape Preservation Council's endeavours had led to the one day seminar held in Melbourne in conjunction with the Council for Adult Education (at which Turner made his important speech in favour of landscape conservation). The scope of interest and concern is revealed by the attendance of 220 representatives from a large number of community and government organisations in both rural and urban areas, and including bodies as diverse as the Melbourne and Metropolitan Board of Works (MMBW) and the Field Naturalists' Club of Victoria (FNCW).

At this seminar Dewar Goode, a grazier with a keen interest in conservation, discussed changes to the landscape's original character. He surveyed the history of settlement, suggesting that the ancestors 'did not appreciate the intangible values in our wild bushland ... The destruction of the countryside was part of the pioneering spirit'. He thought, however, that farmers' attitudes were changing. Goode considered conservation to be a 'man-made concept that ensures the maintenance of the productivity of the resource concerned yet satisfies man's spiritual and physical

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101 Latreille, p. 108.
102 ibid., p. 109.
103 Proceedings of a one day seminar, 'Landscape Preservation, Council of Adult Education with the Landscape Preservation Council of the National Trust, 1966, UMA TURN 00850.
104 Dewar Goode, 'The Countryside and the Landscape', ibid.
needs’. He referred to Julian Huxley’s judgement, that as well as thinking of material resources, people should also think of the non-material; they needed to reconcile preservation with progress. Dr. John McAndrew affirmed the value of:

local suburban areas of delightful visual landscape at Beaumaris, Glen Waverley, Blackburn, Vermont, Doncaster and Eltham. In these oases, a rich suburban diversity has beauty and visual coherence, with the retention of its most obvious inheritance, the trees and large shrubs of the initial woodland.

The one day seminar brought together representatives from local societies, government bodies, the Landscape Preservation Council and speakers concerned with problems associated with recent developments in the environment. It also provided Turner with an opportunity to publicise his views.

During the 1960s, a smaller scale movement developed, as people became interested in creating bush gardens. A number of urban gardeners began to plant indigenous species, influenced partly by local conservationists, partly by a Sydney publication, *Designing Australian Bush Gardens*, by Betty Maloney and Jean Walker. The book grew from the experience of these two gardeners and writers who recommended giving up fighting against nature and accepting Australian trees and small plants into home gardens. They wrote:

This book will show a sensible way to design your native garden ... It is above all an Australian way, in harmony with our own very wonderful environment.

Don’t fight against nature; eliminate the lawns and let a soft, restful carpet of fallen leaves and bark eliminate your weeding. This is the first stage of carefree gardening.

The authors wrote for those who, like Tree Preservation Society members and their allies, already wanted to conserve remaining bushland and learn to grow indigenous trees and flowers, and also for people who could be persuaded to change their ways. Practical advice and evocative illustrations created a sense of good design and the concept of ‘eliminating weeding’ was attractive. The book became well-known and influential at the time. It was followed by a companion volume, *More About Bush*

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105 Ibid.
106 Dr. John McAndrew, 'Landscape and Suburbia', ibid
Gardens (1967). Some people’s enthusiasm for bush gardens waned as they considered certain species became straggly and roots could damage foundations, Nevertheless the books were important in creating the idea of gardens that belonged with the original flora of a locality.

In July 1969, U.S. astronauts’ landing on the Moon brought new perceptions of the Earth. My own memory is, firstly, of wonder at the achievement and the extraordinary sight beamed across space of the astronauts springing over the lunar surface. Secondly, it is of the barrenness of the landscape, the absence of life and feeling that the whole Moon was like that. One felt the contrast with the Earth and its fertile gardens, fern gullies, mountain forests and wildflowers in spring. Our green and living planet looked remarkably different from the stark and rocky landscapes of the Moon and the vastness of Outer Space. For some people, the success of the Moon landing meant development of further projects in space travel, for others, it may have provided an impetus to conserve and enjoy the resources of the Earth, including the flora. The efforts, analysed in this chapter, to undertake practical work to conserve bushland, to carry out research, to inform and educate contributed to increasing concern for indigenous plants. Turner’s leadership in the Botany School resulted in important research into indigenous plants and he encouraged staff to play a public role. The success of the Little Desert campaign was a landmark and important in showing how botany and ecology could be used in a conservation campaign and government policy changed (although Turner was overseas at the time).

The publications of the decade were valuable in providing knowledge and in raising consciousness of environmental issues, including the loss and degradation to which Turner referred in his mid 1960s speech. In the last three decades of the twentieth century, a growing number of people became involved in the work of conserving indigenous plants, building on foundations laid in the previous years. The following chapter investigates the work of the Beaumaris Tree Preservation Society during the 1960s and the response to environmental concerns that led to beginnings of


\[110\] Kate Darian-Smith and Paula Hamilton's Memory and History in Twentieth Century Australia, Oxford University Press, Melbourne, 1994, which elucidated a number of issues concerning the use and validity of memory, contains the claim that historians have turned to memory for some of the answers to their questions (Introduction, p.1.). I have included this memory as a possible clue to developing attitudes towards the environment. One could speculate whether this memory, unrecorded in written form, has been influenced by later thoughts. I offer it as a memory which I have shared with others, finding that some of them have similar recollections.
conservation activism in the city of Sandringham and to new developments in the indigenous plants movement in that area.
Foliage fallen from Eucalypts and She-oaks (*Allocasuarina* syn, *Casuarina*), instead of lawn, created the ground cover
Maloney and Walker, *Designing Australian Bush Gardens*, 1966
CHAPTER 4

CATALYSTS FOR CHANGE.

The context of our private lives is not merely the physical environment about which the conservationists plead so eloquently, but comprehends also the arrangements within which we work together for our common ends.¹

H. C. (Nugget) Coombs.

Throughout the 1960s, the Beaumaris Tree Preservation Society maintained efforts begun in 1953 to conserve indigenous vegetation and encourage plantings of both local species and other Australian natives. Until the last months of the decade, members worked in a low-key manner, making efforts to persuade individuals and the council rather than confront them. However, a marked change occurred in late 1969, in the City of Sandringham of which Beaumaris was the southern part. The Tree Preservationists and new organisations with similar objectives, initiated a campaign that was the catalyst for change in their suburban locality. While the Little Desert campaign was the catalyst for changed policies towards the environment in the state of Victoria, demonstrating the power of individuals and groups with strong feelings about the value of bushland, and showing the importance of botanical research, this lesser-known battle was important for residents and the council and had influence beyond the boundaries of Sandringham. It contributed to a greater awareness of the natural environment and to new efforts to conserve indigenous plant communities.

This chapter is concerned with the Beaumaris Tree Preservation Society in the 1960s and its transformation into the Beaumaris Conservation Society in 1970. It describes relations with the Melbourne Botany School and examines how the members of the Beaumaris Society built on the policies and actions of previous years, how and why they, and conservationists in neighbouring suburbs, came to work in innovative ways both within and beyond the boundaries of Beaumaris. It addresses political involvement - how members set out to influence government policy and practice and to participate more actively in the local council and in the growing conservation movement beyond their own area, and reasons for this involvement. It considers the nature of the efforts and estimates success. This case study shows the dynamic of a

suburban group operating in its local context and beginning to develop unprecedented efforts to change attitudes, policies and practices relating to the environment. The chapter is contextualised within the changing social climate of the time. The period is marked by anti-Vietnam War protests, a new phase of the women’s movement with demands for equal pay and greater participation in paid work outside their homes,2 pressure for rights and greater recognition for Aboriginal Australians, and student activism.3 From the late 1960s the movement to value and conserve indigenous plants became stronger both in Australia and world wide. Members of established 'home-grown' groups gained new knowledge about local plants, developed new practices in their management and became concerned either to reform or revolutionise government and non-government organisations in order to bring about what they saw as essential change.

In the raising of public consciousness of the environment, Nugget Coombs’ voice4 was important and represented knowledge and attitudes that influenced Little Desert and City of Sandringham conservationists. Coombs included environmental issues in a new way in his Boyer Lectures, entitled *The Fragile Pattern*. He reminded listeners that ecologists had, for a number of years, emphasised that humans live naturally in a symbiosis with other species, the character of which is too complex to understand fully with the present state of knowledge. He therefore argued in favour of caution:

In the circumstances the only safe thing is to avoid sudden and drastic change in the total environment, to study and measure the changes that are in fact taking

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2 This important issue is not within the ambit of this thesis. See a valuable contribution to the subject, Megan Mc Murchy, Margot Oliver & Jeni Thornley, *For Love or Money: A pictorial History of Women and Work in Australia*, Penguin, Melbourne, 1983, and the film of the same name.

3 For an examination of these issues, see Marilyn Lake, 'Affirmations of Difference', in Patricia Grimshaw, Marilyn Lake, Ann McGrath & Marion Quarty, *Creating a Nation 1788-1990*, McPhee Gribble, Melbourne, 1994, pp. 297 - 314.

4 Nugget Coombs’ statements, made in the Boyer Lectures in 1970, are important both for their content and because of his unique role in Australian society, which made his voice one that could influence people in power. Coombs’ experience ranged from work as a country school teacher in Western Australia, study and the award of a doctorate at the London School of Economics, appointments as Director of Rationing and of Post-War Reconstruction in the Second World War Chifley Government, as Governor of the Reserve Bank in the Menzies years and, following that, as Chairman of the Council for Aboriginal Affairs. He was also Chancellor of the Australian National University, Chairman of the Council for the Arts and from 1977 to 1979, President of the Australian Conservation Foundation. See H. C. Coombs, *Trial Balance*, Macmillan, Melbourne, 1981; and Tim Rowse, *Nugget Coombs: A Reforming Life*, Cambridge University Press, Cambridge, 2002.
place, and seek by patient research to set conservative limits to what is acceptable.\(^5\)

Coombs recommended the commissioning of studies of environmental quality, and the creation of new opportunities for education, recreation and the arts. He stressed the importance of policies designed to meet the needs of an all-round person and those that included full employment. He was reflecting a number of the concerns and interests of local conservation society members and acting as an influence on patterns of thought and policy-making. A larger interest in the natural environment had already been shown through the establishment in 1965 of a national body, the Australian Conservation Foundation (ACF), with Ratcliffe, author of *Flying Fox and Drifting Sand*, playing an important part in its creation. The Foundation's objectives gained the interest and support of many people, mainly men, who were leaders in their fields in research. John Turner was involved in the planning process and became a member of the council.\(^6\) Men and women from local societies joined the ACF, learning from its published research papers and gaining a sense of solidarity from being part of a nation-wide movement. The Beaumaris Society member, Geoffrey Goode, became an ACF member in 1966 and, in late 1973, treasurer of that organisation. Keith Tarrant, president of the Black Rock and Sandringham Conservation Association became a councillor in 1973.

By 1960, the Beaumaris Society's members' beliefs and action had made an impact on the management of private gardens, roadsides and other public land, including the foreshore. Their publications, meetings and displays made accessible to residents, and other interested people beyond the district, information about the environment and a sense of the value and beauty of indigenous plants. At the 1960 annual general meeting, the chairman, Mr. Hassett, outlined activities for the year, which 'embraced the foreshore, Grammatan (sic) Avenue, street tree planting, lectures and a native plants display'.\(^7\) Mr. Roenfeldt, representing the Landscape Preservation Council, part of the National Trust, stressed the importance of 'saving natural landscape',

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\(^5\) *The Fragile Pattern*, p. 30.
\(^7\) Beaumaris Tree Preservation Society Minutes, AGM, 20 November 1960.
explaining that the Council would encourage formation of local groups and negotiate with government departments and public utilities.  

Hassett became a representative on the National Trust’s Landscape Preservation Council, creating a mutual benefit as Beaumaris people learned about matters of common concern, particularly those involving public land, including roadsides. The Landscape Council members became aware of the character of Beaumaris. Geoff Echberg, a nurseryman and council member, alerted the landscape council to the significance of an exceptionally large Coastal Banksia (*Banksia integrifolia*) on the verge of Beach Road, Beaumaris, near Ricketts Point, and the council was successful in having the tree listed as one of special importance. In the 1990s, during the construction of the Beach Road bike path, a wooden structure was built to protect the tree from passing cyclists and walkers. Landscape Preservation Council members also addressed larger issues and, in 1962, met Country Roads Board (CRB) representatives over roadsides. Earlier, Mr Goode had raised the issue of roadside conservation, combining concern for indigenous vegetation with safety issues, requesting that the council:

> investigate stockyards erected beside country roads flush with the highway to the destruction of flora and the danger of road users as loaders must be backed from the centre of roads. He felt the stockyards should be set back at least thirty feet.

Fourteen representatives of the Landscape Council, with observers who included the botanist James (Jim) Willis, agricultural science graduate, John Landy, and Ros Garnet, a leading member of the Victorian National Parks Association (VNPA) held a meeting with CRB officers at the board’s Kew headquarters on 24 March. The landscape people chose to make approving comments about the CRB, recognising the necessity of a certain amount of destruction consequent upon road construction. However, they stressed the importance of conservation and aesthetics:

> Although the primary purpose of roads is to provide ways of transport it is considered that this is not inconsistent with preservation of scenery. The road is

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8 Beaumaris Society Minutes, 20 November 1960.
9 Landscape Council Minutes, 7 March 1962. UMA TURN 00856.
10 Pers. observations.
11 Probably Dewar Goode, grazier and active member of the council, who had supported the AAS committee’s recommendations for the High Plains; possibly Geoffrey Goode of Beaumaris.
12 Landscape Preservation Society Minutes, UMA TURN 00856.
set in a landscape. The first requirement of good design is to decide what values are to be preserved. These will be in most cases trees, wildflowers, views.\textsuperscript{13}

The meeting provided for interchange between the major road authority and the Landscape Preservation Council and indicated the ‘modus operandi’ of both groups as they sought to share concerns and work towards outcomes acceptable to both. The tone of the discussions reflects courteous interchange rather than confrontation. It was also important for the local societies represented, as they could see that they shared common interests with influential people and discern opportunities for making an impact on relevant authorities. The Beaumaris people maintained their interest in roadsides. Mr E. J. Hassett reported to the Tree Preservation Society committee that following the meeting, there would be action to look after trees when road construction was occurring, planting after construction, care taken with patches of wildflowers, plantings where there were divided highways and efforts to stop ugly constructions and hoarding that would detract from the landscape.\textsuperscript{14} A committee member, Mrs. Sinclair, told the committee that she had visited residents in three streets and found them enthusiastic about planting.\textsuperscript{15} On 26 July 1962, the city engineer, Andrew Cromb, gave approval for street tree planting and more ‘natives’ were added to the list.

Residents’ attitudes to street character varied. There were two main camps - one consisting of people who liked the winding sandy tracks with bush on either side, the other who wanted paved roads and footpaths. This group included many mothers and some fathers, who found it difficult to push babies’ prams comfortably on the heavy surfaces, particularly in wet weather. Generally, the Sandringham council responded to the latter group. A notable exception was Point Avenue on the hill above Ricketts Point. Residents of that street negotiated with the council and were able to retain an earth road with wide verges and many local trees and ground-covering species. Decades later, in 2001, an application for a large development at the corner of Point Avenue overlooking Ricketts Point, was met with objections\textsuperscript{16} which included the

\textsuperscript{13} ibid.
\textsuperscript{14} Beaumaris Society/ Minutes, 30 April 1962.
\textsuperscript{15} ibid., 28 May, 1962.
need to retain the local trees and small plants, valuable because they were part of the heritage of the area. Objectors stated that the area created a leafy oasis, which people could enjoy and a habitat for local birds. Finally the plan was dropped and in the year 2002, a group of men and women worked to revegetate bare patches and retain the character of the street.\(^{17}\)

The Beaumaris Society maintained its interest in the foreshore, and objected especially to encroachment by individuals and clubs. This concern had ethical as well as conservation roots. Society members wanted to maintain the character of the foreshore and its indigenous vegetation and stressed the value of public land and the rights of citizens to use it. Beaumaris Motor Yacht Squadron’s proposed development plans led to protests\(^ {18}\) to that organisation and to the Sandringham and Mordialloc Councils, the Melbourne and Metropolitan Board of Works (MMBW) and the Landscape Preservation Council. The Society objected to the ‘removal of ti tree [sic] on the foreshore opposite [Mr. Greenway’s] property’\(^ {19}\). A letter to the State Lands Department (which held the ultimate authority for the foreshore while local councils acted as committees of management) stated the need to ensure pedestrian access to the beach and emphasised the value of the foreshore vegetation. The conservationists succeeded in the first area as rights of access were maintained but not in the second as a certain amount of Tea tree was removed.

The Society maintained links with interested organisations and individuals, including the Save the Dandenongs League\(^ {20}\) and Miss Winifred Waddell who kept up her concern,\(^ {21}\) particularly with the Gramatan Avenue Reserve. Although the Society was smaller in the mid-1960s than in the previous decade, it continued its work. The secretary recorded after the 1965 General Meeting that 'Mr. Elliott suggested working on an absolute minimum basis, doing little ourselves but acting as a pressure

\(^{17}\) Pers. obs. Point Avenue, on-going.

\(^{18}\) Beaumaris Tree Preservation Society to Sandringham and Mordialloc Councils; Beaumaris Motor Yacht Squadron; Landscape Preservation Council; Melbourne & Metropolitan Board of Works (MMBW) letter of protest, 13 September 1961; Beaumaris Society/ Correspondence.

\(^{19}\) ibid.

\(^{20}\) Beaumaris Society/ Minutes, 29 April 1963.

\(^{21}\) ibid., 7 April 1964.
group when the situation arose. Such a situation arose in the following year when an oceanarium was proposed for Ricketts Point and the society sent letters of objection to Sandringham councillors and to local member of parliament, Murray Porter. The Melbourne Herald carried a photograph of the oceanarium plan to be presented to a meeting of the 'Melbourne Oceanarium and Research Foundation', and which involved taking up three and a half acres of foreshore at Ricketts Point for display tanks and a research laboratory, and included a promise to plant more native trees. The Beaumaris group opposed the plan and the Lands Department secretary stated that an investigation would be made of the effect on the public’s use of the foreshore, pointing out that since it was crown land legislation would be necessary before an oceanarium could be established. Finally, partly due to the Beaumaris effort, the plan failed to materialise. In later years, the foreshore at Ricketts Point was re-vegetated with indigenous trees, ground-covers and shrubs and in spring 2002, a marine sanctuary established in the surrounding waters.

By 1969, efforts to maintain the Tree Preservation Society’s activity had succeeded, and the committee started a drive for more members. They publicised the value of local plants, initiated planting projects and developed co-operation with the neighbouring Mordialloc Beaumaris Conservation League, founded because of threats to the character of the Beaumaris foreshore. League members opposed the establishment of a marina in Beaumaris Bay, famous for its splendid cliffs, painted by Frederick McCubbin during his stay in the area with fellow Impressionists in the 1880s and, four decades later, by the local artist Clarice Beckett. John Iggunlden became a successful leader of the anti-marina movement and also joined the Tree Preservation committee. He was soon a prime mover in a campaign which involved organised lobbying and public protest of a new kind.

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22 Beaumaris Society/ Minutes, AGM Minutes, 7 June 1965.
23 Herald, 14 July 1966.
24 Iggunlden, an industrialist who, with his brother, controlled the family company that manufactured Planet Lamps, led the anti-marina movement. Iggunlden had wide experience and considerable energy having, in addition to his career in industry, written four novels and become an Australian gliding champion. See The John Manners Iggunlden Papers held at Thomas Cooper Library, University of South Carolina. URL: http://www.sc.edu/library/special/igg.html accessed 12/2/03
This protest exemplifies a growing respect for local foreshores and their vegetation and determination to act politically. Both these features became increasingly important in the City of Sandringham movement and influential beyond the area. The campaign's origins lay in objections to a Sandringham City Council plan to remove Tea-tree and other vegetation in the bushland at Black Rock on the Half Moon Bay cliffs, and to the south of that area. The council was responding to the increased use of cars by beach goers and boat-owners, but making plans without regard to the value of the foreshore vegetation of an area popular with both residents and visitors.\textsuperscript{25} Sandringham Council had supported Beaumaris planting projects and efforts to care for the trees and shrubs that clothed the area between Beach Road and the beach itself, but local councils had also adopted several destructive practices, including the use of parts of the foreshore as a dumping ground for unburnable rubbish. The botanist, Jim Willis, reported in 1965\textsuperscript{26} that a patch of Tea-tree at the end of Wellington Avenue, Brighton which was home to a remarkable 'Drumstick Puffball' was 'buried for ever under refuse dumped by the Council [the Brighton City Council, which adjoined the City of Sandringham] in connection with foreshore modifications.'\textsuperscript{27} The massive Red Bluff at the northern end of Half Moon Bay, Black Rock, became notorious for its misuse by Sandringham Council. Vegetation and the distinctive shapes of part of the Bluff disappeared under the covering 'fill' of unburnable rubbish. Later, rusting car bodies and other objects emerged and fell into the sea. Writing in the Saturday \textit{Age} in 2002, the well-known author and palaeontologist, Tim Flannery, described his memories of the area:

The great fluted cliffs of Red Bluff were the wonderland of my early childhood. Erosion gullies ran right through them - a labyrinth of tunnels revealing glimpses of the blue bay far below. To the city council however, that striking landmark represented nothing more than an opportunity to dump rubbish. Tonnes of old cars, white goods, even old road surface were thrown down the cliff-face - destroying and covering the spectacular red, yellow and white sandstone columns - to lie in great rusting heaps by the shoreline near where a metre-wide pipe seeped a foul-smelling run-off into the bay.\textsuperscript{26}

The treatment of the Red Bluff and the car-park proposal showed a lack of respect for the structure and vegetation of the environment. While the local council had

\textsuperscript{25} 'Half Moon Bay, looking south', in Disney and Tarrant, \textit{Bayside Reflections}, pp. 102-103.
\textsuperscript{26} J.H. Willis, 'Native Plants of Brighton', Brighton Historical Society, 1965.
\textsuperscript{27} ibid.
\textsuperscript{28} \textit{Age}, 26 October 2002.
accepted the relatively small-scale efforts of the tree preservationists to undertake re-planting, reserve the Gramatan Avenue heathland and assist in the maintenance of bushland, it had still agreed to major works that involved degradation of the foreshore. A Melbourne University zoology lecturer, Dr. Angus Martin, in his work, *Pollution and Conservation in Australia*, commented on what he saw as the theft of common land through practices that destroyed its character and amenity. He recommended stricter controls. He chose a photograph of the Red Bluff to illustrate the attitudes and actions that resulted in the sort of scene he abhorred and which was later described by Tim Flannery.

Battles over a car-park proposal on the Black Rock cliff top created a watershed in attitudes to the local environment and in the action people who valued the ‘natural’ character of the area between Beach Road and the beach were prepared to take. In October 1969, the Beaumaris Tree Preservation Society received reports of a proposed foreshore car-park project and resolved to oppose it. Some residents suggested that the project resulted from pressure from the Black Rock Yacht Club which was planning a regatta in the following year but council denied the allegation. The determination of many residents in Black Rock, Beaumaris and adjoining suburbs to conserve the foreshore and stop the construction of the car-park led to the formation of the Black Rock Foreshore Committee, created with representatives from the Beaumaris Tree Preservation Society, the Hampton Beach Association, the Mordialloc Beaumaris Coast Conservation League and the Brighton Foreshore and Environment Protection Committee. The formation of this latter body had resulted from organised opposition to the building of a large marina on the Brighton foreshore. An important leader was Guy Boyd, the sculptor, who lived with his wife and family at 6 Manor Street, Brighton. In the tradition of his family, Guy Boyd valued the ‘undeveloped’ foreshore. His grand-parents, Arthur Merric and Emma Minnie Boyd, his father, Merric, and brother, Arthur, had all painted scenes

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30 ibid., p.102.
31 ibid., p. 104.
32 *Age*, 12 November 1969.
depicting the foreshore, and the family enjoyed the bushland as well as the beach near the family house in Edward Street, Sandringham. Guy Boyd had experience of opposition to authority, having resisted Army service by a hunger strike during the Second World War, and was prepared to oppose the Sandringham council. He was also concerned to obtain accurate information and recommended seeking professional advice. Minutes of the Black Rock Foreshore Protection Committee record Boyd's motion that approaches be made to botanists and geologists for reports on trees and erosion. Bill Ridland of the Tree Preservation Society responded by calling on a Botany School member, Dr. Truda M. Howard, for her expert opinion. Howard's resulting report influenced dealings with the council and other authorities. She argued that clearing bush in preparation for the construction of a car-park would result in erosion and recommended retention of the Tea-tree, which served as a wind break and 'fulfilled a vital ecological function - binding the Pleistocene sands of the cliff-top, and impeding rapid run-off of water from rain and road drainage which would hasten the erosion of the cliff face.' She believed that clearing could, in the long run, result in a hazard to Beach Road. Howard recommended removal of undesirable weeds and replanting with appropriate species.

At this stage there was no commitment to establishing indigenous plants exclusively, even though they were preferred. The attitude reflected thinking of the time, even among experts, that accepted plants seen as useful although they were not local or even Australian native species. Conservationists were still learning about the local vegetation. Unlike the Boonerwrung whose centuries of occupation involved close attention to the plants that were vital to their survival, most residents had limited knowledge. Botanists (including Truda Howard) in the Little Desert were studying relatively undeveloped bushland, but on the foreshore there was substantial weed invasion, so it is likely that Howard considered the practicalities of using an exotic plant with what she considered useful characteristics. Therefore, besides the

33 See Bayside Artists’ Trail, Sandringham and Black Rock foreshore.
35 Black Rock Foreshore Protection Committee Minutes, 13 November 1969, in Beaumaris Society/Minutes.
37 ibid.
Drooping She-oak (*Allocasuarina verticillata* syn. *Casuarina stricta*), Boobialla (*Myoporum insulare*) and Seaberry Saltbush (*Rhagodia candolleana*, syn. *baccata*) and other ‘locals’, Howard recommended the South African Boxthorn (*Lycium ferocissimum*), later regarded as a noxious ‘invader’, but which she considered to be a good ‘hedging’ plant and a useful wind-break. Howard recognised the problems caused by people climbing up and down the cliff, thus destroying vegetation, and recommended the construction of a fence in order to limit access. She suggested that replanting should be done in open spaces as they occurred, in order to create a renewal pattern with scenic and ecological benefits:

The benefit of this method of management is its cost - after the initial outlay regular maintenance should be minimal, and its soundness in retaining the essential native character of the vegetation for tourists to enjoy. It is too late to rely on natural processes, as the presence of the introduced scrambling weed, grasses, and shrubs, excludes the possibility of natural tree regeneration.\(^{38}\)

Howard argued that correct management would ensure erosion protection, a wind break and the creation of an attractive picnic area, thus presenting positive reasons for abandoning the car-park proposal.

The Howard report exemplified the continuing tradition of conservationists seeking advice from the Melbourne Botany School, it added to the education of local people concerned about the care of the foreshore and was used effectively at a large public meeting held in Black Rock. The Black Rock Foreshore Protection Committee made careful preparations for the meeting, working on several levels. They used avenues open through the government bodies, Melbourne and Metropolitan Board of Works (MMBW) and the Port Phillip Authority, (PPA) - the body established by the Bolte government to monitor development associated with the bay. They attended a meeting with the MMBW on 13 November 1969 and presented a report to the PPA; they wrote to members of parliament and City of Sandringham councillors expressing reasons for objection to the car park plan. They sought information from beach and foreshore users by organising surveys. They hand-delivered relevant material to residents. They gained publicity in the local and daily press, including the front page of the Melbourne *Herald*:

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**Fight To Save Bay Trees.**

\(^{38}\) Truda Howard, ‘Preliminary Report’, p.3.
Moves are being made today to stop Sandringham Council from bulldozing ‘the last good stand of tea-tree in the metropolitan area’. The Council wants to bulldoze the area over-looking Half Moon Bay to provide a quarter-mile long stretch of parking...

The Black Rock Foreshore Protection Committee today sent a three page protest to every member of the [Port Phillip] Authority and to every councillor.

Mr W. Ridland of Dalgetty Road, Beaumaris, delivered the protest memo by hand today.

This report and other publicity alerted nearby residents who valued the area to the need to present their views to council. Some of them became actively involved through telephoning Sandringham councillors and the media and supporting the efforts of the committee. Conservationists distributed handbills via letter boxes asking residents to learn about car-park plans and to hear what they could do 'to stop a wilful act of destruction'. On the afternoon of the next Sandringham council meeting, at the time of the late afternoon peak hour traffic, residents made their first public appearance, standing beside Beach Road on the foreshore where the car-park was planned. They displayed a large sign that urged anyone who cared for the trees to attend the Sandringham council meeting that night. I was one of the people. Shock at the Herald report publicising plans to destroy an area of well-loved bushland resulted in the new experience for me of telephoning two councillors, newspapers, ABC radio and Mr W. (Bill) Ridland and, the following day, joining the protesters on Beach Road. That evening, more than 100 residents 'jammed the .. chambers and it took the town clerk more than an hour to read letters of protest'. The foreshore committee then planned a public meeting. Their action demonstrated members' belief in the value of the 'natural' environment and their belief that they could influence policies. It marked the beginning of activism in the Black Rock Beaumaris area, with citizens feeling a strong sense of the importance of places they had come to know and love, allied to the belief that they were empowered and able to use democratic processes in order to achieve their ends. Two hundred and fifty people filled the Black Rock Civic Hall on 21 November, learning of the background to the car-park proposal and objections to it. They received lists of names and contact details of local councillors, members of parliament and relevant statutory bodies and

39 Herald, 10 November 1969.
40 Handbill, 'Save Black Rock's Natural Foreshore', November 1969 V.Tarrant Collection.
41 Sun, 11 November 1969.
42 Age, 12 November 1969.
learned of the most effective means of gaining a hearing. Bill Ridland recommended an 'avalanche of letters' as part of the campaign. Geoffrey Goode screened a series of coloured slides showing sandy tracks winding through foreshore bushland and spoke engagingly of his affection for such places. The combination of visual imagery and controlled emotion proved effective in awakening a response in the audience.\(^{43}\)

While John Iggunden, Bill Ridland and Geoffrey Goode, leaders at this meeting, were all local people, Dr. Chris Christenson, from the Native Plants Preservation Society of Victoria, another speaker, represented the National Trust Landscape Preservation Council thus showing the existence of support beyond the district. He alerted listeners to the concept of irretrievable loss, speaking of the value of the Port Phillip coastline close to a massive population and asking the audience to recognise that once lost the 'nearest to natural vegetation' in the area could never be recovered. He furthermore argued for the maintenance of variety in a landscape. The women, men and children in the hall responded warmly to the speakers and passed a motion opposing the car-park, indicating approval of action to preserve the natural vegetation and calling for a meeting of ratepayers should a car-park plan be already endorsed. This was to be delivered to the Sandringham council. Organisers collected names of people interested in belonging to a local coast conservation group and a pro-tem committee was formed to replace the hastily formed Black Rock Foreshore Committee. This group met soon after and, in the following year, created the Black Rock and Sandringham Conservation Association (BRASCA).

The purpose and urgency communicated at the 21 November meeting, combined with strong affection for the threatened stretch of foreshore bushland, caused people to write to the council expressing opposition to the car-park and the need for changed policies. These factors influenced the new committee which met and worked out plans for effective action. Despite claims by council that problems had been exaggerated, the Port Phillip Authority refused to grant permission for the implementation of the car-park plans. The local paper carried a banner headline, 'IT'S 'NO' TO CAR PARK! Foreshore plan K O'D by Port Phillip Authority'\(^{44}\) and

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\(^{43}\) Records made at Black Rock Civic Hall meeting, November 1969, V. Tarrant collection.

\(^{44}\) Sandringham Advertiser, 3 December 1969.
reported that the town clerk had read a letter to a packed gallery refusing council permission to go ahead with their development. People who began to define themselves as 'conservationists' were delighted, though cautious about the future. They proceeded with efforts to learn more about the foreshore and other areas they regarded as important, and to create an association which would be dedicated to the prevention of deleterious action and to the implementation of regeneration where possible and appropriate. It encouraged interest in coastline conservation among members of parliament and council, the staff of these bodies, of government departments and the general public. The definition of objectives was important in demonstrating positive aims and countering suggestions that the group was always against proposed plans. The BRASCA constitution,\textsuperscript{45} which incorporated these objectives, was adopted in early March 1970.

Language descriptive of the foreshore varied according to the attitudes and values of the speaker. Writers about the American 'Dust Bowl', described by the historian, Cronon,\textsuperscript{46} created different stories. Likewise, council representatives created one story, conservationists another. Words quoted in the \textit{Advertiser}\textsuperscript{47} presented a negative view of the foreshore. The reporter referred to the council’s statement: 'The cleared (sic) area is planned to pass mainly through scrubby and scanty vegetation .. the strip to be cleared is occupied mainly by wattle and creepers, and dead or dying ti-tree' [sic].\textsuperscript{48} This description is in marked contrast to the words of Howard's report, of the picture created by both the members of the Foreshore Protection Committee and by Christensen of the Landscape Preservation Council. They all used either positive or neutral words and indicated the desirability of valuing and caring for the area. Contrasting discourses remained common. The Sandringham council engineer and councillors saw a wasteland that could be utilised; conservationists saw a valuable resource for peaceful enjoyment. A writer and librarian, Margaret Dunkle, referred scathingly to a moneyed minority who would like to destroy remnant vegetation and

\begin{footnotesize}
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\item \textsuperscript{45} Black Rock And Sandringham Conservation Association, Constitution for submission to a General Meeting, 4 March 1970.
\item \textsuperscript{46} Cronon, 'A Place for Stories, p. 1347.
\item \textsuperscript{47} \textit{Advertiser}, 26 November 1969.
\item \textsuperscript{48} ibid.
\end{itemize}
\end{footnotesize}
she wrote that it would be desirable to 'preserve the foreshore, and the ti-tree [sic], for people, not machines'.

Opposing attitudes became obvious in December 1969, when the Sandringham city engineer, Andrew Cromb, began a new project of dumping unburnable rubbish. Bulldozers cut through a section of bushland in a wide valley within the foreshore reserve opposite the end of Harold Street, Sandringham, and tipped a mass of old prams, rusting cans, battered machines and other objects down the hillside. Cromb described the project as 'cliff reclamation', but conservationists saw it as 'vandalism'.

The success of the campaign opposing the car park contributed to the development of a new protest in which Beaumaris, Black Rock and Sandringham people were involved. While the dumping of unburnable rubbish on the Red Bluff and other areas, including the cliff top opposite Southey Street, Sandringham, had hitherto occurred without public complaint, the pending destruction of the small valley opposite the end of Harold Street, aroused a vigorous response. This was partly due to the size of the operation and the arousal of the same kind of indignation at an attack on a valued precinct that had prompted the battle over the car-park. The feeling of empowerment that the earlier campaign had generated was also important. Phil Straw, a resident and member of a long-established local business, alerted the president of the new Black Rock and Sandringham Conservation Association pro-tem committee, who gained publicity in the Saturday Herald. Again descriptions of the area's character showed that council and conservationists saw the foreshore in different ways. The Herald reporter wrote of a 'new row brewing over Sandringham's stretch of bayside tea-trees' and commented:

Bulldozers have already gouged a deep pit in the area. Tip-trucks have been dumping beer cans, rusting sheet iron, battered washing machines and other non-burnable rubbish into the crater.

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49 "'Moneyed Minority' jibe over car-park', Advertiser, 3 December 1969.
50 Herald, 13 December 1969.
51 'Anger as the tea-tree goes', Herald, 13 December 1969.
52 ibid.
The accompanying photograph carried the caption, 'The Sandringham beach tip'. The city engineer spoke of 'an old gulch which eroded away years ago .. the area is rough, impenetrable scrub, which is completely unusable land'. He described the works in progress: 'We are building [the land] up with hard waste material and builders' rubble to create a new foreshore'. Cromb suggested that while some people liked to look at bushland settings, many more 'preferred to see waste land turned into usable tracts of ground where children could play'.

Keith Tarrant, chairman of the new conservation association, presented an opposing opinion. He argued that the claims of stopping erosion were incorrect as hardly any erosion existed and claimed that council was 'simply digging itself an enormous rubbish pit' and 'ruining a lovely little mini-valley of attractive bushland'. Tarrant referred not to 'wasteland' but to 'natural bushland' and claimed that councils 'want to create something smoothly artificial, complete with neat tidy lawns. They have no imagination'. He said that the Tea-tree belt was one of 'the area's most scenic assets'. The two discourses incorporated two different approaches to the environment and incompatible value systems. On one hand, the city engineer regarded the bush as disposable and saw the value of the land in terms of how it could be developed for active recreation. On the other, the new conservationist stressed the value of the natural, scenic character of the area, and the opportunities it provided for passive recreation. Numbers of local residents agreed and the protest led to a learning process that included the decision to organise a deputation to the Minister for Local Government, the Hon. Rupert (Dick) Hamer. The Minister, in mid-December, received the deputation of three - John Iggulden of the Black Rock Foreshore Preservation committee and the President and Secretary of the pro-tem committee, Keith Tarrant and Valerie Tarrant. Hamer showed interest but explained that the relevant ministry was not Local Government but Lands. Hence, the appropriate minister was Sir William McDonald who held the lands portfolio and was ultimately responsible for the crown land of the foreshore. McDonald was then under fire for his role in the project to develop the Little Desert. The controversy

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53 ibid.
54 ibid.
surrounding that project had made conservation a large issue in Victoria. Beaumaris and Black Rock people were aware of this and knew that the plans of the developers had failed in the face of the evidence in favour of maintaining the 'natural' character of area. In 1970, McDonald, with the Secretary of the Lands Department, Port Phillip Authority chairman and local members of parliament met with representatives of the Black Rock and Sandringham Conservation Association (BRASCA) - Jim Quirk (vice-president) and Valerie Tarrant (secretary) and Alan Edgar (committee member) - at the Harold Street Valley 'tip site'. McDonald showed no appreciation of the bushland nor of the values and hopes of the conservationists. One of Tarrant's memories is of his pleasure at the sight of the small white flower of the Pampas lily-of-the-valley, which conservationists and many gardeners regarded as a problem invasive weed, and of his speaking of the Tea-tree woodland as 'rubbish'. His attitude was similar to that of the city engineer and of the Port Phillip Authority chairman, who would have been happy to see lawn and picnic facilities.

Jim Quirk reinforced the conservationists' values. Later he told the local press that 'we do not want the valley filled and planted with neat lawn, we want tea-tree and other Australian vegetation'. It became clear however, that McDonald would not use his ministerial power to impede the council plans and despite continued protest from people who cared for the valley, it appeared that their efforts had failed. The final project to restore the bushland was influenced by a local resident, Ms. M. A. Eldridge, who alerted the Minister of Health to the existence of the 'reclamation' proposals of the Sandringham Council on the foreshore, thus using the forces of one government instrumentality against another. She received a reply from A. T. Gardner, Secretary, Commission of Public Health stating that:

The Commission has resolved to advise the City of Sandringham that if this reclamation scheme provides for the use of non-burnable rubbish collected by the Council throughout the municipality, the project constitutes the establishment of a garbage depot within the meaning of Section 49 of the Health Act 1958.

55 See Robin, Defending the Little Desert; and Tony Dingle, Settling, Fairfax, Syme & Weldon, Sydney, 1984, p. 250.
56 'Save Our Valley Demands BRASCA', Sandringham News Advertiser, 27 May 1970.
57 Ibid.
The Council has been advised that if it intends to use non-putrescible garbage in this reclamation programme, it is necessary to seek consent to establish a garbage depot on the foreshore, opposite Harold Street, and before any such application can be considered by the Commission of Public Health, it is necessary for the Council to carry out certain advertising procedures laid down in the Health Act, so that any local resident aggrieved by the proposal can lodge objections with the Commission.\footnote{A. T. Gardner to M.A. Eldridge, 25 February 1970, V. Tarrant Collection.}

The council finally decided to abandon the project. Conservationists gained the right to weed, restore and replant the bushland, using plants indigenous to the area about which they were gaining increasing knowledge. Thirty years later, it had become the site of a reproduction of Emma Minnie Boyd's local foreshore painting\footnote{Emma Minnie Boyd, 'Coastal Scrub Sandringham', c. 1925, Bayside Coastal Art Trail, No. 17.} which depicts the character of the valley in the days when the Boyds lived nearby.

BRASCA's positive actions were reported in the local paper under the headline, 'Action on the Foreshore? BRASCA'S offer may produce new look'.\footnote{Sandringham Advertiser, 25 March 1970.} The reporter commented on the complaints about the foreshore received by the council and described the conservationists' offer to 'undertake extensive planting' with volunteers probably working in association with the Field Naturalists Society and the National Trust Landscape Preservation Committee.\footnote{ibid.} The city engineer said 'that offers would be welcomed' as neither council nor any other body had a legal obligation to carry out cleaning or planting and there was a need to be strict about spending. He added that 'considerable freedom could be given to a responsible volunteer group in selection, planting and subsequent attention'. His statement reflected an important shift from conflict to co-operation. The second important change came with the council's approval of the conservationists' professionally drawn plans. Council also undertook to break up the asphalt surface of a car-park opposite the end of Love Street, Black Rock, in order that the regeneration of the area could begin. This occurred in the winter of 1970\footnote{Photograph of winter 1970 foreshore planting, V. Tarrant Collection} and was followed by another planting project by Sandringham Jaycees. Plantings, combined with efforts to remove Boneseed and
other invasive weeds, continued with Council approval. They became a mark of the BRASCA’s work parties and have continued to the present.\textsuperscript{63}

The Beaumaris Tree Preservation Society supported the efforts of the new Black Rock and Sandringham group and widened its interests in other ways. Experiences with the state government and local council proved influential in the decision to create a body representative of conservation bodies close to Port Phillip. John Iggulden played a major part in the foundation of the resulting Port Phillip Conservation Council (PPCC) which was established in early 1970. Its objectives included working for the better conservation of Port Phillip Bay: its beaches, foreshores, environs and tributaries, to oppose pollution and to work for the preservation of natural features.\textsuperscript{64} Its first major campaign was to work against the construction of an oil pipeline across Port Phillip, mainly because of the fear of damaging oil spills.\textsuperscript{65} The resulting experiences and successful outcome empowered members of the bayside groups and educated them. They decided that political action was their best way of ensuring success. Charles Moore, President of the Mordialloc Coast Conservation League, presented as a candidate for the Mordialloc Council and Geoffrey Goode, Secretary of the Beaumaris Tree Preservation Society, stood for the Sandringham Council. Both publicised their conservation policies, including tree planting.

John and Helen Iggulden orchestrated campaigns with careful choice of publicity photographs, professionally produced informative pamphlets, door-knocks and public meetings. Members of conservation societies in Hampton, Sandringham, Black Rock, Beaumaris and Mordialloc worked with enthusiasm and optimism in the expectation that the election of their candidates to council would lead to policies more compatible with their aims and prevent what they saw as developments deleterious to the character of the area. Geoffrey Goode’s policy statement contained a section entitled, ‘Conservation’, which was innovative in the district at that time,

\textsuperscript{63} Pers. obs. December 2003.
\textsuperscript{64} John Iggulden to Bruce Aitken (Frankston) Rick Oke (Carrum) John White (Brighton) 'Proposals for a conservation council for Port Phillip Bay', 12 February 1970, BRASCA files, V. Tarrant Collection.
\textsuperscript{65} Valerie Tarrant, 'The Bay and the Bush', pp. 55 - 61.
and important for its emphasis on the value of the foreshore as public land and its vegetation. He defined conservation as:

Emphasis on retention of the foreshore in its natural state by:
(i) Providing direction and knowledge now lacking in the present largely ineffective use of funds
(ii) Determined opposition to commercial development on the foreshore.\footnote{66}

The statement reflected the long-standing aims of the Tree Preservation Society and of the recently formed Black Rock and Sandringham Association with regard to the foreshore as well as placing a new emphasis on the use of funds. It clarified objectives so that all ward residents learned of the value the candidate placed on the natural character of the land between Beach Road and the beach. Both Geoffrey Goode and Charles Moore were elected in spring 1970 and, in succeeding years, similar campaigns were conducted with the goal of gaining a majority of ‘conservation-minded’ candidates elected to councils close to Port Phillip Bay.\footnote{67} The implications were important as these new councillors could provide a voice in local government and learn about forthcoming projects. They could gain the opportunity to initiate debate and work towards changed attitudes and policies. In Sandringham, by the mid-1970s, councillors with conservation policies were in a majority, with consequent changes in approach and practice relating to the natural environment.

In 1970, developments beyond the city of Sandringham influenced members of the Beaumaris and the Black Rock and Sandringham conservation societies. One was opposition to the Australian commitment to sending troops to the Vietnam War which caused large numbers of citizens, whose habits were to obey the law, to demonstrate in unprecedented ways. Many members of the conservation societies marched in the May 1970 moratorium and their experience strengthened decisions to question or oppose the local council's authority when they believed its policies were detrimental to the environment. A second development was the success of the Little Desert campaign and the creation of the Conservation Council of Victoria (CCV)

\footnote{66 Geoffrey Goode, publicity pamphlet for 1970 Sandringham Council South Ward, Beaumaris Conservation Society Collection.}
\footnote{67 See Chapter 5.}
which acted as a provider of relevant knowledge, a meeting place and co-ordinating body for the numerous groups that had been formed and who shared similar objectives in relation to the environment. The Beaumaris and Black Rock and Sandringham societies both sent delegates, thus enlarging their networks and sense of common purpose. A third was the formation of an increasing number of societies with similar aims. For example, Beaumaris Society minutes\textsuperscript{68} record the formation of a conservation society in the developing suburb of Dingley. A fourth was the establishment by the state government of the Land Conservation Council (LCC)\textsuperscript{69} which was founded in order to make recommendations on the use of public land.

The Beaumaris group responded both to the increasing use of the word ‘conservation’ and to a sense of its importance both in their local environment and in the world beyond. Hence, at the 1970 Annual General Meeting,\textsuperscript{70} they changed the name to the Beaumaris Conservation Society (BCS) and an amendment to the constitution defined objectives. These included the maintenance of the original commitment of the Tree Preservationists to the local trees and plants, but included wider aims: first, conservation and restoration of native flora and fauna; second, protection of natural landscape including geological features; third, action to eliminate or prevent pollution affecting land, sea and air.\textsuperscript{71}

The second of the objectives became the basis of a confrontation with the Sandringham council in late September and October. The Little Beach, south of Half Moon Bay did not directly involve trees and small plants as had been the case in the Harold Street Valley conflict. However, the experience and manner of dealing with what conservationists perceived as a major problem, and the outcome itself, were influential in the future in matters concerning indigenous vegetation and in relations with the Sandringham council, the state government and the media. The problem arose because of the city engineer’s project of dumping rubble, mainly rough concrete blocks, and soil, not on the cliff top, but over a small beach to the south of

\textsuperscript{68} Beaumaris Society Minutes, 16 October 1970.
\textsuperscript{69} See chapter 6 for a further discussion of the LCC.
\textsuperscript{70} Beaumaris Society Minutes, 28 September 1970.
\textsuperscript{71} ibid.
Half Moon Bay. The engineer described this as cliff reclamation meant to stop wave erosion and stated that no-one used the beach.\textsuperscript{72} Conservationists challenged these assertions. Dr. Eric Bird of the Melbourne University Geography Department contributed to the dispute by producing, at BRASCA President, Keith Tarrant's request, a statement about the area which showed that erosion occurred mainly because of run-off from the cliff top and that wave erosion was not significant.\textsuperscript{73} This constituted an authoritative challenge to the city engineer's estimate of the situation and added weight to the conservationists' protest. A survey indicated that numbers of people did use and enjoy the beach and wanted it to remain. As a BRASCA committee member concerned at the projected loss of the beach I had visited Andrew Cromb, the council engineer. My aim was to view the plans but Cromb stated that plans were unnecessary. The same statement was repeated to Geoffrey Goode, now a councillor, who questioned the need for the project in a Sandringham Council meeting.\textsuperscript{74}

Following Goode's questions in Council in September 1970, the dumping was speeded up and by the following weekend a large section of the beach was covered with rubble. A sense of outrage combined with the need to retain the beach resulted in a weekend meeting between John Igguelden, PPCC President, Helen Igguelden (whom John regarded as Co-President), John Messer, the environment writer for the Age and Keith and Valerie Tarrant of BRASCA. The group decided to contact directly the successor to McDonald as Minister for Lands, the Hon. W. (Bill) Borthwick. A telegram in the staccato prose of that medium was sent early the next day:

\begin{quote}
Respectfully suggest urgent and immediate action prevent Sandringham Council completing destruction very pleasant popular beach just south Half Moon Bay by dumping concrete and other spoil on beach stop our information this proceeding without approval Port Phillip Authority stop. If you unable to arrange immediate stoppage pending further consideration we propose serve injunction council
\end{quote}

\textsuperscript{73} \textit{Bayside Reflections}, p. 96.
\textsuperscript{74} ibid.
though hope avoid necessity this action stop also propose future exploration means repairing removing damage already done stop will telephone your secretary Monday afternoon sincere apologies urgency but complete destruction beach only matter days present rate

John Iggulden President Port Phillip Conservation Council.  

This telegram had an immediate impact. The Secretary for Lands contacted the council requesting that dumping on the beach cease immediately. The council complied and a press conference held a short time later on the beach resulted in television coverage and articles in the next day’s Age, Sun and Australian newspapers. The two former showed photographs. The front page Age report, entitled 'Minister stops Beach Burying' contained Borthwick's words, 'I have arranged for contact to be made with Sandringham Council asking them to stop the work pending investigations'. It stated that the minister had asked for a report from the Port Phillip Authority (PPA) chairman. John Messer, the Age environment writer, described his own experience: 'Shortly before midday yesterday I saw tip trucks and a front-end loader dump tons of rubble in the shallows off the sandy beach where children had played in the weekend'. This created a different picture from that put out by the city engineer, who said: 'That little beach they’re kicking up a fuss about .. Never in 15 years have I seen anybody on that beach .. Once you leave the sand and go into the water you are on a stony reef - of no value whatever for bathing purposes'.

Brigadier Molloy of the PPA, asked by Borthwick to inspect the beach, told the Age, 'Whilst it is not a well-populated beach, it is a beach which is quite suitable for youngsters .. there are so few good beaches - so few of any sort - we don’t want to see any of them lost'. The city engineer claimed that because the project was planned before the PPA came into existence it was exempt from the need to gain approval. He continued to speak about controlling erosion. Iggulden urged the

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75 Telegram John Iggulden to Bill Borthwick, Minister for Lands, 5 October, 1970. V Tarrant Collection.
76 Age, 6 October 1970.
77 Sun, 6 October 1970.
78 Australian, 6 October 1970.
79 Age, 6 October 1970.
removal of rubble already dumped. Eventually this occurred, after discussion between the PPA, MMBW, Public Works Department and the Soil Conservation Authority. In June 1972, Borthwick, Minister for Conservation, at that time, decided that the rubble should be removed and that the Little Beach area with cliffs should remain and become the subject of a ten year study, the results of which would enable the making of a correct decision about long-term management. Such a project fitted well with Nugget Coombs’ concept of the need for 'patient research' and the setting of conservative limits to what is acceptable. In April 1973, the rubble was moved from the shore and then banked against the seaward side of the car park to the south of the Black Rock pier, thus conserving the beach. The action also created an important landmark in the City of Sandringham and beyond. Eric Bird, as a geomorphologist with an interest in coastlines around the world, and with a large network of connections, drew attention to the value of the citizen action that had caused a local authority to undo its project of destroying the 'Little Beach' at Black Rock Point.

Media reports brought the issue to the attention of newspaper readers and viewers of television news for the first time. The eight Sandringham councillors who supported the city engineer’s project, and the engineer himself, had to face public criticism because of what was perceived as their cavalier attitude to the beach and the people who valued it and its surroundings. The Age gave the fullest cover. In addition to the reports by John Messer, the cartoonist, Tanner, contributed a cartoon, showing the engineer standing on a pile of rubble near the shore and next to a notice which read: 'Sandringham Council - No dogs, people or conservationists allowed'. The caption, 'Stop polluting our car park', related to a couple of swimmers in the water.

An Age editorial, 'Sand in the face' pointed to the problems of the bay and the difficulty of finding a clean beach, the fact that a beach would have been buried but for the action of conservationists and the need for the government to 'plug loopholes' that could make possible the burying of a beach. The conclusion referred to the

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80 Age, 6 October 1970.
82 Age, 12 October 1970.
most important facility - the beach itself: 'Councils should not be allowed to kick what little sand there is left in the face of the beach-going public'.

Beaumaris and Black Rock conservationists’ experiences of the short and successful campaign contributed to the building of networks. These people grew more confident in carrying out their policies in the future. They remained determined to continue the effort to run a number of candidates in council elections in order to gain a more sympathetic local government. In doing so, conservationists argued that electoral success could lead to new attitudes to the ‘natural’ environment including the indigenous trees, shrubs and wildflowers of the city.

Eric Bird and his associates added a further dimension to a growing sense of the value of the area through the publication of 'Conservation Problems at Black Rock Point', which included illustrated descriptions of the Black Rock Point area and the results of the first part of a conservation study. The writers emphasised that the area interested students and others undertaking research. The publication included a section on 'Aesthetic and Recreational Values', which, although centring on geological features, had ramifications for those concerned with the local vegetation. A preliminary enquiry into the motives of people who went to the area indicated that many regarded it as 'an attractive segment of wild or natural environment', and this estimate fitted well with the statements by conservationists who wanted to retain the bushland rather than have the foreshore turned into formalised lawn, garden or car park. Bird and his associates concluded that Black Rock Point was a site of 'scenic and scientific interest, offering opportunities for both educational and recreational activities', and stated that the minister’s decision to permit scientific study and research set an important precedent and would enable the development of informed management plans. The conservationists’ decision to ask for Bird’s advice was an important factor in the creation of a changed attitude. It influenced the move to use people skilled in their field in the development of practices based on accurate information. Eric Bird was another Melbourne University scholar who provided

83 ibid.
84 See Chapter 5.
85 Bird, et. al. 'Conservation Problems at Black Rock Point', p. 247.
86 ibid.
evidence based on research to the local community. He contributed in the ensuing years through his writing and membership of a council environment advisory committee.\textsuperscript{87}

In mid-1970, the Black Rock Foreshore Protection Society\textsuperscript{88} was disbanded and BRASCA took entire responsibility for conservation matters in Black Rock and Sandringham. The new association retained close links with the Beaumaris Society through meetings and informal networks. The Beaumaris Society minutes\textsuperscript{89} indicate a range of efforts. Sub-committees were responsible for the foreshore, inland reserves, street tree planting, the community centre, care of the bushland in the Beaumaris High School site and publicity. In the following year, the committee decided to 'seek advice from Melbourne University graduate Mr. James (Jamie) Kirkpatrick [later Dr James Kirkpatrick]\textsuperscript{90} with the 'aim to (sic) obtaining expert advice on the reserves and future maintenance requirements.'\textsuperscript{91} At the annual general meeting in November,\textsuperscript{92} Kirkpatrick was the guest speaker, strengthening the continuing link between Melbourne University and local conservationists.

At the state level, the Port Phillip Conservation Council (PPCC) became the active co-ordinating body of the conservation organisations around the bay, including the Beaumaris and Black Rock societies. The PPCC was made up of delegates from each group who, through regular meetings, learned of issues in other areas, gaining a bank of knowledge and a sense of common purpose. Beaumaris and Black Rock conservationists sent representatives to the PPCC and consequently were in touch with a large network of people from a wide range of areas and backgrounds. Membership of the Conservation Council of Victoria (CCV) meant that reports were received of state-wide issues, while the Australian Conservation Foundation provided a national dimension.

\textsuperscript{87} See Chapter 5.
\textsuperscript{88} Beaumaris Society Minutes, 22 June 1970.
\textsuperscript{89} ibid., 16 October 1970.
\textsuperscript{90} Kirkpatrick later became Professor of Geography in the University of Tasmania.
\textsuperscript{91} ibid., 30 July 1971.
\textsuperscript{92} Beaumaris Society AGM, 10 November 1971.
By the end of 1970, Beaumaris conservationists had re-created their identity, while maintaining their original interests. They had moved beyond the original aims of the Tree Preservation Society to embrace a larger series of objectives, including the use of expanding networks, activism and entry into local politics. They had played an important part in the formation of the Black Rock and Sandringham group and in the success of its campaigns. They had used effectively the resources of the Melbourne University Botany School and Geography Department, and of the media, and gained experience in dealing with governments. The successful effort to elect Geoffrey Goode to Sandringham Council brought access to information about council policies and practice, a voice at meetings and an indirect role in decision-making. Change in official attitudes to the foreshore and bushlands was at this stage only beginning however and it was later in the seventies, that a majority of ‘conservation-minded’ councillors initiated new policies seeking, in the process to transmit a culture more sympathetic to the natural environment and particularly towards indigenous plants.
‘Stop Polluting Our Car Park’, Little Beach Black Rock Controversy

Age cartoonist, Tanner, satirised Andrew Cromb, the Sandringham City Council Engineer, Age, 7 October 1970
CHAPTER 5

GROWING THE LOCAL

People are becoming increasingly interested in the plants native to the areas in which they live. This is understandable. It is to be expected and hoped that a community will be proud of its natural heritage as well as other aspects of its inheritance.

J.H. Willis, 1979.1

City of Sandringham residents gave unprecedented attention to conservation issues during the 1970s, influenced both by the successful battles of the late 1960s and by a growing body of conservation literature. A number developed increasing regard for indigenous plant communities, although others maintained their preference for introduced species and mown lawn instead of bushland. To some extent attention to environmental issues reflected concerns and interests common to Australia and the wider world but certain features were unique. This chapter examines writings, by both overseas and Australian authors which argued there was urgent need for change in attitudes to the natural environment. It examines Sandringham efforts to add to knowledge of local vegetation, and the work done in order to implement policies favouring regeneration of bushland and encouraging use of indigenous species in public parks and private gardens. Closely related is the issue of relationships between conservationists and the local council. Conservationists made strong and successful objections to those council policies and practices which caused destruction of native vegetation, then implemented carefully planned moves to change the membership of the council so that a majority of councillors would move to create policies oriented to conservation. The chapter investigates plans for the foundation of a plant nursery where indigenous species could be propagated and nurtured, then used in reserves and gardens. The City of Sandringham Community Nursery, which was opened in 1978, was a pioneer in this field. Its establishment marked a change from the planting of ‘any natives’ to growing only those indigenous to the local area.

In the late 1960s and early 1970s, a number of books by overseas authors who addressed environmental issues gained a wide readership, particularly among people who considered themselves to be conservationists. Paul Ehrlich had published The Population Bomb in 1968 and the terms 'population bomb' and 'population explosion' created feelings of alarm, as Ehrlich drew attention to the problems of a growing world population combined with diminishing resources. The paperback edition of

1971 was purchased and discussed by members of the Beaumaris and Black Rock conservation societies, and, in 2003, Janet Ablitt, President of BRASCA, still regarded her copy as an important possession. Meg and Gordon Henry, McGregor Avenue, Black Rock owned and were influenced by the substantial work of Paul R. Ehrlich and Anne H. Ehrlich, *Population, Resources, Environment: Issues In Human Ecology* and passed it on to Janet Ablitt. She has maintained concern about issues relating to population growth and other environmental problems presented in the book and has worked, individually and with the members of BRASCA, to raise consciousness of these matters (including the encouragement of indigenous plant growth without the use of polluting chemicals).

Following the publication of the Ehrlichs’ work, The Club Of Rome produced *The Limits To Growth* in 1972, which presented a pessimistic model, indicating that without change, the world would run out of non-renewable resources and disasters would occur. This added to a belief that the world was in crisis, a belief which was challenged, but held by a number of conservationists, including Keith Tarrant, who was BRASCA President in the 1970s. He was also President, and, after that, Executive Director of the Port Phillip Conservation Council (PPCC) the organisation which supported and co-ordinated many of the efforts of the conservation societies around the Bay. Hampton, Beaumaris and Black Rock and Sandringham groups were among the twenty two bodies which sent delegates to regular Council meetings. The PPCC, in order to expand knowledge of large environmental issues, kept a collection of books from many sources, for the use of members, which was displayed at its Environment Centre in Spring Road, Highton.

Members thus read influential Australian works, published in the early 1970s and with titles that bespoke anxiety about the state of the environment, including Angus Martin's *Pollution and Conservation in Australia,* Derek Whitelock’s *A Dirty Story: Pollution in Australia,* and *The Effluent Society: Pollution in Australia,* by Don Whittington. At the time, Angus Martin was a lecturer in zoology at Melbourne University. He presented problems that were well-documented, and, he claimed,

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4 Pers. observation, through membership of work parties.
known to a senate select committee and a large variety of witnesses, but not understood by the general public. Martin pointed out that the pollution problem could not be separated from uncontrolled population growth and conservation. He considered them to be serious matters and wrote in strong terms, claiming that the three were 'really only aspects of a much larger problem: the deterioration of the quality of our environment, the quality (perhaps even the existence) of our life on earth'.

Derek Whitelock, assistant director of the department of adult education in the University of Adelaide, contributed to books and magazines and worked in anti-pollution campaigns. His book contained many vividly told examples of polluted land, water and air and includes a challenge to address these problems and create both a 'revolution in education' and the wise use of knowledge already gained. His conclusion offered hope but added a warning. He considered that it was possible to improve practices relating to the earth by having 'a care and respect for our environment'. Whitelock considered this possible 'given national will and leadership' and urged the importance of better practices for the sake of future generations. He evoked an image of an Australia which failed to act on environmental problems drifting among 'the outworn obsessions of Progress, Development and Pioneering' and becoming polluted with 'intolerable cities and a derelict bush where no birds sing'.

Don Whitington, a journalist by profession, reported national politics and acted as managing editor of Australian press services, which published a national newsletter. He aimed in to communicate his own sense of shock and to provide evidence for his belief in the need for individuals and governments quickly to become aware of the problems and take appropriate action to bring about change. Other books in the Port Phillip Conservation Council collection included the United States activist Sierra Club publication, *Ecotactics*, produced by the Sierra Club and providing practical information, including methods of using the law and media. Keith Tarrant, when acting as a spokesperson for BRASCA and the PPCC, followed the recommendations to remember that 'newsmen like to have somebody to peg as “leader”', that contact should be made regularly with the media and campaigns

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8 Martin, p. 6.
9 ibid., p. 7.
10 Whitelock, p. 152.
organized. Another book, *Only One Earth: The Care and Maintenance of a Small Planet*, an unofficial report commissioned by the secretary-General of the United Nations reinforced concerns over the state of the environment. The work was prepared with the assistance of consultants from 58 countries (including two from Australia) and presented the 'urgent need' for strategies that would ensure the health of the biosphere: 'The U. N. Conference on the Human Environment comes ... at a very critical time. Now that mankind is in the process of completing the colonisation of the planet, learning to manage it intelligently is an urgent imperative'.

Such works brought environmental issues to public notice, and to the attention of those people in Beaumaris, Black Rock, Sandringham and Hampton who were already interested in the local bushlands and in adopting conservation practices in their homes and gardens. The feeling that 'something must be done' contributed to a sense of mission that had an impact on people involved in practical conservation matters in the City of Sandringham. One of my memories is of talk at BRASCA and PPCC meetings, and in private conversations, about the need to care for natural assets so that they could be looked after and inherited in a healthy state by children and grandchildren. This idea combined the public and the personal, the local and the global. The Christian concept of the need for people to be responsible stewards of the earth provided another influence for some people. The books from overseas showed the research, beliefs and motivations of people with similar concerns to those in Australia, revealing common problems and challenges and contributing to a sense of common purpose.

Such works were used in public addresses and in the media. For example, the *Sandringham News Advertiser* featured an article, 'Protect Our Environment', which reported a speech given by BRASCA President, Keith Tarrant to the Black Rock Primary School Mothers’ Club:

Referring to reports of destruction and pollution of the environment in the USA and to a recent statement by leading Australian scientists concerning the need for a reassessment of our country's policies, Mr. Tarrant said that 'technological advance is not progress if it does not consider other values important to the human condition.

In Sandringham we have beaches and foreshore unique in the northern part of the bay ...

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13 ibid., pp. 147-148.
Areas of natural bushland are valuable in that they take us away from the brick, bitumen and concrete monotony of our man-made environment ...

Efforts should be made to free Port Phillip from pollution caused by industrial effluent, detergents, litter and other types of foreign matter.

Our natural environment is precious and should be conserved at all costs'.

The speaker went on to affirm the importance of public open space and recommended opposition to any attempts to alienate such land. The speech is interesting in its linking of overseas and Australian environmental issues, in its statement that people needed contrasts between man-made and natural areas and in the emphasis on the need to protect public land. The value of the natural (defined as not built or substantially altered by humans) was an important motivation for many of the conservation society members, and an impetus to learn more about the indigenous flora of the district. At that time, popular conservation thought in Australia had not embraced the knowledge of the land as having been managed over millennia by Aboriginal peoples. Hence, it was common to speak of 'wilderness' as 'untouched by the hand of man' and of a 'mini-wilderness' within the boundaries of a city when referring to the foreshore or the local bushlands. Tim Flannery recently referred to these concepts: 'The environmentalists for all their good intentions singularly failed to appreciate that the land had been managed ... Hunting and fire shaped the Australia we imagined we had discovered.'

City of Sandringham conservationists' learning about the local vegetation - its relationship to soil and climate, the characteristics of individual plants and plant communities, the names and habits of invasive weeds - was a slow process. Part of the knowledge came from careful observation, part from scientific studies, part from personal contact with botanists, including Dr. Jim Willis, who readily shared his knowledge and skills. The well-known geographer, Dr. (later Professor) Jamie Kirkpatrick studied the plant communities of the Sandringham foreshore and his article, 'Plant invasion and extinction in a suburban coastal reserve' provided information about the vegetation of the late nineteenth and early twentieth centuries and the impact of growing suburbanisation. Kirkpatrick concluded that 'the

15 Sandringham Advertiser, 23 June 1971.
underlying cause' of changes in flora (including a considerable increase in alien species) was the increase in population and the extent of the built-up area of Melbourne. At the time of his research, he lived in Bent Parade, Black Rock, close to Beach Road, and was involved in the efforts of the conservation societies. Hence, he was able to provide information in an informal manner and communicate enthusiasm. In 1972, when I was failing to keep alive the heathland plants transplanted in our garden, Jamie Kirkpatrick advised digging out a patch of soil to the depth of eighteen inches and about four feet across and replacing it with heathland vegetation from an area about to be bulldozed. My husband and I located such an area at Airey's Inlet, near the Great Ocean Road, south-west of Melbourne, and after careful digging, carried back the appropriate amount in boxes, then transferred the earth and plants with as little disturbance as possible to the garden. For twenty five years, our Kirkpatrick heathland flourished and then, gradually, the plants, including a dwarf Banksia, began to die and no regeneration followed. We concluded that perhaps fire had been needed or that the area was too small to be viable over a long period. On the foreshore, however, there was a greater level of survival, as volunteers carried out weeding and re-planting. Weed invasion remained a problem.

As well as working in public land, conservationists maintained their concern first for that land kept as a resource readily accessible to the whole community and second for sound management of the local bushland reserves. In the early 1970s, a number of those who loved the foreshore vegetation became concerned that as trees grew old they were not being replaced through natural regeneration. It became apparent that human intervention was needed if the natural character of the area, or at least an approximation to the original, were to be sustained. BRASCA members carried out plantings using stock from the Springvale commercial nursery Treeplanters, and the Natural Resources Conservation League (NRCL). Their objective was to cover bare, eroded areas on the foreshore and fill in gaps in the vegetation. Beaumaris conservationists implemented similar policies. The *Beaumaris Newsletter,*\(^{18}\) carried a leading illustrated article explaining Beaumaris conservationists' plans for Coast Banksias at Ricketts Point. The article quoted a letter from the society to the Sandringham Council, which showed both the society’s effort to work with the local authority and a failure of the council’s policy in following up adequately the work done by society members:

\(^{18}\) *Beaumaris Newsletter,* April 1974. Geoffrey Goode was a physicist, Beaumaris Conservation Society member and Sandringham councillor, 1970 - 1973, who had enjoyed the foreshore since boyhood and believed in the importance of regeneration with indigenous plants only.
The Beaumaris Conservation Society some time ago received permission to plant young Coastal Banksias among mature and senile Banksias near Ricketts Point. The Society planted these but they did not survive as the society had no means of protecting them against Council mowers, cars, vandals and accidental damage. The council did respond, so by 1976, better plans were implemented and successful plantings recorded. The front page of the August 1976 edition of the Beaumaris Newsletter showed a photograph of a tall Banksia, (north of the Beaumaris Sailing Club) which Geoffrey Goode described as 'incredibly beautiful' and 'the Banksia that's closer to the water's edge than any other on Port Phillip Bay'. The journalist referred to the value of the coastal strip and its vegetation and to the Beaumaris Conservation Society (BCS) plantings of young Banksias as replacements for those that had died. Further plantings had been made in a disused tennis court at Ricketts Point, where the council had dug the ground in preparation for 150 new native plants. The same edition of the Newsletter featured aerial photographs taken by Keith Tarrant. These showed a panorama of the coastline of south Black Rock to north Beaumaris and included a view of the tennis court area and of Ricketts Point itself, in the time just before the council erected barriers to prevent cars being driven to the water's edge. Pictures of indigenous Tea-tree, Coastal Beard Heath, Coast Salt-bush and Banksias were included in contrast to a photograph of South African Boneseed, described as a 'noxious weed as gazetted by the Victorian Government'. The description of Boneseed echoed the words of John Turner, who had written in the mid-1950s of the obnoxious character of this import and later described Boneseed as a 'goth' of the plant world. He foreshadowed Crosby's reference to a 'world altering avalanche' of animals and plants that accompanied settlers in lands 'discovered' by Europeans. The Beaumaris Newsletter article is a useful indicator of developments in the first part of the 1970s. First, it shows a sense of the value of the coastal strip and its trees and smaller plants and provides a variety of photographs to help readers with identification. Second, it provides evidence of joint efforts with the local council as the conservation society members gained hands-on support in the preparation of the tennis court area, as well as permission to plant. Third, the aerial photographs are an example of the kind of endeavour undertaken in order to provide local conservation societies, the council and other authorities with the visual material

19 ibid.
20 Beaumaris Newsletter, August 1976. The reporter identified Goode as the 'Hon. Treasurer of the Australian Conservation Foundation', creating a sense of a national as well as a local involvement in conservation, and thus adding weight to the statement.
21 For decades, people parked cars close to the water's edge, but with the increasing number of vehicles and growing concern for vegetation, council erected barriers in order to stop the practice.
22 Beaumaris Newsletter, August 1976.
23 'Decline of the Plants' in Marshall, p. 160.
needed in order to gain clear images of the areas under discussion. Geoffrey Goode flew his one-engined Cessna along the shore-line with the passenger door off, so that Keith Tarrant could photograph each section. Later, Tarrant made prints in his home dark room and presented the photographs with a written analysis of each section. At this time, volunteer work, using professional skills, was an important part of the movement to communicate the value of the foreshore, and its mainly indigenous vegetation, to the media and to public authorities.

The Beaumaris Conservation Society, continued earlier efforts to stress the value of inland reserves, and, in October 1975, joined with the Society for Growing Australian Plants in conducting a tour of the Gramatan Avenue Heathland, the reservation of which had been one of the society's early projects. Bruce Muir, a guest botanist provided information about the plants and a large number of people walked through the reserve. Several were residents of the street who had not realised 'how relatively unspoiled' the area was. In Black Rock four years earlier, a campaign had centred on the public land of an 'unmade' street - Ferguson Street, which ran between the local State Primary School and a row of five houses. Conservation society members, the residents and a number of school children enjoyed the bush - mainly Tea-tree and Wattle - which grew at the side of the narrow, sandy roadway. Numbers of children played among the trees and made cubby houses there. A Melbourne *Sun* journalist, in late 1971, described Ferguson Street as 'more like a winding country lane than a suburban street. Part of the atmosphere is lent by birds twittering in the tea-tree which lines one side of the short unmade street'.

When, in the first days of the school holidays in December 1971, Sandringham council workers began to cut down a large Wattle in preparation for the construction of a sealed road and footpaths, BRASCA members and supporters and residents of the street learned almost immediately of the tree cutting and quickly occupied the street. With the support of BRASCA, Ferguson Street resident, Dorothy Wilson, obtained a court injunction in the hope of retaining the old style road. Conservation society members and local residents - women, men and children - took over the road, settling in with folding chairs and thermoses. They impeded workmen ordered to cut trees. When a bulldozer arrived, they went in front of it in a solid group and it stopped. The daily press, radio and television gave considerable publicity to the issue. Black Rock school children, including two of my daughters, appeared on the evening news standing in front of the bulldozer, and three days before Christmas, the

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26 *Sun*, 17 November 1971.
Melbourne *Herald* reported the same incident on the front page, accompanied by a map of the area and a large photograph which showed the trees, bulldozer and people blocking its path. The reporter wrote that the bulldozer:

Moved towards the children its blade on the ground.
It stopped inches away, leaving a small pile of dirt on some of the children's shoes.
Stalemate.
At mid-day, the bulldozer driver went to lunch.
Thirty people sat in front of the 'dozer [sic] and had lunch too.  

Residents occupied the street for several days. Finally, Dorothy Wilson's attempt to stop the road-making through an injunction failed. The protesters left, and council, residents and conservationists reached a compromise. The *Age* reported that the 'spokesman for the protesters, Mr. Keith Tarrant, of nearby Bayview Crescent, said that the group had gone as far as they could legally'. Tarrant maintained that the point of stopping council workers was to gain time for the legal processes to be undertaken and allow time for negotiation. Eventually, the road was constructed but a wide strip of trees was left on the eastern (school) side of the street. Both the local and daily newspapers which publicised the 'battle for Ferguson Street' had printed photographs that captured its character. They quoted people who wanted it to remain in its 'bushland' state and who were prepared to take direct action in the furtherance of their aims.

Part of the objection to the road construction lay in affection for the earth track winding through the trees, that slowed traffic and which felt relatively safe, part came from children who liked to play there. Part came from the desire to retain the local vegetation, with its distinctive character. At that time the argument over whether Tea-tree originally belonged a kilometre inland or was, in earlier times to be found only on the foreshore, had not developed, and bayside people generally regarded Coastal Tea-tree as part of the natural heritage of the district (although natural heritage was not a commonly used term at the time). The controversy over Ferguson Street showed that the city engineer and most Sandringham councillors saw road-making as part of the essential business of the council, regardless of the feeling of conservation society members and many residents who liked the character of Ferguson Street and wanted to maintain it. The objectors did not dispute the need for road construction in general but argued that this was a special case.

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29 Letter to the Mayor, Councillors, Mr Crombe (sic) from 'the indignant children of Black Rock State School'. Undated, stamped 'received 12 November 1971', signed by thirty five children. V.Tarrant collection.
The controversy showed that BRASCA and its supporters could mobilise people in direct action and create publicity in the furtherance of their cause. The public demonstration showed that people were not willing simply to accept council decisions, and were prepared to act strongly in defence of what they perceived to be their rights. The Ferguson Street battle contributed to a changed climate of opinion, and was a forerunner of new policies more favourable to the conservation and planting of indigenous trees in public places.30 In 1973, conservationists made overtures to the Black Rock Primary School and gained support for their project of planting indigenous trees in the school grounds. Some of the Tea-tree still survived in 2005.

An equally strong challenge involving native, though not indigenous trees, developed in Linacre Road, Hampton, the bayside suburb to the north of Black Rock and Sandringham and this gained even wider publicity. This controversy was important because of the highly organised opposition to the plans of the Sandringham council, the influence on the future attitudes and actions of a number of individuals, the cooperation between many conservation groups and the use made of expert evidence. This included advice from Dr. D.G. Parberry, of Melbourne University, a leading plant pathologist in Victoria, and Professor Carrick Chambers of the Melbourne Botany School, and Turner's successor. Chambers thus continued the tradition of involvement in the public domain.

Linacre Road is a wide street in the south part of Hampton, running between Beach and Bluff Roads. An asphalt roadway runs between wide earth strips, and, on the northern side twenty Mahogany Gums and one Flowering Gum provided shade and beauty, and were greatly valued by residents and visitors. The Sandringham city engineer developed a plan to widen the paved area and in the course of the project to cut down all the Mahogany Gums and the Flowering Gum. R. Pescott, director of the Royal Botanic Gardens had recommended that the trees be removed. It was in the course of the residents' campaign to save the trees that Carrick Chambers produced a report challenging Pescott's recommendation. Chambers substantiated previous opinions that the trees 'could and should be retained'. I recall him addressing the Sandringham Council on the subject.31 Residents obtained other opinions that the road widening was unnecessary and began a highly organised campaign in pursuit of their goal of saving the gums. The original leaders were E. E. M. (Ted) Falloon, a


31 See 'The Bay and the Bush', p. 90.
dentist by profession, who practised in Sandringham, his wife, Lesley, a Melbourne University science graduate, who knew Turner, Carrick and other staff of the Botany School, a retired grazier, Richard (Dick) Molesworth and his wife, Durlene. They believed in gaining expert advice and Lesley Falloon's initiative led to the involvement of Carrick Chambers and D. G. Parberry, recommended by Chambers for his expertise in plant pathology. The Linacre Road people were ready to abide by Parberry's advice, which proved to be that the trees were healthy and were not creating a danger. Efforts to save the trees also included working through supportive councillors and the state government, gaining publicity, and setting up a vigilante program, where residents parked cars under the gums and slept there at night. A 'sentry' on duty would ring a warning bell if any one attempted to cut a tree.

The press took up the cause and in early January 1972, the Melbourne Sun printed the headline, 'It's gum law at Hampton'. Paul Gundry White, President of the Hampton Conservation and Planning Association, justified the residents' action, arguing that it was reasonable for them to hold up council action until after the Christmas recess. The city engineer, on the other hand, had told the Sun that he had to carry out the job 'as a works job ... [he] had never had this kind of opposition to constituted authority ... it is a bloodless sort of anarchy'. Later, Richard Molesworth stated that residents would face arrest if police were called in to prevent them saving the trees. The Age in mid-January 1972, supported the protesters in 'The 21 Gum Salute'. The editor, Graham Perkin, argued that:

by standing up to their council's high - handed attempt to destroy 21 gum trees, against their wishes, the residents of Linacre Road are playing a small, but vital, role in the battle to prevent suburbia from degenerating into a concrete desert. In the interests of democracy we wish them well. They carry the flag for us all.

Early on the same morning, council workers arrived and proceeded to ring-bark four trees before vigilantes came out to stop them. Protesters called a tree surgeon and the media and a group of young people decided to sleep in hammocks tied to the remaining undamaged gums in order to prevent a repetition of the destructive action. A Herald editorial, 'Help these people now, Mr. Hunt', commented on the extraordinary lengths to which parents and children had gone in order to 'defend a

32 Sun, 4 January 1972.
33 Sun, 10 January 1972, p.16.
34 Sun, 12 January 1972.
35 Age, 13 January 1972.
36 ibid.
37 Herald, 14 January 1972.
cause in which they sincerely believe'; and recommended that Alan Hunt, the state minister for local government, should intervene. Hunt, though impressed by the trees, replied that he could not intervene. He did however, communicate with the mayor, stating that the council could re-open the case. The city engineer stated that defiance of constituted authority was dangerous,\textsuperscript{38} but E. E. M. (Ted) Falloon argued that Cromb's actions had been disgraceful:

That eight axemen should move in, ring-bark and poison four of the trees while the matter was still 'sub judice', on the direct orders of Mr. Cromb, was not merely shameful, but vicious and ruthless.\textsuperscript{39}

Beaumaris, Black Rock and Sandringham, Hampton and Brighton conservation societies and the Port Phillip Conservation Council supported the Linacre Road residents who continued their fight to save the trees. They raised money and turned to legal action, which finally proved successful, and Sandringham Council abandoned the road-widening plan.\textsuperscript{40} The long-term effects were important in individual lives and in the community. Simon Molesworth, at that time a senior school student, was deeply involved in the controversy and the experience proved influential. Later, he graduated in law, and was involved in the establishment of the 'Environmental Defenders', in his roles as a councillor of the Port Phillip Conservation Council and as leader and spokesman for the National Trust of Australia (Victoria). Other Linacre Road residents, Paul Gundry-White and Lesley Falloon decided to stand for the Sandringham Council and after energetic campaigns both were elected - Gundry-White in 1972 and Falloon in 1978. The ultimate success of the movement to save the Linacre Road trees encouraged conservationists in their efforts to use available democratic means to challenge the local government authority and to look to the ballot box and the election of councillors sympathetic to conservation matters. Indirectly it was an influence on people concerned with indigenous plants and their value in public and private land.

The effort to change the Sandringham council, begun in 1969 and initially resulting in the election of Geoffrey Goode to the South Ward in 1970, continued in the following years. Sandringham, originally a shire, separated from Moorabbin in 1917 and then became a city in 1923, one divided into three wards with three councillors elected to each. One councillor from each ward retired every three years so an election was held annually, thus enabling frequent campaigns with presentation of

\textsuperscript{38} A. E. Cromb, 'The Shameful Spectacle of Linacre Road', \textit{Age}, 17 January 1972.
\textsuperscript{39} E. E. M. Falloon, 'The Axemen Came to Linacre Road', \textit{Age}, 18 January 1972.
\textsuperscript{40} See Disney and Tarrant, \textit{Bayside Reflections}, pp. 194 -197; and Tarrant, 'The Bay and the Bush', pp. 94-100.
policies, expression of public opinion and open debate. Elections were held in local polling booths with opportunities for the display of posters, meetings with the candidates and the distribution of how to vote cards. Keith Tarrant stood for the central ward in 1971 and although narrowly defeated by the incumbent, William (Bill) Adams, he and the local conservation cause gained attention. In 1972, Graeme Evans stood for the same ward with the support of BRASCA and the Port Phillip Conservation Council and was successful.

Evans worked closely with the conservation society and was supported by his wife, Merilyn, a student of indigenous plants. In his role as councillor and during his term as mayor, he made a valuable contribution to the city. He was involved in two initiatives, which created a heightened awareness of the district's indigenous plants; first, the establishment of a Flora, Fauna and Natural Environment Advisory Panel (FFNEAP), second, the creation of a set of booklets containing information about the natural history of Sandringham. A councillor, elected, with the support of conservationists to the South Ward in 1974, Laurence Bottomley, also favoured the enterprises.41

The establishment of the Flora, Fauna and Natural Environment Advisory Panel and the publication of the series of booklets (the first in 1977) were ground-breaking initiatives and vital to the growth of the indigenous plants movement. FFNEAP was designed to advise council on policies and appropriate action within the city. Members included Dr. Eric Bird, Ms. Pauline Reilly and Dr. J. H. (Jim) Willis, assistant government botanist, Victoria. Bird, Reader in Geography at Melbourne University, was the geomorphologist, with a particular interest in coastlines, who had given advice on the Little Beach at Black Rock in 1970. Pauline Reilly and her husband Arthur, who became a Sandringham councillor for the north ward, were Hampton residents and members of the Hampton Conservation and Planning Association. Pauline Reilly was well-known as an ornithologist and author with wide experience, including the study of penguins. Jim Willis42 was valued particularly for his expertise and enthusiasm for indigenous plants. The panel proved important as a forum where councillors, who served as members, and experts in particular fields could gain information from each other and formulate policies to be presented to the full council.

41Bottomley belonged to the Beaumaris Conservation Society and was present at the 1979 Annual General Meeting, at which he indicated his interest in the Gramatan Avenue heathland reserve, cared for by the society since the 1950s.
42Willis was a former Botany School student and friend of John Turner.
The educative role of the panel was of equal importance and the series of booklets was the key to this area of influence. Graeme Evans and the Black Rock and Sandringham Conservation Association (BRASCA) were both enthusiastic about the project. Graeme Evans, in 1982, outlined the purpose of the series of booklets. It was to:

inform council - councillors, council staff ... to inform the community ... to educate the community... to provide information for schools, that is, education about the local area ... The idea was to use them to make acceptable the ideas of looking after the local environment, to use the National Trust type of approach, to make them acceptable to the establishment .... To ensure the continuation of the conservation approach by making the publications an accepted part of council activity. Following publication, council publicised the booklets: they were available at the council offices, on display at libraries and formed part of a package given to new residents. Copies were also sent to local schools. They contributed to belief in a special heritage and in the value of conserving indigenous plants. The first of the Sandringham Environment series, Common Birds by Pauline Reilly, provided silhouette drawings and descriptions of the most common native birds and a page showing introduced birds. The author commented on the loss of water-birds in swamp lands remembered by older residents, but pointed out that where 'natural vegetation' had been left - 'heathland or Tea-tree-Banksia scrub' [sic], native birds of many species were still there. Where buildings, roads and introduced plants had replaced the original vegetation, Reilly claimed that most of the birds which thrived were introduced species. She was continuing in the tradition of the early Beaumaris tree preservationists, of Barbara Salter and others, who urged residents to plant with native plants in order to encourage native birds. Common Birds was revised and re-

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43 The BRASCA President in 1976 suggested that 'the ideal way of protecting the foreshore lies in educating people not only to look after [it]; but also to use and enjoy it without damaging it. We believe a step...would be an education programme... perhaps by means of a booklet ... and the publication of such other items as Sutton's Notes on the Sandringham Flora; Letter, BRASCA president to the town clerk, City of Sandringham, 13 September 1976, BRASCA files.
46 There is evidence, however, that certain native birds have adapted to introduced plants, for instance, in our Black Rock garden, Silver-eyes, Zosterops lateralis, feed on dried Birch catkins and Wattle Birds - Red Wattlebird, Anthochaera carunculata, and Little Wattlebird, Anthochaera chrysoptera, find nectar in Camellia blossoms.
printed twice (in 1980 and 1984), and its successor, *Local Birds of Bayside*, a larger volume, was launched in 1994, and provided evidence for the value of indigenous flora in supporting native bird populations.

While planting of native, and particularly of indigenous species, was closely linked with interest in birds and their habitats, there were other reasons for the value placed on indigenous flora. One was practical, as these plants usually coped better with dry conditions and bayside soil than exotics did, another related to the intrinsic beauty and interest of the plants, another, expressed by J.H. Willis was 'pride in the local community' and the 'special environment' of Sandringham. People convinced that these matters were important supported the publication, in 1979, of *List Of Local Plants: The Sandringham Environment Series - No 3*, which proved invaluable in the indigenous plants movement. The election of a council sympathetic to environmental issues, the creation of a skilled Flora, Fauna and Natural Environment Advisory Panel and the existence of active local conservation societies meant that there was in Sandringham a committed body of men and women ready to commit time, energy and resources to the publication of the booklet, believing that it would provide readily accessible information for gardeners and those interested in the regeneration of the foreshore and inland bushlands.

The *List Of Local Plants* originated with the earlier work of Dr. C. S. Sutton, described in the preface by Jim Willis as 'the giant among early researchers'. Sutton succeeded the field naturalists of the late nineteenth and early twentieth centuries, who had made a number of expeditions to the Sandringham area in search of the abundant and diverse wildflowers that flourished there before radical changes to the land. Sutton wrote two articles (1911 and 1912) based on his observations of the 'Sandringham Flora', and which were accompanied by a map which showed that the

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47 Michael Norris et al., (eds), *Local Birds of Bayside*, Bayside City Council, Sandringham, 1995. Originally, the book was to be published by the Sandringham City Council, but amalgamation of councils in late 1994 caused the change in publisher.
48 See Chapter 8 of this thesis.
Other records include a paper delivered by Charles A. Topp in 1900 to the Melbourne meeting of the Australasian Association for the Advancement of Science, in which he described the vegetation of the shores of Port Phillip and commented on changes due to clearing. *Handbook of Melbourne*, Australasian Association for the Advancement of Science, Melbourne Meeting 1900, pp. 170-171.
area under study included Oakleigh, Springvale and Mordialloc as well as the land that became the city of Sandringham. Hence, plants that could not be shown to have grown within that city were not included in the List. Extinct species were marked by an asterisk. Jim Willis and two residents who were BRASCA members, Merilyn Evans and Stephanie Stevens, updated the botanical names. All the work was done voluntarily, indicating the interest and dedication of those who undertook the project in the belief that it would add to the effort to value and conserve the indigenous plants of the district.

The catalogue of 428 plants was arranged in groups according to size, character and habitat, thus providing information useful to people wanting to learn about the vegetation of the foreshore and inland bushland reserves or to make decisions about using the plants in their gardens. For example, heading the category, 'Smaller Shrubs and Herbs' is 'Solanum lacianatum, Kangaroo Apple, 1.5-2.5, Mauve/Blue, golden berry'. (The berry fruit finally turns to a reddish-orange and was a food of the Boonerwrung). The List of Local Native Plants was widely used and a new edition published in 1989, again under the name of Jim Willis.52 This booklet listed the plants alphabetically, according to size and type and included information about approximate size and colour of only the 190 species known to be still existing in Sandringham. The rest - 246 species - were identified by an asterisk, creating a reminder of what once grew in the district and in the hope that one of a 'lost' species might reappear. The preface concluded with official affirmation of the book's value to the community as a source of knowledge and for its contribution to residents' pride and identity.53

A companion volume, Signature Plants,54 with text and illustrations by Philip Batchelor was published in 1981 and due to demand, reprinted in 1984. Batchelor explained that the booklet contained only information about indigenous plants that were commonly occurring and available to gardeners. He recommended visits to the council's herbarium to gain assistance with identification, and use of the council's planting guide for street trees and shrubs should people wish to plant their nature strips.55 The herbarium and the guide were 1970s initiatives and a response to the desire to use indigenous plants.

52 J. H. Willis, List of Local Plants: The Sandringham Environment Series No. 3, City of Sandringham, Melbourne, 1989.
53 ibid., p.2.
54 Philip S. Batchelor, Signature Plants: the Sandringham Environment Series No. 4, City of Sandringham, 1981.
55 ibid., p.2.
The author drew attention to 'a rapidly increasing interest in plants native to the local area and pride in the community's natural heritage', and pointed to the role of gardens in this process and to 'those whose gardens create the special environment that is Sandringham'. He included a glossary with definitions of terms relating to plants. The descriptions indicated a development in moves to provide precise botanical information. The illustrations were also important as they presented sprays of leaves, flowers and fruits and sketches of many of the trees, shrubs and small plants for their interest and as an aid to identification. Examples show the accuracy of the information and the contribution to the learning process. *Viola hederacea* was identified as 'Ivy Leaf Violet - A dainty flowering ground cover [which] flowers year round, white and violet, 1 -2.55 cm across on slender stems 5 -15 cm tall. Leaves kidney-shaped, 1 -3 cm across. Very popular garden specimen. Prefers some shade'.

The Sandringham Environment Series included several other works. Eric Bird produced *Geology and Landforms of Beach Park* and later, *Structure and Surface*, in which local conservationist and BRASCA member, Don Neale, wrote on 'The Origins of our Plants', which moved in its time span from 'deep time' to the present. Neale concluded that while the indigenous plants had been greatly depleted:

> The concentration of natural vegetation in [certain] areas enriches the life of our community, and contributes to the understanding of the ecosystems upon which our very survival will depend.

Frank Woodcock wrote *Weather And Climate*, No. 5 in the series, and Bob Whiteway was responsible for No.6, *Marine Life On the Coastal Fringe*. While each of these books was produced by people well-known for their skill and knowledge, and who worked voluntarily, *The Bushlands of Sandringham* was written by the council's conservation officer, Dainty Fletcher. Fletcher aimed to

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56 ibid.
57 ibid.
60 ibid., p. 12.
62 R. Whiteway, *Marine Life on the Coastal Fringe, Sandringham Environment Series - No 6*, City of Sandringham, Melbourne, 1985. Whiteway has since been active in promoting the creation of a Marine Park and Sanctuary in the area from Ricketts Point, Beaumaris to Quiet Corner, Black Rock, and following the establishment of the Park in late 2002, he was declared Bayside Citizen of the Year in honour of his efforts.
63 Dainty Fletcher, *Sandringham Environment Series - No. 7: The Bushlands of Sandringham*, City of Sandringham, Melbourne, 1988
provide an historical dimension, new to most residents, and present information about each of the reserves. She aimed to communicate their beauty, interest and value and create for readers the enthusiasm she felt herself. In the hope of gaining new volunteer workers and conservation society members, she provided details of relevant contacts and times of work parties. She included an historical dimension showing how early observers had valued the flora and pointing to the responsibility of caring for it in the future:

This booklet looks back at the 'Sandringham flora' so admired by botanists and early settlers, the changes it has undergone, the remnants still surviving more than 140 years after the first settlement encroached in 1844, and how we need to manage the flora to ensure its continued survival.

Fletcher wrote of the 'naturalist’s delight' in the Sandringham area and quoted from the field naturalists’ comment on the notes of an 1885 excursion when members made a 'bee-line' for the coast, where they collected 'bouquets of wildflowers', which included Heaths, Banksia, Wattle, Correas and Guinea flowers. She noted that Sutton commented on the value of studying the Sandringham flora, not only because of its proximity to Melbourne, its 'sentimental interest' as the surviving part of what once covered a great area but also because of the insight it could give members into 'the larger Victorian flora'.

The final section of Bushlands deals with modern threats to remnant bush. The use of the concept of 'threatened bushlands' is important in indicating the changes due to settlement and, also, the idea that the plant communities are of sufficient value to merit care and regeneration. If that were not the case threat would not be the appropriate word since it is only when people have a sense of the importance of what they perceive to be threatened that they develop concern and strategies for care and conservation. Not everyone had this sense but the belief that the book and the others in the Environment Series would contribute to cultural change underpinned the efforts of those involved in publication. Bushlands combines knowledge acquired through experience with that discovered by research into ancient methods used by Aboriginal Australians. Sound information and considerable organisation and physical effort were needed in order to deal with threats to the environment. The

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64 Fletcher acknowledged the value and importance of community support in the continuing care of bushlands and stated that without it there would be the kind of decline that had marked previous decades, ibid., p. 40.

65 ibid., p. 1.

66 ibid., p. 4.

67 ibid., p. 5.

68 ibid., pp. 31 - 40.
major threats described relate to weed invasion and the absence of the fire which had been used by the Boonerwung people for thousands of years. Methods for dealing with these threats involved first hands on work employing the Bradley method of weeding, developed by the Bradley sisters in Sydney and involving the removal of weeds from the healthiest areas first. Then Sandringham conservationists covered bare earth with mulch and, when appropriate re-planted. They later organised burns in order to provide dormant seeds with opportunities to germinate. The value of fire was shown through two accidental burns - one on the Sandringham foreshore in 1981, the other in the George Street Reserve in 1984. Following each, regeneration occurred, in the case of George Street causing the appearance of heathland plants not seen for decades.

The conservationists' work of planting with indigenous species on the foreshore also led to increased growth of these species in Sandringham, and in the mid-1970s, to the decision to undertake propagation using local resources. At that time relations between the members of conservation societies and the Sandringham Council were cordial and generally they held common aims in relation to management of the natural environment. Together they developed an innovative project to establish a community plant nursery, in which indigenous plants could be grown and used in the foreshore and inland reserves and in private gardens. Gillian Wilson (a local artist, who was also a BRASCA committee member and convenor of the BRASCA foreshore committee) had undertaken on behalf of the association, planning and planting on the foreshore, and she was one of the original planners of the nursery. Wilson was involved with the city engineer (Jim Sherring, who succeeded Andrew Cromb) and deputy city engineer (Michael Briggs) through tree planting projects and in discussions about a proposed plant nursery, but died before that project reached completion.

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70 See Chapter 7 of this thesis.
71 *Bushlands*, pp. 36 & 37, and information boards in Tulip and George Streets, Sandringham.
72 BRASCA Secretary, Reg Leslie, wrote to Jim Sherring to inform him of Gill Wilson's death, commenting on her role: We believe the idea of the nursery originated when she [Gill Wilson] approached you with a request for a 'potting site' on Council land. Her obvious delight at your very generous offer to provide much more than her original request from our Association so that other community groups could also use the site was communicated to us at a committee meeting.... Gill Wilson's death is a great loss to conservation in Black Rock and Sandringham and we feel that a fitting tribute to her memory would be the perpetuation of her name in association with the nursery. R. Leslie, BRASCA Secretary, to J. Sherring, City Engineer, 10 February 1978, Community Plant
Don Neale, an original member of BRASCA and a wildflower lover, became the leader of the movement to create the nursery, using his skills and interest in gardening in general, and in indigenous plants in particular. Neale had made a career as a teacher, served in the RAAF during World War Two, and after the war, lectured at the Forestry School at Creswick, in which role he came to know John Turner, an examiner at the school. Neale finally was appointed a Deputy Director of Education in Victoria. He was a member of the Sandringham Flora, Fauna and Natural Environment Advisory Panel and, following his retirement, worked as a volunteer guide in the Royal Botanic Gardens. He and his wife, Nancy, another enthusiastic plants-person, maintained a strong interest in BRASCA and in the planning of the nursery.\(^73\)

The city engineer’s report of 16 August 1977 provides evidence of the planning process. Drawing 4151, showing the location of the future nursery within the council depot site in Reserve Road, Cheltenham, was tabled for consideration and adoption. Work by the Flora, Fauna and Natural Environment Advisory Panel culminated in the formulation of objectives, which were all adopted. A letter of mid-June 1978\(^74\) recorded the decision to launch the plant nursery and hold the first working day on 9 July. The letter was sent to people in a number of organisations and provides an indication of the council’s friendly attitude to the new venture, as well as practical information about the need for support.\(^75\)

Fifty - five people attended a Saturday meeting organised by the council and lists were made of those ready to undertake work. Council had established, in April 1978, the principle that propagation should be restricted to indigenous plants, with major priority areas for their use being, in order, the public land of Beach Park, council reserves and the surrounds of sporting venues, streets, surrounds and grounds of

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\(^{73}\) Nursery Files, City of Sandringham, in Bayside City Council Collection, Public Records Office of Victoria (hereafter PROV).

\(^{74}\) V. Tarrant, pers. communications from Don and Nancy Neale, 25 Potter Street, Black Rock, 1982 – 1990, and plaque on Don Neale memorial seat, Black Rock cliff-top.

\(^{75}\) The City Engineer, Jim Sherring to BRASCA and other interested organisations, 14 June 1978, Community Plant Nursery Files City of Sandringham, PROV.

\(^{75}\) ibid.
council owned premises and of non-council buildings such as guide and scout halls. In May 1978, council had endorsed these objectives, adding that, if possible, plants should also be available to residents for their private gardens. Further objectives extended to the practical purpose of reducing rate-payers' expenditure and to the encouragement of residents' participation so that they could contribute to the development and restoration of Sandringham's floristic environment and heritage. Planners provided training in plant propagation to 'increase the range and diversity of available leisure opportunities' and to assist in the development of a 'cohesive, knowledgeable and proud Sandringham community'. The movement to grow indigenous plants in public and private places was linked with a sense of pride and belonging.

The Sandringham community plant nursery was innovative in its policies of valuing and maintaining the indigenous flora of a particular local government area, and in the manner of planning for volunteers to work with the council in a project that in a commercial nursery would require award wages. Speaking as the convenor of the volunteers, Don Neale said that he did the work 'for enjoyment' and 'to re-vegetate Sandringham'. Nancy Neale claimed that it was 'exactly the same work for which people are paid ... a non-paid vocation'. Like the Neales, two consistent volunteers, Robert Lamb and Thelma Lamb, were also retired. Robert Lamb had been a state primary school principal and Thelma Lamb, an arts and crafts teacher in the state secondary school, and both were involved in working in the nursery on Saturday mornings. Nancy Neale died in the early 1990s, and Don Neale in 1994, while still active and enthusiastic in his conservation projects. The mantle of convenor passed to Ken Rendell, an architect and a Beaumaris Conservation Society member, who had maintained a long-standing interest in indigenous plants.

Don Neale was keen for young people, including school students, to be involved in the work, and wrote to school principals and school councils in the Sandringham district in order to inform them of the new community facility and encourage school

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76 ibid., letter from Michael Briggs, 9 November 1977, PROV.
77 City of Sandringham, Extract of Minutes, Community Plant Nursery Objectives, 30 May 1978, ibid.
78 Interview with Don and Nancy Neale, 8 June 1982, in V. Tarrant, 'Vocational Vision', p. 15.
79 ibid.
groups to gain experience in the nursery. Neale noted that Kevin Heinze, garden advisor to the Education Department, would be available to assist small groups. The immediate results of these letters are not recorded but young people did work in the nursery, particularly through the Sandringham Training and Employment Project (STEP) established in 1982. Links were made with the Society for Growing Australian Plants and Jim Willis was invited to prepare a chart to indicate appropriate times for seed gathering, seed sowing and the taking of cuttings and planting out of the resulting specimens. Thus the nursery was operating in the context of an established local government body which provided infrastructure and ongoing assistance. It was linked with the expertise of Willis and other members of the advisory panel and with experienced Australian plant lovers. In late 1979, the Sandringham Community Plant Nursery's value was recognised by the Premier's Department Garden State Committee Award, 'The Pink Heath Award'. The commendation stated that the nursery by its 'efficient and imaginative use of local resources' would have many benefits for the community, increasing the public's interest in and knowledge of native plants and resulting in a greater degree of planting of natives in the municipality.

By the end of the 1970s, conservationists' efforts within the city of Sandringham had resulted in the achievement of changed attitudes and policies within and without the local council, and in conservation of indigenous vegetation. The determination to act politically was a key factor in their success. It contributed to conservation policies and practice, to publications on the natural environment and to the foundation of the Community Plant Nursery. The nursery was vital to the success of the indigenous plants movement in the region. It marked a new stage in the practice of carrying out regeneration of bushland as the seed and cuttings propagated came from local stock. The following years saw the establishment of many other indigenous plant nurseries.

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80 Plan for Don Neale to contact principals of schools in the City of Sandringham, Nursery Minutes, 22 September 1978, PROV.
81 Neale to Sandringham district school principals and councils, 22 September 1978, Sandringham Nursery Files, ibid.
82 Record of Meeting, 24 July 1978 - Approach to Jim Willis, Nursery Files, ibid.
83 A. Thatcher, Premier's Department to Peter Sherman, Sandringham Town Clerk, 18 December 1979 Nursery Files, ibid.
with similar aims and these, particularly those in the Bayside Sand-belt, such as the St. Kilda Indigenous Nursery (SKINC) benefited from the pioneering enterprise in Sandringham. Several of the leaders in the Sandringham movement had tertiary qualifications, which were beneficial in the articulation of objectives, in public presentation and in gaining access to research. However, both John Iggulden and Keith Tarrant, had left the official education system in the early secondary years and learned through practical experience and self-motivated informal study. The common feature was a love for the local natural environment and the ability to work co-operatively and effectively with a diversity of people towards similar ends. These Sandringham efforts occurred within a national and world context of concern about the health of the natural environment, including the importance of caring for what was special in a particular part of Australia.
‘Sandringham Council Employees Lop Branches Despite Efforts of Children Sitting in Trees to Stop Them’
Children Riding Horses Under Linacre Road Trees, Hampton

_Herald_, 15 January 1972
CHAPTER 6
ACTIVE AND ACTIVIST

Public concern for environmental matters is being reflected more and more by direct government action.

Winty Calder, 1975.

Members of local conservation societies during the 1970s operated in a society where environmental concerns gained increasing attention. The Melbourne Botany School contributed in new ways to environmental conservation, with Winty Calder's *Peninsula Perspectives* based on research at the School exemplifying the continuing relationship between the School and the community outside the University. This work demonstrates the important effort to inform the public and raise consciousness of environmental issues, including the value of indigenous plant communities. Launched by the Victorian minister for local government, Alan Hunt, MLC, in late November 1975, the book was sponsored by the National Trust (Victoria) and the Victorian State Government, indicating co-operation between author, government and a non-government organisation with environmental concerns. Calder published the book while based at the Melbourne University Centre for Environmental Studies established under Professor George Seddon in 1973, stressing the need for knowledge of vegetation as a preliminary to worthwhile planning for conservation. She argued that what would happen to the indigenous vegetation of the Peninsula depended not only on likely development but on the value placed on the plant communities. She considered the almost complete elimination of natural flora within an 8 km. radius of Melbourne's centre, and the destruction of remnants in the outer parts of the metropolis, to be 'a great cultural loss' because of the peculiarly Australian character of vegetation including Eucalypts and Wattles that give

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2 Turner retired in late 1973 and became Professor Emeritus. He continued his conservation work. The vacancy that occurred on his departure was filled by Professor R. B. Knox.

3 W. B. Calder, 'The natural vegetation pattern of the Mornington Peninsula', MSc Thesis, University of Melbourne, 1972. Calder acknowledged the Melbourne Botany School (naming David Ashton as the supervisor of her original survey) and her indebtedness to John Turner, whose 'wise advice and practical assistance' made the book possible. Ashton, understanding the importance of recording vegetation patterns, encouraged Calder to study the Mornington Peninsula, the area popular for holidays and farming situated between Port Phillip and Westernport Bays.

4 *Peninsula Perspectives*, p. 13.
distinctive quality to Australian landscapes.\textsuperscript{5} She offered practical recommendations about how to avoid further loss. Calder objected to clearance of roadside verges, arguing as had Turner and the National Trust landscape committee, for management that conserved local species for their beauty and value as a seed bank.\textsuperscript{6}

The book provides a source of vital knowledge about the popular Mornington Peninsula which lies between Port Phillip and Western Port, in parts within the boundaries of Greater Melbourne. The front cover shows a coastal landscape painting by the conservationist and artist, Neil Douglas,\textsuperscript{7} presenting an inviting view of a shore clothed with local trees and grasses.\textsuperscript{8} The opening chapter 'Pristine Peninsula'\textsuperscript{9} describes the land and its flora and fauna at the time of the arrival of the *Lady Nelson* commanded by Lieutenant Murray R.N. in early 1802, providing illustrated descriptions of Eucalypts and coastal communities It addresses the European impact and includes a list of pests and noxious weeds. It describes six important remnants,\textsuperscript{10} including the Langwarrin Military Reserve. Calder gave several reasons for the loss of indigenous vegetation. First, she saw post World War Two residential development as a major cause of the removal of large stretches of coastal vegetation,\textsuperscript{11} resulting in a situation where there were mere fragments remaining of 'the splendid heathland', which once covered the acid sands from Black Rock to Frankston. Second she defined habits typical of 'conventional suburbia' where indigenous plants were removed and replaced by cultivated garden plants. Third she observed the increase in day-visitors with consequent trampling of the plants that clothed the coastline, and lastly outlined pressures resulting from

\textsuperscript{5} ibid., p.111.
\textsuperscript{6} Concern for local seed related to the research, acknowledged by Calder, of P. Y. Ladiges of the Melbourne Botany School (later Professor Pauline Ladiges), who had studied Manna Gums and published findings indicating the existence of 'ecological races or variants within this species'.
\textsuperscript{7} The influential artist Neil Douglas was largely responsible for the creation of a unique Conservation Living Zone situated in Kangaroo Ground bushland north-east of Melbourne, where residents nurtured indigenous vegetation communities.
\textsuperscript{8} *Peninsula Perspectives*.
\textsuperscript{9} In choosing to use 'pristine', Calder, reflecting thought patterns common at the time, concentrated on the 'natural world' before British settlement, without discussing the long-standing land management of the Boonerwrung Aboriginal Australians.
\textsuperscript{10} *Peninsula Perspectives*, pp. 81-94.
\textsuperscript{11} ibid., P. 11.
decisions to develop port facilities and industry at Hastings on the shores of Westernport Bay.

Calder suggested that spiritual poverty could result from material affluence, arguing that good environmental management is important in contributing to the nurture of the human spirit: 'We are in danger of losing the natural systems that can cause such wonder and delight - wonder and delight which expand the human spirit towards the Great Spirit.' She thus affirmed and publicised her belief in the value of the aesthetic and the spiritual in nature conservation, one involving a sense of a 'Being' beyond the human, referred to not as 'God' but as 'the Great Spirit'. The term seems compatible with indigenous cultures, including those of Aboriginal Australians and with a liberal interpretation of the Christian faith, but vastly different from the idea of land, with its plants and animals, being solely a commodity to be bought and sold. Her statement connects with a culture still common in the 1970s. It became less so in the early twenty first century, but still influential. That culture connects with the Old Testament psalmist who sang of the heavens proclaiming the glory of God and the firmament showing His (sic) handiwork and with Romantic poets, including Wordsworth, who wrote of:

A presence that disturbs me with the joy
Of elevated thought; a sense sublime
Of something far more deeply interfused, whose dwelling is the light of setting
suns,
And the round ocean and the living air,
and the blue sky and in the mind of man ...

The book's final chapter, 'The Future', centres on experiences in the Peninsula and likely challenges to the environment due to demands for development. Calder detailed planning that occurred under state government auspices, referring to information provided to professional planners by the advisory committees of the Westernport Regional Planning Authority, the Conservation Council of Victoria

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12 ibid., p.112.
13 The Bible, Psalm 19, verse 1.
14 William Wordsworth, 'Lines composed a few miles above Tintern Abbey, on re-visiting the banks of the Wye, July 1798.'
(CCV), the National Trust and additional studies. A group of conservationists (including the Port Phillip Conservation Council) anxious about the impact of developments had earlier published *The Shame of Westernport*, and a resident, Meredith Hayes, edited an "Assessment of the likely impact on the environment of the Mornington Peninsula of urban development in the Baxter/Balcombe Valley Investigation Area". These efforts influenced the decision to halt industrial development temporarily from 1973 while a two year study was undertaken and conservationists were encouraged by this success. Calder asserted the need for adequate information so that intelligent decisions could be made in order to prevent environmental degradation. Recommendations included efforts to retain remnants, re-planting with indigenous species, care of vegetation beside roads and along stream-lines and legislation for encouragement of the use of indigenous plants. Calder saw these measures as important in helping people to envisage the life of Aboriginal Australians as well as allowing them to appreciate a more recent cultural heritage and a uniquely Australian landscape, Her *Peninsula Perspectives* has been well used, particularly in the Peninsula.

Calder's work embodied and influenced new attitudes towards the environment:

"Recently there has been a very welcome increase in public awareness of environmental problems. This has happened for several reasons, but, most significantly, because we are realising that physical man is finite, and that"

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15 *Westernport Region Conservation Survey*, compiled by R. Champion, prepared for the Western Port Regional Planning Authority, CCV, Melbourne, 1972.
16 *The Preservation of the Mornington Peninsula and Western Port*, National Trust, Melbourne, 1974.
17 ibid., pp. 110.
exploitation and mismanagement of our resources invariably disrupts the natural
environmental balance and threatens the quality of our human life.22

Evidence in Australia and overseas supports the judgement. Local councils and the
Victorian and Commonwealth governments responded in new ways to demands for
conservation which included reservation of large tracts of land perceived as
wilderness and care of indigenous vegetation communities close to urban centres.
The world's first 'Green' party - the United Tasmanian Group was founded in March
1972, and, in May of that year, the first national 'Green' party - the New Zealand
Values Party.23 Activists organised public demonstrations, adding another dimension
to efforts based on research and education. In the national capital, an historian, Bruce
Kent and others, including W. K. Hancock, made their unprecedented move to
prevent the construction of a telecommunications tower on Black Mountain and took
their objections to court.24 Their case included aesthetic reasons and the value of the
bush-clad mountain unadorned by what came to be described as an outlandish phallic
symbol. The tower was built, but reasons behind the objections remained a strong
influence. Hancock,25 in his seventies, engaged in this environmental issue which
was close to his heart and his book Battle of Black Mountain is important in its
expression of affection for his well-loved places and for his role as an environmental
historian in action.26 The historical geographer Joe Powell in his analysis, 'Hancock
and Environmental History' also points out that:

Hancock has modestly described his contribution to Canberra's Black Mountain
affair as the involvement of a student and citizen who witnessed the central
action and tried to set down a useful story 'about how things happen in
Australian politics'.27

Powell observed that the Black Mountain issue was dwarfed by 'media-fuelled
controversies' including the battle for the Little Desert. However, he considered that
it belonged with such an issue and others 'characterised by a haunting conflation of

22 Peninsula Perspectives, p. 12.
23 The term 'Green' is here used retrospectively as it did not become part of common usage until
adopted by the German Greens in 1980. For the origins of the Greens, see Christine Dann, 'The Global
24 See W. K. Hancock, The Battle of Black Mountain: An Episode of Canberra's Environmental
History, ANU, Canberra, 1974.
26 See the Introduction of this thesis.
27 Joe Powell, 'Hancock and Environmental History', in Keith Hancock: Legacies of an Historian,
p. 224. Quotation from Hancock, Professing History, p. 110.
universal and parochial anxiety which gives the appearance of an irresistible “turning point”. Hancock in his expressions of his enjoyment of the mountain’s bushland and determination to act in defence of Black Mountain is similar to the people of the Melbourne indigenous plants movement who worked to conserve their local plants and landscapes. And at times, they too have seen their efforts however small in relation to the large issue of the health of the global environment.

During the 1970s, Turner and the Botany School staff, including Malcolm Calder and Peter Attiwell, who had presented evidence supporting reservation of the Little Desert, worked actively in conservation. Their influence and that of their students became apparent as they presented research findings in the public sphere and contributed to the raising of consciousness about environmental issues, which included the preservation of indigenous vegetation. Judith Frankenberg, a Botany School post-graduate student also made an important contribution to the growth of knowledge through *Nature Conservation in Victoria,* embodying in the work her study of the plants and animals of Victoria’s National Parks. Published by the Victorian National Parks Association, the book was recommended by John Turner (who was responsible for its editing and up-dating). Turner maintained interest in the Wilson’s Promontory National Park, not only through his position as professor, but also by means of his role as a councillor of the Victorian National Parks Association of Victoria (VNPA) from 1960 to 1975 and as vice-president from 1969 to 1973. He encouraged Botany staff to take an interest in the VNPA, and readers, Ray Specht and Malcolm Calder, gained leading roles in the organisation.

Turner had spent several months overseas on study leave in 1969, maintaining the tradition of links with British Botany Schools and other international botanists. In the USA, he represented Australia at the Eleventh International Biological Conference, held in Seattle with 7000 botanists from 64 universities. He also attended two major conservation conferences, in Banff and at Yellowstone, USA. Turner kept up interest

28 Powell, p. 224.
30 VNPA members, under the Turner’s influence, were asked to contribute $2-00 each towards publication costs, Robin, ibid.
31 George Seddon (ed.), *From the Country*, p.16
in local conservation, including giving advice to a Warrandyte resident concerned over possible development. The advice illustrated Turner’s style through its inclusion of an example from England of useful collaboration between a conservation group and government. From his own knowledge (which included his interest in the Save the Dandenongs League and the Beaumaris Tree Preservation and Conservation Societies) he affirmed the growth and value of such groups in Victoria and his certainty that without them there would be 'little movement' from government.  

The Botany School continued work in the field as well as within the University, and contributed to research on Victoria's second largest national park at Wilson's Promontory. David Ashton led week long expeditions based at the centre established there in the previous decade. In August 1973, students of 'Botany 201 - Ecology' studied dune succession at Norman Bay, vegetation communities at Lilly Pilly Gully, woodland and forest on the south slope of Mount Bishop and the blow-out near Squeaky Beach. In 1974, students in the same course investigated heathland and regeneration, sketching plants including *Leucopogon virgatus* (Beard Heath). Students discovered that their work was part of 'a long-range programme' which aimed at 'providing detailed ecological data on the vegetation of Wilson's Promontory'. They learned and practised techniques essential in any study of vegetation and observed the role of fire. A severe fire had burned vegetation near Tidal River in January 1951, and many species had regenerated from root-stock and others from seed. Melbourne University botanists provided knowledge valuable in the management of the area, and acknowledged in signboards at and near Tidal River in the late 1990s.

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33 D. Ashton study notes, UMA Chambers Collection, Botany Department Box. (Hereafter UMA CHAM and relevant box. Not all of the Chambers Collection is catalogued in numbered files).
34 Ibid.
35 Ibid.
36 Personal observations, Easter 1999.
John Turner and Carrick Chambers were both concerned with the natural world in the immediate environment of Melbourne University and served on several important committees. Chambers succeeded Turner as chair of the university grounds sub-committee (which existed within the building committee) continuing and adding to earlier endeavours. Within Melbourne University, plantings in the grounds reflected changes in thinking and practice, including a growing interest in the addition of local plants. In the early 1950s Turner had recommended the landscape designer, John Stevens, whose work impressed him. Stevens’ first suggestions did not include Australian natives, but in 1957, Turner advised Hon. C. E. Isaac, 'I am hoping to plant a few native species around the University this Spring, and I thought my best method of obtaining good plants would be to approach the Natural Resources [Conservation] League through you'. His list included fifteen Lemon Scented Gums, several Acacia and two Banksias. Policy however generally favoured deciduous trees partly because of the 'darkness' of Eucalypts in winter. After Chambers became chair of the grounds sub-committee in 1967, he expressed in a Memorandum to the Vice-Chancellor, the need for what he considered a balanced position.

It would be unwise to take an extreme view, either for all planting to be of native species or for all planting to be of introduced species. A balanced blend of these two things will certainly give us a more interesting campus and allow us to enjoy the benefits of old established trees of both kinds.

The University gardens changed during the 1970s. In 1973, Ellis (Rocky) Stones created a new kind of garden for the university on a large bank at the eastern side of the Baillieu Library, making use of boulders and a variety of Australian plants. After Stones’ death, David Yencken affirmed Stones’ effort to bring nature to the cities, and to keep some of the bushland areas in the cities. Yencken considered that 'his [Stones'] rocks appear to have lain in the ground forever, uncovered by weathering

37 J. S. Turner to the Grounds Committee, 6 May 1954, UMA CHAM Grounds Committee Box 1953-80 File.
38 J. S. Turner, 19 November 1959, ibid.,
39 Turner left the chair, but remained as a Committee member.
40 Chambers Memorandum to the Vice-Chancellor, Melbourne University, 15 October 1968, UMA CHAM Grounds Committee Box, File-1953-80.
and erosion'. During the 1970s, further extensive landscaping works occurred. Chambers was closely involved in the choice of species planted in the grounds, favouring many Australian plants, particularly Eucalypts and shrubs. In 1975, he wrote of 'interesting Australian plants to look at even if one is not a botanist', and of their value as ground-covers, for texture and perfume. In 1976, the 49th Annual Conference of the Institute of Parks and Recreation included a tour of the University grounds, where delegates learned not only of the use of deciduous trees from the northern hemisphere but also, 'full use of bold, emergent and more informal Australian elements.'

At Melbourne University, in 1981, the grounds committee thus expressed a planting philosophy, embracing the use of both exotic and Australian plants and reflecting interest in the indigenous. The committee believed in:

the need for a better understanding of how indigenous plants perform in a garden situation [suggesting this understanding ] could be the stimulation necessary for the development of a truly Australian garden style.

The Royal Australian Institute of Architects Victorian Chapter awarded the University the 1981 Medal for Community and Urban Design. The jury expressed 'highest praise for the transformation of the University environment through the medium of the landscape'. Chambers' contribution received particular mention: 'Many individuals have contributed to the metamorphosis, although the efforts of Professor Carrick Chambers should not pass unmentioned, particularly for his firm and sensitive design input. It is impossible to assess the influence of the Melbourne University landscaping plans to grow Australian plants as well as introduced species but the plantings have provided habitat for native birds, pleasure and interest to many of the University population and to visitors, and opportunities for learning about

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42 ibid. Stones' work is recorded on a plaque installed at the south end of the garden opposite the Baillieu library.
43 Chambers to Marginson, 28 April 1975, UMA CHAM Grounds Committee Box, File - 1953-80.
45 Records of Grounds Committee meeting, 16 December 1981, UMA CHAM Grounds Committee Box, file -1980-1.
46 The Royal Institute of Architects' citation, 21 September 1981, ibid.
47 ibid.
local plants. There is affirmation of their value, a benchmark for planners and
demonstration of a philosophical shift towards the use of native and indigenous flora.

Chambers and his committee had operated in a changing context in which other
Australian universities were also responding to the movement to value local plants.
John Stevens had made extensive use of native plantings at the Australian National
University in Canberra. At La Trobe University to the north of Melbourne, buildings
were designed to fit with the hilly landscape clothed partly with Eucalypts. Many
other Australian natives were also planted. At Monash University, established in the
early 1960s in Melbourne’s south-east on farmland, Jock Marshall was a
considerable influence. An official statement of 1972 refers to Marshall’s proposal in
1960 that the university 'should adopt a policy of all Australian plants.' Marshall
argued that not a university in the land had a truly representative planting of native
flora, adding that such plantings would encourage native birds and be of 'interest and
instruction' to members of the University. With a small number of exceptions this
policy was implemented.\textsuperscript{46} Deakin, Victoria's fourth university has also planted
Australian natives, including indigenous species.

In retirement, John Turner's interest in Australian landscapes and local trees and
plants remained strong and influential. He expanded his concerns to develop a case
for environmental history contributing to public debate through his address to the
Sixth Biennial Victorian Historical Society Conference in 1975\textsuperscript{49}. Turner spoke on
'The Proper Study of Mankind' (in the days when 'mankind' was frequently seen as a
gender-inclusive term). In his late sixties reflecting on his career and interests, he
pointed to the importance of Botany and other Sciences, and a feeling for co-
operative research between historians and natural historians (geologists, botanists,

\textsuperscript{46} 'Facts About the University: the Monash Planting Scheme' Monash, Information Office 8/72, UMA
CHAM Gardens Committee Box. (Marshall was Foundation Professor of Biology)

\textsuperscript{49} Turner's title included OBE, which was awarded at the start of 1974. He received many letters of
congratulation. One was from J. Ros Garnet of the Victorian National Parks Association, 12 January
1974, 'I expect the official citation will be a little more informative than that published in the Age -
"services to Botany", it seems to some of us a little inadequate'. The Premier, R. J. Hamer, sent
congratulations and wrote of 'great service to Victoria' - 11 January 1974. Dr. Norman Wettenhall
wrote to Turner that he was delighted at 'an honour richly deserved, considering the amount of
honorary work you have done over the years, not least in the education of the public and government
regarding conservation. I only wish it could have been a higher award' - 3 January 1974. Dame
Elisabeth Murdoch sent 'congratulations on this recognition of all you have done and meant to the
community and not only botanical', UMA TURN 00938.
soil scientists, geographers). He expressed regret at his failure to make a thorough study of history. He had, however, created history himself both through his own research and involvement in conservation issues and through writings, including 'The Decline of the Plants', which has an historical dimension. Turner deplored 'the tendency to put Man always in the foreground' and recommended the 'proper study' as 'not man but man’s home - the landscape in which he lives and works'. He surveyed changes over two hundred years in Australia and the great impact of man on the environment, regretting destructive practices, including the use of modern fertilisers that had 'begun to play havoc with native grasses and many other native species' and the increasing loss of indigenous plants on roadsides. Turner valued local history, wishing that when he had wandered around England identifying plants, climbing church belfries, sketching landscapes he had possessed a book explaining how the landscape had come to be as it was. He wished too that there was in Australia such a book to supplement Professor Hills’ excellent Physiography of Victoria. His examples of what was needed, included Jane Lennon’s work on Wilson’s Promontory and Calder’s Peninsula Perspectives. He argued that:

appreciation of the Victorian landscape would be enhanced by more historical and biological data ... it would be good to know the extent of the distribution in early days of the superb Grey Box forest with native grassland underfoot, still surviving .. near Melton.

Turner’s sense of the look and history of a particular landscape influenced others who wanted to maintain areas they valued. He employed his skills in making precise observations and in translating them from English to Australian experience in a short verse after the style of Kipling in Puck of Pook’s Hill. The story is deeply embedded in England and Turner judged that Kipling knew what local history was about. His Puck, had he left Pook’s Hill for Victoria, might have sung:

See yon rutted track in clay,
Past the last old Murray pine,
O that was where they hauled the dray
Along the Major’s Line.

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50 J. S. Turner, Address to the Victorian Historical Conference, 23-5 May, 1975, UMA TURN 00938.
51 ibid.
54 Winty Calder, Peninsula Perspectives.
55 Turner, 1975 address.
56 ibid.
Sandhills, Wilsons Promontory, drawn by John Turner.
Turner was actively involved in a notable advance in the conservation of indigenous vegetation in the south-west of Greater Melbourne. In 1970, the Maud Gibson Trust, which he chaired finalised a plan to have reserved 174 hectares at Cranbourne for the purpose of establishing an Australian Botanic Garden,\(^57\) thus implementing an earlier vision.\(^58\) The Trust persuaded the Army 'to hand land back to the State Government of Victoria at the price it had paid for [this] land at the time of Federation'.\(^59\) Turner and Alexander Jessup\(^60\) acting as a sub-committee of the Gibson Trust, had investigated a number of sites within 60 km of Melbourne but considered the Cranbourne area the most suitable. In 1970, the land was 'permanently reserved .. for the purposes of a Botanic Gardens and Research Institute devoted to the display and study of Australian native plants and for the enjoyment of the people of Victoria'.\(^61\) Later, negotiations resulted in the reservation of a total area of 330 hectares. The reserve is important in the development of the indigenous plants movement: it is different from the usual concept of a botanic garden as the large part contains stretches of local woodland and heath and is home to a diversity of native fauna. It also, in a separate area, presents a range of Australian plants from other places, and a project has begun which involves the creation of areas showing the vegetation of the major types that grow in the continent.

Carrick Chambers, who succeeded Turner, was also active in planning and working for the Cranbourne project and, like Turner, made other contributions in the public sphere. From 1976 to 1977, he served on the committee advising the Victorian premier on the 'garden state concept' and in, 1978, became chairman of the reference areas committee. This committee provided advice to the minister on the administration of the Reference Areas Act, 1978, which related to these areas in Victoria and their protection, control and management. Reference areas were

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\(^{57}\) Details of the efforts to find a suitable site and of the history of the purchase of additional land are to be found in Karen Twigg, *A Vision Shared: The Maud Gibson Trust, 1945-1995*, Maud Gibson Trust, Melbourne, p. 41.

\(^{58}\) In 1945, Turner had a vision of such a place where Australian flora would be conserved and appreciated. See *Naturelink, Newsletter of the Friends of the Royal Botanic Gardens, Cranbourne, inc.*, 1000 Ballarto Road, Cranbourne, 3977, 8, 4, Spring 2002, p. 1. Turner's contribution is remembered in the twenty first century through this Cranbourne Gardens Friends' journal, *Naturelink*.

\(^{59}\) Peter Howson, 'John Turner And the Maud Gibson Trust', in Clifford, p. 30.

\(^{60}\) *A Vision Shared*, p. 42.

relatively undisturbed tracts of public land which could be kept in perpetuity as references against which similar but modified areas could be compared. In 1974, Chambers wrote of future plans for the Cranbourne Reserve, arguing that a large part should be kept in its natural state, maintaining both animal and plant populations and dissected only by occasional, educationally oriented nature walking trails. He anticipated the development of a botanic garden to display Australian native flora.

George Seddon and the Centre For Environmental Studies at Melbourne University became associated with the Cranbourne Gardens in 1974 when the planning committee with which Chambers was involved asked Seddon for a report. Turner’s influence, thinking and planning are apparent in his encouragement of George Seddon to become Melbourne University's first director of the new Centre. With interests in language and relations between people and landscapes, Seddon had written Swan River Landscapes (1970) and the well-known A Sense of Place (1972). Seddon met Turner in the early 1960s at a New Zealand sheep station, whilst on an a field trip, part of an ANZAAS Conference, and responded to him at once.

In relation to Cranbourne, Paul Gullan of the Monash University Botany Department, had produced a flora report recommending 'caution' as there was still much to be learned. The Centre For Environmental Studies' commissioned study led to Cranbourne Botanic Gardens Annex And Environment Planning Advisory, which claimed that unco-ordinated planning had resulted in 'indifferent protection' and suggested the need for certain additions to the land. Chambers advised the committee

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63 UMA TURN 100076.
64 Seddon, a Melbourne Arts graduate with Honours in English, later gained a Ph.D. in Geology at the University of Minnesota, and then taught Philosophy of Science and carried out research in Geology in Perth.
on the ecological importance of the area and continued to press for additional land with the support of Peter Howson, who communicated with W. A. (Bill) Borthwick, Victorian State Minister For Conservation, Lands and Soldier Settlement. Howson used Seddon’s report, received in April 1975, which drew attention to the size of gardens in other places that incorporated a similar concept to that of Cranbourne. Creating an international context, Seddon referred to several gardens, including Central Park, Manhattan, 400 hectares (1000 acres), Peking Botanic Gardens 500 hectares (1250 acres) King’s Park Perth - 403 hectares (1007 acres), Richmond Park - Kew Gardens, London - approx. 1000 hectares (2646 acres) - and argued that with the growth of Melbourne and satellite towns, the city would need 'an open space area and reserve in which to preserve native flora and fauna for the enjoyment of the public'.

Chambers knew of a movement parallel to that of the Cranbourne Gardens: one which developed in Britain with moves to establish a reserve in the Loder Valley, where extensive tracts of woodland were home to habitats unique in the British Isles. The Loder Valley was reserved in 1980 and publicity for the reserve indicates increasing concern overseas for indigenous plants, The Royal Botanic Gardens, Kew, hosted an international conference where delegates stressed the 'urgent need for botanic gardens to take an active interest in conservation of native flora'. Conference members asserted that the basic requirement for the preservation of threatened floras of the world was conservation of natural habitat by the establishment of an adequate system of ecosystem reserves, seen to be of great importance as floras throughout the world appeared to be at risk. This identification of an element of ‘risk’ was increasingly important in the argument for saving native, and especially indigenous, flora, and a motivation for conservation overseas and in Australia.

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69 Peter Howson MHR who was the nephew of Maud Gibson had taken her to see the Cranbourne site in 1961 and found that she approved of it. – ‘there was so much heathland perfectly unspoilt .. and an open bit of land perfect for growing natives’. Interview with Peter Howson by Eve Almond, 1 September 1994. *A Vision Shared*, pp. 42-43.
70 Howson to Borthwick, 1 December 1977, UMA CHAM, Cranbourne Annex Box.
71 Chambers, Draft Report, 1975, UMA CHAM Cranbourne Box and UMA TURN 01076.
73 *Loder Valley Reserve.*
Such concerns were in the 1970s reflected in the establishment and practice of conservation bodies. An important motivation was the kind of admiration and affection that Turner expressed in words '-superb Grey Box forest' - and in drawings that showed the detail, interest and beauty of specific landscapes. These attitudes contributed to involvement in campaigns in particular areas, which had already included the efforts of the Save Our Bushlands Action Committee (SOBAC) and others working for the conservation of the Little Desert. Their battle was rooted in the value of that particular locality and the special characteristics of its indigenous plants (as demonstrated by Melbourne University botanists). The Little Desert experience provided an understanding of the value of concerted planning and action\textsuperscript{74} and created an incentive, in which SOBAC had an important part, for the formation of the Conservation Council of Victoria (CCV) on 30 October 1969, where there was 'established a federation of constituent organisations having among their objectives CONSERVATION'.\textsuperscript{75}

The meaning of the word, 'conservation' emerged as an issue and a source of division.\textsuperscript{76} The majority of groups who made up the CCV did not hold to an earlier concept of conservation as confined to careful management of productive resources ('wise use') the concept expressed at the CCV meeting of 3 November 1972 by Mr. Timmins of the Victorian Farmers' Union (VPU). Timmins argued that 'conservation is really not preserving plant (sic) or animals but is looking after the resource that we have in order that it will continue to produce'.\textsuperscript{77} This attitude was strongly at odds with the views of the Little Desert campaigners and the Beaumaris and Black Rock conservationists, whose concept was closer to that of earlier 'nature conservationists',\textsuperscript{78} but included an activist component. John Turner as a council


\textsuperscript{75} Conservation Council Of Victoria, Constitution, Preamble, Keith Tarrant Collection, CCV File.

\textsuperscript{76} For differences over conservation, see Tim Bonyhady, 'Conservation', \textit{Oxford Companion to Australian History}, pp. 146-147. Bonyhady points to Myles Dunphy's advocacy of wilderness without such resource use as timber getting, p.147.

\textsuperscript{77} CCV Council Minutes of Meeting, 3 November 1972, p.1, Mr. Timmins quoting M., Robbins, Keith Tarrant Collection, CCV File.

\textsuperscript{78} See Robin, 'The Professor and the Journalist', p.154.
member hoped to find common ground. He referred to experience in Great Britain and the meeting of 'conservationists, bird observers, and representative farmers'\textsuperscript{79} which had resulted in a satisfactory combination to the benefit of conservation, and recommended that farmers form a group concerned about conservation (apparently as seen in terms of care of the 'natural environment'), then apply to join the CCV.

The CCV President, A. O. Lawrence,\textsuperscript{80} expressed the Council's broad objectives:

1. The maintenance and preservation of the natural environment and the undertaking of steps to assist in its improvement.
2. Promotion of the wise use of resources, both natural and man-made, so as to enhance the quality of the environment.
3. The promotion of scientific research bearing upon ecological aspects.
4. Investigation of threats to the survival of any species and communities.
5. Opposition to pollution in any form.
6. Encouragement of the spread of knowledge relating to the foregoing.
7. The planning and implementation of measures to achieve the foregoing.
8. Undertaking such other conservation activities as the Council shall from time to time adopt.\textsuperscript{81}

Lawrence stressed the importance of being a responsible organisation. He argued that with the federation carrying a 'significant title' and 'having the ear of government' it would grow in effectiveness only in so far as the government could rely on the council's statements as being responsible and serving the best interests of the whole community.\textsuperscript{82} (The CCV's memorandum of association included the objective of acting 'as the mouthpiece of all organisations affiliated or associated with it ... in presenting a common viewpoint on relevant issues to government, any government department or public authority').\textsuperscript{83} Lawrence considered that ecological surveys conducted by the council on behalf of the Melbourne and Metropolitan Board of Works (MMBW) and the Western Port Regional Planning Authority (WPRPA) had demonstrated first, a capacity to 'portray the environmental story in factual terms' and second, the 'strength of virtually all of the significant organisations involved in the protection of the environment within Victoria'.\textsuperscript{84} At this stage there were 76 affiliated organizations, demonstrating the breadth of concern for the environment and belief

\textsuperscript{79} ibid.
\textsuperscript{80} Robin comments on Lawrence, 'The ideal representative of conservation became one who knew how to 'do business' with bureaucrats. This accounts for the selection of former Chief Commissioner of Forests, Mr. A. O. P. [Alf] Lawrence for the inaugural presidency of the CCV', 'The Little Desert Dispute', Ph.D. Thesis, p. 150.
\textsuperscript{81} CCV Constitution, Keith Tarrant Collection, CCV File.
\textsuperscript{82} CCV President's Address, p. 2, ibid.
\textsuperscript{83} Memorandum of Association of Conservation Council of Victoria, 1972, ibid.
in the value of a large co-ordinating umbrella organisation. They included societies of long standing, including the Victorian Field Naturalists, other recently formed groups set up in response to specific threats to a local environment such as the Black Rock and Sandringham organisation. Groups represented in the CCV shared a common concern for conservation as expressed in the council's objectives but also diversity of interests and methods of action. Lawrence cautioned that while the strength of the federation was tremendous 'the outpouring must be properly funnelled and moulded to attain the maximum advantage'. As Forestry Commission head, he had experience as a public servant and generally favoured a conciliatory mode of operation, where consensus rather than confrontation would often be considered appropriate.

John Iggulden, President of the Port Phillip Conservation Council (PPCC) and founding member of the Mordialloc Beaumaris Coast Conservation League (MBCCL) presented a different and more radical view. He argued that at one extreme was the 'old-hand', passive view point on conservation and at the other extreme the 'newcomer', 'active' viewpoint:

Left to themselves, the 'old hands' would form a CCV that would be 'establishment' oriented, passive in its nature and objective and scientific in its approach and methods, tending to be respectful towards authority and commerce and to seek financial assistance from such quarters, containing a wide variety of member bodies some with only peripheral interests in conservation; and seeking to attain objectives mainly by diplomacy, persuasion, education and skilful use of the old-boy net ... left to themselves, the 'newcomers' would form a CCV that was 'action' oriented; organised from the grass-roots up; empirical, publicist, and somewhat relentless in its approach and methods; respectful of authority only when respect was warranted; content to operate on a shoe-string financial basis to preserve a scrupulous independence; restricted to member-bodies strictly

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84 CCV President's Address, 1973 p. 2, ibid.
85 CCV representatives included A.O. Lawrence, A. L. Godfrey and G. T. Thompson of the Natural Resources Conservation League, which Robin considers was 'particularly influential in shaping the umbrella conservation society'. Among a number of local groups were the Beaumaris Conservation Society, represented by Geoffrey Goode, the Black Rock and Sandringham Conservation Association, represented by Keith Tarrant, the Save the Dandenongs League, represented by Professor John Turner and Miss May Moon, and large organisations, including the Victorian National Parks Association, represented by J. Ros Garnet and others, the Victorian Field and Game Association represented by P. Brown and F. O'Donnell, the Field Naturalists' Club of Victoria, represented by D. J. Lee and the Melbourne University Botany School represented by Dr. Gretta Weste.
86 CCV President's Address, 1973, Keith Tarrant Collection, CCV File.
Iggulden's analysis emphasised the existence of two groups with largely different approaches. The first was in line with Lawrence's expectations and compatible with methods employed by John Turner and his fellow workers on the National Trust Landscape Preservation Committee and in similar organisations. The second was closer to that adopted by Iggulden himself and by a number of people in the Sandringham area, for instance in the battles over the Black Rock foreshore car-park, the Ferguson Street landscape, the Linacre Road Gums, the Little Beach and in dealings with government. Here, non-violent protesters, believing they operated within the law, used 'direct action' tactics, including impeding bull-dozers and sitting in trees. The first group operated largely through personal contacts and networks; the second group was prepared to confront, and, in some cases, forego the 'gentlemanly' approach. Both gained success, but not in all circumstances. City of Sandringham conservationists used both methods but in several cases without their activist component they would have failed. The CCV contained most of the differences and functioned with a considerable range of attitude and action until 1995, when it was replaced by Environment Victoria, with 69 member organisations listed in 2003.

If we turn to the state government's response to the strength of public opinion expressed in meetings and through the ballot box (including McDonald's loss of his seat after the Little Desert Battle) and to the organisations expressing environmental concerns, the case can be made that the Bolte government, and the Hamer government which succeeded it, responded to demands for conservation in ways which were, in the CCV president's words, unique in Australia. It created the Land Conservation Council (LCC), the Environment Protection Authority (EPA) and a grouping of departments within the ministry of conservation. Lawrence argued that this latter arrangement with Dr. R. G. [Geoff] Downes as director augured well for

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87 J Iggulden, 'Concerning The Future Of The CCV', 25 June 1971, Keith Tarrant Papers, CCV File. John and Helen Iggulden and family moved to Bellingen in north-eastern New South Wales, with John Iggulden continuing to advocate radical change and to spread his ideas through his writings.
89 Lawrence, CCV Presidential; Address, 1973, Keith Tarrant Papers.
conservation in Victoria but that did not mean the CCV should cease to be wary or retreat 'from attack' if that appeared to be 'the only practical resort'. The LCC established in 1970 was designed to make recommendations to the minister on the use of public land. It was of great interest both to the CCV (which had a role in its creation) and to smaller conservation societies. The LCC was to consider present and future needs of Victorians in relation to the 'preservation of ecologically significant areas', the conservation of areas of natural interest, beauty or historical interest; the creation and preservation of areas of reserved forest, areas for leisure and recreation, and reserves for the conservation of fish, wildlife and native plants. Tony Dingle notes that the language used in spelling out the aims was different from that expressed by the government a year before in the Little Desert controversy and indicative of government's change in attitude, and recognition of the values espoused by conservationists. This recognition provided another source of encouragement to the indigenous plants movement.

An independent chairman, Sam Dimmick, was appointed with a council of twelve, including John Landy and John Turner who represented conservation interests. The council divided the state into seventeen study areas on which reports would be made. Reports provided a large range of information. For example, The Report on the Melbourne Study Area included, in the first volume, detailed information on geology, physiography, climate, water resources, soils, vegetation and fauna; and in the second volume, relevant maps. The public were to gain opportunities to make submissions. The LCC contributed to the threefold increase of reserved land in Victoria, encouraging many conservationists although a number considered that the LCC took insufficient notice of conservation values. Differences emerged over recommendations concerning the High Country particularly over cattle grazing. The

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90 ibid.
91 See Robin, 'The Little Desert Dispute', pp. 151-170 for a detailed discussion of the LCC.
92 See Dingle, Settling, pp. 250-251.
93 Robin, Defending the Little Desert, pp. 119-133, Bolton, Spoils and Spoilers, p.159, Bolton points to environmental planning and control bodies set up in other states in the late 1960s and early 1970s and to the establishment of a Commonwealth junior ministry in 1971.
94 Dingle, Settling, p.250.
95 ibid.
96 Dimmick was a Melbourne University graduate in Arts, Commerce and Social Studies.
CCV and the VNPA issued letters urging concerned people to write to the Premier, the Hon. R. J. Hamer, the Minister for Conservation, the Hon. W. A. Borthwick, and the Minister for Tourism, Hon D. Crozier, stating, 'there is no doubt that the LCC proposed recommendations for the Alps are the result of political pressure. Unless people demonstrate their concern, the conservation possibilities of the Alps will be lost forever.'\textsuperscript{97} Dingle records that over 15000 submissions were received. Many came from people influenced by Dick Johnson's \textit{The Alps At the Crossroads} which revealed the history, character and challenges of the region and recommended conservation measures and reservation.\textsuperscript{98} Eventually in 1989 with new legislation (National Parks Alpine National Park), the dream of a contiguous Alpine National Park for Victoria was realized.\textsuperscript{99} Conservationists were encouraged by this, although maintaining concern over cattle grazing and its effects on indigenous vegetation.

The establishment of the Victorian Conservation Trust (later becoming the Trust for Nature), which supported private initiatives for the care of land and its flora and fauna was a further move indicating concern for the natural environment.

Further large conservation issues emerged during the decade, several of them stimulating activists. Changes at state level were reflected at the national level. Many of the same issues were debated on a larger scale. Members of local groups became actively involved in interstate campaigns.\textsuperscript{100} One specific experience of the national organisation, the Australian Conservation Foundation, illustrates this. The ACF in October 1973 underwent radical change. A number of councillors and members reacted passionately and in a highly organised manner to what they perceived as failure to work constructively towards the preservation of Lake Pedder. This unique lake in the south-west Tasmanian wilderness aroused love and wonder at its beauty among those who walked into this remote area or flew in a light plane and camped

\textsuperscript{97} Conservation Council of Victoria, 'Re. Land Conservation' - Alpine Study area - Proposed Recommendation' (undated) and VNPA, 'The VNPA Rejects LCC Proposed Recommendations for the Alps', May 1978, V. Tarrant Collection/ Victorian Alps.

\textsuperscript{98} Dingle, \textit{Settling}, p.250.

\textsuperscript{99} VNPA, 'Stop Press', 29/5/89, Joan Lindross, President, V. Tarrant Collection/ Victorian Alps.

\textsuperscript{100} City of Sandringham conservationists included Geoffrey Goode (Beaumaris Conservation Society) and Janet Ablitt, Gordon and Meg Henry, Keith and Valerie Tarrant (Black Rock and Sandringham Conservation Association). Keith Tarrant stood for the Senate in the 1974 election on an Environment ticket.
on the wide sandy beach. Pedder became an incentive to the growth of what had become known as conservation activism. Activism was evident in the challenge in October 1973 to the policies and practice of the ACF, which under its director, had failed to adopt the lake’s conservation as a matter of major importance.\footnote{101} The resulting revolution in the ACF led to the resignation of several councillors, including John Turner, who claimed to be 'active but not an activist' and to the appointment of Geoff Mosley as the new director.\footnote{102} The division was due to the different beliefs about what constituted acceptable behaviour and action and was similar to that defined by John Iggulden in comments about the CCV. Turner was one of seven councillors who reported their reasons for resignation to ACF members.\footnote{103} Despite this, he remained on friendly terms with the ACF\footnote{104} and continued in commitments to the organisations with which he was involved.

Many Victorian conservationists were both active and activist in the Pedder battle. Believing in the lake's value, they demonstrated publicly, used the media and published works of scholarship that captured the imagination of many. However, the forces favouring the flooding of the lake proved too strong. Pedder was lost.\footnote{105} The loss provided a strong incentive to ensure that such a result did not recur and other national campaigns mirrored similar concerns. The fight to stop sand-mining on Queensland's Fraser Island and to preserve the character of this large sand island off the coast of Queensland gained great attention. The campaign was successful when the Fraser government stopped the export licences for sand minerals in 1976. The

\footnote{101} See Broadbent, *Inside the Greening*, Chapter 8, 'The 1973 AGM and its Aftermath', provides a detailed account.

\footnote{102} Dr. Geoff Mosley is a geographer and enthusiastic bushwalker. Born in Britain, he grew up in Derbyshire, developing great affection for the Peaks District. In Australia, by 1973, he had a history of research and work for the environment both within and beyond the ACF. He had been highly recommended by Francis Ratcliffe.

\footnote{103} 'A Report to ACF members on the events of 17 October 1973 by the seven councillors who resigned on that day, reads 'We do not propose to go further in attempting to justify our decision to resign. We leave it to members who know our record as active but not activist conservationists to decide whether we were right to resign under these circumstances. The factors which led to our individual decisions included the profound changes brought to the ACF and the means used to achieve these ends .. Signed H. G. Andrewath (S.A.), C., Warren Bonynthon (S.A.), A. Dunbavin Butcher (Vic.), R. G. Chittleborough (W.A.), D. F. Dorward (Vic), Patricia Mather (Vic.), J. S. Turner (Vic.) UMA TURN 01008.

\footnote{104} See Broadbent *Inside the Greening*, p. 104.

\footnote{105} Some Pedder activists refused to give the name Lake Pedder to the hydro dam that resulted from the flooding, preferring to describe it as 'Lake Mistake'.}
effort to reserve the Kakadu, in the north of the Northern Territory resulted in the
declaration, under Commonwealth control, of a national park in the late 1970s, but
passionate opposition to plans to mine uranium in the region remained. Battles
developed over other well-loved places, partly due to objections to forestry practices
and the destruction of native forest as at Terania Creek in New South Wales.
Considerable, and finally successful, efforts were made to prevent the mining of
Mount Colong in the southern Blue Mountains of New South Wales; to save the
Bungonia Caves in that State; to prevent the establishment of an alumina refinery at
Upper Swan, near Perth in Western Australia (which evidence indicated would
pollute the ground waters important to the city) and to undertake conservation of the
Arkaroola area, in the Northern Flinders Ranges, South Australia, particularly
through the control of feral animals. Numbers of Victorians became involved in the
campaigns that marked the controversies, as individuals, and through membership of
organisations, including the ACF.⁰⁶

'Thoughts of the nation-shapers canded for posterity' featured in the Australian in
early 1974 indicated both public interest in conservation and the opposite - extreme
criticism of conservationists.⁰⁷ Hugh Lunn's article reveals the climate of opinion of
the time and illustrates the role of the Australian in both informing and influencing
the public about environmental and other national issues.⁰⁸ The four 'nation-shapers'
were Bob Hawke representing the trade union movement (nine years before he
became prime minister) Lang Hancock, the outspoken West Australian mining
magnate, Jack Mundey, builders' labourer, member of the Australian Communist
Party and well-known leader in the Green Bans that prevented certain developments
in Sydney, and the former Liberal prime minister, John Grey Gorton. Dr. Paul
Wilson, Reader in Sociology at Queensland University, produced a series of audiotope recordings of the ideas of the 'nation-shapers' for use by students in schools,

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⁰⁶ See Bonyhady, Places Worth Keeping;, Tarrant and Lyne, Conserving Australia, Chapters 1-4 and
⁰⁷ , and Broadbent, Inside The Greening, passim.
⁰⁸ From 25-30 August 1969, the Australian featured a series of articles about the environment
titled, 'Does anyone Care'. John Hallowes, a journalist, quoted the Governor-General, Sir Paul
Hasluck, using words reminiscent of Jock Marshall. Hasluck had spoken of 'a countryside despoiled ..
wild life being exterminated, vegetation withered, air and sea being polluted, rivers made foul, green
fields turned into rubbish dumps for old model cars ...'. Hallowes commented, 'only now is the
physical beauty of our environment beginning to gain political respectability'.

colleges and universities. Hancock described conservationists as 'eco-nuts' who forgot where their salaries came from, stating that they formed a 'very, very dangerous movement .. They’re like a bushfire - all you can do is let them burn themselves out and then go back and pick up the mess'. Hawke, speaking from a different background, considered it 'abhorrent that a relatively small group of people - monopoly finance capitalists - can determine for motives of profit maximisation what shall be available and how it shall be available for the mass of the Australian people'. Gorton accepted the description of himself as an 'Australian nationalist' emphasising his belief in the importance of the individual in the nation and the right to 'live a life which is free and [to] have no fear.' This, in his mind, would be the essence of Australia's greatness as a nation. Mundey also spoke of the individual and of groups outside the official systems:

To my way of thinking real democracy resides in the power and ability of the individual and groups to act according to their conscience. So if we find an election pledge is being broken people can link up to save their environment.

He was thus arguing that democratically elected members of parliaments or local governments should not always be the sole arbiters.

Mundey's part in the debate in the Australian highlights the union movement's contribution to the changing environmental movement. Green Bans were an innovation that proved effective in several conflicts. Mundey's experience included working with Kelly's Bush residents determined to conserve bushland on the shores of Sydney Harbour, and with those opposed to development projects involving demolition of homes, for instance in Woolloomooloo. He combined these experiences with his philosophy. His ideas may have looked anarchic to Lang Hancock, but they had assisted in the achievement of Green Bans objectives. The success of the Bans encouraged many conservationists. They were initiated by people who saw themselves as victims of certain developments and asked the union for support.

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110 ibid.
111 ibid.
112 ibid.
114 *Green Bans*, 'The bare facts', unnumbered pages.
Two important features of the Kelly’s Bush campaign were first, the determination to conserve eight acres of Australian bush that had survived urbanisation; second, the co-operation of builders’ labourers with ‘Kelly’s Bush Battlers’, described by Mundey as ‘Upper Class Morning Tea Matrons’. Through personal contacts and the media, information about the Green Bans was spread throughout the country. ACF council meetings provided a forum and opportunities for policy development. Victorian councillors met Jack Mundey who joined the council after the October 1973 revolution and in the organisation they were able to discuss ideas and tactics.

In a similar campaign tactic in Victoria, the Port Phillip Conservation Council (PPCC) gained union support in the effort to prevent the construction of pipelines under Port Phillip, presenting environmental matters as a concern for people of every socio-economic class. Ken Carr, administrative secretary of 26 rebel unions said the ‘unions were not prepared to allow people’s assets such as the bay to be handed over to private interests’. Union bans were also in place during and after the controversy over the construction of the Newport Power Station close to the mouth of the Yarra River, Melbourne, although they were seen as destructive and part of a communist attempt to ‘destroy the system’. by the Liberal Acting Premier of the day. Conservationists argued that the Newport project involved misuse of natural gas, would cause pollution when emissions mixed with car-exhaust fumes and that it would damage Hobson’s Bay. They found the parameters created at hearings too limiting. Finally, a power station of reduced size was constructed, so both sides experienced partial failure and partial success.

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115 ibid.
116 See V. Tarrant, 'The Bay and the Bush', Chapters 4 and 5, passim.
117 Age, 26 June 1970.
119 The battle over Newport was time-consuming and debilitating for those who were disappointed at the outcome, including Keith Tarrant, who had mounted a case, Tarrant v. State Electricity Commission, and the Executive of the S.E.C. Bonyhady points out the difficulties faced by people who mounted objections to such projects. See Tim Bonyhady, Places Worth Keeping, Chap.2, ‘The Hazards of Participation’, esp. p. 30 and end-note 26, p. 154.
The Federal Government also responded to the developing environmental awareness and to the work of new organisations. Although analysis of federal politics is outside the scope of this chapter several examples may be cited to illustrate the changing political climate. The Commonwealth Government demonstrated concern for conservation through legislation passed during the Whitlam years (December 1972 - November 1975). The Australian Heritage Act, 1975, affirmed the importance of places in Australia which had aesthetic, historic, scientific or social significance or any other special value. The National Parks and Wildlife Conservation Act, 1975, and the Great Barrier Reef Act, 1975, provided backing to policies of conservation through reserves. Under the Fraser government (December 1975 - March 1983) export licences for sand minerals were discontinued, thus ending sand-mining on Fraser Island and in the late 1970s the Kakadu national park was declared. The implementation of policies at times fell short of expectations, but conservationists were encouraged by these moves. The changed 'climate' created a milieu favourable to the indigenous plants movement, which was consolidated and developed in the next decade.
Dianella species in foreground, V. Tarrant photograph 2002

V. Tarrant photograph 2002
CHAPTER 7

CONTESTED SPACES

Most Australians now recognise their good fortune in living in a country with a fascinating natural environment. This is fortunate, for many outstanding natural areas are threatened by powerfully promoted claims for development. Insensitive mining and forestry projects, public works and agricultural clearing could greatly alter the appeal and diminish the value of our last natural areas and their wildlife.

Murray Wilcox 1981.  

'Contested Spaces' investigates the growth of ideas and policies favouring protection of the 'natural' environment, the implications for politics - local, state and federal - in Australia in the 1980s. Such ideas and policies frequently involved contests over land use. The chapter argues that there was an intellectual shift through works that publicised new attitudes to the Earth and influenced conservationists, particularly in their view of the nature and consequences of economic development. In 1981 the publication of Geoffrey Bolton's *Spoils and Spoilers* reflected the growing interest in the environment and provided a new kind of Australian history. The chapter investigates initiatives within the city of Sandringham which demonstrated a new dimension in the indigenous plants movement. It further addresses John Turner's work and influence and analyses the Melbourne Botany School contribution to the conservation of indigenous plants, within and outside the University during the decade.

One important publication, *Australia's Natural Heritage*, produced by the ACF, described and illustrated areas that are all outside the boundaries of cities, reflecting the concept that it was 'wild' places that were special and needing protection from interests that would radically change their character. These wild places, as demonstrated by the Lake Pedder campaign became contested spaces. The Labor campaign of early 1983 reinforced the concept of the value of wilderness with its promise of 'No Dams' and 'Save the Franklin'. Following success in the election, the Hawke government maintained efforts to create and implement environmental

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policies providing encouragement to local conservationists. Individuals and a growing number of groups interested in local flora and stretches of bushland within urban areas expanded their efforts in the 1980s. Increasing co-operation between the Sandringham Council and local conservationists led to the consolidation of the indigenous plants movement in that area.

Although Tasmania’s unique Lake Pedder became part of a hydro-electricity dam, the Lake remained a strong and lasting influence in the thinking and planning of those who had campaigned for its survival. Max Angus’s story of the heroic photographer of South-West Tasmania, Olegas Truchanas, provided the first part of a large book with full page colour photographs by Truchanas. Truchanas loved the South-West wilderness and his pictures captured for people, who had never been into the area, images of its beauty and magnificence. After he drowned while on a river expedition, his wife, Melva Truchanas, and fellow photographer, Peter Dombrovskis, and many other conservationists continued his work by publicising the value of the area which aroused such feelings of wonder and delight. Some Victorians, including members of the Black Rock, Sandringham and Beaumaris conservation groups, bought or borrowed that book and, later, purchased Peter Dombrovskis’ photographs used by the ACF in its calendars. The visual images provided part of the inspiration for conserving wilderness but also for caring for what were sometimes known as mini-wilderness areas within the City of Sandringham. The pictures provided a sense of

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3 See Bolton, Spoils and Spoilers, pp. 192-3.
5 World of Olegas Truchanas, pp. 6-7.
6 These people included Janet Ablitt, Geoffrey Goode, Keith Tarrant and Valerie Tarrant.
7 My own interest in Lake Pedder arose from a small movie film made by Brian Nettleton, a staff member of the National Fitness Council, and John Macfarlane, in the 1950s during their three week expedition to Lake Pedder. This, with the more recent photographs and accounts of the Lake from Geoff Mosley of the ACF, and others, provided, in early 1972, the stimulus for my husband, Keith Tarrant, and me to fly to Pedder in a Cessna piloted by Geoffrey Goode and to camp on the beach with others wanting to enjoy the lake and to work to save it from flooding.
the splendour and majesty of the landscapes, and spiritual and aesthetic dimensions were important in moves to conserve both large and small areas.  

Pedder campaigners were determined not to lose another piece of Tasmania's South-West wilderness and their actions created a new piece of environmental history. Learning of the Hydro-Electricity Commission's plans to construct the Gordon River Power Scheme stage 2, which would damage the Franklin and Lower Gordon Rivers through the construction of dams, they moved to save the 'last wild rivers'. The ACF and Tasmanian Wilderness Society (TWS) made powerful use of the media, organising a campaign that developed a national and international dimension. 'No dams' became an issue in the lead-up to the 1983 federal election. The Franklin blockade attracted much attention, particularly when many protesters, including ACF Director Geoff Mosley and Bob Brown, later Senator Bob Brown of the Green Party, were arrested. A Dombrovskis colour photograph of Rock Island Bend, included in the Saturday newspapers on election day, added to public knowledge of the issue and understanding of the value of the rivers and the wilderness of which they were a part. Bob Hawke and Hazel Hawke, through attendance at a large rally in Melbourne, just before polling day demonstrated support for the 'no dams' cause. The commitment to conserving the Franklin and Gordon wild rivers was a factor in the Labor victory. The new government quickly legislated to protect the Franklin-below-Gordon, using the commonwealth's external powers and when the Tasmanian government mounted a challenge in the high court, the finding was in favour of the Commonwealth. The Franklin-Lower Gordon Wild Rivers National Park gained protection under World Heritage listing and this, as well as the high court's landmark constitutional decision encouraged conservationists. The optimism derived first

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8 Interest in the Tasmanian wilderness and in the two photographers has remained, witnessed by the screening in September 2003, in Melbourne of the film 'Wildness', by the ABC and the Nova Cinema.


10 Kelly, p. 528.

from the increased level of community awareness of environmental issues;\textsuperscript{12} second from the action of the commonwealth government in affirming the value of national heritage and third from the over-ruling of what was seen to be a narrow state-based policy.

*Australia's Natural Heritage* communicated through text, maps and photographs - black and white, and coloured - the great diversity of Australia's natural landscapes. The book aimed to remind or awaken Australians to the 'beauty and promise' of what were considered natural areas worth saving - from a conservation, scientific and aesthetic viewpoint. The criteria for selection of the natural areas were based on a definition adopted for UNESCO's world heritage list.\textsuperscript{13} The book grew from an inventory prepared over five years which focused on regions, smaller places and habitats and the life therein. Hundreds of people - bushwalkers, scientists, authors, explorers and photographers - contributed. They included the well-known explorer and writer John Bechervaise, conservationist and author Jean Edgcombe, Fraser Island Defender and 1976 'Australian of the Year' John Sinclair, scholar and Professor of Environmental Studies George Seddon, and poet and conservationist Judith Wright. Many contributors and supporters were important in enabling the book to reach a wide audience. Murray Wilcox's Foreword drew attention to threats to outstanding natural areas by claims for development, including mining, forestry, agricultural and public works projects which took little account of the environment.\textsuperscript{14} He argued that since many treasured places were remote from major centres of population, it was necessary to create community awareness of their character and value. He judged that knowledge of valued places was their best defence and suggested that appreciation of a natural area inculcated a desire to cherish and protect it. This experience, he suggested, was likely to give birth to the desire to learn about and take an interest in other similar places. These arguments were similar to those

\textsuperscript{12} See Bonyhady, *Places Worth Keeping*, pp. 50-53.
\textsuperscript{13} Wilcox, *Australia's Natural Heritage*, Foreword.
\textsuperscript{14} ibid.
used by City of Sandringham conservationists, and their expression in relation to
the national scene was a useful reinforcement to local efforts.

While Sydney Bushlands are the only bushlands close to a city centre described in
the book, their inclusion provided some encouragement to urban dwellers in other
places, including Beaumaris and Black Rock, to look after their own remnant
bushland. That was my own response but it is impossible to quantify the effect on
other people. The writer's values are evident from the description of Sydney bush
and show the importance placed on 'unspoilt nature' at a time when Aboriginal
Australians' management methods were largely ignored. The sense of a place, pristine
and 'untouched by the hand of man' was felt by many conservationists to be part of
their enjoyment:

Surprisingly within 40 km. of the city centre, there are still areas which retain
their rugged, unspoilt nature where the visitor will find satisfaction in the
diversity of vegetation, in beautiful scenery untainted by man-made objects, and
the experience the freedom which is so much part of a wilderness.

Sandringham conservationists valued scenery free of 'man-made objects' but the
negatively loaded concept, 'taint', was used less commonly than the idea of need for
refreshing change from the built or traffic dominated environment. Change or escape
from urban environments is part of the lifestyle of people who travel for holidays in
Victorian national parks or more distant places. I recall that one argument, presented
in the City of Sandringham in favour of conserving local foreshores and bushland
reserves, had egalitarian connotations: they offered refreshment of a kind that was
readily and cheaply accessible and involved public land to which everyone had a
right.

International conferences and overseas publications which addressed social and
economic values added to environmental consciousness. *Quarry Australia* (1982)
included papers from the first national conference on what was called the conserver

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15 Tarrant, *Conserving Australia*, p.7.
16 ‘Sydney Bushland’ in *Australia's Natural Heritage*, p. 114.
society. Dr. R. G. Downes, the first permanent head of a Victorian ministry for conservation, helped to fund this conference. Canadian conservationists added to the international dimension. The ACF, as an initiator of the conference, aimed to 'ensure that the air, land and waters of Australia' would be used 'with wisdom and foresight and competing demands ... resolved in the best interests of the nation'. Hence, the conference and *Quarry Australia* focused on issues emanating from the resources boom of the time, on explorations of alternatives and included an account of recommended moves towards a sustainable economy. George Seddon emphasised the richness of Australia's non-renewable resources in comparison with renewable resources, pointing to the need for careful management of both. He commented on knowledge provided by ecologists about interdependence in the natural world and on complexities in caring for land affected by wholesale clearing of previously self-managed systems such as rain forests. Seddon made an important recommendation - one relevant to conservers of indigenous plants which was known to the City of Sandringham conservationists and which reinforced their efforts. This was to avoid, where possible, the complexities following major disturbances to ecosystems. These disturbances included weed infestation requiring intensive work by hand or chemical sprays and the need for pesticides when natural predators lost their habitats. Seddon stressed the need to 'think very hard before disturbing natural vegetative cover or clearing forested land anywhere'. His conclusion was balanced but contained a warning:

> My concern is not to shackle the mining industry, but to urge that once-only windfall profits be used to increase the permanent life-sustaining capacity of the continent. For we are not the lucky country in renewable resources; we have the least water and some of the poorest soils of all the continents ...

> It is easy to imagine a plump New Zealand economic historian two centuries hence look up from his slightly gritty desk in Auckland to gaze pensively across

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18 ibid., p. vii.
19 Seddon, 'Choosing A Future Or Gamblers’ Luck', in ibid., pp. 310-323.
20 ibid., p. 311.
21 ibid., p. 318.
22 ibid., p.319.
the Tasman towards the raw deserted quarry from where the dust blows, once
home for a brief few years to 40 million people. He might reflect on the
transitory nature of non-renewable resources, and of a country that pawned its
future to them to find, in the end, that its luck ran out.

*Sustaining Gaia* (1987) also derived from an international conference which
addressed environmental issues. Robyn Williams, the Australian Broadcasting
Commission’s host of the Science Show, delivered the opening address to this second
conference entitled 'Balmain Basket-Weavers & the Volvo Set VS. Toorak Tunnel
Vision.' Williams was echoing in an ironic manner Paul Keating’s (the federal
treasurer’s) term coined to describe conservationists, and his own concept of the
‘solidly wealthy’- those in Melbourne’s Toorak, London’s Downing Street and
Washington’s Pennsylvania Avenue who held a narrow idea of what constitutes
‘wealth’. In the address, which became the first chapter of *Sustaining Gaia*,
Williams recounted his first impressions of the Australian landscape which he found
unpleasant, but explained that he had changed and learned to respect the ‘biological
inheritance’ of Australia. He recommended that developers of all kinds make the
scientific and aesthetic effort required to make such a change. Such a change would
require a change in values but could lead to co-operation rather than contest:

Is a rainforest without value? Is a wilderness of no interest simply because you can’t trade
it? Is filthy air and a dying woodland a small price to pay for the rich civilization we see all
around us? Are these naive questions?  

The Norwegian Arne Naess referred to the ‘deep ecology’ movement which related
to the title of the book, *Sustaining Gaia*. Gaia, in Greek mythology, is Goddess of
the Earth, the mother, and the wife to Uranus, and her name is given in the modern

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23 ibid., pp. 322-323.
24 The Monash Graduate School of Environmental Science hosted ‘Environment, Ethics and Ecology
II’, in October, 1984, a successor to the first conference and organised by the Human Sciences
Program at the Australian National University (ANU) in the previous year, which had addressed
similar matters. Papers were published in Frank Fisher, (ed.), *Sustaining Gaia: Contributions to
25 ibid.
26 Williams, ibid., pp. 3-23
27 Arne Naess, Oslo doctorate, ‘Erkenntnis und wissenschaftliches Verhalten’, Professor, philosopher,
naturalist, leader of UNESCO project on East/West Germany, supporter in Europe of ‘green’ politics,
participant in deep ecology movement.
era to the concept of the planet, Earth, as a living, single, independent organism. Naess stressed the need to sustain diversity of life on the planet arguing that this goal superseded all others except that of maintaining a population of human beings sufficient for 'cultural diversity and a high quality of life'. In this way the exponential growth of world population again became an issue. Members of the 'deep ecology' movement urged people in industrial societies to reduce their material demands and respect animals, plants and landscapes independent of their usefulness to humans. They objected to modern wars because they involved ecological catastrophes.

James Lovelock, a scientist and inventor, was the major proponent of the Gaia theory, which he publicised in The Ages of Gaia: A Biography of our living Earth. To begin the book he chose Lewis Thomas's evocative description of earth as seen from the moon through photographs that contrast the moon 'dead as an old bone' and earth, 'floating free beneath the moist, gleaming membrane of bright blue sky ... the rising earth, the only exuberant thing in this part of the cosmos'. Thomas thought the earth had 'the organized, self-contained look of a live creature, full of information, marvellously skilled in handling the sun. The Ages of Gaia produced a variety of reactions from scepticism to admiration and agreement. In between were those who

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28 Simon Blackburn relates the Gaia theory to panpsychism: 'Either the view that all parts of matter involve consciousness or the more holistic view that the whole world is "but the veil of an infinite realm of mental life" (Lotze). The world or nature produces living creatures, and accordingly ought to be thought of as itself an alive and animated organism ... The view that man [sic] ... is a small version of the cosmos which can therefore be understood in anthropomorphic terms is a staple theme in Greek philosophy. It passed into the mediaeval period via Neoplatonism and became shared by Leibniz, Schopenhauer, Schelling and many others. Its most intelligible modern version is perhaps the view that for environmental reasons we do well to think as if the world is a complex organism (sometimes preciously called Gaia) whose unity is as fragile as that of any living thing'. Simon Blackburn, Oxford Dictionary of Philosophy, Oxford University Press, London, 1994.


30 ibid, p. 179-80.


33 Lewis Thomas, MD, edited the Commonwealth Fund Book Program, which supported the publication of Lovelock's work, and explained that books in the series were designed to take a close look at what goes on in the minds of scientists in the modern world, hence the choice of Lovelock, a scientist whose research leading to the Gaia concept had occupied nearly twenty years.

accepted the importance of respect and care for the life systems of the planet. Lovelock expressed concerns over misunderstandings of his concept that the earth was a self-regulating body which would deal effectively to create its own protection. He pointed out that although the planet possessed protective mechanisms, there were limits to what could be tolerated. Hence industry did not have a 'green light' to pollute. Lovelock claimed that the unconscious goal of Gaia was a 'planet fit for life' and that if humans stood in the way of this we would be eliminated.

Lovelock had been influenced by his experiences as an inventor - he had made the electron capture detector which revealed the ubiquitous nature of pesticide residues - by his involvement with NASA and by work in Britain where, in the movement to create what was seen to be increased efficiency in agriculture, farmers were encouraged to destroy their hedgerows, thus radically changing ecosystems and causing the loss of habitat for birds, small animals and wildflowers. He described the England he knew as a child which was 'breathtakingly beautiful' with abundant hedgerows and copses, and small streams that teemed with fish and fed otters. He claimed that he would like to see a proportion of land revert to woodland and heath for recreation purposes and for wildlife, and the creation of an English countryside embodying the poet William Blake's image of a 'green and pleasant land'. He reflected:

Why should I fret over the destruction of a countryside that is, at most, only a few thousand years old and soon to vanish again? I do so because the English countryside was a great work of art; as much a sacrament as the cathedrals, music and poetry ... Yet the landscape of England was no natural ecosystem: it was ... wonderfully and carefully tended.

Lovelock's aesthetic and spiritual response embodying wonder and respect was similar to that expressed by many Australian conservationists, but the feeling for

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35 Ages of Gaia, p. 212.
36 Ibid.
38 The Poetical Works of William Blake, Oxford University Press, London, 1948, 'And did those feet in ancient time' from 'Jerusalem', p. 370
land carefully tended by human beings was different from the emotions aroused by the 'wild nature' celebrated by Truchanas, Dombrovskis and other battlers for wilderness. All however held in common the belief that certain areas should remain free of factories, mines and the monoculture that had become part of modern agribusiness. This belief and respect for the 'natural world' were both, in my memory commonly discussed by the City of Sandringham conservationists, as well as by other members of the ACF, and provided one of the incentives to care for local bushlands and encourage the use of indigenous plants in gardens where they could provide habitat as well as conserving part of the beauty and interest of the environment.

Books with practical knowledge and advice were important to conservationists in their endeavour to ensure the viability of indigenous plant communities. *Bringing Back the Bush: The Bradley Method of Bush Regeneration*, published in the late 1980s and based on the seminal work of two Sydney women, the Bradley sisters, became a well-used hand-book for conservationists, including members of the working parties of the Black Rock and Sandringham Conservation Association. The Bradleys' enthusiasm for nature led them to develop methods for regenerating bushland that involved nurturing indigenous species with as little disturbance as possible and working from healthy areas to those with problems. Joan Bradley explained that in this method of bush regeneration 'it is the natives we are thinking about', adding that she and fellow workers concentrated, not on eradicating weeds, but on enabling indigenous plants to grow well in the environment that suited them best. She believed this to be 'a good exercise in applied ecology, encouraging the bush to control the invaders'. In 1975 the National Trust had commissioned Joan Bradley and others to undertake regeneration in the Sydney area and later the Bradley method

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40 Hancock's account, in *Discovering Monaro*, of the 'improved' landscapes of Tuscany has similarities to Lovelock's descriptions.
42 ibid., p. 16.
was taught to bush regenerators in many parts of Australia. Illustrations in *Bringing Back The Bush* show the beauty and diversity of bushland trees and shrubs, pictures of weeds to be removed, tools recommended for workers and the process of working from good to bad areas. Robin Buchanan's publication, *Bush Regeneration* reinforced the learning. Buchanan taught a Technical and Further Education (TAFE) course which included the Bradley method. Her ideas, based on practical knowledge, were a valuable resource and her book provided both detailed information for people wishing to restore bushland and a thoughtful justification for such work. While the Bradley method has been communicated through formal lessons and word of mouth, the publication, *Bringing Back the Bush*, is valuable, as is Buchanan's work, for its combination of personal experience, enthusiasm and carefully explained practical advice.

In the early 1980s, when City of Sandringham conservationists were still in an early stage of learning about the characteristics of their bushlands and the best ways of restoring degraded areas, an unexpected wildfire led to new discoveries about the role of fire in heathland regeneration. In late 1984 careless smokers failed to butt out their cigarettes, causing part of the George Street Reserve woodland to burn to the ground. The fire caused shock at the destruction, then amazement as heathland not seen for decades began to grow in the ash-bed. The decisions and work which followed created a new kind of effort and management. The woodland burnt by the fire had been dominated by Coastal Tea-tree. This had generally been considered to be an invader in the heathlands, which were more than a kilometre from the shore, and also noted for their characteristic of deterring the growth of many other species. Hence, in the interests of caring for the heathland community, now relatively rare in the area, a number of conservationists, under the influence of Don Neale (a foundation member of BRASCA and a leader in the movement to establish the

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43 ibid., p.10.
45 The George Street Reserve on the borders of Black Rock and Sandringham adjoins residences on the western border, roads to the east and south and the Urban Forest to the north.
community plant nursery) met regularly to weed out the new Tea-tree seedlings which grew from seed germinating after the fire. The Big Heath, as it became known (in contrast to the Small Heath, which had grown up, though with less diversity, after a fire in 1978) became the focus of work parties in the George Street Reserve. It gained importance as a valued place where residents and visitors could discover a remnant of the Sandringham heathlands - once extensive and well known to field naturalists, bird-lovers, botanists and local conservationists. Initially, interested people met informally but by the 1990s a Friends' Group had been formed under the 'umbrella' of the Sandringham Council.

The concentrated effort in the heathland involved a value judgment about which vegetation from which period should be encouraged. Hypothetically, it could have been the Tea-tree which had established itself in the area after European settlement, but largely because of the botanically interesting diversity, beauty and special quality of the new heathland, people decided to care for it and learn the best methods of management. They decided to retain the heathland as it regenerated after the fire, with human activity confined to careful weeding. This was in contrast to in-fill planting undertaken in the woodland areas of the reserve, in other bushlands and on the foreshore, where infesting weeds were removed and local species planted, often without a detailed knowledge of the original ecology. This kind of work achieved success in replanting with indigenous trees, shrubs and wildflowers but not in the restoration of the communities that had existed in pre-European times. This issue became the subject of debate 46 in the next decade.

The community plant nursery award of the Garden State Innovative Projects Award (Pink Heath award) in late 1979 and again, in 1982 reinforced its value. 47 The nursery continued as the main source of indigenous species planted on public and private land, with volunteers working under the guiding hand of Don Neale in

47 Letter, A Thatcher, Garden State Committee, Premier's Department, to P. Sherman, Town Clerk, City of Sandringham, 18 December 1979.
conjunction with the Sandringham Council. The idea of volunteering had also received attention through the publication in 1982 of Barry Jones' *Sleepers Wake!* which addressed work and the impact of new technologies. These, the author believed, were likely to lead to greater leisure, the need for new relationships and new uses of increased leisure time. Jones considered that conservation work could become a means of meeting such needs. The community plant nursery volunteers had already committed themselves to such a project and some of them considered they had a vocation, similar to that which they could have undertaken as a paid occupation. Thus the nursery fulfilled the original objectives in contributing to the propagation of plants and in playing a social role.

Another project, the Sandringham Training and Employment Project (STEP), also contributed to the indigenous plants movement and included a social role. STEP was a job creation scheme which combined conservation, education, work experience and award wages proved valuable to the nurture of indigenous plant communities. STEP originated with my idea of creating a contract work-force. It was influenced by knowledge of difficulties unemployed people faced and by studying the history of the Great Depression. The Project developed in late 1978, in response to the offer by the Victorian Employment Committee (a Victorian State Government body) to make funds available for community-based projects. I became convenor and then chair of a committee of men and women representing a diversity of organizations. Committee

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49 ibid., p. 240.
51 STEP Committee — V. Tarrant, Chair; Cr. Lesley Falloon, Sandringham City Council; Wendy Smith, Unemployment Task Group; Graham Illein, Unemployment Task Group; Don Neale, Sandringham Community Nursery; Nancy Neale, Sandringham Community Nursery; Leo Archer, Regional Consultative Committee; Neville Garner, Regional Consultative Committee; Bill Merry, Beaumaris High School; Monica Slattery, Highett High School; Keith Tarrant, Port Phillip Conservation Council; John Smith, Brighton Rotary Club; Rodney Bryant, Keep Australia Beautiful; Stephen Morey BRASCA; Janet Ablitt, BRASCA.
members planned to gain funding for a work-force of unemployed people who would work in conjunction with the Sandringham council staff, studying the characteristics of the foreshore, restoring damaged areas and re-planting with indigenous species. It was proposed to combine government and private funding with services provided by the local council for the common benefit of the contributors, the previously unemployed people and the community. This was not a 'work for the dole' scheme, but a project to provide on-site training in trade union approved conditions and enabling participants to gain jobs in the main stream work force. Part of the expected benefit would arise from participants working in association with trained council staff and part from the growth of self-esteem resulting from worthwhile employment. Skills included plant propagation at the community nursery, planting and weed control in the foreshore bushlands, use of tools, pruning indigenous trees and shrubs, erosion control, fencing and public relations. Successful completion of six months' work and study, which included an examination, would lead to the award of a certificate of competence. The Sandringham council, which was responsible for the foreshore, supported the Project through provision of a building at the council depot to be used as a base, and the practical co-operation of the city engineer, Mr Jim Sherring, in the form of 'manpower, materials, equipment and advice.' The engineer would also oversee the payment of wages. Members of the STEP executive committee offered their skills. Graham Ihlein, a lawyer, was responsible for investigating the provisions of the relevant award, including wages. Lesley Falloon, a founding member of the Hampton Conservation and Planning Association and Sandringham councillor, who twice served as mayor of the city, approached the Buckland Trust and gained funding. I negotiated with the Australian Conservation Foundation (on the grounds that this would be a pilot project which could provide a model for similar areas in other parts of Australia) and with Sandringham Council and with the Ministry of Conservation whose officer provided plans for the foreshore work. Don Neale used his skills as a teacher and a former deputy-director of education in Victoria, combined with knowledge gained in conservation and especially

52 Minutes of Sandringham Council Meeting, 1 May 1979.
in the community plant nursery, and gave advice about plantings and education guidelines. Neville Garner, another teacher, who had stood as a candidate for the state seat of Sandringham, contributed to the planning and writing of submissions.

STEP did not succeed immediately. Despite the Sandringham council's support and what appeared to be a project that met the stated guidelines, the initial submission to the Victorian employment committee failed to gain funding from the state government. The STEP committee persisted however, and, as ministers and policies changed, revised the plans. An ACF consultation report recommended to the government that the project be funded but no decision was made. Following the defeat of the Liberal Government and election of the ALP in 1982, STEP was successful. An application had been lodged under the Employment Initiatives Programme (sic) and supported by Graham Ihlein, an original member of the committee who won the seat of Sandringham for the ALP. The new minister, Jim Simmonds endorsed the project's value, agreeing that his department would provide the requested finance. The project gained contributions of $10,000 from the Buckland Trust, $6,000 from the ACF, services worth several thousand dollars from the Sandringham Council and $63,666 from the State Government.

STEP began with ten young people including a supervisor working for six months from April 1983 and the commonwealth then provided funding for an additional two months. The Project continued with further funding and almost all the participants gained employment following the completion of their training and examination. Stephen Goble was the first supervisor and was succeeded by Daintry Fletcher who has since worked consistently with local plants. She studied the Royal Melbourne

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53 Letter from the Sandringham Council, Town Clerk, Peter Sherman to Valerie Tarrant, July 1980, STEP Files, V. Tarrant Collection.
55 In late 1981, the ACF set up a consultancy under the auspices of the Minister for Employment and Training, Brian Dixon (who succeeded Jim Ramsay, the previous occupant of that position).
56 The Hon. Jim Simmonds, Minister of Employment and Training to V. Tarrant, 24 March 1983. 'As a result of previous correspondence between my Ministry and your organisation, I have ... been aware of the Project for some time. It is clearly worthwhile, both in terms of its broader community benefits and the employment that it will create ... I am able to confirm to you that the Project has been approved for funding'. STEP files, V. Tarrant Collection.
Golf Club's indigenous flora and wrote *The Bushlands of Sandringham.*

Local papers featured STEP, reporting on feed-back provided by community members and quoting the words of Ian Gathercole, a former machine operator who had been unemployed for fourteen months, and who said it was good to have work and know the 'locals are behind you'. The *Hampton Bugle* included a photograph of the Minister for Employment and Training inspecting the foreshore and commented on the clearance of weeds and deleterious scrub, erosion prevention and extensive replanting. Foreshore vegetation needed sensitive hands-on work, which STEP members provided, adding to the quality of the community's environment as well as to their own skills and employment prospects.

The project continued successfully until the mid-1980s when funding ceased as governments developed new programs. STEP’s success involved several key factors. The first was conviction about the intrinsic value of the eleven kilometres of Sandringham foreshore with its clothing of local vegetation. Feeling for its value had become stronger, partly through local conservationists' efforts, but also through increasing affirmation of the importance of the 'original 'Australian environment communicated in the large campaigns, including the battles for the Little Desert and Lake Pedder. It related to growing knowledge provided by botanists who studied indigenous plants and the ecosystems of which they formed a part. The second factor was the character of the Sandringham city council, which because of conservationists' efforts to support candidates with concern for the environment, had a majority of sympathetic councillors. This in turn led to the creation of the Flora and Fauna and Natural Environment Advisory Panel (FFNEAP, later the Natural Environment Advisory Group - NEAG) and to the employment of staff with skills and interest in the maintenance of the foreshore and inland bushlands. A third factor was the existence of networks within and beyond Sandringham and the

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presence on the committee of people with a diversity of skills and political experience who were committed to working to benefit both the environment and young people needing worthwhile employment. The fourth factor was the social and political context in which governments and organisations able to provide finance were manifesting greater interest in the environment.

At the local level, controversy developed over bushland in Sandringham. Urban activists responded to the concept of wild or special places in order to secure the reservation of land, which would otherwise be developed as factory or residential sites. A notable example in Bay Road had become the subject of concern in the 1970s. The National Trust landscape committee recorded discussions between the City of Sandringham and the Melbourne and Metropolitan Board of Works (MMBW) aimed at the creation of a 'Special Nature Conservation Zone' in the MMBW Planning Scheme. The committee referred to the Bay Road area described by Dr. Jim Willis as:

> a unique if fragmentary survival of an indigenous ecosystem that once extended from Melbourne to Westernport and covered the greater part of Sandringham City ... Grasses and lilies are conspicuous ... more than 40 species of native plants are known.

The committee worked toward site classification. In 1982, they achieved success as the reserve gained a 'Special Conservation A Zoning': a designation rare in urban settings. Named the Bay Road Heathland Reserve, the Sandringham and then the Bayside city councils managed the area, with volunteers undertaking additional work.

Geoffrey Goode on behalf of the Beaumaris Conservation Society (BCS) argued in February 1989 that since the council had placed a conservation zoning on the Bay Road land, the Gramatan Avenue heathland in Beaumaris should gain similar

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60 My memory is that Keith Tarrant, Jamie (later Professor Jamie) Kirkpatrick and I, having heard of proposed development, crawled under the surrounding fence of the area in Bay Road, east of Bluff Road, one Sunday morning in spring in the mid-1970s. We were impressed by a splendid display of heathland flowers, including masses of 'Egg and Bacon' Pea (Bossiaea cinerea) and, with others, worked to have the area declared a reserve.

61 National Trust Landscape Preservation Committee Minutes, 9 July 1980, UMA TURN 00851.

62 ibid.

standing. Sandringham council had owned the property since the late 1950s but leased it from 1960 to the Beaumaris conservationists. Goode pointed out that since the 1950s the conservation society members had 'carefully tended' the site and stated that it was a special vestige of 'Old Beaumaris' through which people could wander and discover wildflowers including Wallflower Orchids (*Diuris longifolia*) now rare in the suburbs. He argued that council could sell the land without public knowledge but that conservation zoning would require long term commitment and notification of any proposed changes. Finally, in 1990, in recognition of the reserve's value, the council resolved to accept management responsibility for the area.

In a further local example, Don Neale of BRASCA and Ken and Jill Rendell of the BCS developed a keen interest in the land to the east of the Gramatan Avenue Reserve, part of the Beaumaris high school grounds, situated at the corner of Balcombe and Reserve Roads. Popularly known as the 'Beaumaris Campus Heathland' and later as 'Long Hollow', the area 2.2 hectares in size, was home to the most diverse remnant of the Sandringham heathland with woodlands and a variety of heathland plants including Wedding Bush (*Ricinocarpos pinifolius*). Like the other bushlands it provided important fauna habitat. Originally part of the Dunlop Estate, the land was transferred to the education department in 1957. In 1959 Winifred Waddell, well-known for her knowledge of indigenous plants, requested that a sanctuary be established and the department agreed. By 1982, interested people, including Don Neale and the Rendells were working on a monthly basis in the area and under the name of the Beaumaris heathland advisory group, gave advice to the School council. The group created a conservation plan that meant mowing was limited and extensive clearing by the fire brigade did not occur. It implemented plans to inform relevant government authorities, politicians and the public about the area's importance, so that education department plans to dispose of the land were not implemented. Part of the 'modus operandi' is shown in correspondence between Don Neale and John Turner. Neale wrote\(^{64}\) that a recent *Age* article had reminded him of Turner's earlier interest in the heathland and expressed the need for greater public

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\(^{64}\) Don Neale, 25 Potter Street, Black Rock, to John Turner, 38 Campbell Street, Castlemaine, 30 August 1986, UMA TURN 00987. Neale identified himself as a former science lecturer at the Creswick School of Forestry, with which Turner had been involved as an examiner and board member.
interest and government action to guarantee preservation. He invited Turner to a forthcoming heathlands seminar on indigenous plants and pointed out the importance of the Beaumaris School area which local conservationists believed should be designated a reserve. Turner replied that he hoped to attend, but there is no record of his presence. Neale in a later letter referred to Turner's 1950s article about the local heathlands and expressed the hope that there would be another piece on that subject.

At the time of the seminar (24 October 1986), interest in the effects of fire had been aroused by the remarkable regeneration of trees and wildflowers at Anglesea, on Victoria's south-west coast, that followed the fiercely destructive fires of Ash Wednesday 1983. Neale commented on people's observations of indigenous plant life recovering from the 'terrible fires' and hoped that small mosaic burns in the Beaumaris land would achieve similar results. The Beaumaris high school group and Sandringham council later undertook controlled burning with successful results. In addition, a forest sanctuary and a nature trail were created with an associated brochure and teachers' guide. The seminar included a 'Wildflower Wander', led by Daintry Fletcher of the Sandringham council staff, a visit to the Royal Melbourne Golf Club to observe relatively undisturbed heathland communities and a discussion of the role of remnant heathlands in urban areas. The planners looked for practical outcomes, with a brochure advertising the seminar inviting people to:

Come and see the wildflowers that still survive in the midst of suburban Beaumaris and Sandringham. Participants will be introduced to ways in which the local community can contribute to the preservation of the beautiful and much treasured Sandringham flora.

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65 Turner to Neale, 8 September 1986, UMA TURN 00987. After moving to Castlemaine Turner was less involved in affairs in Melbourne.
66 Neale to Turner, 1986, UMA TURN 00987. The letter indicates the link between Turner and a City of Sandringham conservationist. It appears that Turner did not write the requested article, but his earlier piece remained as a source of information.
67 Fletcher, Bushlands, pp. 21-25.
68 Information sheet, 'Wildflower Wander', 26 October 1986, hosted by the Beaumaris High School Heathland Group, group leaders – Daintry Fletcher, Don Neale, Ken Rendell, Rob Saunders, UMA TURN 01073.
Conservationists were successful in their plans to gain official recognition of the value of the 'Long Hollow' area. In 1993 the Department of Natural Resources and Environment (DNRE) took charge of the land (Crown Land) with the local council appointed as committee of management and volunteers taking an active part in the care of the area. Conservationists, who combined their affection for local trees and plants with increased knowledge of their characteristics and the environment of which they were a part, used their determination and abilities in networking and lobbying to secure the reserve status of these lands and these areas became a recognised part of the landscape. The publication of *The Bushlands of Sandringham* provided further affirmation of the council's interest and support. Readers were invited to participate in work parties and to read the *Banksia Bulletin*, the informative journal produced by the Sandringham council and friends of the bushlands.\(^6^9\)

The Melbourne University Botany School maintained its more traditional forms of involvement in the public sphere during the 1980s with research into forest ecosystems, the Westernport region and ecological management, especially through state government agencies, including the Forests Commission, National Parks service, Soil Conservation Authority and the MMBW.\(^7^0\) Carrick Chambers in 1986, commented on the presence of senior staff, including himself, in government and semi-government community-based activities in both state and commonwealth areas and referred to Dr. Gretta Weste's work as chair of the International Congress of Plant Pathology organising committee for a conference to be held at Melbourne

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\(^{69}\) The development in knowledge of the bushlands of Sandringham is reflected in a table taken from the 'Preliminary Report - Flora survey of Melbourne 1986' by the Victorian Government Department of Conservation, Forests and Lands in which eight reserved lands (apart from the foreshore), described in the book, are given a rank relating to the significance of local vegetation. The Beaumaris Campus Heathland (commonly known as 'Long Hollow' was rated first with 120 indigenous species, including 21 considered rare on the metropolitan scale, Royal Melbourne Golf Links, second, with 90 indigenous species, including 6 rare on the metropolitan scale, Gramatan Avenue Sanctuary, fourth, with 55 indigenous species, 2 considered rare and the Donald Macdonald Reserve, eighth, with 18 indigenous species, three of which were rated rare.

\(^{70}\) Carrick Chambers Personal Submission to Review of Botany Department 1986, UMA CHAM Acc. 99.1 Box 7, and see Faculty Handbooks, 1980-1989, UMA. Special Collections.
University with 1200 delegates from 57 countries. 71 The report of the committee reviewing the Botany School affirmed its role, describing it as 'one of the oldest and largest Botany Departments in Australia' with approximately 80 staff. 72 It stressed the School’s prominent role outside the university in the maintenance and promotion of Botany as a cultural activity and contribution towards achieving national scientific goals. 73

Malcolm Calder's contribution to research within the Langwarrin Flora and Fauna Reserve, provides an important example of a Botany School member’s work outside the university and in the wider community within the bounds of Greater Melbourne. Originally established as a military reserve in 1886, the area was used in World War I - first as a camp for German prisoners of war, then as a hospital for AIF men returning from the Middle East and France with venereal diseases. 74 From 1908 to 1945 it was a site for grazing military horses, but a large part was relatively undisturbed bushland. Many interested people, including John Turner, worked for the reservation of the area. Finally in 1982 the Victorian government agreed to purchase the land from the commonwealth and in 1985 proclaimed the Langwarrin Flora and Fauna Reserve. The 214 hectares supports open forest and heathland, which includes 45 per cent of the plant species indigenous to the Mornington Peninsula. Some species, including the Silver-leaf Stringybark (Eucalyptus cephalocarpa syn cineria) and the Rabbit-ears Orchid (Thelymitra antennifera), are rare and the reserve provides for their survival and for research. Evidence of links between local people interested in the reserve and members of the Melbourne Botany School are apparent in the correspondence between Peter Chance, Secretary of the Langwarrin Reserve Conservation Committee and Turner (a committee member). Chance referred 75 to Turner's communications with Chambers and Calder, and

71 ibid.
73 ibid.
75 Peter Chance, 'Spring Hill', Langwarrin to John Turner, Castlemaine, 20 March 1986, UMA TURN 00828.
Calder's investigations into local terrestrial orchids. Calder's student, Simon Cropper undertook studies of pollination and other aspects of indigenous orchids, including Nodding Greenhoods and Sun Orchids, and later made work with indigenous vegetation his career.\textsuperscript{76}

This brief review makes it clear that personal influence and networks were important in moves to reserve this land, as they had been with the Cranbourne Botanic Gardens site. The Chance letters indicate networks with which he and the Langwarrin committee were involved and which they expected would contribute to the success of plans to gain status and sound management for the Reserve. Chance wrote of a planned visit from Paul Gullan of the Herbarium, Professor Tony Lee of the Monash University Zoology Department, Sam Dimnick of the Land Conservation Council, [Dr.] Norman Wettenhall (President of the National Trust Landscape Committee) and his wife Joan Wettenhall, Winty Calder (author of Peninsula Perspectives and of a study of the Langwarrin Reserve), and 'in rain and gusty wind, [Dr]. Jim Willis and his wife'. 'Also ... Dame] Elisabeth Murdoch.'\textsuperscript{77}

John Turner's love for plants was grafted to his studies in botany and ecology and work as an artist. In his later years, when from 1982 he lived in Castlemaine some distance from Melbourne, his concern for indigenous plants extended to membership of the Castlemaine Victorian Field Naturalists' Club, speaking engagements, participation in seminars and conferences and lectures to the University of the Third Age. Some of his contributions to the Age publicized the value of local plants. 'Native grasslands, backbone of this sunburnt land',\textsuperscript{78} recorded dismay at the train line verges between Sydenham and St. Albans, where a 'pleasant stretch of Garden State' ended abruptly to give way to 'a forlorn no-man's land, smothered in rank exotic grasses, great thistles, docks, flat weed and fennel, the whole decorated with a

\textsuperscript{76} See, for example, Cropper, The Vegetation in Native Bushland Remnants within the City of Bayside, Victoria, Botanicus, Melbourne, 1996. Cropper used the Ph.D. research of Botany graduate, Juliet Burrell in recommendations about Coastal Tea-tree.

\textsuperscript{77} Peter Chance to John Turner, 22 May 1982, UMA TURN 00828.

\textsuperscript{78} John Turner, 'Native grasslands backbone of this sunburnt land', Age Home Garden Page, Anne Latreille (ed.), 8 April 1986.
confetti of waste paper'. By contrast he was pleased to observe the native plant
reserves near St. Albans, an area to which he had taken botany students to see
remnant vegetation on the basalt plains. Turner recorded the project of Dr. Bob
Parsons, ecologist at La Trobe University in restoring grasslands in reserves and
roadsides, and Western Suburbs naturalists' care for the 'last remnant', including
*Theseda australis* (syn. *Theseda triandra*), the Kangaroo Grass. Margaret Stones'
illustration of Kangaroo Grass seed heads accompanied the article, and with Turner's
story, inspired me to purchase several plants of the species from the Sandringham
nursery and transplant them into our garden, where they flourished. It is impossible
to estimate the wider influence but growing local grasses in roadsides, reserves and
gardens has become more common.\(^79\) In the early 21st century, for example,
indigenous grasses flourish in plantations along the Geelong Road at the entrance to
that City and along the Bayside bike path.

One particular book published in the mid-1980s captures experiences and emotions
familiar to many of the people nurturing local plant communities in urban areas. A
former Botany School student, John Landy in *Close to Nature*,\(^80\) through illustrations
and descriptions of personal observations, communicates the value of the plants and
creatures presented. Photographs show many of the treasured wildflowers conserved
in reserves and a few gardens in the Sandringham, Black Rock, Beaumaris, Blackburn,
Langwarrin, Eltham, Warrandyte and other areas where people show interest in
indigenous plants. The picture of the dew-covered Waxlip Orchid - *Glossodia
major*\(^81\) contributes to Tommy Garnett's judgment of Landy's work: 'I know of no
popular book - and this surely must become a popular book- which so well makes
the often misunderstood word, "ecology" come alive.'\(^82\) Landy acknowledged Calder
and Ashton of the Botany School,\(^83\) and the book bespeaks the work of a scientist


\(^80\) John Landy, *Close to Nature: A Naturalist's Diary of a Year in the Bush*, Currey O'Neill Ross,

\(^81\) ibid., p. 96.

\(^82\) T. R. Garnett, 'Scientist's View Of A Drought Brings the Word "Ecology' to Life', *Age*, 8 March

\(^83\) *Close to Nature*, p.viii.
integrated with the experience of beauty and wonder. These were some of the important qualities that motivated the conservation of indigenous plants.

In the 1980s, many women and men joined these qualities, with considerable success, to political action in order to secure reserves and the implementation of practices to bring about regeneration. The national and international recognition of environmental issues was important in the creation of a climate that favoured the efforts of groups and individuals concerned to 'think globally, act locally'. They gained a sense of mission, particularly as environmental protection was often presented as an urgent need. They were prepared to take vigorous action in cases of contests over land use.

In the city of Sandringham, the decade was marked by initiatives that led to a higher public profile for indigenous plants. At the same time, conservationists expanded their knowledge of how to manage local flora and made successful efforts to improve the status of indigenous plant communities. Some residents accustomed to neat parklands still saw local bushlands as contested ground, maintaining dislike of indigenous foreshore vegetation. Council policy however, favoured the maintenance of Tea-tree, Wattle and Banksia. Co-operation between council and local conservationists became a recognised feature in strong contrast to the situation that had characterized the late 1960s. The work of the Natural Environment Advisory Panel continued to give scientific weight to council policies and actions. The Sandringham Environment Series remained as a valuable and readily accessible resource. Conservationists still faced problems due to weed invasion but many felt optimistic about the success of the community plant nursery, the health of the reserves and the likelihood that policies favouring the care of local vegetation would continue.

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84 Paul Kelly draws attention to the words of Graham Richardson, Environment Minister in the Labor Government (in 1989) 'We won't win the election unless we save Kakadu', to 'the universality of the environmental cause [which] was revealed when the hard right's hero Margaret Thatcher adopted it in 1988', to warnings by Norway's Prime Minister and to the words of Thomas Lovejoy, a biologist with the US Smithsonian Institute, that 'the great environmental struggles will be lost or won in the 1990s'. Kelly, *The End of Certainty*, p. 524.
At the end of the decade, it appeared that the Victorian State government would be likely to be supportive of conservation projects. It is doubtful whether anyone foresaw the new challenges that developed in the 1990s, with the election of a government more directed to new economic enterprises.
Bayside bushland reserves in Biodiversity month 2002

Long Hollow Reserve, Reserve Road, Beaumaris, Melbourne

V. Tarrant photograph

Gramatan Avenue Reserve, Beaumaris, Melbourne

V. Tarrant photograph
Conservationists at the Royal Melbourne Golf Club

In front of group at left, left to right – Lesley Falloon, Don Neale, Robert Lamb; at back – Jason Stewart, ?, ?, Ken Rendell; at right – Janet Ablitt, Elsie Pitman
21 October 1990
V. Tarrant photograph
CHAPTER 8

TOWARDS THE FUTURE: MAINTAINING BIODIVERSITY

The need to escape to natural areas ... is an obvious expression of a deep inner need for contact with a wider, non-urbanised environment. As our society becomes steadily more urbanised the necessity for meeting this need becomes greater as does the pressure on these same natural areas. If our children and their children as well as we ourselves, are to continue to enjoy the healing and peace of the natural world, our parks must have our support, the best management, and protection from exploitation. Jane Calder, 1990.1

A forest need not be vast and distant to be natural. Paul Kelsch, 2000.2

The Kennett Liberal Government elected in Victoria in 1992 implemented changes involving local councils and land. The Hamer years’ concept of ‘Victoria The Garden State’ (which had remained during the Cain and Kirner years) was replaced by ‘Victoria On the Move’. Policies favoured business and large events, amalgamation of local councils, privatisation of utilities, cuts in expenditure and reorganisation of the public service, including the national parks service. The new government approach to the environment can be illustrated by the proposals for new developments at Wilson’s Promontory, threatening what many ‘Prom’ lovers felt was the essential character of the National Park. Plans included more built accommodation, a large motel-style lodge on a high dune and a Tidal River Resort. Members of the Melbourne Botany School joined the Victorian National Parks Association and numbers of men, women and children in carefully planned protest campaigns. For example, Malcolm Calder, formerly Reader in the Melbourne Botany School, was a major speaker at a large public meeting held in 1996 at the RMIT University as part of the ‘Hands Off The Prom’ movement. Finally, the government dropped the most controversial proposals. The campaign’s success proved invigorating though not wholly satisfactory to conservationists who remained concerned about plans that could compromise the wild character of the park3 and about implications for urban reserves supporting valued indigenous species.

A more direct challenge to the indigenous plants movement lay in new government regulations which allowed for closer development within the metropolis, creating new challenges for environmentalists. This chapter is concerned with their responses to these changes, with particular attention to the case study of the city of Sandringham indigenous plants movement. The chapter also focuses on attitudes towards the natural environment in Australia and world-wide in the 1990s which embodied increased concern for urban remnant vegetation. It includes analysis of challenges and changes resulting from new policies and initiatives outside the Bayside area that both reflected and influenced attitudes and practices relating to local vegetation.

At the international level, world concern for the natural environment, including the preservation of plant diversity, gained impetus through the Earth Summit: The United Nations Conference on Environment and Development, held in Rio de Janeiro, from 3 to 14 June 1992. The conference drafted the program entitled Agenda 21. In the context of increasing world population, this document addressed concerns over global problems, including the continuing deterioration of ecosystems and disparities between living conditions in different nations. It suggested means of making improvements. Optimistically, the preamble concluded that the process marked the beginning of a new global partnership for sustainable development.4 Section 15, ‘Conservation of Biological Diversity,’ pointed to the current decline in biodiversity and the need for policies favouring the preservation of the world’s diverse plant population. These policies included rehabilitation of damaged ecosystems and recovery of threatened and damaged species.5 The city of Sandringham responded to the Earth Summit and Agenda 21 through the Sandringham Conservation Strategy,6 a project that included consultations involving council staff and members of the community and chaired by the mayor, Cr. Jim Bissett. The mayor affirmed the natural environment’s importance: his statement that

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5 Agenda 21 Conservation of Biological Diversity (a) Management-related issues, ibid.
the Sandringham community considered it to be 'its greatest asset'\(^7\) indicating the change in values that had occurred in the previous forty years. The report embodying the strategy evaluated indigenous flora as significant and highly valued, but pointed to gaps in knowledge which required action so that good management plans could be implemented. It supported the plant nursery and the conservation of remnant vegetation and encouraged the use of indigenous plants.\(^8\) The report, completed in November 1994, provides an important indication of the change in council environmental policy and practice, reflecting the efforts of the indigenous plants movement within the city and beyond.

The following month, Sandringham city and its council ceased to exist as the Victorian government continued to implement a policy of amalgamations. Brighton, to the north, parts of Moorabbin to the east, and Mordialloc in the south were combined with Sandringham into the new local government area of Bayside. Controversy and some apprehension surrounded the amalgamation process, which included the appointment of commissioners who replaced elected councillors. In Bayside, three commissioners ruled for over two years until the democratic elections of 15 March 1997. While efforts were made, partly through community consultations, to meld the citizens of areas with a number of different characteristics and traditions, many people felt the discontinuities and loss of collective identity.

As this thesis has shown, Sandringham city had developed a strong commitment to conservation of the natural environment in reserved public land and a history, since the early 1970s, of co-operation with volunteer conservationists. The natural environment advisory panel (NEAP), the community plant nursery, the *Environment Series* Booklets (presented free in a kit to every new resident), the *Banksia Bulletin* and the Sandringham conservation strategy were all important to the nurture of indigenous flora in the foreshore and inland bushland reserves. They provided encouragement and resources to local residents interested in conservation. Of these, the *Banksia Bulletin* and the nursery survived amalgamation, despite proposals to dispose of the nursery because of policies favouring the sale of assets. Positive developments indicating that people valued the local natural environment included

\(^7\) ibid, Foreword, unnumbered page.
the gradual increase in size and wider distribution of the Bulletin and Bayside council’s publication of Local Birds of Bayside⁹ (originally a city of Sandringham project). The ornithologist, Pauline Reilly, wrote in the foreword, nearly thirty years after the production of her Common Birds, that perhaps the planting of native species as well as the knowledge of the wonder and beauty of birds had encouraged residents to provide suitable conditions for birds whose numbers had increased. Reilly concluded that growing knowledge and interest could be another contributing factor to the increase of native birds.

In [the book] a reversal of the trend towards a reduction in the number of species is evident. Even allowing for the greater number of observers who contributed to the compilation of [the] present exhaustive list, it is probable that the planting of native plants has encouraged resident bird species to thrive, as well as new species to arrive. On a recent visit (I deserted the city years ago) I was delighted to see wildly screeching Musk Lorikeets rocketing through the flowering gums. Back in 1977 no parrot species was numerous enough to be included in Common Birds; today you can usually find five in a day if you are lucky.¹⁰

At the time - 1995 - developments in real estate which resulted in the bulldozing of many gardens and replacement with site-covering buildings and small exotic trees had barely begun. She added an optimistic paragraph, suggesting that ‘perhaps, as well as the planting of native plants the knowledge … of birds has encouraged residents to provide suitable conditions for the birds and to protect them from their pets’.¹¹

In the new city, the Banksia Bulletin remained as a vehicle for sharing information about local flora and other aspects of the natural world and about aspirations for the reserves. A councillor worked with council staff to edit the journal, friends of the reserves wrote regular reports about their aims and achievements and staff provided contributions. The Bulletin provided a calendar of events and work parties, contact details and a means of networking. It was important in the maintenance and creation of collective memory. Greater formalities attended the new city’s arrangements but there was some encouragement to friends’ groups, including those involved in the

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⁹ ibid., pp. 10-11.
¹⁰ ibid., p.3.
¹¹ ibid.
indigenous plants movement, with promotional material being updated and staff providing planning assistance. The Autumn 1995 edition recorded the efforts of friends of Cheltenham Park, a large bushland reserve that had formerly been part of the city of Moorabbin. The writer commented on problems resulting from the ‘poor maintenance practices’ of that city - disturbance of soil, lack of burns, and cover by environmental weeds - which meant that indigenous plants had become thin on the ground. Friends had made positive moves, however, to improve the quality of the area by planting stock from tubes propagated at the community nursery. At this time, people interested in undertaking work on the Brighton Dunes, now also part of Bayside, were awaiting official acceptance of a friends’ group. Nursery volunteers, in conjunction with council staff worked at propagation and regularly spent time on the foreshore and inland reserves, carrying out plantings, while several helped with sales to the public.

Changing government policies also saw changes to government supported work programs. During Bayside’s early years additional workers contributed to the reserves through the Landcare Environment Action Programme (sic) (LEAP), a 26 week project, somewhat similar to the earlier Sandringham Training and Employment Project (STEP). The project involved 30 young people aged 15 to 30, whose object was to work on the Hampton foreshore with erosion control and revegetation. Corrective Services provided another group of young workers who undertook weed control and other maintenance of the foreshore in co-operation with local conservationists and council staff, directed by Lisa Carty, the Bayside nursery and bushland supervisor.

As a move to increase ‘competition’ within government bodies the state government required that a proportion of a local council’s work should be open to competitive tendering (CCT). The move created new challenges in the management of the natural environment. The Bayside bushland crew, made up of many of the council workers from the original cities, put in a well-prepared bid but failed to win the contract. Local conservationists greeted with surprise and some dismay news of the

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12 ibid., p.6.
14 ibid.
appointment of an overseas company. BRASCA President, Janet Ablitt, wrote of being ‘saddened at the thought of having to work with a new management structure, which is displacing a group of capable and conscientious staff’, with whom she considered the association had built up a ‘trusting and co-operative rapport over the years’. ¹⁵ Despite considerable changes, a substantial amount of work in foreshores and reserves continued as a number of the original staff, enthusiastic about the environment and their work, gained employment with the overseas company, Manakau. ¹⁶ Bayside council’s role was to ensure that the contract standards were met, to provide production of the Banksia Bulletin, management of friends’ groups, natural assets and the community nursery. At this time there were fifteen friends’ groups, all advertising work parties. They included the friends of the Brighton Dunes, who received expert advice and encouragement from the botanist, Dr. Jim Willis (after whom the reserve was eventually named). The Chief Executive Officer of Bayside referred to the area as ‘an icon, a true icon, a remnant of our lovely natural foreshore’. ¹⁷ Interest in local fauna led to a proposal to form a Friends of Native Wildlife ¹⁸ (FONW) and the group, co-ordinated by Michael Norris, an editor of Local Birds, undertook research into local birds and mammals and supported the maintenance of indigenous vegetation which provided habitat. Such publicising of the value of the benefits of local flora in providing food and shelter for birds gave encouragement to the indigenous plants movement. Its members were disappointed, however, by the withdrawal of two work forces from the bushlands, resulting from the appointment of a private company to manage the reserves, and consequent removal of LEAP and Corrective Services workers.

Certain environmental concerns of the 1990s related to predictions of global warming and required large as well as small scale programs of change but others could be dealt with on a local level. The concern with the maintenance of biodiversity that developed in the 1990s had a direct impact on local groups working to maintain indigenous trees and wildflowers in urban areas. The Commonwealth’s

¹⁷ CEO, Peter Akers, quoted by Elizabeth McQuire and Jenny Talbot, ‘Friends of the Brighton Dunes’, ibid., p.8.
¹⁸ ibid., p.9.
Biodiversity: Nature’s Variety, Our Heritage, Our Future,19 drew attention to the depletion of species in Australia since European settlement, quoting a scientist and writer E. O. Wilson: ‘What we are doing to biodiversity is like burning Renaissance masterpieces to cook a dinner’.20 Biodiversity reflected growing concerns in the world and in Australia in particular, presented information and recommendations for conservation in an attractive manner and was widely distributed through the Commonwealth department. The booklet provided an international dimension by using the words of the well-known geneticist, writer and broadcaster, David Suzuki: ‘if we forget that eggs or hamburger came from animals, a cotton shirt from a plant, a wooden chair from a tree, then we have lost that connection with nature’.21 The main thrust however, was towards Australians, with the publication providing examples of sound environmental practices used throughout the continent. Writers emphasised the importance of maintaining a wild gene pool in order to retain opportunities to improve crops, defeat disease or create food dishes from the fruits of the bush. Readers were invited to grow native plants in their gardens and join bush regeneration groups - ‘make your garden a haven of biodiversity ... native gardens are cheaper because they use less water, pesticide and fertilisers’.22 Recommended reading included The State of the World 1998: Report on Progress towards a Sustainable Society23 and, in the interests of community action, the ACF publication Green Pages Australia,24 which listed over 800 environmental groups.

It is difficult to judge the effectiveness of such publications but Bayside and many other local government entities favoured the idea of ‘reduce, re-use, recycle’ and a number supported urban bushland regeneration.25 The booklet publicised the value of indigenous vegetation for reasons of biodiversity and water conservation and the Bayside community nursery plant sales of thousands of indigenous plants reflected

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20 ibid.
21 ibid.
22 ibid.
interest in local flora. However, majority attitudes changed slowly. Totally indigenous gardens remained rare although many people liked blended gardens, with a mix of indigenous, other Australian natives and introduced species. While some developers used Australian plants, numbers of real estate agents, property developers and commercial plant nurseries favoured exotic trees, shrubs and flowering plants, including Manchurian Pear, European Birch and introduced Daisies.

The Commonwealth Government expressed environmental concerns through substantial publications, most notably, *Australia: State of the Environment Report 1999* and its successor, *Australia: State of the Environment 2001*, which described problems and pressures on the environment and identified responses since 1996 to the pressures. Despite acknowledging improvement, the report stated that Australians still faced major challenges in the sustainable use of resources and in maintenance of both cultural and natural heritage. Important moves included the enactment of legislation embodying the principle of ecologically sustainable development, including the Environment Protection and Biodiversity Act 1999, the factoring by companies of environmental issues into decision making, the Regional Forest Agreement, the National Action Plan for Salinity and Water Quality and National Heritage Programs which had engaged almost 400,000 Australians in environmental projects including Landcare and Coastcare. The report claimed, however, that it was everyone’s business to care for the country so that the health of ecosystems on which life depends might be maintained. It pointed to the importance of urban local councils and of organisations working to maintain or improve biodiversity in their home areas. Sir William Deane, Governor-General of Australia (1996-2001), was featured in a coloured photograph adding an indigenous plant to his backyard garden.

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28 *State of the Environment, 2001*.

29 Ibid., p.1.

30 Ibid., pp. 1-2.

31 Ibid., p.3.

32 Ibid., p.4.
with children’s help. The picture was valuable through its creation of a positive image of a leading Australian nurturing local flora, but the question of how to disseminate knowledge of the importance of these matters and of how to turn knowledge into constructive action was not solved in the report and remains a key issue.

By the early 1990s, council staff with formal environmental qualifications had become an accepted part of the professional work force of local councils implementing conservation policies. Co-operation between council staff and volunteer conservationists became an increasingly important feature. Scientists’ expressions of alarm over the loss of plant species reinforced the concern for the maintenance of biodiversity and gave support to the aims of the indigenous plants movement. The city of Sandringham and conservation societies within its borders were determined to plant local stock in preference to ‘any natives’ in the foreshore and inland reserves and the policy continued under Bayside, being implemented and publicised in several ways. Friends’ groups, established in association with the council, became part of the planning process for the management of reserved land, and worked regularly in order to clear rubbish and weeds and undertake rejuvenation of the bushlands through plantings. Depending on the season of the year, activities also included seed collection and plant identification. Numbers of bird observers visited the bushlands for enjoyment, photography and to record observations. Leaders of friends’ groups formed during the previous decade included Don Neale of Black Rock and Ken Rendell of Beaumaris. Don Neale convened the community nursery group, whose members also gained tuition and guidance in nursery practice, Ken Rendell led the Beaumaris heathland group. The council’s commitment was demonstrated through its conservation officer and superintendent, who co-ordinated the Bay Road sanctuary volunteer guides and the friends of the George Street reserve. The officer was also responsible for the greenbelt conceived as an ‘urban forest’ linking the Bay Road and George Street reserves, a concept which had gained strong support from Dr. David Cockburn, a local optometrist, lecturer at Melbourne University and former Sandringham mayor and councillor.

33 ibid., p.72.
Networking and communication developed in several ways. The *Banksia Bulletin*, which circulated widely within Bayside and other Victorian cities and interstate continued as an important source. Within Bayside, friends of the bushlands and native wildlife, councillors and members of parliament received copies of the journal which were also available in libraries and at public events. In the management of reserves, council staff working in the bushlands and volunteer conservationists developed good relationships which proved important as each had different backgrounds and skills. Professionally trained staff shared knowledge with a number of local people whose contribution derived from observation and experience over a number of years. An example is seen in co-operation between the council superintendent of parks and conservation, Mark Collins, and the Beaumaris Conservation Society (BCS) secretary, Ken Rendell, following discussions after an accidental fire in late autumn 1994 at the Bay Road heathland reserve. The fire burned twenty per cent of the bush, including a recent planting by volunteers and council staff. Both Collins and Rendell were concerned at the accidental nature of the fire, which came at a time when funds were in short supply. There was also an expectation that bracken re-growth would threaten other regenerating plants. Collins pointed to the council’s policy of implementing controlled burns, by this time known to be essential for heathland regeneration, but these burns had been planned with care in order to ensure that the time was beneficial for re-growth, and labour for intensive weeding of invasive species available. Ken Rendell commented on the challenge of finding enough volunteer workers and Collins agreed to an application to council for additional funding, which proved successful.

Management practices could attract controversy: G. P. Edwards, writing from the viewpoint of a landscape architect, commented on the value of indigenous vegetation communities and problems associated with their survival. He considered that land managers’ massive lack of knowledge and the adoption of inappropriate practices, such as growing exotic grasses, constituted a major problem. He described common unsatisfactory practices in bushland management and supported the use of controlled burns, the Bradley method and seeding in some circumstances. He judged that ‘most

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34 ‘There’s life after fire at reserve’, *Sandringham - Brighton Advertiser*, 1 June 1994.
if not all remnants in ... the Melbourne metropolitan area are doomed'.

Nevertheless, as this study has shown, the picture in the city of Sandringham, at the start of the 1990s, was less gloomy. The more optimistic outlook derived from the combination of scientific knowledge, particularly that provided by Dr. Jim Willis, the appointment of staff who had knowledge and skills in propagation, weeding, planting and in co-operating with local people, and the conservationists’ long history of practical involvement.

Ecological burns at Bay Road, Beaumaris, and George Street reserves provide evidence of increased knowledge and satisfactory practice. Since most Australians are frightened of the destructive results of bushfires, a burn within a suburban area required careful planning before it could become reality. Council staff and volunteers held meetings with residents living close to the reserve designated for a burn, door-knocked each household on the day of the fire and worked with Fire Services to ensure adequate control of the flames. The burns demonstrated that seeds, dormant for decades, would germinate after fire and this kind of regeneration was likely to be closest to the vegetation that had flourished before European settlement. Because non-heathland plants, including Coastal Tea-tree and Coastal Wattle seedlings, invaded newly burned areas in great numbers, careful weeding was needed if the heath were to survive. The process also meant that an area managed in this way possessed scientific and educational as well as aesthetic and recreational value. The ‘burn and weed’ style of management proved to be successful provided the burns did not occur before plants were sufficiently mature to set seed and before they became too old (or senesced). This approach was similar in some ways to the Bradley method which allowed for weeding and giving local plants opportunity to grow and re-colonise open areas, but did not allow for planting. This style contrasted with the ‘weed and plant’ method, which had been adopted by the conservation groups for decades in the interest of what was considered to be regeneration of the bushlands and foreshore, and in which the community nursery played an essential role. This latter practice has been questioned on the grounds that it could undermine the

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36 ibid., p. 132.
George Street Reserve Control Burn and Regeneration

Preparation for the Burn in Tulip Street. V. Tarrant photograph 28 March 2000

The Fire. P. Reynolds photograph

The Ash-bed immediately after the Fire
P. Reynolds photograph

Regeneration Indigenous Wildflowers, Grasses and Sedges in the Burn Site. Spring 2001, V. Tarrant photograph
educational and scientific value of a bushland ‘restored’ or ‘regenerated’ in this way.\textsuperscript{38}

In the cities of Sandringham and Bayside, controlled burns worked well; uncontrolled burns usually resulted in regeneration.\textsuperscript{39} In both cases weeding of invasive species was recognised as essential so the heathland plant communities could survive. In places where the process of in-fill planting was undertaken, the indigenous plants flourished, providing vandalism and drought did not cause their demise, though not necessarily in the communities of which they would once have been a part. An appropriate name for such kinds of regeneration is, I believe, ‘rejuvenation’, since an area is made ‘young again’ with the trees, shrubs and small flowering plants of the locality, but the original communities are not restored or regenerated. In many cases, this ‘rejuvenation’ has seemed to be a ‘best-case scenario’. For example, on foreshore cliff faces, weeding usually needs to be followed quickly by planting otherwise erosion occurs. In other places the seed bank may not have survived. Hence, managers and volunteers have decided that growing ‘any indigenous plants’ is preferable to letting bushland be replaced with introduced species, either from overseas or from other parts of Australia. People who feel affection for the wildflowers that once grew in profusion have learned that disturbance may result in extinction especially in the case of terrestrial orchids. They have mourned the losses and celebrated the survival of the Greenhoods, Waxlip and Donkey Orchids that live in small patches in the reserves and have done their best to ensure their survival.

In maintaining biodiversity, golf courses have been important as a means of survival and nurture for wildflowers and other indigenous flora. In recent years golf course staff have provided seeds to the Bayside community nursery and bought its plants. Numbers of local species still flourish in the rough of golf courses, particularly those of Melbourne’s ‘sand-belt’, of which Sandringham and now Bayside cities have


\textsuperscript{39} Uncontrolled burns occurred occasionally as in late 1984 when boys failing to butt out cigarettes in the George Street woodland caused the fire which, to the surprise of all who mourned the loss of the Tea-tree, caused regeneration of the famous Sandringham heathland flora and led to important new learning and management practice.
made up a part. While golf courses are known for their sporting facility, in recent years there has been an emphasis on their value as sites for remnant vegetation. The Royal Melbourne Golf Club, Cheltenham Road, Black Rock, designed by the skilful and imaginative Scot, Dr. Alister McKenzie,\textsuperscript{40} is notable for the survival of local trees, shrubs and smaller plants and for planning and management practices which ensure their on-going care. The club became an important source of seed and cuttings for propagation in the community nursery, and the nursery in turn provided stock for plantings in the golf course. The club council demonstrated its awareness of environmental responsibility in 1988 by engaging the naturalist, Daintry Fletcher Gerrand, author of \textit{The Bushlands of Sandringham}, to compile a register of indigenous vegetation of both the 18 hole courses and to provide recommendations as to preservation and regeneration.\textsuperscript{41} Fletcher judged that the survival of significant remnant vegetation was a tribute to the club and considered it had an important opportunity ‘to set an example for modern golf course management in the preservation and management of indigenous vegetation as an important component of the golfing landscape’.\textsuperscript{42} Royal Melbourne implemented the recommendations. Jim Porter, a graduate of the Melbourne University in Agricultural Science and student at the Burnley Horticultural College, became course superintendent in 1989, and developed close links with the Sandringham council’s bush crew, with the community nursery and with local conservationists. These links continued after the establishment of the Bayside city council.

In a celebratory study, Joe Johnson’s centenary history of the club presented fine colour photographs of wildflowers found on the course with lyrical descriptions of their character and beauty.\textsuperscript{43} Johnson wrote of ‘a wonderland of Australian flora and bird life’, pointing out that ‘in an age of increasing environmental awareness’ the club council was becoming more concerned to see itself as holding stewardship for the land and had recognised the need for protection and enhancement. Of the 120 species of local flora, fifteen were classified by the state department of Conservation,

\textsuperscript{41} ibid., p. 186.
\textsuperscript{42} ibid., p. 187.
\textsuperscript{43} ibid., pp. 190-191.
Forests and Lands as ‘indigenous species significant on the metropolitan scale’. A number of orchids, rare in the district, flowered regularly:

In springtime, especially ... parts of the course turn on incandescent displays of native flowers. Before the tee of the 3rd West, for example, yellow drifts of Everlasting Daisies compete with brown and gold Eggs and Bacon for a place among the Kangaroo Grass and shimmering Spear Grass, while Chocolate Lilies, white Milkmaids and yellow Goodenias flourish extravagantly ... on the fifth ... your heart should be uplifted by the sight of the most majestic Swamp Gums on the course.

Relations between Royal Melbourne and local people involved in enjoying and conserving local flora have been strengthened by the annual walks organised by Lesley Falloon, a club member (former mayor of Sandringham and a founding member of the Hampton Planning and Conservation Association). From the 1980s, through ‘word of mouth’ communication about the walks, men, women and children have gathered early on a Sunday morning in spring and, with the club’s agreement, have walked in the wildflower areas and learnt about the plants and current management practices. Initially, local identities with considerable botanical knowledge (including Dr. Jim Willis and Don Neale) led the walks. Later, Jim Porter or other skilled specialist staff acted as leaders, sharing their intimate knowledge and explaining new practices such as direct seeding, whereby seed is scattered on to the ground and left to germinate. They also opened discussions about controversial issues such as the debate over Coastal Tea-tree. In the 1930s, Tea-tree had been planted between the fairways and many members considered it as part of the heritage of ‘their place’, so opposed plans to clear the trees, even though research had established that the species originally belonged closer to the shore. The same issue has arisen in other areas, where residents have become used to Tea-trees in public places as well as in gardens and do not want them removed. Management decisions usually favour compromise, except where the main objective is to re-grow the heathlands.

44 ibid., p.185.
46 See Johnson, p. 105.
A number of other golf clubs in the state of Victoria, including those in the Bayside ‘sand-belt’ have adopted policies of conserving indigenous vegetation communities and of planting stock from the community nursery. These include, Victoria in Cheltenham, and a number of other courses managed by Michael Clayton. Clayton, a golf professional with a career in national and international tournaments, believes that the best courses are those ‘that have remained faithful to their natural surroundings’. He supports the use of indigenous plants both because they belong, because of their water saving capacity and because they are likely to provide habitat for native fauna.  

Local grasses are planted in the rough; Weeping Grass (Microlaena stipoides) has proved popular, although it is not suitable for greens. At Woodlands, south of Bayside, club policy favours the maintenance and improvement of local flora. River Red gum, Coastal Manna Gum and Black She-oak are important flourishing trees and indigenous wildflowers and grasses have been planted.

Professionally trained men and women gained an increasing role as consultants and council’s decision to appoint consultants to undertake a ‘Flora and Fauna Survey and Management Guidelines Project’ constituted an important move towards gaining accurate up-to-date information about the reserves and their vegetation. The report from Simon Cropper of Botanicus became a kind of ‘bible’ for council staff and the friends’ groups. Cropper (a graduate of the Melbourne Botany School), carried out further research and played a particularly important part in providing detailed information with an historical perspective and in recommendations about the timing of controlled burns. Public consultations about management plans were also held.

The interests and policies of the local government authority were critical in the maintenance of creative conservation, including the value placed on indigenous

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49 Lisa Milley, ‘From the Conservation Officer’, ibid., p.11.
51 Personal knowledge from work as a Convener of the Friends of George Street and the Urban Forest and attendance at controlled burns there and at the Gramatan Avenue and Bay Road Reserve burns.
52 ibid.
vegetation communities. Conservationists built on experience gained since the late 1960s and campaigned in the first Bayside city council elections, held in 1997, on behalf of candidates with a concern for the natural environment. Several were elected. Graham Disney, local businessman and co-author of the Bi-centennial city of Sandringham History, *Bayside Reflections*,\(^5\) was elected mayor. Vivien Kluger, supported by the Beaumaris Conservation Society and the Black Rock and Sandringham Conservation Association, became a councillor and chaired meetings of a newly formed community nursery steering committee. In the context of uncertainty about the future of the nursery, because of moves to sell council assets, the committee investigated options, remaining determined to keep the nursery within the city because of its vital role in ensuring the propagation and planting of indigenous species. Finally, the Bayside Environment Co-ordinator, Michael Coleman, presented to council a report on ‘Bayside Community Nursery Options’\(^4\) which recommended that council confirm its commitment to the nursery and its retention at the present site for the time being. He reported on its history and value, annual production of 50,000 plants and on the work of volunteers. He raised issues relating to management and to the site, which could be sold. Hence, a review was undertaken and in the ensuing months, steering committee members visited various possible sites and lobbied councillors on the subject of the nursery’s value and its role as part of the cultural, social and natural heritage of the area. Peter Hamilton, teacher of environmental science at the Sandringham Secondary College, produced a carefully documented proposal\(^5\) that the nursery should be moved and re-established within the college grounds so that students would benefit from the opportunities provided. Hamilton pointed to the success of environmental studies courses run at the college for seven years, at the involvement of students with the local bushlands and with propagation and planting and to the employment of two ex-students by Manakau works, one of them at the nursery. He saw the opportunity for a mutually beneficial partnership, arguing that it was unlikely that the College site would ever be sold. The steering committee concluded that the best and most secure option was

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53 Disney & Tarrant, *Bayside Reflections*.


first, to retain the nursery in the established location at the corner of Reserve and Talinga Roads, Cheltenham, make plans for up-grading facilities and the increase of production so that a better income could be generated; second, that the service provider, at the time, Manakau Works, should provide management and that volunteers should continue their work. Gala day sales were planned and widely publicised, and held successfully in Beaumaris and within the nursery itself. In February 1999 the manager, Carmen Skrobonja, reported a target for twelve months of 124,244 plants of which 120,344 had been propagated.

After a period of uncertainty over the future of the nursery, the council accepted the recommendations and since then considerable improvements have been made and an adjoining house provided as a centre for seed storage, library, sales and meetings. Carmen Skrobonja’s presence has provided continuity, as she was earlier an employee of the Sandringham council and responsible for nursery-propagated indigenous plantings at the Black Rock Corner, foreshore and shopping centre, then successively, a member of the staffs of Manakau, Excell and City Wide - the Bayside council’s service providers or contractors. Erika Anderson, Skrobonja’s deputy, has also provided some continuity as she was involved with the nursery as an environmental science student at Sandringham Secondary College, then as member of staff. Both these women work regularly with volunteers in the nursery and in steering committee meetings, sharing their skills and enthusiasm. Council staff are also involved in meetings and management decisions, with Amy Weir, Bayside’s Environment Research Officer, working as organiser and publicist, and with a councillor⁵⁶ acting as chair. Links forged over a number of years have made valuable contributions to the success of the community nursery, which has been an essential part of the indigenous plants movement in the area.

The first elected Bayside city council official statements affirmed the importance of the natural environment,⁵⁷ claiming, ‘We work closely with the community on environmental issues’. Action which turned the rhetoric into reality included the

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⁵⁶ The three councillors who successively chaired nursery committee meetings were Crs. Vivien Kluger, Nicholas Eden and Derek Wilson. All were supported by local conservationists, and maintained their concern for the natural environment.

facilitation of the operation of friends’ groups, with the service provider, Manakau Works, acting as co-ordinators and 1250 volunteer days undertaken. A major re-vegetation burn at the Donald MacDonald Reserve, Black Rock, and planning for work on Hampton beach and foreshore (jointly funded by the council and state department for natural resources and environment) were also carried out. A coastal strategy was developed with community consultation, plans for six of the bushlands areas completed or reviewed and a new local law for the protection of trees introduced. These were benefits. However, when ‘the Bayside Corporate Centre’ was opened in February 1997 by Robert Maclellan, the Minister for Planning and Local Government, some ratepayers felt concerns. The minister said the centre would provide a ‘state of the art customer service desk staffed by specially trained customer service officers’ skilled in answering questions, but many local people considered that the effort to transform them from citizens to customers, and to corporatise local government, did not necessarily mean that the environmental issues they saw as important would be adequately addressed.

Changes to planning laws came to be of particular concern, as properties were subdivided, closer building allowed and a number of trees and gardens were bulldozed. Following amalgamations and changes to planning laws, the Save Our Suburbs organisation (SOS) in a number of Melbourne suburbs, operated as an important lobby group. BCS president, Val Ross, maintained a close relationship with SOS and played a powerful role in leading protests in Beaumaris where the numbers of conservation society members grew to over one thousand. Residents further north created the Black Rock Association for Responsible Development (BARD) and Brighton Residents for Urban Protection (BRUP). As well as finding problems with changes to the character of suburbs, many Bayside members and supporters of these groups felt concern over attitudes to the foreshore bushlands as some developers and new residents considered their views over the Bay to be more important than conservation of the vegetation.

Correspondence in local newspapers provides an indication of attitudes and the nature of controversies. For example, tree felling on the coast became a problem. The

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58 ibid., Chief Executive Officer’s Report, unnumbered page.
Bayside Advertiser (one of the Leader group) gave space to information and opinions. The Advertiser reported the felling of three trees - mysteriously cut down on the foreshore at Beaumaris - and commented on the Bayside council’s concerns. The council set up an inquiry into who felled the trees and Moysey Ward councillor, Ken Beadle, stated that a fourth tree, a Banksia at least 80 years old, was also damaged in the attack: ‘This is one of the worst cases of deliberate destruction of our wonderful foreshore ... The destruction of trees to improve bay views is a social crime and council will prosecute offenders’. Beadle added that council had erected signs at the scene offering a reward of $10,000 to anyone who had information. The BCS President, Ted Pearce, recorded that he had been ‘appalled by such a blatant act of vandalism’. Cr. Beadle received support from conservation societies in his election campaign and maintained a concern for the bushlands. Geoffrey Goode sent e-mails to members of BCS and others alerting them to similar attacks and suggesting, ironically, that they could commiserate with new owners of properties opposite the felled trees because they had lost fine vegetation and protection from cold southerly winds.

A Hampton resident, Mark Dymiotis, reacted to the promotion of biodiversity in urban areas, arguing that the foreshore had ‘lost its natural status when the Bayside area was settled’. Dymiotis favoured Cypress which, he argued, withstood salty winds and drought and provided better protection from the sun than Banksias. He also considered that residential areas were inappropriate places for wildlife. Jenny Talbot, co-ordinator, ‘Save the Trees’, accused Dymiotis of a ‘strange ignorance of Australian cities’ which had evolved differently from European cities and were places where native trees, birds, reptiles and mammals could flourish in backyards.

61 Mark Dymiotis has publicised his own important work in growing and cooking food, partly as a contribution to sustainability, but has not favoured indigenous species.
62 Dymiotis, Bayside Advertiser, 4 October 2000.
64 Dymiotis, ibid., 4 October 2000.
65 ibid.
66 Jenny Talbot, Bayside Southern Cross, 11-17 October 2000.
Dymiotis remained critical of conservation groups and stated that for sustainable indigenous biodiversity it was best to increase the size of ‘pristine wilderness areas - wildlife’s natural habitats’.\(^{67}\) Michael Norris replied to Dymiotis’ arguments, referring to the state significance of local reserves, plants and birds and pointing out that national parks also faced threats.\(^{68}\) He invited him to stop attacking people who knew about local conservation and visit the heathlands to discover their peace and beauty and learn about urban biodiversity. Dymiotis eventually conceded that certain areas needed protection for the education and heritage value of their indigenous vegetation,\(^{69}\) but maintained a preference for introduced vegetation. The controversy reveals ongoing resistance to local conservationists’ ideas. It also highlighted the belief that even relatively small areas containing indigenous plants were important and that ‘wild nature’ existed within urban boundaries and not only far away in national parks.

Bayside council’s implementation of campaigns to create awareness of environmental issues, including the value of local remnant communities, demonstrates the influence both of the world-wide concern for the loss of species and the success of conservationists, including the indigenous plants movement. The council organised celebrations of Biodiversity Month, which incorporated guided walks through reserves and opportunities to study flora and wildlife, thus supporting the concept that nature was close to home and not something ‘out there in the wilderness’. Tim Low later addressed this issue in his *New Nature*,\(^{70}\) providing evidence to support his claim that nature is ‘all around us … The wilderness begins right here where we live’. Low recorded that ‘in Melbourne a mistletoe (Muellerina eucalyptoides) hangs from a plane tree in Collins Street’, one of the city’s main thoroughfares. Bayside council’s corporate plan for 1999-2000 pointed to the value of natural areas, stating council’s goal of aiming to enhance and preserve the unique coastal environment and adopt a foreshore master plan.\(^{71}\) Detailed aims included


\(^{68}\) Michael Norris, *Bayside Southern Cross*, 11-17 October 2000. Michael Norris was Co-ordinator of the Friends’ Groups of Bayside, a member of the Bayside Environment Action Group (BEAG) and co-ordinator of the Friends of Native wildlife (FONW).


raising community awareness and appreciation of natural assets, enhancement and maintenance of bushlands, development of habitat corridors to foster the survival of indigenous flora and fauna, facilitation of the work of friends in remnant vegetation areas, preparation of manuals for bushland management and plans to seek state government funding for bushland initiatives. Council’s statements and actions, the Biodiversity Month activities, guided walks and nursery gala days all contributed to the fulfilment of these aims. The establishment of large illustrated signboards, which pointed to the value of indigenous flora and the role of the land as habitat and for recreation and study, was important in rasing the consciousness of residents and visitors. Bayside gained recognition through winning a number of The Keep Australia Beautiful City Pride awards, including, the media award (three years running) for the Banksia Bulletin, and the Landcare Award for the regeneration of the George Street reserve. The George Street reserve was among four finalists for the national Banksia Award, and other reserves were recognised. These were all affirmations of work for the care of indigenous vegetation. Due to certain changes, however, conservationists became concerned about new pressures on the natural environment of the city. The two main reasons for their concerns were that new residents arrived from suburbs with different environments and did not always value the conservation of indigenous plant communities, and that closer development involved bull-dozing gardens, including bush gardens.

Information about the state of the planet and incentives for improved practices were presented through the media and gave support to the indigenous plants movement. David Bellamy and David Attenborough from Britain, for example, influenced Australians to value the natural world. Audiences learned from David Suzuki's lectures, broadcasts, television programs and books. Suzuki, a geneticist, became a world authority on the fruit fly and gained a reputation as a broadcaster. His work as a scientist lent credibility to his statements and added weight to the efforts of those concerned with conservation. As moderator of the CBC TV science show, 'The Nature of Things', he reached audiences in 40 nations with an average of 1.8 million viewers watching each episode, and was awarded the United Nations Environment

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Program Medal. Titles of two books published in the 1990s indicate something of Suzuki’s thinking - *Learning To Think Environmentally While There Is Still Time* \(^{74}\) and *The Sacred Balance: Rediscovering Our Place In Nature*. \(^{75}\) *The Nature of Things*, the first program in his four part television series, *Sacred Balance*, aimed to prove to Australian viewers the necessity of taking into account the interconnectedness of life on earth. \(^{76}\) His warnings about the dangers of developments that ignored relationships that contributed to healthy environments were reminders of the work of the Ehrlichs and Lovelock, discussed in earlier chapters of this thesis. Suzuki’s television programs, his interview by Robin Williams on the ABC Science Show, his public lectures in Australia and his books influenced many people, including Bayside conservationists.

Despite increased knowledge of environmental problems and a number of positive moves, destructive practices have continued throughout the world. These include the clearing of tropical forests and large stretches of inland Queensland, over-use of irrigation leading to salination and the spreading of chemical fertilisers and pesticides that resulted in toxic run-off to valued areas including the Great Barrier Reef. It appears that such problems require the kind of large scale solutions that lie only within the capacity of governments or global companies. For many people, small-scale projects, undertaken by individuals, groups or local councils in urban areas, such as Bayside, have been hopeful signs that they can assist the maintenance of a healthy, sustainable environment.

Initiatives within Greater Melbourne, many on a small scale, contributed to the value placed on indigenous vegetation and to its conservation. It is not within the scope of this thesis to investigate the courses \(^{77}\) at TAFE colleges and universities that provided education in this field, although such education was important to the work of men

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\(^{77}\) Study of the role of TAFE courses in environmental management would require an entire thesis.
and women employed by local councils, companies and other bodies and to members of the public.

From the late 1970s, when the Sandringham Community Plant Nursery was established, numbers of groups and individuals have initiated projects with similar objectives. The Victorian Indigenous Nursery Co-operative (VINC) originally set up in 1985 in Brunswick at the Centre for Education and Research in Environmental Strategies (CERES) moved to Yarra Bend, Fairfield in the 1990s, continuing the work of propagating the flora of the northern and western suburbs of Melbourne. VINC has been an important source of plants for re-vegetation in the Merri Creek, Yarra and Plenty Rivers and for councils, schools and the general public of their area. Unlike the Sandringham and Bayside nurseries, it is a non-profit co-operative run by a board of management with both volunteers and paid staff. VINC runs monthly meetings with speakers, to which the public is invited, and organises information days and plantings in the Yarra Bend Park. Like their counterparts in other places, members publicise the use of indigenous plants in order to encourage birds, butterflies and frogs, restore local character and reduce maintenance. Closer to Melbourne’s centre and near the shores of Port Phillip, the St. Kilda Indigenous Plant Nursery Co-operative (SKINC), originated with Rob Scott working in a glasshouse in the St. Kilda Botanic Gardens. Community members became involved, beginning a bush nursery and establishing plantings at the West Beach Breakwater site. In 1995, Rob Scott suggested the formation of a co-operative and the St. Kilda Indigenous Nursery Co-operative (SKINC) was founded and established at the old Port Melbourne nursery area in Williamstown Road. Members work regularly in the nursery and welcome volunteers. They advertise sales to the general public and encourage the use of bush foods.\textsuperscript{78} The nursery has provided plants for Earthcare projects and fills a regular contract with the Port Phillip Council (established during the amalgamation process and containing the former City of St. Kilda). SKINC people maintain contact with their counterparts in other regions, including Bayside.

\textsuperscript{78} The increasing use of native plants for food is reflected in the publication of books, including Keith and Irene Smith, \textit{Grow your Own Bush foods}, New Holland Publishers, Australia, Pty. Ltd., Sydney, 1999 and through the work of the botanist, Beth Gott, based at Monash University. See Nelly Zola and Beth Gott, \textit{Koorie Plants, Koorie People: Traditional Aboriginal Food, Fibre and Healing Plants of Victoria}. 
Indigenous plant nurseries, from the late 1970s, grew in number demonstrating increasing interest in local vegetation. In 1978, the Sandringham nursery was a pioneer; by 2002, the Indigenous Nurseries Network\(^7\) listed sixty in Victoria, the large majority being situated in Greater Melbourne. The existence of this network and of a second ‘overarching’ and active organisation, the Indigenous Flora and Fauna Association (IFFA)\(^8\) provides further evidence of interest. IFFA\(^8\) included amateur and professional members, from backgrounds in botany, zoology, ecology, horticulture, environmental management and education. It was dedicated to the conservation of Australian plants whether in large habitats of world heritage status or in urban home gardens. IFFA has produced 11 issues a year of the Newsletter, *Indigenotes*, the publication providing information about groups, plant provenance, and urban conservation, and relevant book reviews. The organisation also set up meetings and conferences, including ‘The Great Plains Crash’ grasslands conference sponsored jointly with the VNPA in 1993, drawing attention to the disappearance of these distinctive species.

In the field of learning about the environment, the foundation in 1998 of the Australian Research Centre for Urban Ecology (ARCUE) was a milestone in research into indigenous plants in urban areas. ARCUE received funding from the Baker Institute and was a part of both the Melbourne University Botany School and the Melbourne Royal Botanic Gardens. The director, associate professor Mark McDonnell, and the staff have expressed a broad view of the term ‘urban,’ judging that it includes corridors of growth as well as the main built-up area of a city. ARCUE undertakes basic and applied research, undergraduate, honours and postgraduate education, ecological studies and community education, and provides advice to government and consultancy services. It stresses the importance of minimal disturbance if indigenous vegetation is to be conserved and investigates human impact, the effect of naturalising weed species and sound methods of preserving native plants. An early part of the centre’s work involved a forum, in conjunction with Greening Australia (Victoria), ‘Directions in Revegetation and Regeneration in

\(^7\) Indigenous Nurseries Network, Roger Jones, rogerjones@dar.csiro.au Accessed 9 November 2003; site up-dated 29 April 2002
\(^8\) http://home.vicnet.net.au/~iffa/info.htm.
Victoria,' and the later publication in book form of the Proceedings.\textsuperscript{81} The volume embodies the important project of documenting the diversity of people and organisations involved with indigenous vegetation, and provides a map\textsuperscript{82} relating to a number of the relevant locations as well as descriptions of work undertaken. It also examines policies and possible future directions. ARCUE members have been involved with Bayside through studies in the Bay Road Heathland and the George Street and other reserves.\textsuperscript{83}

ARCUE contributed to the ground-breaking \textit{Indigenous Plants of the Sandbelt: a Gardening Guide for South-eastern Melbourne},\textsuperscript{84} which included work by two people from the centre - Jeannie Campbell and Nick Williams - and a foreword by the director, Mark McDonnell. He claimed that in recent years there has been a 'groundswell of interest and appreciation in (sic) Australia's indigenous species'.\textsuperscript{85} The book was in response to this groundswell and designed to provide gardeners with essential knowledge of local plants, reasons for growing them in gardens and basic information about the geology and original vegetation of the area. An unusual co-operative effort led to publication which was due to support from several local councils - Bayside, Glen Eira, Kingston and Port Phillip - as well as Coastcare, Earthcare, Parks Victoria, Port Phillip Ecocentre, Excell (Bayside's Contractors responsible for the provision of a manager for the community nursery)\textsuperscript{86} and ARCUE. The fine colour photographs and maps add to printed information and the book provides an excellent successor to the earlier and smaller Beaumaris and city of Sandringham publications. The list of more than thirty community environment


\textsuperscript{82} Ibid., p.4.

\textsuperscript{83} Michael Norris used their bibliography of publications about Melbourne's biodiversity in a \textit{Banksia Bulletin} article: 'ARCUE:: the Australian Research Centre for Urban Ecology', \textit{Banksia Bulletin}, Autumn 2003.

\textsuperscript{84} Rob Scott et.al., \textit{Indigenous Plants of the Sandbelt}, Earthcare, Melbourne, 2002.

\textsuperscript{85} Ibid., p.v.

\textsuperscript{86} The Bayside Community Nursery Steering Committee responded to a request from Rob Scott by recommending that a sum of $2,500 be provided by both Bayside and Excell. Community Nursery steering committee, minutes of meeting, 19 October 2000, V. Tarrant collection.
groups in the region indicates the interest and effort relating to the indigenous plants of the region.\textsuperscript{87}

The book is dedicated to the memory of Stefanie Rennick, ‘a champion of indigenous flora and fauna’.\textsuperscript{88} Stefanie Rennick was a bushwalker, naturalist and an initiator of many creative projects in the world of indigenous plants. One of her great loves was the Arthur’s Seat-Green’s Bush area close to Port Phillip and Western Port Bays and she played a major role in the production of a \textit{Guide to the Peninsula} as well as in the establishment of the Two Bays Walking Track.\textsuperscript{89} Stefanie Rennick worked as a volunteer in the Bayside community nursery as well as initiating programs for indigenous plantings by school children. She was a great believer in the value of re-vegetating the land adjoining railway tracks\textsuperscript{90} with indigenous plants and worked with Rob Scott to this end. She used every means in her power, while lobbying councillors and politicians, and came to be an expert with modern technology, finding particular value in the Viridans’ production of a CD Rom, ‘Wild Plants of Victoria: the encyclopaedia’, developed by Viridans using the extensive databases of Natural Resources and Environment’. Her home was easy to find among the mown nature strips and traditional gardens and houses of East Bentleigh. Instead of the usual stretch of grass outside the front fence, she had planted a splendid array of local trees, grasses and wildflowers, carefully labelled so that neighbours and passers-by could discover something of the characteristics of the original flora of the district.\textsuperscript{91} A seat in the Bayside nursery is dedicated to Stefanie Rennick’s memory.

\textsuperscript{87} \textit{Indigenous Plants of the Sandbelt}, p. 146.
\textsuperscript{88} ibid., p.iv.
\textsuperscript{91} V. Tarrant visit to Rennick home, Spring, 2000; and see ‘Stefanie Rennick: Conservationist created nature-strip grassland. Teacher, nature lover, born 27 March 1918, died 3 January 2001’, \textit{Age Obituaries}, 24 January 2001 (unsigned article).
Further examples provide evidence of the diversity of contributions to the indigenous plants movement. The substantial *Flora of Melbourne: A guide to the Indigenous Plants of Greater Melbourne*\(^{92}\) resulted from a seven year project undertaken by a group:

committed to seeing indigenous plants appreciated as an important horticultural resource, and accepted as ecologically necessary in maintaining the survival of our local bushland environment for future generations.\(^ {93}\)

John Knight, in the Introduction, states that ‘conservation of natural bushland habitats is a world-wide issue.’ He points to the benefits of growing indigenous plants, referring to their value in preserving genetic diversity and local character, in providing habitat for fauna and for their low maintenance requirements. The book’s line drawings, photographs and practical recommendations make it an important resource for individuals and groups wishing to undertake regeneration projects or to introduce indigenous species into private gardens. In a publication combining philosophy with practical advice, Diana Snape contributed to the development of respect for Australian plants, including the indigenous, through *The Australian Garden* (2000).\(^ {94}\) The book presents splendid illustrations, a vision for gardens incorporating native trees and flowers and practical information. John Landy’s Introduction relates the timeliness of the book in relation to water shortages, particularly in southern Australian cities. He refers to the popularity of natives in the 1960s and 1970s attributing a decline in interest to lack of understanding of management and design and judges that Snape’s work will provide the necessary knowledge.\(^ {95}\) George Seddon affirms the importance of indigenous flora for practical reasons but accepts experimentation with plants belonging in distant areas. Snape argues that as ‘knowledge of their beauty and potential application in garden design grows, it is becoming easier to make local plants the first choice in a garden followed by plants from elsewhere in Australia’.\(^ {96}\)


\(^{93}\) John Knight in ibid., p. viii.


\(^{95}\) Landy in ibid., p.7.

\(^{96}\) ibid., p. 53.
Mick and Liz Dexter of Heathmont created a project that provides another example. They showed, in an unusual way, how to recreate an indigenous landscape by implementing an important initiative in the foothills of the Dandenongs. Graduates of the Melbourne University School of Agricultural Science, they had both studied Botany under John Turner.\textsuperscript{97} The Dexters’ initiative, described as a ‘suburban miracle’\textsuperscript{98} resulted from their decision, with the support of the family, to give a hectare of land to the Victorian Conservation Trust (VCT) which had been established in 1972 and later became the Trust for Nature. The Dexters gave the land with the proviso that they should look after it and eventually it would be managed in perpetuity by the Trust. In 1990, the VCT removed 80 large 100 foot tall pines, leaving bare ground and stumps. The Dexters invited family, friends and neighbours, including children, to plant 250 indigenous plants propagated at Andrew Paget’s Nursery. They gave each child a stake with his or her name engraved on it, thinking this would create an interest for the future, perhaps, in a Swamp Gum. The area was mulched and occasionally watered and the majority of the plantings survived. While the Dexters were pleased with the result they were more delighted at regeneration in the bare ground. To the surprise of botanists and others who expected the long time presence of pines to have deterred indigenous vegetation, plants emerged and flourished. It is unclear whether seed had remained in the ground or blown in from nearby bushland but for whatever reason, Dexter’s Bush has become a wonderland of indigenous trees, shrubs, grasses and wildflowers and an example of what may be done to bring back local vegetation.

This chapter has focused on the response from the urban environmental movement to changes in the context of the 1990s, including those which involved threats to indigenous plant communities. It demonstrates how members of the indigenous

\textsuperscript{97} Other students who have contributed to knowledge of ecosystems and the creation of a sense of the value of indigenous plants, include John Landy, from 2000, Governor of Victoria, graduate in Agricultural Science, Olympic runner, research worker in agriculture, a foundation member of the Land Conservation Council and author, whose books (Close to Nature and A Coastal Diary, Macmillan, Melbourne, 1993) reflecting his love of the natural world, introduce readers of all ages to their heritage. Another is Dr. Jill Mitchell (nee Naylor), also a Melbourne graduate in Agricultural Science, who, with her husband, Ian Mitchell, B.Sc., has undertaken extensive work in propagating and caring for native plants and in regenerating bushland on their property in the Black Range, out of Stawell near the Grampians. See Barbara Buchanan, ‘Embellished Woodland’ in Growing Australian, September 2000, p.32.

plants movement incorporated a feeling for their special places with increasing emphasis on learning about the vegetation that once clothed the various regions and efforts to ensure its survival. An increasing number of people became actively involved in conservation and the regeneration of local plants. The world-wide concern for the loss of species, expressed strongly in *Agenda 21* influenced Australian governments to undertake initiatives that contributed to public consciousness of the importance of biodiversity. This focus, allied with one aspect of the concept of sustainability, was valuable to the indigenous plants movement in its reinforcement of the importance of local flora.
Bayside Community Nursery

Staff - Carmen Skrbonja and Erika Andersen

V. Tarrant photograph September 2000

Community Nursery staff and volunteers among indigenous flora in springtime

V. Tarrant photograph September 2000
Stephanie Rennick’s nature strip, East Bentleigh, Melbourne

V. Tarrant photograph

V. Tarrant photograph

2000
CONCLUSION

In a situation of global spatial interdependence the relationship between the economy, society and the biophysical environment becomes yet more important to understand. What role do cities now play in relation to economic growth, social cohesion and ecological balance?

Frank Stilwell, 2000.¹

This thesis analyses why and how conservation groups, professional botanists and some government authorities set out to promote and conserve indigenous species in Greater Melbourne. My research demonstrates how their work marks changes in environmental awareness and practice. The study contributes to knowledge of Melbourne University Botany School’s vital role in the indigenous plants movement, particularly in the John Turner and Carrick Chambers years. The John Turner archive has uncovered knowledge not only of Turner’s own work and motivations but also those of other important historical actors. Three features distinguished Turner’s love for the natural world and interest in its life and remained constant. I have argued that they were essential to his experience and, individually or together, important to others. First was the botanist’s desire to study the characteristics of plants; second, concern to learn about ecosystems and human interaction with them; third, an aesthetic sense shown in Turner’s sketches, scraper-board drawings² and water colours. Allied to these qualities was his ability to initiate research projects, to inspire students and to play an influential part in the public arena in Melbourne, and beyond it in national and international spheres. In addition, he encouraged Botany staff to contribute to government and non-government organisations and to influence environmental policy. George Seddon outlines Turner’s character and achievement:

I took an immediate liking to John. Although he was already a professor of international renown and I was a young nobody, we became friends and remained so. I responded to his warmth, ready humour, insatiable curiosity, dedication both to field experience and to the life of the mind, to his love of music and to his love of landscape. Also of gardening, a hobby we both shared. Above all, I was strongly

² See George Seddon (ed.), From The Country, esp. p. 112.
attracted by his pragmatic concerns. Here was a professor who actually wanted to get things done in the conservation field and to fight when fight was needed but without losing his humanity in the battle.

Creative connections were important. The first originated in Turner’s Cambridge experience and had lasting effects, providing opportunities for him as a student and staff member to work under recognised leaders in the field of botany. They studied not only the minutiae of the plant world in the laboratory but also features of specific plant communities in the field. Convivial and lasting relationships proved invaluable. The Cambridge connection made possible a new dimension in the Melbourne Botany School, for example, when Turner invited Cambridge forest ecologist, Dr. Alex Watt to lecture to students and encouraged post-graduates to study in Cambridge. One instance of a chain of creative connection from Cambridge to Melbourne is apparent in links originating from the eminent Tansley, mentor to Harry Godwin, to John Turner who was taught by Godwin, then from Turner to Alex Watt who influenced David Ashton’s research. This research in turn contributed to Tom Griffiths’ environmental history, *Forests of Ash*, which tells the story of Ashton’s investigations in Mountain Ash forests and the important outcomes for forest management.

A second valuable creative connection developed in Australia, most notably in the early stages of Turner’s life in Melbourne through Samuel Wadham and Ethel McLennan. Both were essential to his learning about the local environment and his introduction to networks relating to government and non-government organizations which contributed to his leading role in public life. Wadham’s position as head of the School of Agricultural Science meant that he was connected not only with Botany staff and students but with other University professors (including the indefatigable mountaineer, Professor Tom Cherry), with women and men on the land and with leaders in the field of land management. It was important that Wadham shared these connections with Turner, took him on expeditions to the bush and contributed to the

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3 ibid., p.13.
plan to undertake the research into the High Country that led to Maisie Fawcett’s appointment, and in the mid-1950s, to the Australian Academy of Science Report.  

Turner’s first-hand experience of British flora was useful for garden and farm plants and weeds, but was not an adequate preparation for the distinctive trees, shrubs and wildflowers of the new country. For instance, the English Bluebell (*Hyacinthoides non-scripta*) about which he had written is different from the Victorian Bluebell (*Wahlenbergia stricta*). When Turner accompanied Ethel McLennan and other botanists on excursions, he gained essential knowledge of indigenous plants in the field.  

Field trips introduced Turner to the distinctive landscapes of his new home and to flora which had, years before, attracted the botanists of the eighteenth and nineteenth centuries. The bush experience contributed to his shift from the outside view of an Englishman to the view of an Australian Briton who was becoming an insider. This shift became apparent in his drawings as well as in writings. He showed awareness of an Australian character allied to observation of a specific place: the shape of the land and its trees and flowers.  

A third creative connection derived initially from May Moon’s determination to protect the Dandenongs and, in pursuit of her aim, to cross the boundary between the everyday world of the concerned local citizen to that of the University professor. The Beaumaris Tree Preservationists and their successors called on Turner and other botanists to assist them in their efforts to conserve bushlands near the shores of Port Phillip. Similar alliances contributed to the indigenous plants movement’s successes. While University botanists provided the intellectual base and scientific credibility of the projects undertaken, the group members’ own experience created the initial incentives for action and became a vital component in efforts to change policies and develop new practices.  

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5 The late Dr. Sophie Ducker (1909-2004) of the Botany School to V. Tarrant, 19/9/03.
This study has provided instances of botanists’ and conservation groups’ ability to use networks and act politically both through the ballot box and ‘behind the scenes’. One example of work behind the scenes’ activity demonstrates Victorian government concern for reservation of land and conservation, particularly after the Little Desert battle. It indicates Turner’s friendly relationship with a Victorian politician, Bill Borthwick, and shows how Borthwick linked conservation and ‘stirrings of nationalistic love of our land’. Borthwick wrote to Turner stating that the 1970s would be remembered for the great effort of the government to reserve parks, including the Little Desert. He reassured Turner that ‘people on the whole do care a bit more about their land’. In the city of Sandringham, conservationists’ decision to act politically led to change as demonstrated by the election of councillors who valued indigenous plants and ecosystems. This was a critical factor in the establishment of the environment advisory group and the community plant nursery and in environmental publications.

Two urban examples illustrate success in conserving local vegetation. The Royal Botanic Gardens’ staff at Cranbourne maintain this extensive reserve of indigenous flora within Greater Melbourne, despite pressures from expanding suburbia. A demonstration of another kind became apparent in inner Melbourne within the Royal Botanic Gardens, South Yarra. While most of the original vegetation of inner Melbourne was destroyed, early twenty first century projects in the Gardens indicate a change in values. Near the Visitor Centre is a well-publicised area of indigenous grassy woodland with Springtime flowerings of local Bluebells, Bulbine Lilies and grasses, growing close to a large Eucalypt - a Yellow Box. At Long Island, near the northern boundary of the Gardens, a number of the original species have been planted and visitors may discover many of the trees and wildflowers that once flourished in abundance.

Charting changing social, cultural, economic and political contexts shows how the development of the indigenous plants movement interacted with the wider world.

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6 Borthwick, Kalorama, to Turner, 15 April 1982. UMA TURN 00785
7 Frances Saunders, 'Planting the seeds of the past', Age, 23 July 2003.
Such examination and understanding contribute to the environmental history of a large and important metropolis, and to learning about ways in which people have viewed the natural world of their neighbourhoods, gained new knowledge of their character and developed innovative ways of nurturing and regenerating original plant species. In an increasingly urbanised world, this learning is valuable for its provision of a perspective on past developments and in decision-making about land and conservation policies. J. R. McNeill argues for the importance of "what has happened and is happening to real nature, and how nature has affected and still affects us (there is some reality out there independent of our perception!)."  

The indigenous plants movement is important in the modern world through its engagement with the local rather than the global. While globalisation, in its older forms through imperial expansion, or in its newer forms through world corporations and the internet, has brought radical change to cultures and ecosystems, including stimulus from new ideas, new people and products, it has also involved loss and blandness. The indigenous plants movement on the other hand incorporates opposite tendencies, being firmly rooted in local environments and involving people concerned to maintain cultural and environmental diversity.

There is need for further research into people's responses to the flora of their neighbourhoods\(^9\) and for comparative studies of areas such as the Dandenongs, Blackburn and Eltham. Further enquiry would provide valuable knowledge of the role of Botany Schools in the Universities in Victoria other than Melbourne, and of Technical and Further Education (TAFE) Colleges, and show how they have contributed to the indigenous plants movement. There is room for additional investigation of the contribution of public intellectuals.

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\(^9\) A recent Australian Research Council Discovery Grant to La Trobe University scholars indicates concern for such research and increasing interest in some of the issues addressed in this thesis. Dr. Katie Holmes and Dr. Sue Martin will investigate 'Australian cultural attitudes towards native gardens'. They argue for the value of planting indigenous flora, 'Acacia v Agapanthus: Reshaping Australian Gardens', *La Trobe University Bulletin*, March 2005, p. 7.
This thesis has charted changes in values, policy and practice involving public land as well as private gardens. They may be illustrated by a short imaginary tale. A couple of travellers drive out of Melbourne’s central business district heading towards Port Phillip Bay. Looking out at the wide avenue of St. Kilda Road, they see little that belongs to ‘old Australia.’ Reaching the northern end of Bayside, they observe the substantial houses, formal gardens and lawns typical of Brighton, but turning past the Royal Brighton Yacht Club they find that the view opens up to reveal a great stretch of sea and along the foreshore beside Beach Road, the Dr. J. H. Willis Reserve. Here, a friends’ group, with Bayside council’s support, continues to nurture the Tea-tree and many other indigenous coastal trees, shrubs and ground-covers.

Continuing south the travellers pass through Hampton with its flourishing Saltbush and wetland, and reach the Sandringham football ground. Conservationists ensured that the Bay bicycle path, running beside the ground’s high wall, was carefully routed so that Coastal She-oaks and Correas could survive. Further on at Black Rock, the pair pull into the Eliza Street car-park with the local plantings established by BRASCA members in 1970. They observe healthy Velvet Bushes, the descendants of a plant saved from extinction by Don Neale and propagated in the community plant nursery. Climbing down the Half Moon Bay ramp to the beach, they look up at tall bush-covered cliffs, and an ancient Coastal Banksia firmly rooted in the fore-dune. Past the pier, they discover the Little Beach rescued from the concrete covering planned by Sandringham’s engineer. The travellers return to their car, driving on past Tea-tree, Wattle and She-Oak to the Black Rock roundabout with its formal plantings of silvery Coastal Saltbush and Correa. Indigenous trees line the road for the length of Beaumaris and into Mentone, with a distinctive wide stretch at Ricketts Point. Here shrubberies of Seaberry Saltbush flourish and people picnic in the shade of tall Banksias.

What might these travellers have seen without the indigenous plants movement? The local plant communities would have disappeared under the attack of bulldozers and been replaced with car-parks, grass and an occasional Cypress tree. The plant world that had evolved since the last large climate change would have disappeared and living links with ancient Australia vanished under concrete and foreign imports. It is
difficult to predict the future for the environment of Bayside and the rest of Greater Melbourne. New housing developments tend to favour exotic species and demand for ‘economic efficiency’ may threaten reserved public bushland. However, policies supporting biodiversity, growth of knowledge of how to regenerate bushland, indigenous plant nurseries’ successes, and the diversity of other efforts explored in this thesis provide grounds for hope in the future of the movement to value and nurture local plant communities. Both local groups’ and botanists’ concern with the values that underpin land use policies and practice has been important, since values are critical in the survival of indigenous plants, the health of the world environment and sustainability of life on Earth.

This thesis seeks to locate the concerns and methodologies of environmental history in an urban context. While environmental historians have traditionally focused on wild places and non-urban landscapes (an emphasis that is sure to continue and develop) it is also apparent that the impacts of urban expansion on indigenous plant communities merit closer study, and particularly so in Australia where urbanization has played such a central role in our history. The thesis relates the larger concerns of environmental history to political developments and to environmental movements within Greater Melbourne and in doing so produces the first Australian case study of its kind. While the thesis has significant implications for the practice of environmental history, it also draws attention to a limitation in current studies of urbanization which rarely offer a systematic examination of the changes to natural landscapes wrought by urban expansion. Urban histories which neglect these impacts provide, at best, a partial understanding of urban processes and the experiences of city living.
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