“If the land is healthy… it makes the people healthy”

by

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Bachelor of Applied Science (Health Science) (Honours) and Master of Horticulture

Submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

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Access to thesis

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This thesis is dedicated to my close friend and Gija Traditional Custodian. You were a source of inspiration to explain the message of how important Country is to health. I would also like to acknowledge David Aldous who was my Masters supervisor. It is sad that you are no longer with us in this world that needs inspiring educators like you Prof.

Please note: For cultural reasons I have not included identifying information about the first dedication as he passed away during the course of the PhD.
Abstract

The following PhD is a ‘Thesis by Publication’, which builds on a previous Masters research project, strengthened through continued research and an iterative process. The thesis is made up of seven peer-reviewed publications (six journal articles and one book chapter), a blog piece and unpublished research exploring the connection Aboriginal Victorian people have to their lands (known as Country) and insights related to this from the newly established Oceania EcoHealth Chapter. Along with these publications, this thesis mirrors a conventional thesis, outlining the significance, objectives, questions, literature, methodologies and methods associated with the candidate’s study. Central to the thesis are concepts of health and wellbeing and the way in which these concepts correlate with human-environment relationships. Such an exploration provides an enhanced understanding of Aboriginal Victorian peoples’ experiences and relationship to Country as well as the impact of such connections on their health and wellbeing – an area previously lacking academic evidence within the public health field particularly within the state of Victoria.

As a starting point, the study objective was to document three Traditional Custodian/Owner groups’ (Yorta Yorta Nation, Bangerang and Boonwurrung Tribes) perceived health and wellbeing benefits of caring for Country. The purpose of this was to consider whether contact with and caring for Country could be used as an upstream preventative health measure to improve health outcomes of the Aboriginal Victorian population. Building on this initial objective, the study sought also to provide a visual exploratory framework to depict these findings in order to facilitate the incorporation of Aboriginal insights into human–environment relationship theory. Finally, the study aimed to determine if such a framework was suitable to be applied within a global context, as a means of assisting the Oceania EcoHealth Chapter to better incorporate Indigenous diverse ecosystem and health knowledge. By including this third aspect in the research, the PhD candidate has moved the focus of the study from one based solely on local understandings of connection to Country to one that has application in a regional and global context.
Multiple methods were employed for data collection, which started in 2005, including an extensive literature review, semi-structured interviews, a focus group and guidance by a Reference Committee. This last approach was included to ensure the quality of the research, strong ethics and the establishment of trust between the PhD candidate and the Aboriginal Victorian participants. In total, 27 Traditional Custodians, Aboriginal land managers/government employees and 10 Oceania EcoHealth Chapter members contributed to the findings of this qualitative study.

Findings identified the deep connection Aboriginal Victorian people have to their Country, even if they no longer live on their lands. Participants highlighted that contact with and managing Country increased self-esteem and identity, and allowed the maintenance of cultural connection. Data revealed that this connection to Country was associated with health, wellbeing and spiritual benefits and was a potential upstream preventative health measure. Participants mentioned a number of distinct economic, political, social, health and cultural factors that impeded or facilitated their aspirations in relation to reconnecting with and caring for Country. This project suggested that the key to ensuring Aboriginal people can reconnect with Country involves increased consultation, respect, training, consistency, trust, resources and employment opportunities. Similar principles were identified as necessary within the research process involving Aboriginal Victorian people, with the need for research to be undertaken in partnership, involving collaboration and allowing adequate time for gathering data. These findings underpin the development of the exploratory framework and examination of existing human–environment relationship theories.

The associated publications and the overall research outcomes go some way to bridging the gap in knowledge between Aboriginal and non-Indigenous understandings of the human-environment relationship in Victoria and within public health discourse. A number of policy and research recommendations flow from the research. The PhD candidate recognised that the increased understanding of Aboriginal Victorian peoples’ connection to Country arising from this research may function as a mechanism for providing insight into public health and ecological issues affecting the broader population. This was evident within the context of the Oceania EcoHealth Chapter providing a platform for incorporating Indigenous notions of Country and human-environmental relationship theory within public health discourse.
Oceania EcoHealth Chapter participants understood the explicit relationship between ecosystem and health and urged public health clinicians to shift from an approach that separates health determinants, moving instead to more holistic approaches evidenced in Indigenous understandings of Country. Although viewing Indigenous knowledge as fundamental, Oceania EcoHealth Chapter participants perceived that the developed exploratory framework did not go fare enough towards acknowledging the diversity and meaning of Country. Results highlight the need for public health clinicians to engage with diverse Indigenous knowledge when applicable.
Acknowledgments

I must express my gratitude to a number of people, as this thesis would have never occurred without the assistance of my friends, family, colleagues and Aboriginal communities who assisted this research. My thinking during its development has always been motivated by a host of people who may not be acknowledged in this section but who have provided a source of inspiration and guidance.

There are five people who need to be mentioned above others due to their constant support during this process. The first three are my supervisors, Associate Professor Mardie Townsend, Dr Claire Henderson-Wilson and in the later stages of my PhD Dr Rebecca Patricks, who have provided hours of advice and feedback, as well as contributing to my published and unpublished work in this thesis. Coupled with this has been the unwavering support from my mother (Dora) and father (Michael) during the development of this thesis.

A special acknowledgment must be made to the communities of focus in my initial research project (Yorta Yorta, Bangerang and Boonwurung Traditional Owner/Custodian groups) and Aboriginal government employees at Parks Victoria and the Department of Sustainability and Environment for allowing my data collection to occur from 2005 to 2007. I would also like to acknowledge Oceania EcoHealth Chapter members who participated in data collection in 2013. In completing the thesis write-up, my inner support network made up of my brothers (Jem and Ryan), sisters (Ruthie and Maz), niece (Abby), nephews (Danooshi and Eli), cousins and friends, provided much needed motivation. My support network would not be complete without the friendship and honesty provided by Marissa Skovron.

Other individuals who have guided me academically and culturally since 2005 include: John Belling, Anne Poelina, Caroline Briggs (Boonwurrung Elder), Treahna Hamm, Rebecca Phillips, Steve Trudgill, Bruce Bolam and Kerry Arabena. Finally, I would like to thank the journals and book publishers that accepted my pieces and the publishing houses that have allowed me to reprint figures and tables in this thesis.
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Important notes

Points that need to be clarified prior to reading this thesis:

♦ At the beginning of each chapter (including the reference list and appendices) there is a picture and quote. The pictures are of Yorta Yorta, Bangerang and Boonwurrung Country taken by the PhD candidate between the periods of 2006 to 2014. The quotes have been selected from literature to emphasise the importance of Country and the debates around similar topics.

♦ Unless in direct quotes, capital ‘A’ and ‘I’ will be used when referring to Aboriginal or Indigenous people. The same approach will also be applied to Traditional Owner/Custodian groups.

♦ It was recommended by the research Reference Committee that the preferred terminology of Traditional Owners/Custodians of Australia be as follows:

- The term Traditional Custodians is to be used when speaking about a specific group, for example Yorta Yorta. Traditional Custodian was the preferred terminology over Traditional Owner (for further information please see the ‘Complexity of terms’ section in Chapter 1).

- Aboriginal is to be used when speaking about Aboriginal people from across Australia, not including Torres Strait Islander people.

- Aboriginal and Torres Strait Islander is to be used when referring to the collective Traditional Custodians of Australia.

- Indigenous will refer to Traditional Custodians internationally as a collective.

- Non-Indigenous will be used in reference to people who do not identify as any of the previous groups.

♦ It must be acknowledged that Aboriginal and Torres Strait Islander groups in Australia and Indigenous communities throughout the world, although having collective similarities and histories, are made up of diverse cultures, knowledges, practices, experiences and belief systems that vary from place to place.
We come out through the Country, we come out through the dreams. We live and when we die we come part of the Country. That’s what we believe. When we die, we become one with the Country. Our spirit goes back. [You’re] born and they give you a totem. It might be a bush turkey, a kangaroo, a sand goanna... when they die you’ll go back into that animal, your totem.

(Curtis Taylor, 2009 cited in La Fontaine & Carty, 2011, p. 39)
Chapter 1: Introduction

The following PhD thesis is based on a series of publications including a blog piece, lead-authored and sole-authored journal publications, a book chapter and unpublished research. The peer-reviewed articles were published between 2008 and 2013, focusing on the perceived health and wellbeing benefits of contact with traditional lands (known as Country) for Aboriginal peoples. As Pryor (2009) identified, there is a considerable body of evidence highlighting the physical, social and emotional health and wellbeing benefits of contact with nature, place and the environment. There has also been extensive research conducted in the social sciences to better understand Aboriginal peoples’ connection to their Country.

This thesis extends the evidence-base through original research, focusing on Aboriginal Victorian peoples’ connection to their Country. Until now, in the context of Aboriginal Victorian peoples, there has been inadequate research and understanding of this topic, especially in disciplines related to public health. This thesis attempts to integrate new knowledge into theoretical understandings of the human-environment relationship, providing a mechanism by which to explore and promote ideas, knowledge and connections of Country and its link to health and wellbeing. In so doing, this thesis contributes originality and understanding of the impacts of Country on health and wellbeing.

This PhD forms part of the growing research field broadly defined as ‘ecohealth’. Ecohealth involves research at a local community level, combining ecosystems and public health together in a collaborative/transdisciplinary way to a) identify how the environment impacts on people’s everyday life and b) to promote sustainable health of individuals and ecosystems (EcoHealth Student Section, 2009; Charron, 2012). In light of major global concern around climate change (Spratt & Sutton, 2008; Intergovernmental Panel on Climate Change [IPCC], 2013) and the depletion of natural resources (Hanlon & McCartney, 2008), research projects in this field are critical for providing a better understanding of human connection to the environment and the impacts of environmental change on health.
Recently, there has been a large amount of international academic interest in the public health area reviewing the links between Indigenous peoples’ health, wellbeing, economic status and ecological benefits associated with connection to their lands (e.g. Johnston et al., 2007; Nettleton et al., 2007; Venn & Quiggin, 2007; Burgess et al., 2008; Fillion et al., 2009; Pesek et al., 2009; Pilgrim et al., 2009; Richmond & Ross, 2009; Parkes, 2010; Tonkinson, 2011; Adam, 2012). However, there is a dearth of studies that have been conducted within the state of Victoria (Australia). This research is timely when you consider recent findings that show that Aboriginal Victorian people have significantly poorer health in respect to mortality and morbidity measures across multiple domains in comparison with the rest of the Victorian population (Department of Health, 2011). It is anticipated that the findings of this thesis might be applied in ways that promote health, foster ecological sustainability and reduce health inequalities between Aboriginal and non-Indigenous Victorians.

Though officially this PhD research thesis commenced in 2009, it is part of a larger body of work. It is an extension of a Masters by Research project undertaken from 2005 to 2007. The progression of this research has been an iterative process – periodically refined, extended and published across a number of disciplinary areas to gain a strong understanding of this content area (see Figure 1 and Appendix 1 for chronology of thesis development). The publications contained within this PhD have offered original contributions in the fields of ecohealth, public health, health promotion, policy development and Aboriginal health. In the period subsequent to his Masters, the PhD candidate has worked directly in Aboriginal communities both voluntarily and as an employee of government, non-government organisations (NGOs) and academic institutions across Australia. Concurrently, the PhD candidate has studied and taught in fields including medicine, geography, social science, horticulture and public health. Thus, this thesis draws together the knowledge gained from these experiences across a number of different disciplines.

The thesis provides a conventional literature review, methodology, research chapters showcasing published articles and conclusion sections. Accordingly it is classified as a ‘Thesis by Publication’. The PhD candidate has been directed by the School of Health and Social Development (SHSD, 2013) guidelines, which stipulate that a
‘Thesis by Publication’ must include a minimum of 2 peer-reviewed first authored published works, 2 manuscripts and build a coherent body of work including a literature review, methodology and conclusion section. Within this thesis are incorporated six journal articles, a blog piece, a book chapter and unpublished research. The publications are listed and briefly outlined in Table 1.

Because of the extensive period of time spent publishing the articles included in this thesis and in light of the Thesis by Publication being an emerging form of scholarship presentation, this thesis sits outside of the format of a traditional dissertation. Consequently, some of the PhD candidate’s publications are embedded as background, or included within methodology section and appendices in order to provide more consistency and reduce duplication where possible. This divergence from a ‘Conventional Written Thesis’ is acknowledged by the SHSD (2013) who identified:

[a] growing number of students... have opted to complete a thesis by publication. The University guidelines on this are not cut and dried to allow for the enormous variation in content of theses across the university... A “thesis by publication” will have a different structure to a conventional written thesis because it will always include within the body of the thesis publications (p. 2).

The research findings chapters (constructed around peer-review publications and new data) are based on the various phases of the research each having their own distinct, yet interconnecting topics:
1) Documenting the health and wellbeing benefits of connection to Country for Aboriginal Victorian peoples’ and exploring which factors impact on or facilitate participation and engagement within ‘caring for Country’ – material which directly comes from the author’s Masters research project (Chapter 5);

2) Theorising and developing a framework to better understand the human–environment relationship and its connection to wellbeing by applying Aboriginal and Torres Strait perspectives of Country (based on a new PhD analysis: Chapter 6); and

3) Understanding Oceania EcoHealth Chapter member opinions of this framework and exploring the human-environment relationship with a focus on Indigenous
understandings of ecosystems and health (based on data collected during PhD: Chapter 7).
As demonstrated in Figure 1 there has been considerable effort to extend on the original Masters research, which was undertaken at The University of Melbourne. This was done by reanalysing data, collecting new literature and undertaking further data collection to better understand Aboriginal Victorian peoples’ connection to Country and extend this knowledge. This has been represented by the Masters research.
project being shaded blue and PhD work coloured in grey in Figure 1. Each publication and its location in the thesis has been included in the bottom half of the figure. For more detailed information please see Appendix 1.
Table 1: Publications: background, overview and significance/impact

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- *Just Policy* was selected because of its link with the Victorian Council of Social Services, a non-government peak social and community advocacy body that aims to influence government policy to eradicate inequality. | - Recommended collaborative and cooperative approaches in partnership between and within government agencies, Aboriginal communities and the public.  
- Identified critical approaches which include building relationships through increased trust; ensuring consultation; involving more time for feedback; transparency in terms of recognition of Traditional Custodians; and professional development in the form of education and training for Aboriginal Victorian people.  
- Highlighted governments at all levels need to be more flexible and lateral in their approaches to improving the health of Aboriginal Victorian people. | - Provided recommendations to all levels of government on how to improve health and environmental policy in relation to Aboriginal Victorian people.  
- Laid foundation for further research to be undertaken across Victoria.  
- Offered guidance to policy and monitoring systems in Victoria to increase caring for Country projects for Aboriginal communities. |
- This provided an opportunity for discussions with a broad international audience, focused on park management, about the importance of Aboriginal land management. | - Outlined the centrality of Country to the health and wellbeing of Aboriginal Victorian people.  
- Identified the social, economic, cultural and political complexity of developing Indigenous land management projects.  
- Highlighted that further research is required from a community perspective on what would strengthen positive strategies.  
- Proposed that a greater understanding of this topic would increase reconciliation in Australia. | - Identified the health and wellbeing link between Aboriginal Victorian people and their lands from a contemporary (rather than historical) perspective.  
- Led to the PhD candidate being invited to be a Visiting Scholar in the Geography Department at the University of Cambridge. |

1 Publications are in order of dates published; however, details are given indicating where each article fits within the thesis.
### Publications


- This article was part of the Masters research project interviewing Traditional Owners/Custodians and Aboriginal park rangers about the social, political, environmental, economic and cultural factors that influence caring for Country projects.
- This journal was selected to complement peer-reviewed policy, methodology and health research articles from this project, allowing the topic to gain wider exposure by targeting the environmental arena.
- Identified nine major factors that impede the development of Aboriginal land management projects. These factors included politics, access to and destruction of land, racism, history and socioeconomic determinants.
- Considered what would improve or mitigate these factors, such as respect for Aboriginal views, a focus on youth so they are trained up and community controlled.
- With health inequalities evident in Aboriginal communities, this paper provides an understanding of the layers of complexity when developing land management activities for this population.
- Laid the foundation for advocating for increased Aboriginal land management projects.
- The article was the runner up in the Eric Anderson Award (Environment Institute of Australia and New Zealand’s merit award) in 2009.


- This article was based on semi-structured interviews with Traditional Custodians to identify the health and wellbeing benefits of being on and caring for Country.
- *Health & Place* was an ideal selection because of its high impact factor (2.669) in the social policy and public health fields.
- Like Publication 5 this research was considerably strengthened during the PhD period.
- Found that Aboriginal Victorian people were reconnecting to their Country and this connection was evolving.
- Identified that caring for Country may be a mechanism to improve health in Aboriginal Victorian communities and tackle health inequalities more broadly in Australia.

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2 Healthy Parks: Healthy People Central article titled ‘Caring for Country’: [http://www.hphpcentral.com/article/caring-for-country](http://www.hphpcentral.com/article/caring-for-country)

3 A shortened version of this documentary, titled ‘Healthy Country: Healthy People’, can be found on YouTube: [http://www.youtube.com/watch?v=2UmVNoPcUzU](http://www.youtube.com/watch?v=2UmVNoPcUzU)
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<td>Publication 3 (in Chapter 4): Kingsley, J., Phillips, R., Townsend, M., &amp; Henderson-Wilson, C. (2010). Using a qualitative approach to research to build trust between a non-Aboriginal researcher and Aboriginal participants. <em>Qualitative Research Journal, 10</em>(1), 2-12.</td>
<td>♦ The focus of the article was around ethical guidelines in Aboriginal health and environmental research and how they were adhered to in this research project. ♦ This publication outlines how to build trust using qualitative research methods. ♦ A unique process was explored, as the article provides reflections by one of the non-academic participants and the researcher to gain insight from both sides on the collaborative research process.</td>
<td>♦ The first half of the article focuses on the collaborative qualitative approach employed and outlines the ethical dimensions of the research. ♦ Clearly outlines how a qualitative research project was undertaken in Aboriginal Victorian communities, and details the methods applied and timeline so the research can be replicated. ♦ The researcher and participant provided opinions and perspectives on the methodology.</td>
<td>♦ Provides some guidance for non-Indigenous researchers working in this field. ♦ The second author on this paper was an Aboriginal participant in the project who improved her research skills by co-authoring in publications, thereby emphasising the transfer of skills to the population group this research was designed to assist. This led to her gaining credit towards her university degree. She has now become a government research advisor. ♦ This article has been cited seven times in peer-reviewed publications.</td>
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<td>Publication 2 (in Chapter 4): Kingsley, J. (2012, June 24). A Melbourne ethnographer’s journey to better understand Aboriginal peoples’ connection to land [Web log post]. <em>EcoHealth Student Section Blog</em>. Retrieved December 6, 2012.</td>
<td>♦ After presenting my PhD confirmation seminar (March, 2012), I was asked to write an article about how I came to write the following thesis as an ethnographer. ♦ After discussions with my PhD supervisors, it was decided that there would be an opportunity to use the paper as a popular media piece, due to its personal nature.</td>
<td>♦ The article provides a description of how the PhD fits with the personal life experiences of the PhD candidate while working in the Aboriginal health sector, providing a rationale for the methodology chosen for this thesis. ♦ Highlights why I chose to focus on Aboriginal Victorian peoples’ connection to Country, through an ethnographic approach.</td>
<td>♦ The blog piece received considerable attention from colleagues in EcoHealth via social media sites. ♦ This was the first time I used the medium of a personal blog piece to publish work. By using another medium of communication, it attempts to target another readership. Blog’s have been identified as a valuable medium within academia.</td>
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5 See reference list for web address.
6 See ‘37 reasons why you should blog about your research’ ([http://sociologicalimagination.org/archives/13910](http://sociologicalimagination.org/archives/13910))
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<td>Publication 7 (in Chapter 6): Kingsley, J., Townsend, M., Henderson-Wilson, C., &amp; Bolam, B. (2013b). Developing an exploratory framework linking Australian Aboriginal peoples’ connection to Country and concepts of wellbeing. <em>International Journal of Environmental Research and Public Health</em>, 10(2), 678–698.</td>
<td>♦️ This article reviews literature around wellbeing, Country and nature, building on previous publications to develop an exploratory framework. ♦️ The article summarises previous research and translates it into a visual framework, using wellbeing as the central theme.</td>
<td>♦️ Health inequalities suffered by Aboriginal people compared with non-Indigenous people could be addressed by focusing on social determinants of health and holistic views of wellbeing. ♦️ The article used Aboriginal Victorian peoples’ holistic connection to Country as a case study to review its link to wellbeing. ♦️ The outcome was a framework in the form of a tree, with the roots and branches symbolising positive upwards forces and downward negative forces affecting the wellbeing of Aboriginal Victorian people.</td>
<td>♦️ The article developed a framework exploring concepts of Country and wellbeing for Aboriginal Victorian people, thereby offering a tool to explain Aboriginal Victorian peoples’ connection to Country. ♦️ This framework provides the opportunity for better understanding the human-environment relationship and its links to wellbeing for society as a whole. ♦️ The journal is open access with 1,457 people downloading the article online as of September 2014.</td>
</tr>
<tr>
<td>Publication 8 (in Chapter 6): Kingsley, J., Townsend, M., &amp; Henderson-Wilson, C. (2013a). Exploring Aboriginal people’s connection to Country to strengthen human-nature theoretical perspectives. In M.K. Gislason (Ed.), <em>Ecological Health: Society, Ecology and Health</em> (pp. 45-64). United Kingdom: Emerald Group Publishing Limited.</td>
<td>♦️ This chapter provides an overview of Aboriginal peoples’ connection with Country. It then provides an outline of human-environment theories such as biophilia, solastalgia, topophilia and place attachment exploring the extent to which such concepts have incorporated these Aboriginal views. ♦️ The book was selected because of its ecohealth focus.</td>
<td>♦️ Aboriginal peoples’ deep connection to Country is explored in the Australian and international context. ♦️ Biophilia is used at the starting point to investigate whether Aboriginal views have been incorporated appropriately. This is then compared with other human-environment theories. ♦️ Although Indigenous understandings of the human-environment relationship are sometimes incorporated into these theories, such worldviews are often still marginalised in practice.</td>
<td>♦️ This was the first book chapter that I had been involved in and provided another medium of publication to underpin this thesis. ♦️ This is one of the first papers to review biophilia, topophilia, solastalgia and place attachment together in respect of Aboriginal peoples’ understanding of human-environment relationships.</td>
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For more information on the journals, book and blog in which the articles were published, see Appendix 3.
1.2 Thesis structure

♦ **Chapter 1: Introduction.** The remainder of this chapter includes sections titled: Research objectives, Questions and expected outcomes; Complexity of terms; Basic assumptions; and Significance of the research.

♦ **Chapter 2: Literature review exploring the human-environment relationship.** A conventional literature review examining the human-environment relationship is provided. The aim of this chapter (along with Chapter 3) was to draw together new content beyond the literature reviews in the forthcoming peer-review publications.

♦ **Chapter 3: The human-environment relationship in the context of Aboriginal and Torres Strait Islander peoples’ understanding of health, wellbeing and Country.** Chapter 3 provides background exploring the human-environment relationship in respect to current health, wellbeing and environmental issues with a focus on Aboriginal and Torres Strait Islander people. Chapter 3 includes my peer-reviewed *Just Policy* publication providing background to the policy complexities around involving Aboriginal Victorian peoples’ in caring for Country projects.

♦ **Chapter 4: Methodology and methods.** This chapter provides details of the methodology and method employed in the research. The rationale for and discussion about aspects of the research design in this chapter are augmented by publication level outlines of method in subsequent chapters. Chapter 4 includes the peer-reviewed *Qualitative Research Journal* article and the *EcoHealth Student Section* blog piece written by the PhD candidate.

♦ **Chapter 5: Aboriginal Victorian peoples’ connection to Country and its relationship to health and wellbeing.** This chapter focuses on Aboriginal Victorian peoples’ perspectives of being on and caring for Country, and how these are perceived to impact on the health and wellbeing of three Traditional Custodian/Owner groups. It reviews multiple factors that facilitate or inhibit these groups from practising caring for Country, emphasising how land management could be used as a strategy to improve health and wellbeing outcomes for Aboriginal Victorian
communities. Two of my publications are included in this chapter – published in the peer-review journals *Health & Place* and *Australasian Journal of Environmental Management*.

**Chapter 6: Developing a framework and examining the human-environment relationship perspectives in respect to Aboriginal peoples’ wellbeing.** This chapter presents a visual exploratory framework and theoretical understanding of the human-environment relationship in respect to wellbeing and Aboriginal peoples’ connection to Country. This framework was developed after an iterative process and is based on both primary data and an extensive literature review during the PhD. The chapter extends the discussion points of Chapter 5 and features two publications (including a journal article published in the *International Journal of Environmental Research and Public Health* and book chapter in *Ecological Health: Society, Ecology and Health*).

**Chapter 7: Shifting public health: Integrating diversity, ecosystems and Indigenous knowledge.** This chapter provides data from interviews with stakeholders attending the Oceania EcoHealth Symposium. These interviews focused on how best to incorporate Indigenous understandings of the human-environment relationship. The interviewer encouraged participants to critique the exploratory framework (Chapter 6) to see if it adequately tackled Aboriginal understandings of connection to Country. The aim of this research is to extend Chapter 5 and 6 by progressing from a local understanding of Country to global insights.

**Chapter 8: Conclusion.** This chapter draws together concepts, findings and implications of the preceding chapters to provide an overview of the human–environment relationship, particularly in respect to Aboriginal Victorian peoples’ and the public health discipline.

**Please note:** All but two publications in the following thesis involved co-authorship. This valuable input is appreciated and formally acknowledged. Those who assisted in co-authoring the articles in this thesis include my principal supervisor, Associate Professor Mardie Townsend (Deakin University); co-supervisor, Dr Claire Henderson-Wilson (Deakin University); Masters principal supervisor, the late
Associate Professor David Aldous; a cultural advisor, colleague and friend Rebecca Phillips (Parks Victoria); and mentor, Dr Bruce Bolam (VicHealth). It must be noted that although these articles have had valuable contributions from the aforementioned co-authors, the author of this PhD was the predominant author of this work. An outline of assistance provided from other contributors (co-authors) has been presented in Appendix 4.
1.3 Research objective, questions and expected outcomes

Overarching objectives

1. To document the perceived health and wellbeing benefits of caring for Country for the Boonwurrung, Bangerang and Yorta Yorta peoples’;
2. To develop an exploratory framework to represent the health and wellbeing effects of Aboriginal Victorian peoples’ human-environment relationship, focusing on connection to, and caring for, Country;
3. To explore whether this framework can be applied at a global scale.

To address these overarching objectives, four research questions were developed, together with expected outcomes (Table 2).

Table 2: Research questions, expected outcomes and its correlating chapter location

<table>
<thead>
<tr>
<th>Question</th>
<th>Expected outcome</th>
<th>Chapter location</th>
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| 1. How do Aboriginal Victorian people perceive contact with and caring for Country as impacting on their health and wellbeing? | ♦ To better understand the health and wellbeing benefits of contact with and caring for Country for the Boonwurrung, Bangerang and Yorta Yorta people.  
♦ To increase the evidence base supporting the claims of a deep connection between Aboriginal Victorian people and their Country. | Chapter 5                          |
| 2. What do the findings of this research suggest are the opportunities for using contact with Country as a preventative upstream health measure? | ♦ To understand how Country or caring for Country projects can be used as a preventative upstream health measure.  
♦ To develop possible recommendations that could be applied to attempt to reduce health inequalities in Victoria (particularly those relating to Aboriginal Victorian people). | Chapter 5 and 6                   |
<p>| 3. Can the data from these studies be accommodated within a single interpretative | ♦ To develop a framework exploring the human–environmental relationship with a particular focus on but not | Chapter 6 and 7                   |</p>
<table>
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<th>framework?</th>
<th>restricted to Aboriginal Victorian peoples’.</th>
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<td>♦ To publish a framework explaining the health and wellbeing benefits of contact with Country for Aboriginal Victorian peoples’.</td>
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<th>4. Can this framework be applied globally to promote ecohealth, health related policy and the human-environment relationship?</th>
<th>♦ To ask ecohealth specialists to provide feedback on the exploratory framework.</th>
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<tbody>
<tr>
<td>♦ To identify opportunities for Indigenous ecosystem and health knowledge to be incorporated globally.</td>
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Chapter 7
1.4 Complexity of terms

The following section provides a brief discussion surrounding the tensions inherent in applying certain terms in this thesis (which will be explored in more depth in Chapter 2 and 3). It provides a brief rationale for the preferred terminology based on the literature and beliefs of the author. In so doing, it provides a worldview the author has adopted into this thesis and offers a guide for individuals who wish to read it. An extensive analysis of what each of these words means and the points of contention goes beyond the scope of the current PhD but, nonetheless, these concepts must be identified and explored. This is because definitions and words can often be ‘problematic’ as they cross cultural ‘boundaries’ (Milton, 1996), causing an unease due to their possible exclusion/inclusion of individuals and groups. Milton (1996) noted when explaining this diversity of cultural boundaries:

*Once upon a time, the totality of human culture could be described as consisting of many individual cultures. This is no longer an appropriate image; contemporary human culture consists of many discourses* (p. 172).

Ingold (1996a) while exploring these terminological tensions (specifically in Western academic discourse) identified the critical problem of contrasting, separated and polarising words like ‘culture’ and ‘nature’. Ingold (1996a) interestingly went on to highlight:

*If language is the essence of anything, it is not of culture, but of a specialized practice of academic writing by which we seek to represent it... Once we cease to regard language as a domain of affect-free, context-independent proposition, modelled on the printed word, and focus instead upon speech as a situated social activity, the conventional dichotomy between language and non-verbal communication seems much less secure* (p. 7).

Milton’s (1996) solution to this complexity is to acknowledge that there is no culturally neutral point and that the applied terminologies of social scientists are only to be used as a conceptual tool or framework. The shifting of these frameworks was highlighted by Orlove (2002) while working with the Indigenous people in the Peruvian part of Lake Titicaca, exploring whether the word fisherman was

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7 Sometimes terms are applied in place of these words in the following chapters in order to honour the worldviews of a referenced author or to reflect the PhD candidate’s terminology framework shifting from the publication to thesis writing process.
representative of and thus accurate to describe a local person who catches fish. After applying this term across different cultures and languages, Orlove (2002, p. 49-50) came to the conclusion “that it was impossible to come up with a consistent pattern of terminology to duplicate the local ways” of referring to such an activity.

In respect to Aboriginal and Torres Strait Islander peoples’, McGloin and Carlson (2013) noted that language can be applied as a political tool to make an ‘us’ versus ‘them’ dichotomy, causing the ‘other’ to be created when referring to different groups. The cultural diversity in Aboriginal language has been investigated over a considerable period of time in Australia, evidenced in Stanner’s republished (2009, p. 57) reflections from 1953, that terminology like time and Dreaming “suffers badly by translation into our dry and abstract language”.

Explaining the difficulties associated with terminology, Orlove (2002) noted that it comes down to the simple fact that local people may have dissimilar, diverse or even opposite systems of categorising words. Basso (1996a) highlighted that we can never look at the meaning of words as simple categories but can explore the ‘culturally-based assumptions’ and ‘beliefs’ that make these words mean something. Maybe this complexity, as Descola and Pálsson (1996, p. 19) pointed out, based on Bakhtin’s work, is due to language being “the cumulative result of prior experiences of the speakers and their interactions with the speech community”.

These different systems and interpretations are evident in academic discourse, with Ellen (1996a) explaining that a whole debate can be based on diverging and trivialising words and their meaning. This is emphasised by Ingold’s (2000) frustration when using terms like ‘Western’ or ‘Modern’ which are often applied to contrast Indigenous worldviews. However, Ingold (2000) went on to explain:

*For those of us who call ourselves academics... there is a good reason we cannot escape ‘the West’, or avoid the anxiety of modernity. It is that our very activity, in thinking and writing, is underpinned by a belief in the absolute worth of disciplined, rational inquiry... however much we may object to dichotomies to which it gives rise, between humanity and nature, intelligence and instinct, the mental and the material, and so on, the art of critical disputation on these matters is precisely what ‘the West’ is all about* (p. 6).
1.4.1 Nature, environment, landscape, wilderness and Country

It would be misleading to suggest that people, even within the same society, all share the same understanding of the environment... For some, the environment may be passive and amenable to management by people, for others it may be personified as an all-powerful being who controls human destiny, or it may be inhabited by agents which interact with people in a reciprocal manner (Milton, 1996, p. 32).

As this thesis focuses on how Aboriginal Victorian people perceive their Country, emphasis needs to be placed on exploring associated terms such as ‘nature’, ‘environment’, ‘landscape’ and ‘wilderness’. The framework I have used to explore such concepts has evolved during the course of the research. My original definition, applied in Urban Policy and Research (Kingsley & Townsend, 2006), defined nature as features of the biophysical environment, as opposed to the built environment. My views have extended from this starting point through review of the meaning of urban environment, the separation of the non-human world and society, and the social construction of language (which may not be reflective of Aboriginal Victorian peoples’ connection with Country). These points will be explored to highlight how my views of such concepts have evolved. This is no easy exercise because:

Different societies, and different ages, re-invent Nature in their own image, sometimes benignly, sometimes with hostility, but rarely with indifference (Ellen, 1986, p. 9).

Hence, nature is not a ‘basic category’ (Ellen, 1996a) with various meanings. Strathern (1992, p. 197) acknowledges that nature is timeless and enduring with its ability to be reimagined because “we are still after Nature: still act with nature in mind” but the dimensions of it have become, to some, so trivial that it is now a mere artefact. Nature can no longer be thought of without including human perceptions; it is impossible to think of the world so narrowly as in the past – a wilderness untouched and unaffected by human intervention (Thompson, 2013). Simmons (2006) explains that most of our concerns about words like nature, environment and wilderness alike are human-centred and relate to the precipitation of closed and narrow views. Luke (2006, p. 257) noted that the concept of nature is multilayered because it is based on how humans give meaning to nature and “observe its patterns, choosing to accentuate some while deciding at the same time to ignore others”. Descola (1996, p. 82)
reiterated that this social construction of nature varies dependent on cultural and historical factors and “therefore, our own dualistic view of the universe should not be projected as an ontological paradigm” where it is not applicable.

Ingold (2000), Descola and Pálsson (1996) and Ellen (1996b) identified that explanations of nature tend to be separate from humanity, with people from diverse cultural backgrounds perceiving these concepts differently. Polarising terms, in Western culture, often separate concepts like ‘tame’ and ‘wild’ or ‘nature’ and ‘culture’ which hold different categorical meaning and significance to certain populations (Pálsson, 1993a). This was highlighted by Strang (2009a) who emphasised:

> [A]lthough dualistic visions of nature and culture remain dominant in scientific and popular discourse, humans and their activities are intimately bound up with, and part of, multiple biological and ecological material processes (p. 29).

Milton (1996) and Pálsson (1996) stated that ecologists, for example, often apply a narrow, closed and ordered definition of nature, separating it from culture. Strathern (1992, p. 5) highlighted another conundrum: that “nature and culture are both cultural constructions, the one term (culture) seems to consume the other (nature)”. Ingold (2000) noted that culture can be so simplified that it creates false dichotomies like Indigenous peoples’ having more culture than others. Thus, even words like culture are open to scrutiny. Furthermore, a considerable number of scholars apply the term nature in research, especially in health discourse. Luke (2006) provides an interesting point:

> more suggestive terms like “Nature”... or “Ecology,” typically were deployed in making references about the characteristics of the environment. Now generations later... Nature in these discourses occasionally will speak as “Nature,” but increasingly its presence is marked as “the environment.” This twist is interesting inasmuch as the various meanings of Nature, while remaining fully contestable, are somewhat clearer than a generation ago. At the same time, the meanings of the “environment,” which are essentially uncontested, remains very unclear (p. 258-259).

Other popular terms like ‘landscape’ face similar problems. The term landscape is often framed as ambiguous, representing the environment ‘shaped by human action’ or a representation of a setting (Layton & Ucko, 1999). Thompson and colleagues (2013, p. 1) explains landscape often refer to an area “perceived by people, whose
character is the result of the action and interaction of natural and/or human factors”; a multi layered object and depiction of experiences; a “tension”; a process rather than an object; “a fluid impression, partly of our own creation and located within us”; a place to support wellbeing; or a vague concept. Darvill (1999) contended that the landscape is:

*the expression of particular ways of seeing the world – specialised experiences of time and place... The concept of landscape embraces much more widely applicable themes about relationships between people, the realm of ideas and values, and the worlds that they have created for themselves to live in* (p. 104).

Scholars often prefer to use words like ‘place’ to describe geographical landmarks and categories rather than ‘landscape’ (Crouch, 2013). Irrespective of the terminology applied, we face a similar conundrum, with our understanding of landscape being shaped by our experiences and often detached from humans, being beyond our bodies and mind (Basso, 1996b). Perhaps words should be able to shift from previously narrow definitions to more comprehensive notions that include the environment as well as social and cultural factors. This requires moving away from these narrow definitions of nature being untouched, remote and separated from human contact and moving towards what evidence indicates - that the environment has been manipulated and managed for as long as humans have existed (Thompson, 2013a).

Viewing the wilderness as the untouched takes attention away from these interactions humans have with their environments. Ingold (2000) explains, wilderness is usually associated with the idea of the control over and exclusion of Indigenous people from the environment so it can be conserved as a commodity. Indigenous populations have often managed their lands for an extensive period of time and therefore their diversity of practices should rather be respected. For Indigenous peoples, ‘nature’ may not even be a relevant term (Ingold, 2000). Strang (2008a) acknowledged that to view nature as a separate and non-human construct fails to integrate social and cultural issues into environmental management causing Aboriginal understandings of Country to be viewed as the ‘other’. Strang (2009a) emphasises that in Aboriginal life there is a holistic connection to the environment. This was observed by Bird-David (1995, p. 121) who noted that in “the traditional Western view, nature and humankind have been ‘seen’ as detached... viewed within a ‘subject-object’ frame: nature ‘seen’ as a
resource to be utilized, controlled, possessed, dominated, managed and (more recently) looked after by humankind”. Conversely, Bird-David (1995) observed the opposite in South Indian Indigenous populations in that they were in a ‘subject-subject’ frame, with an intimate knowledge of their environment. In the Australian context, Myers (1986) explained that Aboriginal peoples’ connection and narratives of Country are fluid still active and ongoing.

Such views of Indigenous knowledge must be considered with caution because cultures are diverse rather than homogenous and often these stereotypes or romantic notions of Aboriginal peoples can lead in itself to the ‘other’ being created (Ingold, 2000). For this reason, West (2005) emphasised that local representations of land, ownership and connection to place and Country cannot be perceived as precise because of the complexity surrounding this connection. Nonetheless, Ingold (2000) proposed:

we take these hunter-gatherer understandings seriously, and this means that far from regarding them as diverse cultural constructions of reality, alternative to the Western one, we need to think again about our own way of comprehending human action, perception and cognition, and indeed about our very understanding of the environment and of our relations and responsibilities towards it. Above all, we cannot rest content with the facile identification of the environment (p. 40).

Basso (1996a) explained that this involves sitting down and listening to what the landscape actually means from an Indigenous perceptions. I have chosen three terms to be applied on this topic to respect such sentiments and recommendations.

The first term is ‘Country’, used by Aboriginal and Torres Strait Islander peoples to describe their traditional lands. The definition of Country applied in this thesis is:

♦ Country: Country is a place that gives and receives life. Aboriginal people talk about Country in the same way that they would talk about a person: they speak to Country, sing to Country, visit Country, worry about Country, feel sorry for Country, and long for Country because of its close link with ancestral creative beings (Rose, 1996; Burgess & Morrison, 2007; Tonkinson, 2011). The concept of Country is not static or frozen in time and its management depends on its geographical location,
history and colonial impacts. Aboriginal people can also feel a sense of responsibility for someone else’s Country because of their deep relationship with their own lands through ‘caring for Country’.

The second term relates to human interactions with the environment, which will be referred to as the ‘human-environment relationship’:

- **Human-environment relationship**: is the perceptions individuals have of the environment they interact with including social and cultural factors. Strang (2008a, p. 41) views the human-environment interaction as a “specific, holistic, and integrative cultural paradigm”. Ingold (2000: 20) makes the point that the environment “is a relative term... Just as there can be no organism without an environment, so also there can be no environment without an organism”. Understanding the environment as holistic, multilayered and encompassing represents the relationship Aboriginal and Torres Strait Islander peoples’ have with their Country.

The third term is ‘nature’, and is perhaps the most contested within the literature and across disciplines. My reasons for the use of nature when describing the health and wellbeing benefits that the environment holds are threefold: 1) within the discipline of health science in which this thesis sits, nature is a term widely applied; 2) as this is a thesis by publication, during the publication write-ups I did not consider and debate this term and therefore nature will be used in the thesis for consistency; and 3) to provide a more positive and accurate view of nature which incorporates cultural, environmental and health determinants. Therefore, the definition of nature used in this thesis is:

- **Nature**: is the biophysical environment incorporating diverse cultural, geographical, health, economic, political and social understandings of this term.
1.4.2 Health

In Chapter 3 the diversity with regards to the meaning of health is explored focusing on different models, disciplines and ideological views. This exploration includes biomedical, ecological and Indigenous models of health and wellbeing, health promotion, public health and primary health care. Because of such detail and recognition of a diversity of perspectives this section is relatively brief, focusing on three definitions associated with health that will be applied throughout the thesis.

- Health: I define health as holistic, focusing on a number of factors like biology, culture, social and environmental determinants, which in turn affect human wellbeing (Stewart, 2004; Stigsdotter et al., 2011). This builds on the World Health Organisation’s (1946) definition of health as a “state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”.

- Indigenous model of health: The Indigenous model of health is also holistic and involves physical, social, emotional, cultural and environmental wellbeing (Lutschini, 2005) and is a ‘whole-of-life view’ incorporating the cyclical concept of ‘life–death–life’ and the relationship to Country (National Aboriginal Health Strategy Working Party, 1989). In this model, the past, present and future intertwine to impact on Aboriginal peoples’ health and the focus is on the whole community rather than the individual (Boulton-Lewis et al., 2002; Kingsley et al., 2009b).

- Wellbeing: According to Trewin (2001), the components of wellbeing include a number of environmental and social settings and wellbeing depends on all factors interlinking throughout one’s life. Aboriginal notions of wellbeing are holistic, involving all determinants in one’s life, connecting and gaining strength from the past, present and future, with Aboriginal wellbeing (or lack thereof) deeply rooted in colonisation (Drew et al., 2010; Zubrick et al., 2010). A recent and eloquent definition of wellbeing was provided by the Centre for Disease Control and Prevention (2014):

*Is a valid population outcome measure beyond morbidity, mortality, and economic status that tells us how people perceive their life is going from their own perspective*
1.4.3 Aboriginal and Torres Strait Islander and Indigenous peoples

Formal attempts to define the indigenous can only be understood in the political context of peoples’ struggles, against the odds, to restore their security, dignity, well-being and self-esteem after years of marginalisation and oppression (Ingold, 2000, p. 133).

As a consequence of political, social and historical factors, there is much debate on words referring to Aboriginal and Torres Strait Islander peoples who settled in Australia approximately 70,000 years ago (Lourandos, 1997; Pulver et al., 2010). Some individuals in Victoria, for example, prefer using terms like Indigenous, Aboriginal, Koori or Traditional Custodian and Owner names. There seems to be no consensus on the correct wording to employ, but whatever word is used, a collective term such as ‘Indigenous’ or ‘Aboriginal’ underplays the important fact that most Traditional Custodian and Owner groups around Australia have their own unique languages, customs, ecological practices and belief systems (Isaacs, 2005; Kingsley et al., 2013a). As Dockery (2010, p. 321) noted, “while we sometimes speak of ‘Indigenous culture’ as if it were one homogenous culture, there is in reality considerable diversity among Indigenous peoples from different tribes and regions”.

In the published articles of this thesis, either Indigenous or Aboriginal is used to refer to Aboriginal and Torres Strait Islander peoples (this was influenced by the reviewers’ and editors’ preferences) as a collective, and Traditional Custodian and Owner names are used when discussing specific groups. In Australia there seems to be some preference for the term ‘Aboriginal and Torres Strait Islander’ over ‘Indigenous’ in academic literature and within the Aboriginal community controlled health sector (e.g. Holmes et al., 2002; Dietsch et al., 2010; Reibel & Walker, 2010; National Aboriginal Community Controlled Organisation [NACCHO], 2012). Contestations of such language are not unique to Australia (Nettleton et al., 2007). The complexity when dealing with ‘indigeneity’ is deep and terminology varies dependent on a range of factors including geographical locations of the Indigenous population group in question (Stephens et al., 2005; Stephens et al., 2006; Stephens et al., 2007a).

Koori (or Koorie) is a collective term for Aboriginal people living in South-Eastern Australia.
On reflection, when beginning this study as a Masters researcher in 2005, the term Indigenous seemed to be commonly used in consultation with governments, academics and Traditional Custodians; but the term ‘Aboriginal’, now, nine years later, seems the preferred term in Victoria (Australia). This could be considered a positive step as Indigenous can often be used erroneously to represent a homogenous group (Ingold, 2000) which Aboriginal and Torres Strait Islander peoples are not. Further, people who often identify as Indigenous “carry a burden of having their cultural practices romanticized or denigrated... Rarely are Indigenous peoples seen as normal human beings, with all the complexity that human existence entails” (Haenn & Wilk, 2006, p. 349). This seems to also be evident in the context of Aboriginal and Torres Strait Islander communities. Therefore, I have carefully developed the definitions below from a human rights perspective to ensure they are as inclusive as possible:

- **Aboriginal and Torres Strait Islander peoples:** The first inhabitants of Australia and Torres Strait Islands are diverse having their own unique languages, beliefs and traditions (Australian Human Rights Commission [AHRC], 2013b). An Aboriginal and Torres Strait Islander person is a member or descendent of the Aboriginal race of Australia or the Torres Strait Islands, who identifies as an Aboriginal person or Torres Strait Islander and is accepted by the Aboriginal community and/or the Torres Strait Islander community as an Aboriginal person or Torres Strait Islander (Human Rights and Equal Opportunity Commission, 2007). Aboriginal and Torres Strait Islander people live in a global world orbiting between their cultural practices, self-determination and Western society (Kingsley et al., 2013a).

- **Indigenous peoples:** A person who belongs to an Indigenous population by self-identification as Indigenous (group consciousness) and being recognised and accepted by the population/s as one of its members (United Nations, 2004). The term Indigenous is usually associated in the context of international law to explain a population that retains historical, social, economic, political and cultural ties to their territories (AHRC, 2013b).
1.4.4 Traditional Owner and Traditional Custodian

Up until this point I have referred to both Traditional Custodian and Owner. However, I believe a choice must be made about the preferred terms to be applied throughout the rest of this thesis rather than using the two terms interchangeably. This is for two fundamental reasons: firstly, for ease of reading; and secondly, to make a philosophical standpoint about which term is most appropriate in the Aboriginal Victorian context. This decision was made after exploring literature and consulting with Reference Committee members.

The first part of the present section will briefly define how the concept ‘Traditional Owner’ has been applied in Australia. Traditional Owner definitions often refer to the ownership of and responsibility to a certain land and its resources based on ancestry (Weir, 2009). As a starting point I will examine legal definitions of Traditional Owner. This is critical as Strang (2009a, p. 96) noted “legal acknowledgment of Aboriginal land ownership provides a powerful lever in negotiation of land and resources”. The first legislation by any Australian government attempting to recognise land rights (Aboriginal Land Rights (Northern Territory) Act 1976) provided a seminal definition of Traditional Owner:

\[\text{means a local descent group of Aboriginals who –}\]
\[\quad a) \text{ have a common spiritual affiliations to a site on the land, being affiliations that place the group under a primary spiritual responsibility for that site and for the land; and}\]
\[\quad b) \text{ are entitled by Aboriginal tradition to forage as of right over that land}\]

This definitions convey the deep importance of land to Aboriginal peoples’ identities, culture and spirituality. Sutton (2003) refers to Traditional Owners as people considered to have the inherent rights to have a connection to Country by ancestry. Sutton went on to explain that Aboriginal people who have migrated, relocated and or been removed from their Country onto another persons land can only be Traditional Owners of other places. This has led to tensions between some Aboriginal and Torres Strait Islander communities due to colonisation relocating people and moving them to other peoples’ Country where even the Traditional Owners had been excluded from managing their own lands (Read, 1996; Strang, 2009a). The usage of the term Traditional Owner has been critiqued and identified to have various interpretations.
Edelman (2009) concluded that the definition of Traditional Owner sometimes lacks clarity because it:

draw[s] attention to a number of nuances associated with the notion of traditional ownership. Though that term is today frequently used, the meanings which are ascribed to it are by no means fixed or uniform. While some perspectives tend to invite conclusions about rankings of Aboriginal associations to land, others point to the intricacies involved in distinguishing between traditional owners and historical people. Another complexity relates to the tensions and disputes which can arise within and between Aboriginal groups seeking recognition as traditional owners (p. 12).

Because of the struggles that many face when trying to gain Traditional Owner status in the Australian legal system, actions taken to gain recognition, can sometimes lead to exclusion of other Aboriginal groups residing in that region (Smith & Morphy, 2007). This may explain why the AHRC (2014) applies both Traditional Owner and Custodian in its work as exemplified in the following passage: “traditional owners and custodians throughout Australia retain connection to Country and also recognise the economic importance of their traditional lands to produce sustainable outcomes for future generations”. In the context of Victorian Aboriginal communities, Traditional Custodian as a term may well be more relevant because:

What certainly is a classic Aboriginal value is the emphasis on ‘looking after’, ‘caring for’ and ‘growing up’ the country which continues to inform the attitudes of many... Those who assert an obligation to care for the country they claim thereby assert a right, the right to act as primary custodians (Sutton, 2003, 31)

Sutton (2003) subsequently acknowledges another critical point - that it is rare for Aboriginal people to refer to themselves as Traditional Owners rather they prefer the usage of custodian because of its translation. Sutton (2003) explained:

I have never heard anyone say: ‘We are only the Traditional owners of that area’. As a vernacular English expression, often constituting a not completely happy translation of some indigenous expressions, ‘traditional owner’ is a term of first rank when specifying who has rights and interests in country. On the other hand, many people with the same traditional right in a country, even some very strong rights, will normally deny that they are ‘traditional owners’ of it if they lack a primary connection to it based on identity (p. 7).

Another reason Traditional Owner may not be the appropriate definition to use in the Victorian context is due to the poor relationship this term has with Native Title
(explored in more depth in Chapter 3) for Aboriginal communities in this state. As Foley (2007) mentioned Native Title is a dream for Aboriginal people living in urban regions, which has caused much suffering. In Victoria, this suffering was evident in the Yorta Yorta Native Title case which has been described as an ‘injustice’ and a form of ‘bureaucratic genocide’ (Barcham, 2007). Smith and Morphy (2007, p. 1) believe most Aboriginal and Torres Strait Islanders find Native Title problematic because it has delivered “little in the way of meaningful recognition of customary property rights”. This lack of success has possibly led to the Traditional Owner Settlement Act 2010 in Victoria, which provides out of court Native Title settlement in which the State Government recognises Traditional Ownership if there is a withdrawal and no further Native Title claim under the Commonwealth Native Title Act 1993 (Department of Justice, 2014).

Given these critiques, I have elected to use the term Traditional Custodian in this thesis. Whilst also recognising the significance of the term Traditional Owner I have made this choice based on the Victorian context of this research. This term was also discussed as an agenda item in 2006 and 2007 for the Reference Committee and this was the preferred term at the time. The definition provided below was contributed by one of the reference committee members who participated in all meetings and collaborated in this research:

- **Traditional Custodians:** A person(s) or group who, by right of tradition, have inherited a custodial role of caring for their Country through bloodline connections (R. Phillips, personal communication, March 4, 2008).
1.4.5 Nation, Clan, Tribe and Aboriginal communities

Even the notion of “indigeneity” is demonstrative of some cross-cultural synthesis. In many contexts, indigenous groups have adopted and made astute use of anthropological terms such as “culture”, “identity,” and “traditional knowledge” and incorporated disciplinary terminologies, for example, “clans,” “kin group,” “customary law,” and so forth... I have observed that local Aboriginal groups make regular use of all of these categories, as well as adopting terms such as “tribes” to describe the enlarged group emerging from new forms of social-spatial organization and “cultural mapping” to refer to the collaborative site records that we have worked on together (Strang, 2006a, p. 986).

In the following section brief but complex definitions have been provided:

♦ Nation: sometimes ‘Nation’ and ‘Clan’ have been applied to explain the same term in Australia (e.g. Australian Government, 2014). In Victoria, the term Nation has been used to refer to an Aboriginal language and boundary areas within a region (combining a number of different sub groups together) in significant ceremonies and cultural protocols like Welcome to Country and Reconciliation Action Plans. However, Blackburn (2002) notes that word is a European term used to describe the people they colonised in the 19th century, and is derived from the Latin word for ‘stock’ or ‘breed’. However, this meaning has evolved and a Nation now refers to a ‘sovereign people’ of a traditional area in Australia (Blackburn, 2002). It is possible that this way of describing Aboriginal communities and ownership is based on Blackburn imposing his worldviews, with some suggesting that the concept of Nation is specific to historical development of a large nation state which differs from the political and social structures of Indigenous populations. This point is valid but it should be recognised that Aboriginal Victorian communities are starting to apply the term Nation into everyday language to recognise and identify themselves.

♦ Clan: Carter and Hill (2007, p. 44) define a clan group “as those who claim common ancestral origins and ownership of a tract of ancestral homelands or ‘clan estates’”. Morphy (1991, p. 45) noted from his research in the Northern Territory that the “ideology of the clan system is based on patrilineal descent, with men and women belonging to the clan of their father, which is a clan of the opposite moiety to that of their mother”. Smith (1999) upholds this sentiment but adds that it is also about Aboriginal language groups which people are part of. Responsibility for the management of Country was “distributed among clans and sub clans according to
their ancestral ties” (Milton, 1996, p. 130). Strang’s (2009a) definition of clan describes this concept:

*Clan membership includes individuals in the collective ownership of clan land, and provides further rights to use resources in related areas... Clan lands are often defined by waterways, and the sacred sites clustered around them; thus ‘ownership of country tends to flow with the water’... However, though clan resources might be defended against strangers, they can be shared with neighbouring clans* (p. 90).

- **Tribe**: The ancestral division of ancient Aboriginal groups (Parks Victoria, 2006). Interestingly, some scholars suggest Tribe is an anthropological term (where historical, social organisation was composed of small and distinct language groups through links of exchange networks) and has only become commonplace to apply in the last few decades in Australia. This was evident whilst undertaking my research when small Aboriginal language groups (similar to Milton’s sub groups) identified themselves as a tribe.

- **Aboriginal ‘communities’**: Sutton (2003) explains that Aboriginal communities have been defined in a number of ways based on geographic, social, spiritual and political fields or networks in reference to culture, linguistics and beliefs. Communities will refer to these elements along with ‘feeling part of a collective group’.
1.4.6 Other Key Terms

The following terms are used frequently throughout the thesis and have been included to assist the reader to navigate the thesis. Some of these terms are reviewed further within the literature review while others are threaded throughout the thesis. These terms have been placed in alphabetical order for the reader’s convenience and there is no hierarchy to the order of terms.

♦ **Caring for Country**: A community-driven process, which involves knowledge, responsibility, participation and the promotion of ecological sustainability (Rose, 1996; Natural Heritage Trust, 2007; Burgess et al., 2009). This process is not rooted in the past, being evolutionary and contemporary, and is a process Aboriginal people have been involved in for tens of thousands of years through managing Country.

♦ **Elder**: A respected role model and teacher in a Traditional Custodian group’s culture and the wider population because of their wisdom, experience and knowledge within their Nation or Tribe (Peters-Little, 2000). It is assumed that Elders should be advisors and law givers (Stiegelbauer, 1996). In most Aboriginal and Torres Strait Islander communities this position is usually based on a complex system. Laycock and colleagues (2011) explains this system well while discussing Aboriginal and Torres Strait Islander health ethics and knowledge exchange:

> *Australian Indigenous knowledge systems are based on a tradition where knowledge belongs to people. Indigenous knowledge tends to be collective... This knowledge is held by right, like land, history, ceremony and language. This right is governed by ancestral laws... The principles of ancestral law and oral culture of Indigenous people mean that a lot of traditional knowledge is held by respected Elders, and can only be transmitted in accordance with customary rules, laws and responsibilities (p. 9).*

♦ **Land management**: The ability to maintain, manage and sustain the land through ecological management without damaging the biodiversity of that locality (Department of Sustainability, Environment, Water, Population and Communities, 2009). However, Escobar (2006) contends that biodiversity itself is socially and artificially constructed, making the management of land often complex and political.
Native Title: The AHRC (2013a) refers to Native Title broadly as the human and property right that reflects Aboriginal peoples’ relationship to Country and the continued connection of this through traditional law, culture and customs recognised through Australian Law. French (2004) explains:

To demonstrate the existence of native title it was necessary to show that the Aboriginal and Torres Strait Islander group said to hold the native title had a continuing connection with the land in question and had rights and interests in that land under Aboriginal and Torres Strait Islander traditional law and custom, as the case may be; and continue to observe laws and customs that defined its ownership of rights and interests of the land (p. 88).

Terra nullius: A Latin term meaning ‘empty land’ or ‘no man’s land’. Seventeenth century European colonial powers described land that was unclaimed by their authorities as not belonging to anyone. This was to have devastating effects on Indigenous populations worldwide (Welsh, 2005). In South-Eastern Australia, this notion (and other colonial policies that followed) had devastating impact on Aboriginal Victorian people who, due to this concept, lost elements of their Country, knowledge and practices.
1.5 Basic assumptions

Six basic assumptions underpin this thesis:

1. Aboriginal Victorian people have a strong relationship with and deep knowledge of Country because of their long historical and spiritual connection with the land (Chapter 5-6).

2. Aboriginal Victorian people who are actively involved in caring for Country projects have a powerful relationship with the environment and value protection of the land (Chapter 5-6).

3. Aboriginal Victorian people participating in the research projects (explored in Chapter 5) have some knowledge of the health, wellbeing and spiritual benefits of being involved in the management of the environment and caring for Country.

4. Participants in this research project may respond to questions politically due to Country being linked with land rights, Native Title, environmental protection and personal perceptions of sustainability (Chapter 5).

5. The exploratory framework developed through this research will be able to be applied beyond the setting of Aboriginal Victorian communities (Chapter 6 and 7).

6. Oceania EcoHealth Chapter members will respond to this thesis topic with a mindset of improving the health of the ecosystem through research revolving around the human-environment relationship (Chapter 7).
1.6 Significance of the research

For the first time in human history more people are living in urbanised regions worldwide than in non-urban areas, and by 2050, the proportion is set to rise to approximately 70 per cent (Lee & Maheswaran, 2010). With such a rapid increase in urbanisation there are still unknown consequences that need to be explored (United Nations Population Fund, 2011). Some academics have linked such global changes to an increasing disconnection from the environment and a proliferation of sedentary behaviours (Pretty, 2007).

Rennie (2008) acknowledged that humans’ relationship with the environment is of vital importance, emphasising it as the biggest issue of our time. To tackle these issues, it is crucial that public health, social sciences and ecological issues are integrated within research and practice (Albrecht et al., 2008; Nurse et al., 2010). However, as Bunch and colleagues (2011) reiterated, the challenge researchers face is integrating knowledge from multiple disciplines. Similarly, Parkes and Horwitz (2009) highlighted practical concerns and dilemmas about how the ‘ecological’ approach to health settings has manifested. One of these is the relative lack of cross-reference and exchange with other health, environment and development fields that have been heavily informed by ecological and system-based thinking … Arguably, each of these fields is equally guilty of implementing their ‘systemic’ approach in territorial silos of ‘health protection/promotion’, ‘environment’, ‘community development’ (p. 95).

This thesis focuses on Aboriginal Victorian peoples’ understanding of Country and its link with health and wellbeing. Projects studying the health and wellbeing of Aboriginal Victorian people are significant because there is a substantial life expectancy gap between Aboriginal and non-Indigenous people in Australia (Australian Bureau of Statistics [ABS], 2010). Even with relatively recent actions by government such as the 2008 Apology to Australia’s Indigenous Peoples’ (Australian Government, 2008), commitments to ‘Close the Gap’ and a COAG committee set up to improve Indigenous health (Council of Australian Governments, 2008), there have been few inroads made to reduce this inequality (Australians for Native Title and Reconciliation, 2010).
Efforts must be made to understand the oldest culture of Australia and its connection to land in order to bridge this gap. Research is urgently needed to better comprehend the health and wellbeing benefits of culturally appropriate Aboriginal caring for Country projects in Victoria. Land is central to the identity of Aboriginal people, and initiatives enacted on Country would be expected to improve health inequalities (Vickery et al., 2004). However, it is unclear to what extent involvement in caring for Country projects actually benefits the health and wellbeing of Aboriginal Victorian people. Most research on the health benefits of Aboriginal land management projects has taken place outside of Victoria.

By engaging in this research, derived evidence will afford a better understanding of this link in a state where Aboriginal people have often been forgotten. As Holmes and colleagues (2002, p. 1269) note, “good quality health data that relates to Victorian Koori communities … [is] sparse”. Further, Aboriginal Victorian people in most circumstances were removed from their Country and made to assimilate into the dominant European culture, which showed little respect for this population group (Broome, 2005). In some ways, therefore, the Victorian Aboriginal population has become possibly more distanced from their Country than other Aboriginal peoples in Australia. This distancing has potential flow-on impacts, as Walker et al. (2003, p. i) acknowledged, stating that displacement or changes in social ties causes a reduction in social cohesion and can “disrupt kinship ties”. Given this disruption to connections to Country, social networks and kinship groups, it is not surprising that Aboriginal Victorian people have suffered health detriments. The question is, to what extent can reconnection to Country address this issue?

Responding to these questions around the human-environment relationship for Aboriginal Victorian peoples who predominantly suffer health and social inequalities may provide similar insights for other Australian groups burdened by related inequity. Further, it may determine whether ideas like caring for Country can actually encapsulate these ideas fully because there are a number of equally salient issues which impact on inequalities such as poverty, social capital and early life as
highlighted in the social determinants of health. Nonetheless, the connection Aboriginal people have to their Country and ideas expressed in ecohealth is one cog (all but very strong and fundamental) in the wheel in tackling health, social, and ecological injustices.
‘When an Aboriginal identifies, say his clan totem and its sacred site, he is not “pointing” to “something” which is “out there” and external to him... he is identifying part of his inwardness as a human being, a part of the plan of his life in society, a condition of his placement and activity in... a cosmic scheme’

(Stanner, 1976 cited Strang 1997, p. 159)
Chapter 2: Literature review exploring the human-environment relationship

The following literature review examines the human-environment relationship providing background, theory and disciplinary understandings of this concept. Chapter 2 will draw on Western academic discourse surrounding the human-environment relationship but will also endeavour to capture, combine and link this to Aboriginal and Indigenous peoples’ understandings of these concepts. Chapter 3 will review literature, in greater depth, to understand Aboriginal and Indigenous peoples’ relationship with Country, health and wellbeing.

2.1 The human–environment relationship

Throughout history there has been a deep relationship between humans and their environment, as evidenced by elements such as water being identified as a universal symbol of healing, knowledge, power and fertility across cultures (Strang, 2006b, 2009a; Völker & Kistemann, 2011). Perhaps this is because water is essential to human existence that can take many forms from a small raindrop to an expansive ocean (Orlove, 2002). Strang (2009a) identified water, as a form of recreation, was historically significant because of the aesthetic pleasure it provides but more so the deep social and cultural meaning it encapsulates. Strang (2008b, p. 2) emphasised that in Aboriginal stories, practices and knowledge water features conjure up powerful connotations linking “ancestral force” and “formulate human–environmental relationships in metaphorical and spiritual terms... express[ing] complex ideas about social identity, creativity and productivity”.

Read (1996) asked the question, how do humans create such connections to particular environments and places? In responding Read (1996) explained that this possibly is because humans need to create a safe and stable ‘home’. Casey (1996) took this notion further, explaining that place was a multilayered concept and based on social relationships allowing it to acquire deeper meaning. However, the most ‘constant factors’ of the human-environment relationship is the land itself - with its unique and
different histories, environmental conditions, narratives, perceived socio-spatial organisations and its capacity to support human conditions (Strang, 1997). Strang (1997) identified:

*that there is no way to relocate affective values in the land without re-establishing them squarely in every cultural form. This would entail some radical changes to the patterns of ‘Western’ life* (p. 291).

Basso (1996b) acknowledged it is surprising with current global environmental problems and Indigenous peoples’ still continuing to be forcibly displaced from their lands, that ideas of place are not studied in more depth in academia. This lack of scholarship maybe due to the complexity of the human-environment relationship. Descola and Pálsson (1996) acknowledged this complexity, at the same time explaining why human-environment relationship is a critical field of scholarship:

*One may wonder, then, why... bother with studies of human-environmental relations at all... If nature has become a meaningless category... how can the understanding of the interactions between humans and other living and non-living components of their surroundings still be a worthwhile pursuit? A first answer is that this topic is now at the forefront of the public agenda, as the place of the environment in human affairs has become a major political and ethical concern of peoples and governments... Indeed, some of the reasons... [for] revisiting environmental issues have to do with ongoing changes in the nature-society relationship* (p. 12-13).

Consequently, this section starts by focusing on terms surrounding the human-environment relationships because different disciplines and communities refer to these meanings in different ways. As Milton (1996) explained, this variation in disciplinary and community thinking within the human-environment relationship discourse is valuable because tackling current environmental problems requires a diversity of perspectives.

### 2.1.1 Terms revolving around the human-environment relationship

This section briefly reviews terms to explain the human-environment relationship drawing on similar concepts explored in Chapter 1’s ‘Complexity of terms’ subsection. This complexity revolving around such a field of enquiry as Strang (2009a) acknowledged is due to:
Diverse groups approach ‘environmental issues’ from quite different perspectives, and employ a range of conceptual models... [some] are ‘top-down’ cosmopolitan visions... [being] ‘thin’ conceptual frames... [compared with] localized, embedded visions, ‘thickened’ with complex everyday realities... there is logical coherence between the kinds of conceptual frameworks that individuals and groups favour and their particular forms of engagement with land and water (p. 239).

Some scholars believe that both history and culture play an integral part in how we conceptualised the human-environment relationship with both impacting on our priorities and values to engage with it (Strang, 1997). Others contend that human-environment relationships are based on power and bio-politics (Luke, 2006). Read (1996), however, talks about how the bonds with the environment can never be constructed being learnt through experiences. These experiences and perceptions of the environment in the Western world have been associated with control over it, which often alienated hunter-gatherer societies (Milton, 1996). To reunite a deep and thick human-environment relationship humans need to reconcile and/or reimagine the way we view nature. However, this may be difficult because:

The ‘Western Gaze’ succinctly expresses a particular... way of perceiving and experiencing the world. It is a gaze that skims the surface; surveys the land from an ego-centred viewpoint; and invokes an active viewer (the subject) and passive land (object). This active viewer is equated with ‘culture’ and the land with ‘nature’... the Western Gaze is about control (Bender, 1999, p. 31).

Ingold (2000) provided valuable insights as to how to transform ideas of the environment to be more cross-cultural and accurate reflections of human connections with it. Ingold suggested moving away from rigid ideas of nature and the environment where human and non-humans are separated to ensure these terms are more dynamic involving environmental, cultural and social aspects and there intersections. He explained that our view of the human-environment relationship should be understood as a whole system enmeshed in every element that is the organism-environment. Luke (2006), however, highlighted:

Many individuals who are intent upon turning the world into “a better place to live” often turn today to “the environment” in order to make their improvements. Believing that they must do anything and everything to protect “the environment,” they transform this undertaking into a moral crusade. Their struggles, however, are often hobbled by a fundamental lack of clarity about what “the environment” actually is. This lack of certainty or centeredness in the meaning of environments is intriguing,
because so many contemporary ecological discourses articulate their visions of moral value, political organisation, and social control by stressing the salience of solving “environmental problems” for contemporary society (p. 258).

The complexity of the human-environment relationship is evident when focusing on terminology like nature, although there is a considerable amount of academic literature identifying the importance that contact with nature to health (e.g. Maas et al., 2009; Lee & Maheswaran, 2010; Hanson-Ketchum et al., 2011; Nisbet et al., 2011; Park et al., 2011; Stigsdotter et al., 2011), Nature in Western culture has often been inappropriately used to mean the separation of nature from society or non-human world (Descola, 1996; Macnaghten & Urry, 1998; Simmons, 2006). Ingold (2000) reiterates this point that was emphasised in Chapter 1, that Western society has repeatedly separates humans from the animal world placing humans as the central element of our ecosystems. This provides a false dichotomy of the diversity in the human-environment relationship.

Strathern (1992) believes societies has turned nature into something revolving around consumption and reproduction rather than this diversity. This was highlighted by Rennie (2008) who identified that society usually associates nature as an object for human consumption, pleasure and manipulation, often ignoring humans’ relationship with the ecosystem. Strathern (1992, p. 172) takes this further breaking down the meanings of nature into four common views: 1) being in direct control of it; 2) “the entirety of animate and inanimate objects”; 3) the physical rather than human environment; 4) “the countryside, rural as opposed to urban, the realm of which industrialisation was seen to encroach”.

Strang (2005) continues this sentiment, noting that Western constructs of nature are imagined as the ‘other’ which demands close attention, whereas Aboriginal peoples’ have beliefs, values, histories, identities and practices ingrained in the environment. Strathern (1992) makes the important point that although the concept of nature may have fundamental issues in reference to its meaning, humans’ relationship to it cannot be ignored, however, its original connotation has been lost in these reinterpretations and its ecological diversity not fully explored. One solution would be to harness Ingold’s (2000) idea of respecting hunter-gatherer society perceptions and practices of the environment which encapsulates all living and non-living beings.
Aboriginal people cannot be separated from the non-human, society or culture, interlinking with every element of the environment (Ingold, 2000; Strang, 2009a) and for this reason, Aboriginal and non-Indigenous Australians construction and perception of nature is different effecting their beliefs and values towards it (Strang, 1997). It must be recognised, when making such statements, that Aboriginal people are not always more at ‘one’ with nature then other populations (Ingold, 2000).

However, there is a fundamental belief and value system for Aboriginal Australian people, which views Country – encapsulating all aspects of life both spiritually, as a ‘social framework’, ‘economic template’, and code/belief system (Strang, 1997). Aboriginal culture does not view the environment as something out there or separate from themselves, they are a part of it (Ingold, 2000).

Further to this, Layton and Ucko (1999) explained that often our perceptions of the landscape are socially constructed requiring a number of different approaches theoretically to understand their meaning in society. Perhaps this has to do with the relationship between our memories and the landscape being complex even though fundamental to our construction of sense of place (Tolia-Kelly, 2013). These cultural, learnt and social constructions of human landscape are evident in Strang’s (1999) works where she highlighted that the human-environment relationship is multilayered interweaving the individual, the socio-cultural environment and interactions with the land. Ingold (1993) went to great lengths to differentiate between terms like landscape, nature, environment, land and space. However, Darvill (1999) asserted that:

*Taken to its logical extreme, there can by definition be no such thing as a ‘natural landscape’; the very concept of what is ‘natural’ in contradistinction to what is ‘not natural’ is a cultural construct susceptible to redefinition at any time. As soon as something is categorised as a natural landscape, it ceases to be so because, at that moment, it has been brought into the realm of the social* (p. 107).

Maybe such sentiment of this quote spurs from social construction of controlling and manipulating the environment for human and economic benefit. Ingold (2000) notes that control is often associated with the term wilderness, which approaches the environment by sealing, excluding or banning human interventions – only allowing
aesthetic observation while alienating local people. Strang (1997) is weary of such control because Aboriginal people have considerable concerns when Country becomes wild because it can lead to land becoming vulnerable to damage and depleted of its resources. Read (1996) explains that this whole idea of wild country is ambiguous with its usages often referring to the taming of Country. Ingold (2000) believed this has had a devastating impact on Indigenous people because they are perceived to lack the ability to control nature, which:

‘has often proved acutely embarrassing for the conservationists. For there is no way in which native people can be accommodated within schemes of scientific conservation except as part of the wildlife... They cannot themselves be conservers, because the principles and practice of scientific conservation enjoin a degree of detachment which is incompatible with the kind of involvement with the environment (p. 68).

Often Indigenous and Aboriginal views of the human-environment relationship tend to get pushed to the side when in reality they add great value to this discourse (Strang, 1997; Ingold, 2000). Strang (1997, p. 158) explained the human-environment relationship for Aboriginal people provides a powerful connection that is based on “continuity, equality, homogeneity and an untrammelled interaction both between people and between people and land. There is no ‘inside’ or ‘outside’; social and spatial placement is defined only by closeness or distance within the network of kin and country”. Ultimately we can learn from understanding the human-environment relationship from the Aboriginal perspective, as it is both profound and insightful.

Understanding local explanations of the environment are critical in sustaining our frail ecosystem (Orlove, 2002). However, at the same time Orlove (2002) provided a negative view of non-Indigenous people stating that they are often unsustainable, short-cited and resource hungry in reference to the environment. Such notions and debates can be counter-productive for two fundamental reasons: 1) non-Indigenous people can act sustainably and can think long term and 2) not all Indigenous people are homogenous and have the same connection to traditional lands (A. Jenkins, personal communications, December 9, 2013). We must recognise that how we perceive this world may be constructed, inherited by social, environmental and cultural factors of which Indigenous people have a deep human-environment
relationship with but that does not mean it is not ever changing or diverse (Layton & Ucko, 1999).

2.2 Human-environment relationship theories

The question of how our senses, mental processes and intellectual capacities allow us to understand the world around us has intrigued philosophers throughout history. At the heart of debates in the past 50 years or so lies the question of how we take data input received through our senses... and transform this into the perception and experience of everyday objects such as trees or buildings. A major theoretical divided lies between those researchers who believe... our perception is determined by information in the world beyond us and how much is determined by our own mental concepts and interpretations? (Thompson, 2013b, p. 25).

The following section reviews theoretical perspectives in regards to the human–environment relationships that have become popular in Western academia. This provides a few perspectives as to how academics explain the human-environment relationship – with some viewing it as culturally and socially constructed and others as genetically based. Debates and critiques often linger around these viewpoints and as a consequence three theoretical frameworks have been examined in this section. These theoretical frameworks are the biophilia hypothesis, Ngurra and place based theories. Obviously there are a number of theoretical frameworks to explain the human-environment relationship (for example Deep Ecology\(^9\) and Gaia\(^10\)) but they will not be examined because that goes beyond the scope of this thesis.

2.2.1 Biophilia hypothesis

Biophilia reflects humans’ innate connection and love of nature (Wilson, 1993; Kahn, 1999; Gullone, 2000; Nisbet et al., 2011). Although the term ‘biophilia’ has been around for half a century, little attention was given to it until 1984 when biologist E.O. Wilson suggested the element of genetic inheritance as fundamental to this

\(^9\) Deep Ecology states that there is no divide between the human and non-human world calling for a radical shift in human consciousness (Sessions, 1995; Simmons, 2006). Simmons (2006, p. 65) reiterates “we must achieve identification with the non-human world; we must learn to... let all things be themselves. To harm nature is to harm ourselves... The world is no longer our oyster, we share the oysters”.

\(^10\) Gaia views the earth as one living system (Lovelock, 1979, 1991, 2009). Gaia is explained like a super organism but one “of the implications of the theory is that, for the future of life on Earth, it is the health of the system as a whole... not the health of any particular species” (Milton, 1996, p. 131-132). Milton (1996, p. 132) goes on to explain this is problematic as it assumes “Gaia is in charge, and that she can look after her own interests; she does not require people to protect her. But... scientists tell us that living systems are vulnerable”.

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hypothesis (Simaika & Samways, 2010). Biophilia’s genetic predisposition has often been justified by identifying that for 99% of our evolutionary existence, we have been hunters and gatherers but as Kuhn and Stiner (2001, p. 99) note, this is much more complex than purely ‘eating non-domesticated plants and animals.’ As Kahn and colleagues (2009) noted:

*bipilia is best understood not as a testable hypothesis in and of itself (any more than, say, the idea that people have an affinity for other people) but as a broad construct that helps to generate hundreds of important testable empirical questions and gives voice to the importance of the human–nature affiliation* (p. 38).

Kellert (1996) divided this biophilic connection and affiliation to nature into nine tendencies or values: utilitarian, naturalistic, ecological–scientific, aesthetic, symbolic, humanistic, moralistic, dominionistic and negativistic. These values have been defined in Table 3 and Publication 7.

**Table 3: The biophilic tendencies**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilitarian value</td>
<td>The material value and physical benefit one gains from nature in terms of consumption, protection and security, which has ultimately led to human survival for thousands of generations.</td>
</tr>
<tr>
<td>Naturalistic value</td>
<td>The satisfaction associated with contact with nature through feelings of joy, fascination and wonder.</td>
</tr>
<tr>
<td>Ecological–scientific value</td>
<td>Increased knowledge and recognition of material use of nature through direct exploitation. Refers to the human willingness to learn and study nature with the belief nature can be understood by science.</td>
</tr>
<tr>
<td>Aesthetic value</td>
<td>The sense of beauty and pleasure from visually viewing nature. The feeling of strong physical appeal of the natural world.</td>
</tr>
<tr>
<td>Symbolic value</td>
<td>Nature as a form of symbols, through language and communication of ideas, religion, stories and legends. This has led to development of people’s identities and expressive thoughts.</td>
</tr>
<tr>
<td>Humanistic value</td>
<td>A deep emotional attachment to individual elements of nature expressed in feelings of love.</td>
</tr>
<tr>
<td>Moralistic value</td>
<td>Ethics and laws around the treatment of the non-human world.</td>
</tr>
<tr>
<td>Dominionistic value</td>
<td>The feelings of domination and mastery of nature.</td>
</tr>
<tr>
<td>Negativistic value</td>
<td>Feelings of fear or aversion to certain forms of nature, often associated with biophobia (as distinct from biophilia).</td>
</tr>
</tbody>
</table>

Adapted from Delavari-Edalat & Abdi, 2009 & 2010
Such a range of values has led to some academics having fundamental problems with the hypothesis because the assumptions on which they are based go beyond innate explanation (Simaika & Samways, 2010), due to possible environmental, social and cultural determinants. For example, how do we explain the ways that environmental aesthetic values shape our connection and political will towards the ecosystem? (Thompson, 2013b). Further, it is clear that not all people enjoy nature, some avoiding contact with it as highlighted in the negativistic value, evident in research on the fear of woodlands (Hansen-Ketchum et al., 2011), snakes and spiders. This is identified as biophobia in the literature (Ulrich, 1993; Orr, 1993; Kahn & Kellert, 2002).

A similar theoretical construct to biophobia is that of urbanophilia – an attraction to urban places and cityscapes (Félonneau, 2004). Nisbet and colleagues (2011, p. 304) made the point about urbanisation, which reinforced the biophilia hypothesis, identifying that “because humans began living in cities, separated from the world, relatively late in our evolutionary history, it is unlikely we have erased all the learning about nature’s value embedded in our biology”. However, such concepts have been debated because it causes an urban versus rural dichotomy.

Consequently, there is a lack of accord about the study of biophilia. An example of this appears in two recent peer-reviewed journal articles published around the same time with contrasting views, one identifying biophilia as an emerging area of scientific research, compared with the other considering that biophilia should not be identified as a scientific research area at all (Delavari-Edalat & Abdi, 2010; Simaika & Samways, 2010). Further, there are theories that have very similar meaning to biophilia but have a different naming, such as Goodin’s Green Theory of Value hypothesis which explains humans’ intrinsic need to be part of the larger context, with nature having the ability to provide this (Pilgrim et al., 2009). Biophilia was selected as a fundamental theory in this thesis because it layered the foundation of my understanding, interest and work in this space ten years ago.
2.2.2 Ngurra

Ngurra is a term used in the Northern Territory and Western Australia (but has universal application for Aboriginal and Torres Strait Islander people) by the Pintupi (Myer, 1986\textsuperscript{11}), Warlpiri (Pawu-Kurlpurlurnu et al., 2008; Holmes & Jampijinpa, 2013), Juwaliny, Kartujarra, Kiyajarra, Kukatja, Manyjilyjarra, Martu Wangka, Walmajarri, Wangkajunga, Warnman and Yulpajija peoples (La Fontaine & Carty, 2011). Ngurra simply refers to Country, camp and home but goes beyond Western interpretation of these words (Holmes & Jampijinpa, 2013). Some scholars have defined this concept as Ngurra (Myers, 1986; La Fontaine & Carty, 2011) and others as Ngurra-Kurlu (Pawu-Kurlpurlurnu et al., 2008; Holmes & Jampijinpa, 2013). No matter the terminology variations for Aboriginal peoples’ their mythical, historical and contemporary narratives revolving around places are a powerful framework - not an object or physical space but based on the multiplicity of connections (Myers, 1986; Pawu-Kurlpurlurnu et al., 2008).

Myers (1986, p. 55) explains Ngurra’s multiple meanings in the social setting as “a temporary camp” where people live as well as “an enduring “country” or named place”. There are, however, conceptual differences between Ngurra as Country or camp. Myers (1986) explained that camps are physically malleable whereas Country is ‘enduing’ over time. Ingold (2000) summarised Myers understanding of Ngurra succinctly in the following passage:

On the first level, named places were created by the ancestral beings at the sites of their activities, or at the points where they entered or emerged from the ground, and, connected by the paths of ancestral travel, these places make up... ‘country’ – a term he offers... [is] ngurra. But ngurra can also mean ‘camp’ – that is, the place temporarily constituted by virtue of the everyday activities of a group of people who happen to set up there. Such places, unlike the named places envisioned as the camps of ancestors in the Dreaming, do not endure forever (p. 53).

There are 5 distinct and interlinking conceptual elements to Ngurra-Kurla: Country, Law, Language, Ceremony, and kinship (Pawu-Kurlpurlurnu et al., 2008; Holmes & Jampijinpa, 2013). These linkages are often explained and considered through interconnecting circles rather than non-linking lines (Pawu-Kurlpurlurnu et al., 2008).

\textsuperscript{11} Myer (1986) spent time studying the similarities and difference between the Pintupi and Warlpiri people.
This intricacy should be reiterated because as Myers (1986) identified terms like Ngurra have often been viewed as unsophisticated when in fact they are complex and distinctive.

Ngurra-Kurlu is, for the Warlpiri people, a template for understanding and identifying key elements of local Aboriginal culture, a way of teaching, fundamental to improving wellbeing and identity, a catalogue to insure the health of people and Country (Pawu-Kurlpurlurnu et al., 2008; Holmes & Jampijinpa, 2013). At its purest level Ngurra-Kurlu encourages a ‘sense of belonging’ providing a pathway to strong culture and relationships with mainstream society (Pawu-Kurlpurlurnu et al., 2008). This concept has been identified as particularly helpful in environmental management because it provides the framework for sustaining Country and cross-cultural learning (Pawu-Kurlpurlurnu et al., 2008; Holmes & Jampijinpa, 2013). Pawu-Kurlpurlurnu et al. (2008) and Holmes and Jampijinpa (2013) explained that although the Ngurra-Kurlu derives from Warlpiri culture it can be translated to other Aboriginal groups because its values and framework foster ecosystem stewardship where cultural connections between people and place are an integral component.

Ngurra representation of Country is inclusive and reciprocal linking to social systems and the Dreaming (Myers, 1986). That is most likely why Ngurra-kurlu ensures the health of people and Country because it “encompasses the rules, relationships and obligations to look after the biophysical environment” (Pawu-Kurlpurlurnu et al., 2008, p. 24). Caring for the Country is deeper than pure management of a geographical location because it implies looking after one’s home (Pawu-Kurlpurlurnu et al., 2008). Pawu-Kurlpurlurnu and colleagues (2008) explain this multiplicity noting:

‘country’ can be... the ‘earth’; or it can be ngurra, ‘one’s camp or home’. Words such as ngurrara appear to fall somewhere in between... ‘Ngurra is the place that belongs to an Aboriginal, or to a white person, or to a kangaroo, or to a lizard, where their own earth is like the place where they were born and grew up, they are from that country... (p. 17-18).

Pawu-Kurlpurlurnu and colleagues (2008) recommend that in Western discourse we need to reimagine ideas of caring for Country because often it does not explain the
criticalness of what this means: to care for one’s home in a reciprocal manner. This reciprocity is critical to Ngurra-Kurlu as it maintains cultural systems, the ecosystem and supports Aboriginal peoples’ health and wellbeing (Holmes & Jampijinpa, 2013) but Country still often refers to:

*the material landscape, the flora and fauna, and landforms. However... country is defined by its linkages with the other elements... Country is the biophysical world as understood through its associated law, skin, ceremony, and language... country, encompassing the physical environment but also the various social, spiritual, and cultural relationships that transform an ecological landscape into a socio-cultural one.... country is so deeply ingrained in the fabric of Aboriginal culture that it becomes akin to identity, and all activities are underpinned by a broad concept of spiritual and physical unity with the land... the result is more akin to the land possessing people than people possessing the land (p. 7).*

Pawu-Kurlpurlurnu and colleagues (2008) explain Ngurra-Kurla is not about going back in history but by incorporating their crucial principles into contemporary society. By incorporating Ngurra it may act as a form of reconciliation and improve environmental management and human health (Pawu-Kurlpurlurnu et al., 2008).

### 2.2.3 Place and related theories

*The word “place” is best applied to those fragments of human environments where meanings, activities, and a specific landscape are all implicated and enfolded by each other... How the members of a cultural group see a landscape is only one ingredient of the complex mix that comes together to make a place. Places are ever changing. They are always in a state of becoming (Wattchow, 2013, p. 90).*

This could be associated with the perspective that places are nodes of spatial networks rather than single/fixed spatial units (Cummins et al., 2007). This viewpoint was interpreted, in the Indigenous context, by Layton (1999, p 237) who noted the Alawa people imagine place “as nodes in a network of ancestors whose deeds are recorded as legend”. Such themes also resonate (although slight different) with Cresswell’s (2004, p. 40) definition of place being “an event rather than a secure ontolog[y]… marked by openness and change rather than boundedness and permanence”. Taking such approaches further, Williams and Kaltenborn (1999), Sakakibara (2008) and Strang (2006b) identified place as a beacon of meaning, identity, home, ‘embodied experience’ and culture. These deep connections to a locality can be explained in multiple ways including sense of place (Völker & Kistemann, 2011), place meaning (Spartz & Shaw, 2011), or psychological and physical restorativeness due to contact
with nature (Mitchell et al, 2011; Hansen-Ketchum et al., 2011; Coutts & Taylor, 2011; Stigsdotter et al., 2011; Richardson et al., 2012). An example of this connection is provided by Strathern and Stewart (1999) who explained that for Indigenous communities in Papua New Guinea, places that feature elements of water symbolise a flowing ‘vector of power’ having spiritual and healing foundations. Therefore, Basso (1996a) explained that sense of place was:

[A]s natural and straightforward as our fondness for certain colors and culinary tastes, and the thought that it might be complicated, or even very interesting, seldom crosses our minds. Until... we are deprived of these attachments and find ourselves adrift, literally dislocated, in unfamiliar surroundings... On these unnerving occasions, sense of place may assert itself in pressing and powerful ways, and it is often subtle components—as subtle, perhaps, as absent smells in the air... come surging into awareness. It is then we come to see that attachment to place may be nothing less than profound (p. xiii).

Place making as Basso (1996a) described is about creating or ‘inventing’ history. As Crouch (1999) explained once we are actively involved and participating in place we refigure its meaning into new knowledge. Place can never be looked at in isolation as one single perfect place and is more dynamic than that (Casey, 1996). Basso (1996a, p. 143) cited that sense of place is a cultural activity being “not just something that people know and feel, it is something people do”.

**Topophilia, Cynefin and Solastalgia**

In this section some theories are explored to explain place attachment and highlight the diversity of frameworks around this field of inquiry. Tuan (1999) and Descola and Pálsson (1996) noted that the affective bond and strong attachment between people and place is sometimes referred to as topophilia. Ogunseitan (2005) identified that historically designers have applied concepts of topophilia to create surroundings that are environmentally appealing as a mechanism for healing. This is evident in urban botanical gardens and water features in office buildings. Topophilia research has delved into reviewing concepts, theories and philosophy of place in the context of contact with ‘nature’ (Spartz & Shaw, 2011).

An important Welsh term explaining place attachment is Cynefin which means ‘habitat’ or ‘place’ but is more complex implying place of your multiple experiences
or personal belonging that has no equivalent in English (Snowdon, 2000). Snowden (2010) explains that this as a social-cultural framework that makes these ideas of place rooted in cultural, religious and geographical influences. Snowdon applied the Cynefin framework to explain the complexity of place noting it is a sense-making framework not a categorisation model (emerging from the social context). Snowdon (2000, p. 243) explained it is “important to remember that models such as this are designed to assist in developing self-awareness and the capacity to describe the ecology in which one works”. It endeavors to explain how we process the world around us mainly as humans sitting in the middle (disorder) and how we make choices about our environmental situation.

The problem Basso (1996b) explains is that often humans are so caught up in everyday life that trying to conceptualise these ideas of place are seldom considered and often become abandoned. Spartz and Shaw (2011) contend that these priorities may change when modifications are made to places and/or displacement occurs from one’s environments, which can have catastrophic impacts on place meaning, resulting in a sense of loss. Read (1996) emphasised this loss of place being rarely discussed in Australia, often:

> ignoring the psychological effects of place deprivation... in Australia, environmental impact assessments had considered the usual criteria of dust, noise, vibration and environmental damage. They have not, however, assessed the impact of loss of home, community and countryside (p. 197-198).

This is similar to the concept of ‘solastalgia’ referring to the psychological distress felt when a local environment to which there is personal attachment is destroyed or manipulated (Connor et al., 2004; Albrecht, 2005; Albrecht et al., 2007). Solastalgia differs from the concept of nostalgia, which is a sickness of longing for home, or ‘root shock’, resulting from being uprooted from the place you love (Fullilove, 1996; Albrecht, 2005). However, some scholars view the idea of nostalgia as no longer applicable because it:

> has shifted from societal identity-crisis when individuals were ripped from rooted living into the army or the city environment to one where ‘locality’ or locales were less tangible than biographical loss of childhood, family or indeed a place of belonging... Nostalgia is thus without specific temporal or spatial coordinates,
although it is a significant modern malaise... Overall, the experience of nostalgia actively links a sensibility of mourning to a picturesque past, one that is intangible and which evokes a sense of placelessness (Tolia-Kelly, 2013, p. 325).

In contrast to nostalgia, Albrecht explained that solastalgia is based on the observation of environmental destruction of, rather than the removal from, a cherished place. Albrecht acknowledged the psychological consequences felt by Aboriginal people who have viewed the destruction of their lands, often expressed as a loss of control, identity and increasing social isolation. Indigenous communities have been disproportionately affected by environmental change and have had a lack of involvement in the management of their lands due to social, historical, economic and political factors, causing a decline in ecological knowledge (Pilgrim et al., 2008). McNamara and Westoby’s (2011) study of Torres Strait Islander women’s perspectives of climate change used solastalgia as a theoretical framework and found that destruction and environmental change led to sadness, fear and distress.

When discussing such frameworks one theoretical challenge when exploring notions around place is the differentiation between place and space. Cresswell (2004) views space as an abstract concept, often viewed in geometric terms involving movement, as places to pause and gather meaning. In comparison Darvill (1999) believes concepts of space are bounded in social interactions. Perhaps this is why some academics have commented that naming a space or forming attachment to it is a way for it to become a place (Spartz & Shaw, 2011). Other academics have concluded that words like space are instruments of power and dominance (Strathern & Stewart, 1998). Kearns and Moon (2002, p. 612) assert that “there has been a tendency to reduce place to space and equate it to the ecological” devaluing the diversity of understanding, knowledge and management of ecosystems. Ravenscroft (1999) explained this maybe because space is metaphorical or possibly imaginary noting space:

_is fundamentally political... That is, it is not so much space which determines practice, but practice which fills, and gives meaning to, space. Consequently, rather than the physical representation of space (the actual access sites) being the source of power which dominant interests which to protect, it is the possibility and actuality of practice which generates that power. Space... thus becomes a metaphorical arena in which the effects of power can be analysed and determined (p. 81)._
Indigenous understandings of place

Read and colleagues (2010) referred to Indigenous hunting activities, spiritual and cultural landscapes as equating to both place and space having the ability to improve ecological practices and cultural sustenance. Myers (1986, p. 50) highlighted that Aboriginal peoples’ connection to Country is more complex compared to non-Indigenous people because a “place from which a person’s spirit comes is his or her Dreaming-place, and the person is an incarnation of the ancestor who made the place”. Lowan (2009) identified that sense of place understanding may be improved by incorporating Aboriginal perspectives into educational settings. The lack of education and understanding that Aboriginal people have to Country, in mainstream Australia, can devalue this knowledge and requires attention. This is critical because Aboriginal communities have highly localised knowledge of place (Strang, 2009a). Strang (2008a) explained this:

“thick” experiential discourse of local engagement, in which people have close affective ties to place, as well as a multiplicity of interactions with a particular social and material environment, and the relatively “thin” debates on environmental management, which, through cognizant of the specificities of different ecosystems, are formulated by a more mobile and sometimes virtual epistemic community at a more theoretical discursive level. Once brought to a local level and manifested in practice, of course, they do “thicken,” but they remain ineluctably lopsided in their focus on ecological processes, with little awareness that decisions on environmental management are also social decisions (p. 45).

Thick insights and experiences are evident worldwide in Indigenous communities. In Melanesia the local peoples’ human-environment relationships relate to identity, traditional custodianship and knowledge of environment conditions (Stewart & Strathern, 2005). Basso (1996a, p. 140) when discussing Apache men’s and women’s connection to their lands stated they are always “thinking of place-centred narratives, thinking of the ancestors who first gave them voice, and thinking of how to apply them to circumstances in their own lives”. The exploration of such experiences of place for Indigenous people is valuable in understand Aboriginal Victorian peoples’ connections to their Country because of the similarities and differences groups have to place. Strang (1997) provided an important example of Aboriginal communities in Queensland’s understanding of place:
almost never categorised generically; people don’t talk about ‘good fishing places’ or classify parts of their country as ‘good hunting areas’. Each place may be evaluated according to its potential in this respect, but is always described specifically and individually. Landscape is never spoken of in purely functional terms... Thus the individuality of each place arises from these factors – the kin connections, the ancestral presence, and historic uses and associations, and this highly specific view of each place colours the interaction, even on an economic level (p. 93).

What literature tells us about the gap in evidence in reference to people’s perceptions of place is conflicting. For example, Basso (1996a, pp. xvi, 105) explained the experience of place in the social sciences is a “lightly charted territory”, “weakly developed” with few “intellectual maps for ethnographers to follow”. However, Charlesworth (2005) acknowledged that Aboriginal peoples’ understandings of place has been extensively examined in academia. Nonetheless, researchers attempting to understand these connections to Country have struggled with concepts of place because of its links to Aboriginal identity and social construction (Smith, 1999).

### 2.3 Disciplines studying the human-environment relationship

This chapter has so far touched on three broad theoretical frameworks of the human-environment relationship (see Appendix 5 for recent evidence reviewing these frameworks). As highlighted there are a vast number of disciplines studying the human-environment relationship (refer Table 4). Therefore, this makes this topic incredibly open to the possibility of collaboration as identified by Milton (2006) who explained understanding human-environment relationships and putting these learning’s into practice requires a multi-disciplinary approach between physical and social scientists. However, having such a diverse range of opinions studying this field possesses (and creates) some challenges evidenced by variation in opinions, definitions and theoretical understandings of the human-environment relationship.

#### Table 4: Snapshot of sub-disciplines studying the human-environment relationship

<table>
<thead>
<tr>
<th>Agriculture</th>
<th><strong>Environmental psychology</strong></th>
<th>Biocultural diversity</th>
<th>Cognitive anthropology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commons studies</td>
<td>Cultural anthropology</td>
<td>Cultural geography</td>
<td>Cultural (landscape) ecology</td>
</tr>
<tr>
<td>Deep ecology</td>
<td>Development studies</td>
<td>Ecofeminism</td>
<td>Environmental health</td>
</tr>
</tbody>
</table>
In the following section, two of these disciplines are briefly explored (environmental psychology and environmental anthropology) because of their significant contribution to understanding the human-environment relationship. Though these disciplines have made significant contributions it must be recognised that they have, at times, diverging understandings of the human-environment relationship. One example of this is environmental psychologists commonly use the term ‘nature’ compared with environmental anthropologists who often have an aversion to this term. Nevertheless, both disciplines have considerably improved our knowledge of the human-environment relationship.

This increased knowledge is particularly important to protecting our fragile ecosystem. Aboriginal scholar Rose (2013, p. 9) noted that the “Knowledge of how living things fit… is not just a body of information, it is a system of action”.

Ethnoecology usually refers to knowledge and a conceptual/classification model to explain the environment (Milton, 1996; Brosius, 2006). Brosius (2006, p. 370) noted ethnoecology is often “applied to discussions of indigenous understandings of the natural world… how various societies cognize or interpret natural processes”. Scholars must recognise that disciplinary debates do impact on our understanding of Aboriginal peoples’ human-environment relationship, with some suggesting Indigenous people fall into false and homogenous categories rather than viewing their diversity or even excluding their knowledge altogether.
### 2.3.1 Environmental psychology

Theories in environmental psychology are based on the deep connection humans have to nature. Environmental psychologists have focused on concepts such as therapeutic landscapes (Milligan et al., 2004), the psychophysiological stress reduction framework (Ulrich, 1983; 1986), and attention restoration theory (Kaplan & Kaplan, 1989; Kaplan, 1995; Hartig & Staats, 2006; Hartig et al., 2007; Korpela & Ylén, 2007). But environmental psychology is a large field with many ideas flowing from it, with one such example being positive nature experiences based on the concept ‘transcendent experiences’. Williams and Harvey (2001) describe transcendent experiences as ecstasy, state of flow, harmony, ability to overcome limits and sense of union, often ‘triggered’ by nature. Nature, they claim, offers spiritual experiences closely related to sense of place that come from feeling like you are small and part of a large piece of the world (Williams & Harvey, 2001).

Throughout history, nature has allowed for a sense of mystery and emotional responses leading to mythical, symbolic and religious stories (Gesler & Kearns, 2002). Williams and Harvey (2001) identified that nature allows deep spiritual connection through symbolic meaning rather than relating to the specific characteristics of place. Drawing on these views, environmental psychologists have used the term ‘therapeutic landscapes’ to refer to those places that promote wellness, spiritual healing and strong identity, which can be explained through direct engagement, sensory cues and sense of place (Milligan et al., 2004). There are numerous studies reviewing ‘therapeutic landscapes’ in reference to Indigenous peoples throughout the world. For example, Wendt and Gone (2012) reviewed urban Indigenous therapeutic landscapes identifying that this can take many forms. They gave the example of an American Indian health services being a place nurturing identity, strengthening culture, increasing safety, providing holistic care in a creative and resourceful way.

Ulrich’s (1983, 1986) psychophysiological stress reduction framework refers to the ability of natural places to facilitate emotional changes, which reduces mental fatigue. Attention Restoration Theory maintains that humans concentrate better by having
contact with or viewing nature (Kaplan & Kaplan, 1989). The psychophysiological
stress reduction framework differs from Kaplan’s Attention Restoration Theory in the
description of the restoration effect and conditions of these emotional changes
(Korpela & Ylen, 2007). The benefits of nature referred to in attention restoration
differ based on cognition rather than psychophysiological processes (Gilchrist, 2011).
As Kaplan (1995, p. 172) justifies the importance of natural environments in this
process of reducing fatigue and recovery, identifying that “soft fascination –
characteristic of certain natural settings – has a special advantage in terms of
providing an opportunity for reflection”. Restorative environments are places,
preferably within ‘unthreatening’ settings, rather than built environments that lacks
‘natural’ features. These environments allow for self-emotional regulation, reduced
stress, fewer negative emotional feelings and, in turn, cause relaxation and faster
recovery from fatigue (Kaplan, 1995; Hartig et al., 2007).

Several authors (Kaplan & Kaplan, 1989; Kaplan, 1995; Hartig & Staats, 2006;
Chang et al., 2007) have explained the positive links between humans and nature in
respect to Attention Restoration Theory, identifying key elements as:
♦ ‘being away’ – distancing oneself from daily routines and situations, thus providing
a conceptual shift
♦ ‘extent’ – immersing oneself in a physical or conceptual environment to maintain
exploration
♦ ‘fascination’ – effortless interest, attention or curiosity providing an opportunity for
reflection to make sense of the environment
♦ ‘compatibility’ – individual inclination or purpose for the environment to assist an
individual with their thoughts linking to concepts like the biophilia hypothesis.

Research has shown that merely viewing nature from a window can improve hospital
patient recovery and alleviate negative emotions (Moore, 1981; Ulrich, 1984; Lewis,
1996; Pretty, 2004; Maller et al., 2008). Studies also suggested that viewing green
spaces in the workplace decreases levels of stress, fatigue and reduce the number of
sick leave days taken by employees (Kaplan, 1995; Stigsdotter et al., 2011).
2.3.2 Environmental anthropology

Anthropology attempts to act as a bridge to learn about social and cultural perspectives, opinions and frameworks. Environmental anthropology involves reviewing this in respect to factors impacting on how people interact with the environment and how human-environment relationships shape these values (Milton, 1996; Strang, 2009b). Milton (1996, p. 23) explained some anthropologists view culture and environment as linked whereas others see culture as “the medium through which people adapt to, rather than merely interact with, their environment”. Milton (1996) noted that if the latter is applied culture could be interpreted as human ecology.Anthropology can assist the environmental movement to better understand and inform a more robust sustainability discourse (Milton, 2006). Some scholars take this view to the extreme noting that if “the concept of nature is given within the international world of the Western scientist, then the concept of culture must – by the same token – be given within the international world of the Western humanist” (Ingold, 2000, p. 41). Strang (2009b) mentions such a strong statement may be the case because our culture or ‘social life’ assigns meaning and significance to objects.

There are a number of challenges that environmental anthropologists face when explaining culture as a mediator. The idea of diversity of cultures and studying their worldviews has been reported to cause alienation of certain sub groups because they can be viewed as the ‘other’ (Pálsson, 1993b). Milton (1996, p. 26) states, however, that when we do view cultures as equally ‘true’ it denies “the existence of an independent reality”. This maybe why Milton (1996) made the comment:

*most would agree that culture is something that all human beings have... Beyond this, however, one is in dangerous territory. Even the apparent innocent declaration that culture is shared... raises awkward questions about the manner of sharing, and conjures up images of group mind and common consciousness... it is impossible to state precisely what anthropologists mean by culture (since there is no universal agreement on this)* (p. 13).

One of the achievements of environmental anthropology is its ability to break down stereotypes of sub-cultures. For example, the idea of primitive ecological wisdom has been falsely applied as a political tool against industrialism, to support Indigenous community aspirations and environmentalist agendas (Milton, 2006). Milton (2006, p.
352) does not say that this wisdom does not exist, however, it is much more complex and hard to understand than negative and narrow stereotypes of population groups - noting an “understanding of cultural diversity can be a source of ecological wisdom, but nowhere is this wisdom ready-made”. The strength that environmental anthropology holds in this space is to gather thick descriptions of the human-environment relationship across a number of cultural divides.

However, as Sutton (2011) noted culture is a term that was thrust upon Aboriginal communities. Sutton (2011, p. 63) highlighted “in the early 1970s, the word ‘culture’ was one I seldom heard in the Aboriginal settlements. In general, old people with traditional knowledge and skills were not valued for them… By the late 1970s, ‘culture’ was central to the new verbal currency of Indigenous libertarian politics”. Strang (2009b) noted that for social, political and economic reasons Indigenous communities are trying to define their cultures to support connection to land, land rights and economic stability but unfortunately this can mean the watering down of culture for financial gain.

Nonetheless, as Mick Dodson (2008, p. iii-iv) highlighted, anthropologists like Stanner (1905-1981) were “exceptionally important in conveying something about the distinctive nature of Aboriginal people’s relationship with Country to the wider audience”. Since the 1970s (and increasingly after the Native Title Act 1993) when recognition of Aboriginal land rights was progressing more anthropologists sought to understand the relationship Aboriginal and Torres Strait Islander people have to Country (Sutton, 2003). Strang (2006a) emphasised that anthropology has the ability to ‘cross-cultural’ boundaries to compare, contrast and debate knowledge about different cultures. The difficulties anthropologist face is their aim to observe the truths and myths in society and make sense of them no matter how tough they are. This can be challenging and may lead to some tricky terrains as Merlan (2005) highlighted:

_Aborigines are often heard to say about places that their meanings are forever... maintain[ing] that the meaning of places do not change; anthropologists can show that meanings are produced and shaped. As an activity of social inquiry, anthropology is not satisfied with the naturalism of permanence of places but also seeks understanding of how Aboriginal feelings for permanence are reproduced even as the meanings of places are both socially sustained and altered... fixity of particular meaning cannot be assumed to be a necessary and objective property of the relation_
between people and places, despite Aborigines’ claims of enduring significance (p. 117).

2.4 Conclusion

Public concerns are not constrained by disciplinary boundaries and the practical business of living in the world is not governed by the canons of theory... It has often been observed that the relationship is especially problematic for the social sciences, which have the torturous task of studying that of which they are a part (Milton, 1995, p. 1).

Although academics may understand the meaning of human-environment relationships differently, what seems clear is these connections are important. Therefore, the exploration is critical to gain understanding of how different people perceive the environment. One could spend a whole thesis reviewing the differences and similarities of the human-environment relationship in and of itself, but this thesis is interested in gaining a better understanding of this in relation to Aboriginal Victorian people and applying it in the ecohealth context. This will be the focus of the forthcoming background section in the context of current environmental and health issues.

Aboriginal cultures have much to tell us about the human-environment relationship because of their, in most part, holistic and thick views of their Country. Although there is a lot known around the meaning of Country for Aboriginal and Torres Strait Islander peoples’ this understanding has not been as greatly explored in the Victorian context in reference to health and wellbeing literature. As a consequence, understanding Aboriginal Victorian peoples’ connection to Country and their human environmental relationship is an important area of study.
Chapter 3

The way that Aboriginal people perceive landscapes is rather like the way that someone with a reasonable astronomical knowledge in western culture perceives the night sky resplendent with shining stars. As one looks at the stars, there is the simultaneous sense of perceiving something that is present, the view itself sensed visually at that time, and of perceiving things that are past, the stars whose deaths many thousands of light years ago are perceived as a twinkling radiances in the black depths of space. What I see in the sky are ancient traces of light emanating across vast distances from giant bodies of fire. And at the same time, there is the knowledge behind these perceptions that we can only know these things because of our understanding of time as past-present-future... These temporalities are inscribed in our being as fields of experience, memorialised as the landscape we know.

(Langton, 2005, p. 138)
Chapter 3: The human-environment relationship in the context of Aboriginal and Torres Strait Islander peoples’ understandings of health, wellbeing and Country

This chapter provides the rationale for why the human–environmental relationship, in the context of Aboriginal Victorian people, was the focus of this thesis. The chapter explores concepts of health and wellbeing to provide the background to Indigenous and Aboriginal peoples’ relationships with their lands and the ever-changing Australian environment.

3.1 The human–environmental relationship in the context of today’s environmental concerns

Delay is a luxury that Australia... can no longer afford... the world is rapidly approaching points at which high risks of dangerous climate change are no longer avoidable... Our location makes us already a hot and dry country. We live in a region of developing countries, which are in a weaker position to adapt to climate change than wealthy countries, and their problems will become our[s] (Garnaut, 2008b, p. 1).

The extensive Garnaut Climate Change Report (2008a) identified that Australia ranked number one as the biggest emitter of greenhouse gases per capita in the world. Australia is susceptible to extreme climate change consequences being surrounded by oceans with Aboriginal and Torres Strait Islander Elders already concerned with the shifting seasonal changes experienced on their Country (National Indigenous Television, 2014). Evidence indicates that public health constraints and barriers like uncertain socioeconomic conditions (Huang et al., 2011), impacts on human health associated with increased risks of heatwaves, floods and droughts (Haines et al., 2006a,b) and ecological health issues (Strand et al., 2010) are associated with climate change. Bosello and colleagues (2006) estimated that, by 2050, the health impacts of climate change could increase GDP spending by 0.08 per cent, having a catastrophic impact on health care sectors worldwide. Concern associated with this issue locally have been highlighted by Strang (2009a) who noted:
Australia, has been committed to a positive vision of competitive growth for so long that it has become widely normalized... However, the ecological crisis has brought simmering doubts about this guiding principle to the fore. Australian society is thus being forced to consider whether it is functional... to ignore pressing issues such as climate change and land degradation, or to cling to the mantra that technical advances and efficiencies will deal effectively with the ecological problems that will inevitably accompany further intensification in resource use. Most people demonstrated a perennial human capacity to contain conflicting ideas simultaneously, arguing for most sustainable environmental management while maintaining lifestyles that – replicated throughout the population – make this impossible to achieve. Such capacity for denial is a source of frustration to those who see a need for real change (p. 22)

The extent of health impacts of climate change may be greater than figures suggest. Strand and colleagues (2010) noted that climate change might have devastating consequences because of humans’ intrinsic biophilic connection to nature. This is evident when looking at the links between Aboriginal peoples’ and the impact climate change has had, is having and will continue to have on these populations, exacerbating their existing considerable disadvantage (Campbell et al., 2008; Green et al., 2009a,b; McNamara & Westoby, 2011; Davis, 2013). Traditional lifestyles, practices and knowledge of Indigenous peoples’ lands are becoming increasingly vulnerable to the impacts of climate change (Heinamaki, 2009; Ford et al., 2010). Climate change, therefore, has been identified as a human rights issue in Indigenous populations for two reasons: its direct impact on the health, economic, and social conditions of Aboriginal people; and its destruction of traditional places of spiritual significance, causing flow-on psychosocial health and wellbeing issues (Heinamaki, 2009). Trudgill (2001) highlighted, the implications of climate change on human health reflected an even more broad issue:

It is hard to escape from the context of global warming... [However] there are more fundamental issues... More fundamental are the underlying questions about man–nature relationships and our attitudes and values to and about the environment... Global warming... [is a] legitimate topic for study; however, there is a deeper study of the basis of attitudes and concepts which underpin all our interactions with the environment (p. 4).

There is research that has suggested that if individuals give meaning to places, and start to re-understand and re-connect to the environment, they are more likely to want to protect and move away from being disconnected from it (Pretty, 2007). This links an emerging field of research which identifies that with a better understanding and
incorporation of Aboriginal and Torres Strait Islander peoples’ deep connection to Country, we would be in a better position to tackle climate change and health issues (Rose 2005; Turner & Clifton, 2009; Alexander et al., 2011; Cochran et al., 2013; Leonard et al., 2013; Znader et al., 2013; Arabena & Kingsley, In Press). This sentiment is not unique, with a growing number of academics that believe human interaction with the environment is fundamental to tackling environmental and public health issues. Researchers have associated disconnection or poor access to nature with increased rates of chronic diseases brought on by sedentary lifestyles and urbanisation (Frumkin, 2002; Pretty, 2007; Veitch et al., 2011). Medical indicators highlight that by 2020, sedentary-based issues like obesity will be one of the greatest health burdens in Australia (Australian Institute of Health and Welfare [AIHW], 2003). By the same date, mental illness will be one of the greatest contributors to the burden of disease worldwide (World Health Organisation [WHO], 2009). Conversely, recent epidemiological studies have found associations between increased exposure to green spaces and improved physical and psychological health (Maas et al., 2009; Mitchell et al., 2011; Richardson et al., 2012).

With the world’s environment changing rapidly, with technological advances, climate change and urban population growth, effects on the sustainability of environments and population health are evident (Arai & Pedlar, 2003; Patz et al., 2005; Patz et al., 2007; Patz et al., 2008). Less visible environmentally-based social, emotional and physical health issues, such as the health impacts of separation from nature has been identified as requiring more attention in the public health space to improve health outcomes (Maas et al., 2009; Seaman et al., 2010; Nisbet et al., 2011). Maas and colleagues (2009) reviewed the medical records of 195 General Practitioners in the Netherlands, finding that individuals living within one kilometre of green spaces had a reduced likelihood of suffering physical and mental morbidity in comparison with those living three kilometres away.

Only recently have humans become overwhelmingly urbanised, with the consequences not fully understood (Frumkin, 2002; Pretty, 2007). Some research indicates that, with changes to individuals’ surroundings and the subsequent disconnection from human-environment relationships they are suffering a form of psychological shock leading to increased morbidity and mortality (Fullilove, 1996;
Crighton et al., 2003). Socially vulnerable groups are more susceptible to these issues as they face unequal environmental protection and suffer more environmental injustices (Higginbotham et al., 2010).

To address this, commentators recommend better integration of ecological, psychosocial, and holistic approaches to health that understand the importance of the human-environment relationship, as emphasised in Indigenous models of health (Kahn, 1999; van Holst Pellekaan & Clague, 2006). Studying the deep connection Aboriginal people have to their land is vital because, as Campbell and colleagues (2011) identified, in Australia Aboriginal land management projects have the ability to cut the costs of primary health care. Richmond and Ross (2009) noted that there is a gap in evidence in the health literature on the effects of environmental dispossession and how this may impact on health inequalities. Victorian Traditional Custodians were among the first in Australia to be forcibly removed from their homelands, experiencing this environmental dispossession early on in the period of colonisation (Broome, 2005).

### 3.2 Aboriginal Victorian context

Australia’s Aboriginal and Torres Strait Islander population is approximately 517,000 or 2.5 per cent of the population (AIHW, 2011a,b). This is expected to increase to over 720,000 by 2021 (ABS, 2009a). However, these statistics may under represent the Aboriginal and Torres Strait population due to historical circumstances in Australia where identification of Indigeneity were associated with negative colonial policies including assimilation, the stolen generation, slavery and missions (J. Freemantle, personal communication, May 2, 2013). This injustice lingers with Aboriginal people suffering significant inequalities which have tainted issues surrounding land and water ownership and engagement in the political process. This, however, does not mean that governments and political processes are always ‘instruments of domination’ (Stewart & Strathern, 2005). Though the Aboriginal population only comprises a small per cent of the population Strang (2009a, p. 87) acknowledged that they nevertheless make a significant contribution to environmental management as “they offer a comparative exemplar of a human-environment relationship in which social and ecological issues are fully integrated”.


Australia is known as one of the harshest places on earth, highly susceptible to droughts, floods, salinity and bushfires (Flannery, 1994). Prior to colonisation Country was manipulated to tackle such harshness but it has been heavily disputed as to what extent, with some academics saying it was minimal and others noting it led to the extinction of certain species including megafauna (Flannery, 1994). Norman Tindale (1974) was one of the first European settlers to document Traditional Custodian boundaries between these groups throughout Australia, interpreting and conceptualising them into a map (Figure 2). Prior to colonisation it was estimated that the Aboriginal and Torres Strait Islander population was approximately 750,000 forming 500 groups speaking 200 languages (Charlesworth, 2005).

**Figure 2: Tindale’s Tribal Boundaries in Aboriginal Australia (1974)**

Studies acknowledge that Aboriginal and Torres Strait Islander people have been in Australia for up to 70,000 years (Pulver et al., 2010). Strang (2009a) identifies that acknowledging this sustaining ownership of Country recognises the deep and powerful relationship Aboriginal people have to their Country. Strang (2009a, p. 99-
100) highlighted that this positions Aboriginal people squarely as the “voice of nature”, “opening the door to their involvement in more collaborative forms of land and resource management”, however, this can be “double-edged sword” not allowing for self-determinations and “perpetuating a longstanding conflation of indigeneity of nature”. Although this concern, by environmentalists, can be based on protecting the ecosystem there can be fundamental differences between the relationships that Aboriginal and non-Indigenous people hold. Strang (2004) made the point that:

*It is evident that all of these representational discourses, whether positive or negative, share the idea of Aboriginality as a prior state of being, a pre-modern ideal of spiritual completeness and secure identity rooted deep in the land... In effect, Aboriginal people are surrounded by a hall of distorting mirrors. Most of the images presented to them about themselves are based on the beliefs, hopes and desires of the larger and more powerful society (p. 11).*

In 2008, Aboriginal and Torres Strait Islander people had a life expectancy gap of 17 years compared to their non-Indigenous counterparts (Victorian Advisory Council on Koori Health [VACKH], 2009). In 2010, these life expectancy figures changed due to methods of data collection, resulting in an adjustment of these numbers down to an 11.5 year difference for males and a 9.7 year gap for females (ABS, 2009b). Aboriginal women across Australia are at double the risk of having a baby with low birth-weight or experiencing infant mortality compared to non-Indigenous women (AIHW, 2011a). Social and emotional wellbeing indicators show that Aboriginal people suffer high levels of trauma, distress, anger, life stresses and discrimination (AIHW, 2009; Zubrick et al., 2010). Aboriginal and Torres Strait Islander people suffer consistently poorer experience of the social determinants of health, such as worse socioeconomic factors, poorer housing and lower educational attainment (AIHW, 2011b; Marmot, 2011). For these reasons, Australia finds itself having the biggest health inequality between Indigenous and non-Indigenous people in terms of rates of mortality, infant mortality, and low birth-weight of any developed country (Table 5).

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12 Table 5 draws on figures calculated before the 2010 adjustment to data collection methods by ABS.
Table 5: Life expectancy indicators for Indigenous and non-Indigenous people

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<th>Australia</th>
<th>New Zealand</th>
<th>Canada</th>
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<tr>
<td></td>
<td>Aboriginal &amp; Torres Strait Islander</td>
<td>All</td>
<td>Maori</td>
<td>All</td>
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<tr>
<td>Males</td>
<td>56</td>
<td>76.6</td>
<td>69</td>
<td>76.3</td>
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<td>Females</td>
<td>63</td>
<td>82</td>
<td>73.2</td>
<td>81.1</td>
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<tr>
<td>Infant mortality</td>
<td>14.3</td>
<td>4.7</td>
<td>8.9</td>
<td>5.7</td>
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<tr>
<td>(per 1000 live births)</td>
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<tr>
<td>Proportion of low birth</td>
<td>13%</td>
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<td>weight live births</td>
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Adapted from Oxfam Australia & NACCHO, 2007

In Victoria there are 35,792 Aboriginal residents, making up approximately 0.7 per cent of the population (AIHW, 2011a). Aboriginal Victorian people make up over 6.5 per cent of the Aboriginal and Torres Strait Islander population across Australia (ABS, 2010). In Victoria, Aboriginal people predominantly live in major cities (AIHW, 2011a). Aboriginal Victorian peoples’ have moulded and managed the region for ‘five times longer than farming societies have existed’ worldwide (VicHealth, 2011, p. 10). They, however, suffer similar health inequalities to other Aboriginal and Torres Strait Islander people (Department of Health, 2011). To improve health outcomes, there needs to be opportunity for Aboriginal people to practise and promote their diverse needs, aspirations and knowledges to ensure self-determination can occur (Walker et al., 2003). With this in mind, such knowledge needs to be better incorporated into concepts such as health and wellbeing.

3.3 Exploring definitions of health

Definitions of health are meant to offer a way of avoiding exhaustive lists of conditions, instead categorising health into a framework, which is simple to understand (Knight, 1999). Ereshefsky (2009) mentioned that current definitions of health are based purely on value judgments, the states of assumed desire and the
problems we try to avoid. Such definitions become difficult to define when there are competing categories (or disciplines) of definitions including biomedical health, ecological model of health and health promotion who use different categories, techniques and beliefs to understand this concept (Rapport et al., 2003; Dustin et al., 2009; Coutts & Taylor, 2011).

Following the WHO (1946) definition of health (see Chapter 1), there has been an increased recognition of the holistic nature of this concept. Put simply by Stigsdotter and colleagues (2011, p. 311), “today health is viewed as a holistic and positive state embracing the individual in relation to his/her entire life situation (including biological, cultural, social and environmental aspects)”. The problem that holistic models encounter is this approach is often hard to measure and consequently it is difficult to develop strategies that can improve all levels of population health (Richmond, 1999).

Approaches to improving population health often refer to the achievements made in public health. Public health is defined as “the science and art of promoting health, preventing disease, and prolonging life through organized efforts of society” (Nutbeam, 1998, p. 352). Successful public health initiatives have included tobacco control interventions including taxing cigarettes, banning media advertising and banning smoking in public places (Chapman, 1994; Department of Human Services, 2008). Such success is achieved through public health advocacy against structural barriers to improving population health, ranging from upstream levels of policy development to downstream levels of treatment of illness (Keleher, 2004; Keleher & Murphy, 2004). Due to events occurring during the nineteenth century through isolation of diseases, discovery of anaesthesia and improvements in sanitation, public health is often associated with medical science (Knight, 1999).

The biomedical model remains the most common health framework since Great Britain’s Public Health Act in 1848 (Jolley, 2004). In the past, such approaches have focused on aspects such as sanitation and hospital care (Knight, 1999; Jolley, 2004). By dealing with individuals after they have contracted illness, disease and injury, such health strategies are just sticking ‘bandaids’ over determinants of health and lack focus on preventing illness (Germov, 1999; Knight, 1999; Reidpath, 2004). Further,
biomedical approaches and measures usually do not equate to Aboriginal models and perspectives of health (Prout, 2011). In health promotion and Aboriginal health there has tended to be criticism of the medical models for being narrowly focused and a Western notion (Knight, 1999; Lowell, 2001; Keleher et al., 2007). This discussion is often counterproductive because different disciplines in the medical realm are beginning to recognise social and cultural factors, and in turn diversifying their practices (Strathern & Stewart, 1999). Strathern and Stewart (1999) highlight:

*Biomedical medicine and Indigenous systems of medicine are often assumed to be in conflict with one another. Indigenous practices may be seen as blocking or interfering with the progress of modern medical treatment regimes. But various contexts exist in which introduced and indigenous medical practices meet different requirements for the population in question. In this instance, then, the two systems are seen to be complementary rather than conflicting... as globalization makes shared forms of knowledge more widely available, some aspects of western medicine may be accepted, while others rejected* (p. 93).

Since the 1980s, the Western construct of health has evolved from purely medical origins, shifting to approaches that recognise environmental and social determinants (Chu & Simpson, 1994; Catford, 2004; Grbich, 2004; Park et al., 2011). Global initiatives have tried to support this, as is evident in the WHO’s *Declaration of Alma-Ata* (1978), the *Ottawa Charter for Health Promotion* (1986), the *Jakarta Declaration on Leading Health Promotion into the 21st Century* (1997), the *Fifth Global Conference on Health Promotion* in Mexico (2000), and the *Bangkok Charter of Health Promotion in a Globalized World* (2005). The *Ottawa Charter for Health Promotion* for example advocates for change to ensure holistic health is taken seriously in government policy. However, Australian research indicates that a majority of health services, no matter their setting, still rely on the biomedical approach, with few programs reflecting these more holistic models (Davis et al., 2004; van Holst Pellekaan & Clague, 2006).

A method for moving towards holistic models is to harness the ecological model of health, evidenced through the *Mandala of Health Model* (Hancock & Perkins, 1985). This model emphasises the intertwining of natural, medical and social sciences and their impacts on individuals and communities (Nicholson & Stephenson, 2004). Critiques of this model explain that, at times, it fails to consider environmental
constructs; but the strength of it is that it captures a number of determinants that impact on people’s lives (Coutts & Taylor, 2011). Health, from an ecological perspective, is defined by Dustin et al. (2009) as:

*a measure of the wellness of the individual and the community considered together. The individual cannot be healthy independent of the conditions of the larger community, and the larger community cannot be healthy independent of the conditions of the individuals constituting it. Healthy individuals require healthy families, healthy families require healthy communities, healthy communities require healthy nations, healthy nations require a healthy planet* (p. 7).

Health promotion has also advocated for an increased emphasis on holistic approaches to health that focus on environmental settings. Health promotion, put simply, enables the individual to control his or her own health (WHO, 1998). Health promotion as a concept has widened since the *Ottawa Charter*, which focused on actions supporting people to maintain healthy lifestyles (Richmond, 1999; Britt et al., 2004) and create safe environments for health. In the *Ottawa Charter* (WHO, 1986) the need for society to provide opportunities for all members to obtain optimal health is emphasised. More recently, global situations (Fidler, 2006) have become integral to health promotion, with mental health (Sturgeon, 2007), climate change, new infectious diseases, human rights, improved measurement tools (McMichael & Butler, 2007), governance, partnerships and policy development (Lee, 2007) all having increased significance. Physical settings like homes and workplaces have become a keystone of health promotion (Nicholson & Stephenson, 2004) with initiatives such as health promoting cities evidence of this evolution (Flower, 1993; Goumans & Springett, 1997; Duhl & Sanchez, 1999; de Leeuw, 2001; Kegler et al., 2003; Edwards et al., 2006).

A new field has evolved from these concepts and is broadly defined as ecological health promotion, public health ecology or ecological approaches to health (Parkes & Horwitz, 2009; Bunch et al., 2011; Coutts & Taylor, 2011). This seems fundamental, as with greater degradation of our ecosystems, there is an increased risk to human population health (Rapport et al., 1998; Rapport et al., 2003). Hansen-Ketchum et al. (2009) defined environmental health promotion as:
the promotion of safe, healthy living conditions and protection from environmental factors that may adversely affect human health or the ecological balance essential for long term health and environmental quality (p. 1529).

An emerging research discipline bringing ecosystem approaches of health together is ecohealth. Albrecht and colleagues (2008) noted that ecohealth acknowledges that health and wellbeing is linked to the complex interaction of ecosystem, socio-cultural and economic factors. Ecohealth is a growing field but remains under-researched (Johns Hopkins, 2004). Wilcox & Kueffer (2008) and Albrecht et al. (2008) recognised that one of the main drivers of ecohealth success is ‘cross-disciplinary approaches’ to tackle global health issues. However, scholars need to be cautious about claiming collaborative approaches as token and hard to be undertaken in reality when mutual understandings of topics are not agreed with (Milton, 1996). Strang (2009b, p. 158) highlighted that although collaborative approaches are challenging: “Like any relationship between very different parties, it takes some effort to achieve a good balance... However, interdisciplinary projects can also be immensely creative and rewarding, leading to new and imaginative solutions to complex problems”.

Evidence indicates that there are a number of research fields in ecohealth not necessarily connecting with each other, with a lack of collaboration between seemingly overlapping research fields (Pretty, 2011).

Parkes (2010) made the link between ecohealth and Aboriginal health, stating that there is a lot to learn from the ecosystem approaches of health that this population holds. A related conceptual framework is the Indigenous model of health. Tse and colleagues (2005) identified that, although Traditional Custodian groups differ in ‘cultural geography’, Indigenous perspective of health focuses on a holistic and a cyclic whole-of-life view, encompassing physical, social, emotional, spiritual and cultural determinants of health. Wahbe et al. (2007) noted that greater impacts and inroads could be made in Aboriginal health by strengthening partnerships between Aboriginal communities, universities, governments and the non-government sector. However, at times the Indigenous model of health has been disregarded by non-Indigenous academics, policy-makers and populations as a whole (Taylor, 2008; Prout, 2011). Prout (2011) noted that Aboriginal concepts are reduced to measurable health indicators by governments to suit their own agendas, rather than looking at positive determinants of Aboriginal culture such as connection to Country. Better
understanding Country would allow for improved comprehension of the human-environmental relationship and the health and wellbeing benefits of such connections.

3.4 The nature–health link

Many research disciplines have compiled large bodies of data showing the health benefits and consequences of human contact with nature. Evidence indicates that contact with nature increases social cohesion (Jones, 2010; Hansen-Ketchum et al., 2011), enhances psychological wellbeing (Mayer et al., 2009; Lee & Maheswaran, 2010; Nisbet et al., 2011; Völker & Kistemann, 2011), fosters spiritual elation (Fredrickson & Anderson, 1999; Malinski, 2004), contributes to reduced morbidity and mortality rates (Maas et al., 2009; Donovan et al., 2011), alleviates stress (Dustin et al., 2009; Mitchell et al., 2011; Stigsdotter et al., 2011) and enhances educational outcomes and development (Kahn et al., 2009; Brook, 2010). Gaps in this literature, however, include measurement of the health effects and perceptions of contact with nature (Park et al., 2011) and, in particular, evidence that enables us to gain a greater understanding of how this may impact (in respect to health) on Aboriginal populations concepts of contact with their lands (Parkes, 2010). Park and colleagues (2011) explained that this latter gap:

*is partly because people experience natural environments in a holistic way that is not easy to break down into specific components ... and partly because interdisciplinary research into the health effects of natural environments is still in its relative infancy* (p. 270).

Nevertheless, literature suggests that people who have contact with a safe environment have improved wellbeing (Sugiyama & Ward Thompson, 2007; Leslie & Ester, 2008). Guite and colleagues (2006) identified five environmental domains that promote a sense of wellbeing: control over the environment; quality of amenities; ability to escape; reduction in crime and fear; and social participation. Leslie and Ester (2008) acknowledged that because of the wellbeing benefits of contact with nature, humans prefer to have elements of nature including increased light, green areas, less population density and recreational possibilities. Such preferences may explain why individuals who engage in connecting with nature, rather than fearing it, become more likely to want to protect ecosystems and have pro-environmental
behaviours (Maloney & Ward, 1973; Maloney et al., 1975; Lounsbury & Tornatzky, 1977; Mayer et al., 2009; Brook, 2010; Hansen-Ketchum et al., 2011). Further, research involving children has found that contact with nature can increase levels of empathy to protect the environment (Nisbet et al., 2011).

Individuals can experience or engage with nature through a range of means, including physical contact or viewing the biophysical environment (Kingsley & Townsend, 2006). Social and emotional wellbeing benefits from contact with nature include enhanced mood, self-esteem, sense of belonging and self-awareness (Barton et al., 2009; Mayer et al., 2009; Nisbet et al., 2011; Stain et al., 2011). Contact with nature in urban areas has been shown to enhance an individual’s psychological resources for coping with poverty and development disorders (Kuo & Sullivan, 2001; Dustin et al., 2009). This may be due to contact with nature having the ability to generate effective networks, trust, and opportunities for social interaction (Yuen, 1996; Daniere et al., 2002; Lee & Maheswaran, 2010). Therefore, contact with nature goes well beyond health involving a number of determinants affecting one’s wellbeing.

3.5 Exploring definitions of wellbeing

Wellbeing is a concept which is frequently used but hard to define and measure as it has become conflated in the concept of ‘quality of life’ (Kahn & Juster, 2002; Stewart, 2004; Sointu, 2005). Wellbeing is often equated to health and the two terms are often used interchangeably (Prout, 2011). One challenging aspects of wellbeing is the sense of fluidity in the concept and also that mental health is often used interchangeably with wellbeing in health literature (Carlisle, et al., 2009; Nurse et al., 2010).

Wellbeing as a concept is fluid because it refers to multiple lived experiences, encompassing factors including physical, social, psychological, economic, spiritual and mental health (Furnass, 1996; Trewin, 2001; Stewart, 2004). The view expressed both by Trewin (2001) and Furnass (1996), that wellbeing is linked with the nature, is supported by researchers who have linked increased wellbeing with contact with nature (Brook, 2010; Nisbet et al., 2011). The Centre of Disease Control and Prevention (2014) defined wellbeing as:
Subjective wellbeing is a concept used as a basis to assess people’s lived experiences, reviewing factors such as cognition, sense of happiness, and evaluation of life (Henderson-Wilson, 2007). Carlisle et al. (2009) identified that Western views of wellbeing place emphasis on the idea that individual happiness, economic status and consumerist ways of life lead to better quality of life outcomes. By contrast, Jackson (2008) concluded that family, social networks and cohesion are fundamental elements of wellbeing but are becoming eroded in society by unemployment and inequalities due to rampant global consumerism. Jackson suggested that interventions by governments to address these issues were urgently required.

When dealing with multiple life events that happen from day to day, a number of factors impact negatively on human wellbeing. For example, social exclusion, discrimination, poor social transactions, racism and social inequalities lead to decreased wellbeing, loss of personal control and loneliness in Aboriginal communities (Durie, 1999; Zubrick et al., 2010). Kirmayer (2000) acknowledged that due to this marginalisation, Indigenous people have reduced ‘autonomy’ and ‘cultural discontinuity’ associated with negative outcomes like increased likelihood of mental health issues (notably suicide), addiction and violence.

Socio-cultural, spiritual and environmental context are critical to Aboriginal peoples wellbeing (Panelli & Tipa, 2007). Mainstream measures of wellbeing sometimes struggle to adequately conceptualise the complexity of Aboriginal peoples’ experiences, often boxing wellbeing into narrow categories (Taylor, 2008; Dockery, 2010; Prout, 2011). Prout (2011) highlighted this situation, noting that wellbeing analysis is usually reduced to matrices of socioeconomic indicators. Taylor (2008) noted that these mainstream measures of wellbeing included employment and housing, both of which have had a negative impact on Aboriginal communities. Research indicates that more meaningful measures of Aboriginal peoples’ ‘worldviews’ are required in wellbeing research and literature (Taylor, 2008; Prout, 2011). Walker and colleagues (2003) defined these voices as ‘cultural wellbeing’,
which identifies the centrality of factors like Country, cultural pride and identity. A framework of Aboriginal wellbeing that includes linking concepts such as connection to Country and kin has been identified as a gap throughout the literature (Taylor, 2008; Dockery, 2010; Prout, 2011).

3.5.1 Concepts beyond wellbeing
Researchers have tried to develop indicators to identify why the health and wellbeing of population groups differ based on social, economic, educational, employment and biological factors, often referred to as the social determinants of health (Dixon & Welch, 2000; Reidpath, 2004; WHO, 2005). This concept became popularised when the WHO commissioned a study to identify the ten major social determinants of health, which included early life, work, social support, food and transport (Marmot, 1999; Wilkinson & Marmot, 2003). These social determinants of health have been criticised by Aboriginal scholars, as they do not consider factors important to non-Western cultures (Vickery et al., 2004). MacDonald (2010) emphasised that such exclusion from the literature is based on social inequalities.

Few studies have focused on the concept of Aboriginal Australian peoples’ social determinants of health (Devitt et al., 2001; Vickery et al., 2004; Anderson et al., 2007; Carson et al., 2007). Studies exploring this issue have identified that, to understand determinants of health in Aboriginal communities, it must be recognised that Australian society is entrenched in unequal power relationships (Richmond & Ross, 2009). Shepherd and colleagues (2012) noted that understanding of Aboriginal Australian social determinants of health could contribute to improved health outcomes. In Victoria, Holmes and colleagues (2002) developed a framework exploring these determinants, which include: art, music, dance, tolerance, adaptability, spirituality, responsibility at a young age, family loyalty, sense of belonging, community values, poverty, alcohol, and living as a minority. What is evident from such exploration is that the social, economic, cultural and political determinants of health that affect Aboriginal Victorian people are multi-dimensional and bi-directional. Zubrick and colleagues (2010) emphasised social determinants impacting on Aboriginal peoples’ wellbeing are multiple, interconnecting and occur across the lifespan.
Another factor that needs to be considered is that commentators have suggested that trust and intimacy are declining in Australia because of growing social and health inequalities, decreasing civic engagement and social connectedness (Cox, 2002). This may lead to the exclusion of people who do not fit into the dominant groups, thus limiting their freedom to achieve optimal health (Portes, 1998; Pope, 2003). This issue is compounded by declining social connection and increasing exclusion evident within the Aboriginal and Torres Strait Islander population, with members of this community having limited political capital and little opportunity for dialogue and input into negotiations of what Australia may look like in the future (Dudgeon et al., 1998). As Cattell (2001) highlighted, such social exclusion is compounded by poverty, decreased social cohesion, shame, anxiety and feelings of inferiority.

Such marginalisation may exacerbate health inequality, which is defined as the variation and disparity of health outcomes of groups and/or individuals (Kawachi et al., 2002). Poor health outcomes are typically associated with low socioeconomic status, lack of trust, lack of social connectedness and absence of support (Elgar, 2010; Szwarcwald et al., 2010). Health inequalities are relatively difficult to define with no simple solutions because of the complexity of social context, which cause these inequalities to occur from place to place (Stephens, 2011). Nonetheless, health equality is a human right that should be available to all individuals and is fundamental in promoting community health (Mann, 1996). Stephens (2012b) pointed out that human rights approaches maybe effective in poverty alleviation and in tackling health inequalities in our increasingly urban settings. Research into what environments are associated with health inequalities for different demographic and cultural groups is seen as a significant research gap (Pearce et al., 2010).

3.6 Research linking Indigenous peoples health to traditional lands

There is much to be learnt from the indigenous and local communities who depend directly on, value spiritually, and fight for, their biodiverse ecosystems. And perhaps the most difficult thing to learn is the humility that these communities have—they do not assume that they know enough about the ecosystem to be able to decide which species the planet needs and which it does not. They do not hold a model that sees human beings as separate from their global ecosystem in all its complex biological
and cultural diversity. They do not see themselves as owners of the planet, but as guardians of it for the future (Stephens, 2012a, p. 4).

The world’s Indigenous population comprises over 350 million people (Stephens et al., 2007a). Indigenous peoples’ are acknowledged by many as the caregivers and knowledge bearers of the environment; however, they have also been prevented from undertaking their traditional practices, separated from their lands, and have suffered from a lack of respect for this knowledge (Layton, 2001; Nettleton et al., 2007; Brook et al., 2009; Frantz & Howitt, 2010). Stephens and colleagues (2006) and Pesek et al., (2009) noted this needs to be overturned because Indigenous knowledge of the lands has been gathered, tested, managed and refined over thousands of years through a reciprocal relationship with the ecosystem. Many Indigenous people still rely on traditional lands for food, income, cultural practices, knowledge and social norms (Heinamaki, 2009). Allison (1999, p. 264) identified that without this connection, engagement and knowledge to lands Indigenous people “will become part of the faceless class of individuals wandering in the streets of the inner city without any identity other than that of a ‘minority’”. Panelli and Tipa (2009) commented that this:

ecological knowledge is obtained through direct interaction with tribal lands and waters – resulting in a living landscape of human and other interactions. Cultural knowledge is therefore grounded in and informed by traditional or customary behavior but it is also dynamic (p. 460).

As Pilgrim and colleagues (2009) noted, Indigenous land management projects allow a renewal of cultural ties for local people. This not only has cultural, health and wellbeing benefits but also economic value (Venn, 2007). Evidence indicates that for these projects to be successful Aboriginal knowledge needs to be valued and recognised (Wahbe et al., 2007; Brook et al., 2009). There has been tendency to neglect engagement with Indigenous peoples, and to allow biodiversity to be detrimentally effected, but a culturally diverse/joint environmental management system can be a mechanism to counter these deficits (Strang, 2009b). Indigenous cultures around the world have a knowledge base that can improve ecological sustainability and mainstream health, not only at the community level but also in government policy development (Collins & Murtha, 2010; Heinamaki, 2009). This management is part of Indigenous belief systems passed down through Ancestral Being and based on the idea of partnership (ecological knowledge, management and
participation involves an intimate understanding of the environment) but it is under pressure from resource dependent societies (Strang, 2009b).

Community control and Indigenous engagement in the protection of their territories is a human right (Heinamaki, 2009) that has now been recognised formally in the United Nations Declaration on the Rights of Indigenous Peoples [DRIP] (2007). Collins and Murtha (2009, p. 961) identified that “Indigenous people in Canada (and around the globe) bear a disproportionate share of environmental burden compared to their non-Indigenous counterparts, a trend that has been described as environmental racism”. Weir (2012, p. 5) acknowledged that Aboriginal peoples “ecological knowledge is sometimes described as “ethnoscience” or “non-science”, and treated as inventory knowledge similar to eighteenth century botany”. These so-called ‘scientific’ approaches to land management can be seen as ‘ecological fascism’, a term used to describe environmental managers and activists whose actions are similar to neo-fascists, often leading to the destruction, eradication and/or marginalisation of certain plants, animals and people from their habitat (Orton, 2000). Similarly, environmental racism has been applied as a mechanism to institutionally discriminate against certain populations (often minorities and low socio-economic groups) in environmental discussions (Kottak, 2006). This relates to ideas of ‘orientalist’, referring to domination (often during the colonial period) of Indigenous peoples lands and rights (Pálsson, 1993b).

Stephens and colleagues (2007a) and Adam (2012) noted that many fields (like public health and the social sciences) can learn a great deal from Indigenous knowledge. Panelli and Tipa (2009) noted that there is a need to move away from perceptions that Indigenous connection with land is rooted in the past rather than acknowledging that Aboriginal knowledge’s is evolving and differs from region to region. However, Marie and colleagues (2009) made the important point that Indigenous and scientific knowledge can be complementary, and that there is a need to take into account the perspectives of all stakeholders because local people can also degrade the land.

Nonetheless, Indigenous peoples understanding of land is different to Western notions of nature. Basso (1996a, p. 62) explained the deep rootedness Apache people have to lands – “where time and space have fused... through the agency of historical tales”.

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Panelli and Tipa (2009) and Collins and Murtha (2009) explained that, for Aboriginal people, land is required for physical survival, sustenance, health, socio-legal, environmental and spiritual purposes, not simply to own and control. In Lake Titicaca the Indigenous people are said to know every element of the environment linking to kin, narratives and shaping the history in a continues process (Orlove, 2002). Basso (1996a) noted that the relationship may be getting stronger, however, young Indigenous people are confronted by new technologies and ambitions. Vitebsky (2005), describing the Eveny people of Siberia (Russia), typified such sentiment:

*The Eveny live in a modern world, but it is also an animate world in which mammals, birds, fish, rivers, lakes, and forests are alive with their own souls or spirits, giving them some degree of consciousness like our own. Rather than looking to any conception of a transcendent god, this kind of thinking locates the divine inside the phenomena of the world, as part of their composition and nature* (p. 260).

Spiritual beliefs and ceremonies tie Indigenous people to their own land and disconnection or forced removal can constitute cultural collapse, having direct association with social pathologies (Kirmayer et al., 2000; Brown, 2001; Colchester, 2003; Pilgrim et al., 2009). Richmond and Ross (2009) highlighted that, whether direct or indirect, environmental dispossession has led to poorer health outcomes for Aboriginal communities.

It is crucial to acknowledge, in policy, the links Indigenous people have to their lands. Such links have been recognised by international governing bodies such as UNESCO (Wahbe et al., 2007). Articles 25 and 29 of the DRIP emphasise the continuation of Indigenous spiritual and material relationships with the ecosystem, encouraging Indigenous conservation and protection without discrimination (UN cited in Collins & Murtha, 2009; Parkes, 2010). Further, Article 31 emphasised the right for Indigenous people to maintain their traditional knowledges, practices and cultural heritage (UN cited in Stephens et al., 2007b). Heinamaki (2009) noted, one of the fundamental issues in community engagement, acknowledgment and legal rights to traditional lands is that Indigenous people are not seen as major stakeholders, having limited ability to participate in international lawmaking. In a legal sense, one way of countering this is reviewing international Aboriginal title and land rights (Collins & Murtha, 2009).
3.7 Aboriginal peoples connection to Country

Aboriginal peoples bond to Country is often passed down through generations via oral histories, narratives and storytelling. Country has multiple meanings and infers a relationship between an individual and place that connects to ancestry and kinship (Horstman & Wightman, 2001; Strang, 2005; Pickerill, 2009). Aboriginal and Torres Strait Islander people put a great deal of “emphasis on ‘looking after’, ‘caring for’ and ‘growing up’ the country” (Sutton, 2003, p. 31), with Country having multiple purposes and meaning (Strang, 1997).

Aboriginal peoples connection to Country strengthens identity, sense of belonging and provides an inseparable spiritual bonds with their networks, kin and ancestors linking people to the past, present and future (Myers, 1986; Strang, 1997; Toussaint et al., 2005). This human-environment relationship is dynamic, holistic, deeply spiritual and a humanised body of knowledge (Layton, 2001; Strang, 1999; Holmes & Jampijinpa, 2013). Read (1996) acknowledged that for nearly a century non-Indigenous Australians have attempted to compare their feelings of belonging to that of Aboriginal connection to Country. Reynolds (2003) explained European settlers often admired this connection.

Aboriginal understandings of Country and their human-environment relationship are based on local connections integrating social and cultural issues (Smith, 1999; Layton, 2001). Verran (1995) asserts that Aboriginal peoples’ relationship to Country goes beyond that of the Western concept of land being an extremely powerful attachment. This is similar to the differences in New Zealand between Maori and English concepts of property rights, which in Maori culture is more communal rather than a resource (Busse & Strang, 2011).

Country encapsulates everything that is part of the geographical landscape - it is not simply a named location measured in terms of distance but rather the ancestral/social connection (Strang, 2009a; Tonkinson, 2011). Aboriginal people hold a deep connection to their ancestral natural landscapes (Altman et al., 2007; Garnett et al., 2009; Weir, 2009; Zubrick et al., 2010). In the Australian context Ancestral Beings
take many forms and are exemplified in narratives, mythology, ceremony and every fibre of a person’s connection to Country - often referred to as the Dreaming (Myers, 1986; Read, 1996; Smith, 1999; Ingold, 2000; Dussart, 2005; Stanner 2009). These powerful and totemic Ancestral Beings created and transcended the landscape by shaping it while traversing through Country carving out valleys, waterfalls, rivers, rocks and creating animals, plants and humans that were previously part of a “shapeless earth” (Milton, 1996; Ingold, 2000, p. 113; Dussart, 2005).

This deeply spiritual connection to Country provides each Traditional Custodian with a ‘home’ (Strang, 1999, 2004). Strang (2009a) and Read (1996) acknowledged an equal partnership is required to look after totems and Country with these ancestral learning’s providing a sustainable map for living life, sharing this ecological knowledge and managing it. Learning throughout life in Aboriginal communities is learning about this relationship to Country (the rights and responsibilities) and therefore there can be no separation of environment, society, history, kin, innateness and beliefs (Smith, 1999; Pickerill, 2009). Strang (2006a) explains this human-environmental relationship is an active partnership ‘directing human actions’. Morphy (1991) explained that painting, song and dance not only represents ancestral events but they represent complex social, geographical and economic transactions. Read (1996) explains this through Debbie Rose’s work noting that:

keeping the country clean (burning it off properly); using the country by hunting, gathering, fishing and generally letting the country know that people were there;... protecting the species related to that country;... providing a new generation of owners to take over the responsibilities... and learning and performing ceremonies which kept people and country in harmony (p. 69).

Some scholars believe that Western views of the environment go against such interlinked relationships with traditional land (Bird-David, 1995). Ingold (2000, p. 57) highlighted this divergence noting Indigenous peoples’ engagement in Country is “forever alert to signs in the landscape that may offer new clues to ancestral activity... [entering] directly into the constitution of persons, not only as source of nourishment but also as a source of knowledge”. Australia has gone through tremendous change since colonisation and the concept of Country has evolved, in part, due to Aboriginal
peoples’ ecological knowledge being disregarded and the associated decimation of biodiversity across Australia (Small, 2008; Burgess et al., 2008).

Aboriginal Victorian people, prior to colonisation, lived in equilibrium with their Country because they had inhabited in a respectful manner (VicHealth, 2011). The popular song *Native Born* by Aboriginal singer/song writer Archie Roach (1990) demonstrated the deep connection felt towards Country and the sadness that occurred when Aboriginal Victorian people were removed from their lands with subsequent ecological degradation and denial of Aboriginal ownership. Read (1996) and Eades (2000) explain that this traumatic period has become a part of Aboriginal peoples’ identity though the grief associated with loss of land and poor general health status. Reynolds (2003, p. 7) noted that there is a deep ingrained injustice in Australian society evident in the:

_sense of uneasiness, a lurking shadow of guilt, a ‘whisper in the heart’ that encourages a tendency to explain the problem away by blaming the Aborigines themselves and to argue that they lost their lands because they were too primitive, or too passive or too savage or too unproductive_ (p. 7).

Aboriginal Victorian people have had to weather aggressive assimilation agendas, missions, forced Christianity and labour and removal from Country (Broome, 2005). Smith and colleagues (2008) identified that Aboriginal Victorian people were alienated from their lands and reduced in numbers because of diseases, massacres, and Aboriginal women being subjected to exploitation by settlers. This impacted on Aboriginal knowledge, connection and practices on Country (Strang, 1997). Bender (1999) explained this painful period of colonisation noting:

*Western colonisers did not recognise the Aboriginal occupation of Australia, although, on occasion, their place-names acknowledge bloody and unequal encounters. For them, Australia was... an empty land. Slowly the map filled with the history of white exploration, domination and settlement. Large tracts of new territory were given grandiose names that suggested that they were extensions of European* (p. 39).

Strang (1997) mentioned that Aboriginal people maintain their complex human-environment relationship and knowledge of Country remains ‘remarkably robust’. Despite separation from their lands, Aboriginal Victorian people still hold a deep
connection to their Country (Vickery et al., 2004). Smith (1999, p. 200) provided a reflection by an Aboriginal Victorian stakeholder noting that for non-Indigenous people this relationship is like “living ‘on top of the land’” whereas Aboriginal people live “in the land”. Smith went onto explain for Aboriginal people living in these regions they maintain connection to Country through visiting it and passing on their ancestral knowledge.

Lawrence and Davies (2011) highlighted that Aboriginal Australian societies show resilience through their cultural norms, practices and knowledges being maintained. Engagement in caring for Country projects has been identified as a way of addressing health inequalities and improving Aboriginal health, preventing chronic disease, increasing identity and reducing primary health care expenditure (Campbell et al., 2011). Johnston et al. (2007) and Burgess and colleagues (2008) found that caring for Country lowered chronic disease symptoms and was a critical health promotion mechanism. Tonkinson (2011) reiterated, Country still empowers, allows attachment and feelings of security. Although this information is recognised there is a lack of academic research carried out in Victoria on this topic. This is concerning because as Toussaint and colleagues (2005) note:

> Among Australian Aboriginal groups, comprehensive research on land has occurred for at least three decades, in part because of their long-running struggle for land rights. A range of land-based inquiries, such as Western Australia’s Aboriginal Land Inquiry... and legislative requirements embedded in the Aboriginal Land Rights (Northern Territory) Act 1976 (Cwlth) and the Native Title Act 1993 (Cwlth), have generated a large body of published and unpublished documents concerning relationship to land (p. 62).

### 3.7.1 Native title, land rights and Indigenous land management in Australia

To counter the losses felt by Aboriginal people and to strengthen the lands rights movement Australian law has tried to remedy past wrongs through native title (Ganesharajah, 2009). To gain native title Traditional Owner groups need to prove a continued connection to Country under traditional law and customs recognised by Australian law (Sutton, 2003; French, 2004). There has been considerable debate around the continuity and extinguishment of this connection (Toussaint, 2004; Glaskin, 2007). Sutton (2003, p. 22) highlighted that decisions based on “traditional
law and custom... ‘washed away by the tide of history’ is highly problematic”. Tonkinson (2011) explained that although much of the land in:

settled Australia’ has long been alienated by the invaders, native title still inheres in Aborigines’ indigenous ‘laws and customs’ and their continuing association with traditional homelands (p. 338).

Throughout Australia, native title has had both positive and negative effects on both Aboriginal and non-Indigenous Australia. One negative has been that this process is translated in legal terms where Traditional Ownership “comes under legal scrutiny and is tested, usually by non-indigenous professionals” (Sutton, 2003, p. 1). Conversely, many academics have explained native title as a ‘recognition space’ where this ownership is acknowledged alongside Australian law (Sutton, 2003; Martin, 2004; Weir & Ross, 2007).

In 1982 three Murray Islanders including Eddie Mabo lodged to the High Court proceedings in an attempt to recognise that customary law and traditional native title continued (Sutton, 2003). The Native Title Act 1993 gained momentum after the historic High Court Mabo decision in 1992, which recognised in Australian law Aboriginal cultural ties to Country, customary law and overturned the concept of terra nullius (Martin, 2004; Toussaint, 2004). Even prior to this decision most states and territories had developed legislation around Aboriginal land rights in respect to protection of sites, with tracts of land being given back to Traditional Custodians (Tonkinson, 2005). Mabo changed the course of history because the decision was “the first time, that Aboriginal people had their own system of land ownership” recognised in its fullness (Strang, 2009a, p. 96). However, this “unleashed a flood of problems relating to the determination of who had authentic claims to particular stretches of land”, moving anthropological data about connection to Country from theory and debate into new terrains (Stewart & Strathern, 2005, p. viii). Reynolds (2003) explained:

There is strong differences of opinion about the impact of the Mabo judgement in 1992, but few people would now contest the view that it represented a watershed in the relations between Australia’s Indigenous population and the wider society... While debate will persist and fluctuate about the question of whether Indigenous
Australians on a whole benefited from Mabo... there can be no doubt about the enhancement of their status (p. 1).

The Native Title Act 1993 has been subsequently watered down (Lawrence & Davies, 2011; Toussaint, 2004) but still maintains the essential principles upheld two decades ago (Sutton, 2003). The Native Title Act has allowed for Aboriginal people to engage in claims over land and water and promote their connection to Country to a wider audience (Smith, 1999; Morphy, 2006; Glaskin, 2007). These positive action over the last two decades have been identified by some as not achieving their intended outcomes, causing feelings of injustice to remain (Reynolds, 2003). Nevertheless, these messages are starting to infiltrate into government policy, with the National Aboriginal and Torres Strait Islander Health Plan 2013-2023 emphasising the importance of culture and Country to health. This is because members of the Aboriginal community have taken positive steps to tackle injustices as highlighted below:

In southern Australia... Aboriginal people continue to express concerns about... the compromises and effects of native title claims. While some of the Aboriginal people of the Murray and Lower Darling Rivers have chosen to pursue native title claims, their recognition is limited... native title has led to formation of indigenous alliances... to pursue more meaningful recognition outside of the Native Title Act (Smith & Morphy, 2007, p. 6).

Academics acknowledge that Native Title can have detrimental impacts. An example is that of the Yorta Yorta Native Title case, which asserted that connection to Country and land ownership, had been ‘extinguished’ and ‘frozen in time’ (Golder, 2004; Venn & Quiggin, 2007; Venn, 2007). Initially, the Yorta Yorta case was lodged to the Native Title Tribunal in 1994; but mediation collapsed a year later and went to the Federal Court where a decision was made in 2002 (Reynolds, 2003; Toussaint, 2004). Reviewing the unsuccessful Yorta Yorta Native Title claim, Golder (2004) highlighted that such judgments have hampered the development of Aboriginal self-determination. Toussaint & Christensen (2004, p. 205) acknowledged that the Yorta Yorta decision made “native title harder to document, easier to extinguish” and for communities whom were involved in similar struggles “continually disappointed”. However, French (2004) noted that from this process the Yorta Yorta people have
opportunity for negotiation and positive outcomes – evident in new agreements being developed.

Some academics have gone further, noting that the concept of Native Title has been divisive in places like Victoria (Atkinson, 1996; Behrendt, 2002; Tehan, 2003). As Hemming (2002, p. 52) explained, Native Title is a “fundamental challenge to mainstream national histories and the authenticity of [the] Australian nation… histories of invasion and survival unsettle the dominant tropes of the western democratic project – freedom, equality and justice”. Foley (2007) and Smith and Morphy (2007) explained that one reason Aboriginal people living in urban/regional or densely populated areas perceive native title as not achievable is because continued connection to Country is perceived as extinguished. There seems to be a divide between urban, regional and remote experiences of native title highlighted by Sutton (2010):

_{it is frequently clear in urban and rural areas that the regional Aboriginal polity of recent times has become, in a word, rusty… Unlike their fellows in much of remote outback Australia, many urban and rural Aboriginal people may have little experience of such high-level dealings with government and industry. It is therefore not surprising that in much of southern and eastern Australia the native title process will tend to be very competitive, at times combative, and that it will take time for the machinery of regional land-based politics to once again become oiled and more or less smoothly running, if that is to happen (p. 12)._

If native title can be resolved, positive outcomes could be achieved including self-determination, land rights, recognition and coexistence in Victoria. These negative perceptions of native title can be used to develop new methods of connecting back to Country - like joint management and an increased willingness to work in collaboration to develop agreements about land (Smith & Morphy, 2007). These limitations include: Aboriginal people having to prove their cultural identity through a western lens (Smith & Morphy, 2007; Weir & Ross, 2007); having a ‘disempowering’ effect because the ethnographic process requires claimants to visit traumatic places (Strang, 2004); result in a process which takes traditional custodians away from their connections to Country (Glaskin, 2007); and sometimes causes tension between families and with non-Indigenous communities (Sutton, 2010). Weir and Ross (2007, p. 200) states “Instead of fostering a more sophisticated understanding of Indigenous identity, the influences of native title has been to generate a lot of tension over the
understanding of ‘tradition’, and has sought to fix Indigenous peoples’”. Barcham (2007) made the valid point:

*In a sense... native title... [has] been a success... created through acts of recognition in order to overcome historical injustice... However, the acts of recognition upon which these processes have been based have also led to new sources of injustices. In many respects these new forms of injustices flow from the inability for the issues of cultural change over time to be taken seriously by some engaged in the processes of recognition. What we need to do then is approach these processes of recognition in the spirit with which they were created. To do otherwise is to merely replace one form of injustice with another* (p. 213).

Beyond Native Title, different organisations have attempted to employ collaborative approaches when working on Country with Aboriginal communities (Cochrane, 2005; Bauman & Smyth, 2007; Carter & Hill, 2007; Duff et al., 2009). What has become critical in this process is that Aboriginal people have become more empowered to have control over what is done on their Country (Lawrence & Davies, 2011). Collaborative processes for Aboriginal ecological management refer to building governance structures, accountability and capacity that are negotiated by all stakeholders (Carter & Hill, 2007). Other strategies for implementing this include building respect, honesty, investment in capacity building, control of decision-making and bipartisan political engagement (Cochrane, 2005; Bauman & Smyth, 2007; Duff et al., 2009).

Collaborative land management approaches have often been successful in combining traditional knowledge and practices with self-determination (Strang, 1997). Strang (1997) explained that this boils down to maintaining Aboriginal principles and leadership structures at the same time as integrating this knowledge into Western management space in respect to land management. This has been exemplified in some Australian national park systems where such collaboration has improved ecosystem health, for example controlled burning practices (Layton, 2001). Strang (2008a) reflected on an Aboriginal community being an equal co-manager of a catchment area to achieve greater economic stability and self-determination. Sutton (2003, p. 23) explained that this “co-ownership of country is a sign of transactions in shared identity”. Though Aboriginal groups can now ‘talk the talk’ in reference to environmental management, this has downfalls in terms of compromising these social
and cultural explanations (Strang, 1997, 2009). Strang (2008a, p. 53) noted that Aboriginal peoples involved in joint environmental management often find themselves in an awkward position of “wanting others to understand and respect their beliefs and values and the need to protect this knowledge”.

Recognising that these two worlds exist, Pearson (2006) suggested that Aboriginal people should be able to determine their own futures so they can effectively integrate into global economies. Stephens et al. (2006, p. 2020) articulated that Western society can romanticise Indigenous people as “untouched by modernity… [but] there is a fine line between recognition of the positive aspects of traditional Indigenous lifestyles and negative portrayals of primitive groups in some way inferior to mainstream society”. This romantic portrayal of Indigenous cultures is well critiqued in academic literature (e.g. Ellen, 1995; Harries-Jones, 1995; Ingold, 2000; West, 2005). Strathern (1993), Milton (1996) and Ellen (1995) identify that this discourse of Indigenous peoples living at one with nature is a ‘myth’ if treated as dogma and must be tested before proven correct. Often this romanticism is conflated by the media and can lead to perceptions of Aboriginal people as the “exotic Other” (Ellen, 1995, p. 126). The idea of Indigenous culture being in tune with nature has been described as increasing prejudices because it creates this population group as the ‘other’ (Milton, 2006). Layton (1989) explained that this is a dangerous dichotomy to establish because it creates a situation of ‘us’ versus ‘them.’ Strang (1997) believes that this dichotomy:

probably does the Aboriginal cause little harm, except that it tends to deny the highly practical nature of well-organised, long-term Aboriginal land management… their overemphasis has, I suspect, undermined Aboriginal credibility as land managers, and made it more difficult for their current aspirations to be accepted by white Australians who see themselves as responsible for managing the land (p. 88).

As explained Aboriginal and Torres Strait Islander peoples have accumulated ecological knowledge; however, there is still a lack of appropriate recognition with school texts, representing this information often as “myths and legends” (Allison, 1999, p. 273; Pickerill, 2009; Pretty, 2011). Another issue is that historically, European settlers’ introduction of animals, weeds and other pests, along with the suppression of Aboriginal traditional practices, have negatively impacted on Aboriginal environmental practices (Campbell et al., 2008). Pilgrim and colleagues
(2008, p. 1008) emphasised that “time and money could be spared if the knowledge, experience and capacity of local people were protected and used in resource management efforts today”. But it must be noted that not all Aboriginal people have a connection to Country or want to be involved in land management. While engagement in caring for Country may be a potential mechanism for reducing inequalities affecting many Aboriginal people, it will not necessarily have universal application.

3.7.2 Implementing caring for Country in Victoria

This section includes my article published in Just Policy focused on Aboriginal Government employees’ perspectives of how to improve caring for Country initiatives in Victoria. The article draws on a qualitative focus group method with Aboriginal government employees from Parks Victoria (PV) and the Department of Sustainability and Environment (DSE). PV and DSE have Aboriginal employment strategies to increase Aboriginal and Torres Strait Islander people involved in the environmental sector. Both organisations are therefore able to influence the access of Aboriginal Victorians peoples to participate in caring for Country initiatives.

Informants identified the complexity involved in developing caring for Country projects for Aboriginal Victorian communities. The article highlights factors that facilitate caring for Country projects, including building of capacity, relationships, transparency, education and training across Aboriginal communities, government and the general public. Governments, when dealing with Aboriginal Victorian communities, were seen as needing to work towards developing strategies where partnerships were sustainable. These partnerships could only occur if there was an understanding that Aboriginal groups are different requiring tailored initiatives to the needs of individual Traditional Custodian groups.

Aboriginal government employees involved in this study identified a number of examples that demonstrate the problems when trying to develop caring for Country projects. Government departments needed to resolve issues about duplication of information and set up a consultation process between themselves. The rationale for this is that there is a need to reduce the burden on Aboriginal communities being asked the same questions multiple times by different government agencies. This paper
sets the scene to better understand the complexity of setting up caring for Country, as identified by Aboriginal employees working for the Victorian Government. Government bodies will be instrumental in ensuring this occurs in Victoria as a possible mechanism to reduce health inequalities and maintain Aboriginal human-environment relationships with their Country.
3.7.3 Publication 1

Citation

Building Collaborative Partnerships a key to Increasing Indigenous Victorian Peoples’ Access to Country

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This article reports on a qualitative research study undertaken with Indigenous government employees to explore ways in which Indigenous communities can access programs involving caring for Country (knowledge, responsibility and inherent right to protect the traditional natural landscape) on their traditional land and, in so doing, improve their health. Factors that influence such nature-based projects are the capacity of their intention to build relationships, consultation, transparency, consistency, education and training between Indigenous communities, government and the general public. Government agencies need to develop strategies where partnerships and collaboration are effective with Indigenous communities and within the agencies themselves, in order to resolve controversial issues surrounding access to Country.

Introduction

The UN Declaration on the Rights of Indigenous Peoples (1993, p. 2) highlighted that Indigenous peoples have been deprived of human rights and fundamental freedoms, thus preventing them from exercising their right to development, in accordance with their own needs and interests. For Indigenous healthy and human rights to be balanced, key policies should focus on sustained cooperative partnerships at both national and local levels (Almeida 1997; McKendrick 2003; VACCHO 2005; Peletiaka & Clague 2006).

Kloebel (1997) emphasised that health equality is not so much

1. The term Country is a place (traditional boundary) that gives and receives life (North Central Catchment Management Authority, 2006). Indigenous people talk about Country in the same way that they would talk about a person; they speak to Country, visit Country, worry about Country, feel for Country and long for Country (Australian Heritage Committee, 2001).

2. The Indigenous model of health is complex with many definitions worldwide; but all are common in that they espouse a holistic approach involving spiritual, intellectual, physical and emotional elements (Committee on Indigenous Health, 2003).

Other social influences such as unemployment, low academic achievement, material standard of living, insecurity and job insecurity evident in Indigenous communities in Australia, play a major role in the poorer health of individuals (Kawachi 1997; Marmot 1999; Steering Committee for Review of Government Service Provision 2007). Behrendt (2003) noted that this could be counteracted with acknowledgment of the sovereignty of Indigenous peoples, through recognising past injustices, through the granting of autonomy and decision making power, and also through property rights, compensation and recognition of cultural practices. Literature identifies the centrality that Country plays in Indigenous culture, having physical, spiritual, cultural and emotional bonds (Hudson-Rudd 1994; Brown 2001; Scougall 2002; Richmond et al. 2004). Bergens & colleagues (2003) found that in the Northern Territorial Indigenous natural resources management has social capital, health and wellbeing benefits.
Shell middens, rock art and grinding grooves provide evidence of the interaction between nature and humans. The Aboriginal people of Australia have had for hundreds of generations (Phalenius 2005). For many Indigenous Australians, the damage and loss of traditional landscapes has constituted a 'diminution of self esteem' (Kennedy 2000: p. 15). It is critical to identify those people who have this cultural knowledge of the land and who have the authority to speak about it, thereby limiting this loss of culture (I. Kostam & Whitburn 2001: Department of Sustainability and Environment 2004). Indigenous knowledge contained in environmental narratives is an important land management tool, as it describes a deep connection with the land (Robertson et al. 2008).

To capture this connection, government policies have recently attempted to engage Indigenous communities in the decision-making process. Examples are the Kakadu and Uluru National Parks, where there is direct engagement with the local Indigenous communities (Lancashire 1999). However, Barra-Bassil & Zimek (2003) noted that Indigenous ecological knowledge is vulnerable to the negative effects of globalization. Researchers have noted that, until Indigenous customary ecological management is recognised, optimal economic development cannot be achieved (Altman 2004).

This study focuses on Indigenous natural resource (land management) policies and government action in Victoria, but also looks at the benefits of caring for country. Recent key policy documents in this field are:

- Indigenous Partnership Strategy and Action Plan ( Parks Victoria 2003): This includes the protection and surveying of traditional sites, building cross-cultural awareness, and increasing Indigenous recruitment in the management of parks.
- Indigenous Partnership Framework (Department of Sustainability and Environment 2009): Focuses on building stronger partnerships, access to country, and recognition of Indigenous knowledge.
- Aboriginal Heritage Bill (Aboriginal Affairs Victoria 2007): Concentrates on the protection of cultural heritage sites, and developing a Traditional Owner committee that looks after cultural heritage.

Such policies have shaped the way the government deals with Indigenous communities in Victoria in terms of natural resource management. The project upon which this paper is based examined how Indigenous staff, who are directly involved in implementing policies, view such procedures.

Case Study One: previous study

This case study is based on data collected through a qualitative study for a postgraduate degree at The University of Melbourne, which focused on three Indigenous 'Traditional Custodian' groups and their relationship to caring for Country in terms of their health and wellbeing (Kingsley 2007). This study collected data on the future aspirations of these groups in relation to obtaining greater access in caring for Country, which would in turn increase self-determination, pride and identity. The main aspirations included:

- Recognition of the culture and history of Indigenous Australia, for example through increased signage and information around Victoria.
- Opening the door for youth who were currently disenfranchised by offering training pathways, mentoring, and opportunities to learn culture and see Indigenous role models presenting possibilities of filling available positions.
- Building bridges between non-Indigenous and Indigenous youth, by giving school students the opportunity to work in the natural environment, and by enabling them to learn traditional Indigenous and western scientific knowledge from scientists, teachers and Traditional Custodians.
- Maintaining and protecting the natural native environment, by using scientific and traditional land management techniques where local people become involved in caring for parks.
- Training and employment of Indigenous people by government agencies, in order to enable them to have a lifetime career in the protection of parks, driven by what the communities want to achieve.

Case study two: current study

Two Victorian government organisations, Parks Victoria (PV) and the Department of Sustainability and Environment (DSE) were focused on, in order to identify what actions were needed to be undertaken within these organisations in regard to the above aspirations. By focusing on Indigenous government employees, this study explored what effective policies were being produced by government institutions to increase access to Country, and what will be required in the future.

Emphasis was placed on political institutions because, as Putnam (2000) identified, the greater the trust built and the greater the civic engagement, the greater the social capital and, consequently, the improved health status. This was highlighted by Putnam’s (2000) research identifying that in America, a decrease in trust in political and religious institutions meant that there was a decrease in reciprocity within the country. He proposed that these systems needed to be strengthened, to build increased social cohesion and confidence in government systems.

3 Traditional Custodians: a term used to describe a person or group by right of tradition who have inherited a custodial role of caring for Country through bloodline connections (Phillips 2008).
Both PV and the DSE are Victorian State Government agencies. PV acts as the caretaker and recreational manager of parklands throughout Victoria (PV 2007). PV was established in 1996 and prides itself on its commitment to conservation and environmental management, its slogan being “healthy parks, healthy people” (PV 2007). DSE is Victoria’s leading government agency responsible for promoting and managing the sustainability of the natural and built environments (DSE 2007). DSE employs nearly triple the number of staff (2,700) of PV having wider responsibilities including sustainable water and forestry management, governance of parklands, services of biodiversity, and policy frameworks that protect the environment (DSE, 2008).

Methodology
Data was gathered through a two-hour long focus group, two interviews, and one email correspondence with selected Indigenous government employees working in Melbourne, Australia. The focus group method is a qualitative tool that delves into perceptions, interpretation, and beliefs of a selected population (in this case the Indigenous policy makers and government employees) to gain an understanding of a particular issue from the perspective of group participants (Khan & Manderson, 1999, cited in Rice & Ezzy, 1999).

In the focus group, participants were asked to articulate questions which gave rise synergistically to insight and solutions that would not come about without them, and to validate other qualitative techniques (Baum, 2002, p. 173). Focus groups also “give a voice” to marginalised groups … enabling others to “listen” to people who may have little chance to express an opinion, such as Indigenous government employees in the environmental arena whose policies have been given little priority over other matters in Victoria (Rice & Ezzy 1999, p. 74).

Of the six key participants involved in the focus group, three were female. Three contributors were from Parks Victoria, two were from The Department of Sustainability and Environment (DSE) and one was from The University of Melbourne. This allowed feedback to come from individuals from different government bodies who are directly involved with parklands in Victoria. The individuals from Parks Victoria and the DSE who could not attend the focus group meeting...
were given the option of emailing responses to specific questions, as well as the opportunity to meet face-to-face and discuss some of the responses. Two Parks Victoria Indigenous employees chose to meet separately with the researcher, to discuss issues mentioned in the focus group, and one DSE participant responded to questions via email.

The focus group was guided by an interview schedule/guide of questions. The questions used in both the focus group and the correspondence focused on a number of different issues that had emerged from the previous postgraduate research (Kingsley 2007). This research was approved by the University of Melbourne Ethics Committee, and also by an Indigenous reference group set up for this study, consisting of Traditional Owners, Indigenous government employees and leading academics from three Victorian Aboriginal Traditional Custodian groups. The questions covered the issue of what strategies were in place in these departments, to tackle issues including, traditional boundary conflicts, different value systems between Indigenous people and government agencies, lack of access to, and destruction of Country, lack of recognition of Traditional Owners, lack of education and employment opportunities, the consultation process, and how to develop sustainable projects in these communities.

Thematic analysis was used to identify themes that stood alone in the data (Browne 2004). In this case, both open coding and axial coding were applied in order to improve the quality of the study. These terms refer to categorising topics into properties, and were used to develop the headings in the results section (Creswell 1998). A code page was developed and interviews were coded accordingly, with all being given a description. Findings from this study provide a limited picture of this complex topic, as a result of the study’s qualitative nature, its sample size and the fact that data was gathered from single interviews. However, the following results aim to give a voice to Indigenous members of these government organisations by using their personal experiences and opinions, allowing study issues to be extracted. The individuals have authorised this extract to be published, and have been involved in the editing/co-authoring of this manuscript.
Results

Frameworks say we should work together but I think it's about telling our staff [Government] we need to work with communities [indigenous] rather than telling communities how they need to work with us (Parks Victoria staff member).

Land: boundaries and access

The first factor identified by the participants, when focusing on the barriers to accessing traditional Indigenous 'Country', was the new Victorian Cultural Heritage Legislation. A DSL respondent considered that the legislation would 'suck' groups to work out their traditional boundaries, because before you had a list of non-Traditional Owners having a say over cultural heritage, and with the new policy it is more aligned with Traditional Custodians controlling their knowledge. Informants acknowledged that the policy encouraged Traditional Custodians to become a registered party, and be therefore be recognised until boundary issues could be resolved. A DSL participant believed this meant that we could work more with those Traditional Owners groups where they had not agreed on boundaries, to add some degree of process (DSL informant). This could occur by allowing for a better mediation process to bring groups together (PV staff member). However, a DSL participant noted, 'if we keep on going into mediation because of differences of opinion on boundary issues then it will just drag on'. A PV informant perceived that by 'building capacity' through means such as time out bush and increasing self-determination to learn more about our culture would maybe increase influence to resolve these issues and find out accurate details about boundaries.

Access to flora and fauna for cultural purposes (such as hunting or basket weaving) was another pressing issue for participants associated with legislative restrictions. A PV participant reflected, 'some mobs in Victoria's only access to their homeland is now a park... so if they have these restrictions they have to practise culture illegally, it's the only option they have'. Another PV informant stated that management plans provided some access, for example to women's sites and spiritual areas, but that in some cases said want to use this part of the park for Aboriginal people's purposes they could only use a process for doing it which is so cumbersome that no one is going to'. These are exceptions to this rule, for example a DSL employee noted that 'Native Title has provided the Wurundjeri people with the rights to hunt, fish, gather and camp with recognition of their Country acknowledged' (Note: since this meeting; the Gundigana have received Native Title).

Some participants mentioned that Native Title 'took some ground' that would hopefully be available to other Traditional Custodians in Victoria. A DSL contributor suggested that although 'Native Title is not perfect... if it is left up to groups to work it out themselves, that might seem like the best process but some groups are in different places. Some have got strong negotiations, whilst others don't even know one another. You may be able to have an interim period while other groups get their capacity to be able to represent themselves' (This DSL employee mentioned that one strategy of dealing with this issue is that 'Native Title Services and the Department of Justice which have separately been collecting information on groups. They have a lot of information to substantiate what the different Traditional Owner groups in Victoria are... it's hard to know how to bring that in because some people who say they are from an area maybe are not'.

Another approach as described by a DSL employee, highlighting the need to provide 'better education for communities in relation to Native Title and what it can realistically achieve. The Victorian state government spent some three million dollars on Native Title last year - who benefited? Threw would be less interest in Native Title if the merger benefits were pointed out and then we could get back to the business of improving Indigenous communities'. Government employees, no matter what their perspectives on this policy, noted a sentiment that the 'lack of defined Native Title has not stopped any communities from working with us... any work that is taken out of park managed land has to include the consultation process.

Building governments' capability to deal with Indigenous communities needs

Participants typically described some government processes as flawed, and not in touch with Indigenous communities in Victoria. This was epitomised by one person from Parks Victoria's commenting that there are people in our department that need to write policies that are going to have effects on a statewide level but they know nothing about the people and the land they are writing about. Some participants went further, suggesting that at times Indigenous communities were specifically excluded by individuals in government agencies because they had different values. One Parks Victoria employee commented that 'some Community Elders who have excellent land management skills can't articulate their traditional knowledge in a scientific sense, [therefore] are not given any credence'. Another frustration mentioned by a DSL informant was that the government are out of touch with developments happening, so ideas don't get considered because I have seen too many big budget reports being provided with little impact on the ground and being shifted. Ice age to occur there to has to be community ownership of such projects.

Government employees interviewed were frustrated that agencies were ineffective in collaborating on projects. One DSL informant commented, 'we need to consult each other... the community get fed up with different agencies wanting the same information and wanting to meet them separately'. Another participant noted, 'we have tried to encourage other agencies to work together like a reference group... but there has been resistance. I know at PV and DSL we have had Indigenous staff and therefore a better understanding than other agencies that don't have this relationship'. However, contributors acknowledged that even in their organisations...
they lacked consultation skills with other agencies, noting that they
did not know or work with the individuals who formulated the
Cultural Heritage Legislation, but that if they had, it "is going to
have a much greater impact on what happens on the ground."

Some successes in developing partnerships were identified by PV and
DSE staff, with workshops having been held with indigenous groups
in the Pips in 2005 and the Otways in 2006. One DSE participant
referred to these events, saying: "It didn't matter whether you
were from an agency or a school... it was this sense of a whole
of that we are jointly sharing information, it gets groups to
explore where they come from and what their histories are; it would
be distributed across parks throughout the state. But one thing you
cannot stop when working with other agencies is there is always going
to be different power plays, personalities, egos. Informants said this
process of building relationships would be enhanced by a transparent
process, inclusive approach, and consistent and persistent strategies
for agencies to deal with indigenous issues. A Parks Victoria staff
member stated: I have to deal with two Aboriginal groups that
don't recognize each other but I am consistent in saying we are
dealing with both of you. Another informant succinctly described
the opposite situation having occurred in the DSE, mentioning their
Native Title group which has no Indigenous staff employed in it.
The reason being it would certainly conflict with their association to
their community... because it continually pushes the Traditional Owners
primary over community.

The Indigenous Government employees involved in this focus group
believed that the only way to improve partnerships with indigenous
communities and individuals was by building stronger relationships.
Strategies to build these relationships, a PV informant identified,
need to be "honest and tell Indigenous communities that their
feedback may or may not be used", be "responsive to investments
into communities to move forward in health and environment issues";
and find the right people to help with the mediation and make it easy for them to be involved in the process. Attempts to tackle these issues have been made through the PV (2005) and DSE (2006) Indigenous action plans. The issue surrounding relationship-building in parks is in Victoria between park staff and Indigenous communities was that it was "all happening informally, there are no policies around it. Strategies should be put forward to formalise those partnerships in areas we [governmental] manage. One example of this was identified by a PV staff member who noted that the "informal programs internally in PV like John's Kicking Dirt are about
getting managers and staff, Indigenous and non-Indigenous, together
to go for a walk and talk and learn. The success of such a program
told to a DVD being developed. A way of bridging the gap from
informal to formal programs would, for example, be to have "more
decision making on land more accessible at the grass roots level... in
stead of communities going through lots of different organisations".
(DSE informant).

The most common way of government agencies building their capacity
to understand Indigenous communities needs was through cross
cultural training. One participant suggested that with cross cultural
training, "staff will walk away understanding 'indigenous aspirations'
but the biggest division is that government have gone out without understanding the community." A DSE informant mentioned that there were "other ways of building this relationship... we just haven't put as much focus on working partnerships and there haven't been many staff going to work with kids and sharing skills." Other methods to improve the relationship that individuals mentioned were through acknowledgment of Traditional Owners, roles, naming, and considering Traditional Owners' views when developing policies. However, there are difficulties mentioned by a PV staff member, including that: "Traditional Owners have their
own personal and social life too so they are limited in time. Their
positive strategies were outlined to deal with some of these issues.
Firstly, if someone is consulting in land management practice, they
should be encouraged to take a group of interested Indigenous
students along and, secondly, we should be looking for the other sets
that we do that are similar and that would make it easier
to build an alliance towards the same goal, and then the difference
will not be as hard to deal with.

Both PV and DSE staff noted that there had been a massive increase
in Indigenous employment in these departments, but that this was
not reflected in an increased presence in the management of parks.
One reason for the lack of experience and lack of qualification of Indigenous people is consultation was
not included in the Indigenous employment process. "We would be pushing it up hill to get exemptions for senior management and, let's face it, an Indigenous person has no experience, and has no hope of competing against someone who has been in parks for fifteen years and has a masters degree." A PV informant gave a positive spin to this, maintaining that "probably four Indigenous staff may get out of management positions... but that will be over time. If you are going to say by 2005 we are going to have six Indigenous senior managers, then you are going to be losing people to take roles that they aren't ready for." Participants stated that Indigenous communities must be aware of these managers. "Representative the whole Victorian community and we put Indigenous people on everything else you are going to get fired... what you can do is ensure that Indigenous people are respected and involved." Concern was expressed that, with specific Indigenous people in senior management roles, that person would be in a difficult position; they would have their own community at
them, and others would say: you are favoring them so it would be
good to see an Indigenous person in that role, but it's better to have
a neutral person there at the moment."

Indigenous partnership strategies developed in PV (2005) and DSE (2007) are focused on building trust through increased consultation
which would allow communities to have a voice in policy changes.
However, Indigenous people must realise that if we consult too
much over the top of everyone else we will get hammered by other
Increasing the capacity of Indigenous communities

Indigenous people were excluded from natural resource management but now there is a co-operative arrangement. (Parks Victoria Staff member)

Indigenous PV staff are being trained to improve their land management skills. One participant noted the reason for this is that, a majority of the time we can't access the applicants with the same qualifications as mainstream PV staff, but then we provide them with the necessary skills to work in roles and they are retained by senior Indigenous staff. All government agencies are starting to develop these Indigenous employment strategies with recruitment and targets. DSE staff noted that they were “hearing towards more employment opportunities in natural resource management, looking at opportunities in park management, eco-tourism, fire prospecting… determining protocols for working together”.

Parks Victoria and Aboriginal Affairs Victoria (AAV) also offered opportunities to learn about cultural heritage, with communities nominating volunteers to be trained in a certificate of conservation and land management; however, most Indigenous individuals still learn it when they're in parks anyway because some staff work with AAV to do a survey, so it is happening informally. One DSE informant critically acknowledged that government strategies have not picked up on career paths and opportunities… some of our staff are happy just to be a ranger, other people have higher expectations, and need to get formal qualifications through scholarships or apprenticeships.

Both PV and DSE staff described the building up of governance and decision-making processes in communities as critical to building sustainable groups which lead to longer lasting projects. A PV participant mentioned “education that's where efforts will be justified as far as trying to overcome disadvantage by making those pathways”. Informants agreed that this could only occur with education and consolidation with the Indigenous and broader communities working together to build environmentally sustainable projects. A PV participant reflected, “all kids aren't getting enough environmental education at schools and that's why they don't value it. Environmental knowledge should be included in school, and more Indigenous influence on it. Another contributor noted “indigenous inclusion in our education program is going to take time…” if more environmental education is provided that has some relevance. A PV staff member acknowledged that the only flaw in this issue is if you are talking about school curriculum, teachers are scared to teach about indigenous issues because what they have been shown in the past is basically incorrect, so they don't have access to resources to help them include it. If there were opportunities for Traditional Custodians to be trained to come in then that would be sensational to develop employment opportunities, but again it only stretches Bills' abilities one step further”.

Participants stressed the importance of developing long lasting consultation processes, so that knowledge could be shared with the wider community. An example of this working well was when the Gunditjmara spoke to neighboring stakeholders (local residents) and now the whole community is supportive of the Lake Corroboree Restoration project. Therefore, education, cultural awareness, working with stakeholders is the way to break barriers because many rural people are afraid of cultural heritage because in many cases they think indigenous people can take their land. One DSE participant explained, however, that “with consultation you have to have some sort of outcome… consultation to fix the bases is a waste of time. Communities should be given enough time to be consulted and give informed decisions. Informants explained that to develop projects using this approach, additional funding would be needed. One PV participant expressed the view that increased funding would be difficult, because “you are competing against… things that the public see as more important”. That is why this PV contributor stated, “we need to put good cases up to show why government needs to increase funding and not push people away from working with us”. He stated; “I want to work with non-Indigenous people, I don't want to push my issues on them and hamper it down their throats about what happened 100 years ago.”

Issues surrounding control of projects, caring for 'Country' and consultation

Some participants identified that when Indigenous communities wanted full control of projects involving management of parklands, this could lead to negative consequences. A PV informant referred to this, saying “land management has evolved now that we do manage it differently... unfortunately a lot of the traditional land management practices are no longer relevant as we have four million people living in Victoria. This participant went further, noting, “you can't have Indigenous people having control of things they don't have expertise in. There might be certain aspects of projects that they will have a higher level of say and involvement in like restoration. Indigenous people have to be more specific in what they want to control”. A PV staff member emphasised that this was important because “we have certain responsibilities to the tax payers and with that, certain responsibilities [required qualified people]. This is transferable to other sectors/industries where these need to be quality services.

Most informants recommended that Indigenous communities should not want exclusive use of parklands, but should rather build partnerships where they share it with local communities, with rights to practise their cultures. One PV participant emphasised that if Indigenous people are going to be involved in 'land management'
they don’t have the right to veto. I see the importance of Aboriginal people caring for “Country” but the landscape in Victoria has changed and we manage land differently so if they want to be more involved in caring for “Country” they have to be more in line with modern management techniques. Another concern mentioned by participants was that councils should not go to a few, but to the majority of individuals, to build the indigenous community’s capacity as a whole in a number of different disciplines, not just park management.

Contributors noted that the issues outlined above are reasons why understanding the appropriate consultation process is critical. Informants mentioned more “planning time”, “feedback”, being open to what community wants, and being “aware of cultural protocols” as necessary for the process to work. One DSI participant noted, “in our department, Indigenous consultation gives communities no time and when we say we are engaging and collaborating, [it] just means we are going to inform Indigenous communities.” The extent of consultation that PV undertook was limited: we wouldn’t ring every single person and tell them about the project. We would go through the CEO in most instances who sits with the board of directors and they represent families. One informant suggested that the consultation process would be easier with a group called the Victorian Traditional Owners and Justice Group, an umbrella body which was in the developmental stage but which was set up to give guidance to agencies as to what projects communities wanted, and how to achieve them.

Discussion

This postgraduate research project hypothesised that with the increased participation of Indigenous communities in the natural environment, the status of social, cultural, health and wellbeing would improve, but there are many factors that need to be considered so that the initiatives undertaken are long-lasting, meaningful and also work with the broader Victorian public.

This research highlighted the need for the establishment of partnerships, collaboration and a co-operative approach between and within government agencies, Indigenous community and the public, supporting the Declaration of Alma Ata (1998). Examples of how to strengthen these partnerships given in this study included involving Indigenous youth in projects; dual naming of significant landmarks; acknowledgment of Traditional Custodians, and the sharing of values. This highlights the multi-layered approach to Indigenous affairs highlighted in research by McKenzie (2000) and Politican and Clarke (2006), who indicated that healing can only occur when policies focus on maintaining co-operative partnerships at a national and local level. In keeping with the views of Kendal (1997), who noted that progress was not hampered by lack of money, but rather insufficient governance, informants noted that they should tackle improving the capacity of Traditional Owners groups in their decision-making processes. This applied to resolving boundary issues and access to flora and fauna in parklands for cultural purposes, with contributors noting that building indigenous communities’ capacity was of great importance to this process. Indigenous Government employees still viewed Nature Title, to a degree, as successful in resolving access to “Country” issues, but saw flaws in the process because of legislation.

Significantly, the study identified that environmental management education for Indigenous communities was important, but it was critical that government agencies and the public gain knowledge in this and in indigenous culture. Brown (2004) highlighted this, noting that a partnership would be achieved with education of the dominant culture and with both cultures working together. However, as one informant mentioned, this was complex, as non-Indigenous teachers did not feel comfortable teaching Indigenous culture, because of their lack of knowledge.

Informants mentioned that increased training, employment and consultation opportunities for Indigenous communities was essential, as highlighted in the PV Indigenous Partnership Strategy (2004) and the DSE action plan (2007). Bartley and Ferrie (1999) noted that with an increase in employment, academic achievement and job security, health would improve. However, informants mentioned that there needed to be lines drawn as to how many opportunities are available for Indigenous groups compared with opportunities for other stakeholders, since this can create anarchy. Participants also highlighted that these processes could be improved by better consultation, by allowing for more time and feedback, and by abiding by cultural protocols. As the DSE strategy (2004) noted, understanding these protocols was critical to identifying the right people to consult with in Indigenous communities. Another issue mentioned was the need for increased transparency, recognition of culture and consistency, with Indigenous communities and government working together, and with agencies consulting each other in order to minimise duplication.

The key point mentioned throughout this study was that by building stronger relationships between Indigenous communities and government organizations, these would be enhanced trust in projects and strategies. This related to building social capital, in that by increasing social networks, trust and social cohesion, there would be greater material and social support – for example the capacity to run Indigenous-controlled land management projects (Putnam 2000; Baum 2003). As Latzak (2005) pointed out, by improving community cohesion, equality in Indigenous health can be improved. This also reflects on Paterson’s (2000) sentiment that by greater involvement in civic environmentalism, democracy and trust could be achieved within political institutions and groups. As Indigenous Australians have had their human rights progressively eroded in the past, the building of sustainable friendships, social networks and relationships may alleviate this trend through forging a partnership, thereby increasing access to “Country” in Victoria. However, if this situation of degraded human rights is to be reversed, caring
for ‘Country’ will be only one element in the process of improving Indigenous self-determination.

It would be beneficial for further assessment to be undertaken in order to understand how government-run projects and strategies can build stronger trust, partnerships and relationships within Indigenous communities. This would strengthen this research allowing policy makers to be more progressive when developing Indigenous projects that involve the management of Traditional lands. Policy makers need to look laterally at how to develop better Indigenous programs, and to develop programs anew from the ground up. This would lead to enhancement of Indigenous aspirations that involve increased recognition of Indigenous culture, giving opportunities to youth, maintaining the natural landscape, and training and employing Indigenous staff in government agencies.

Bibliography


3.8 Conclusion

The environment seems to be suffering as a result of a narrowing of our human-environment relationship. What published literature tells us is that there is a gap in understanding of Aboriginal Victorian peoples’ connection to Country in respect to public health, compared with other states of Australia. Further, the health and wellbeing definitions explored in this chapter indicated that there is a great need to understand and integrate more holistic approaches to health, evident in Indigenous worldviews that can be developed into new frameworks. Research indicates that connections to Country may be a mechanism for improving health outcomes and should be incorporated into frameworks for improving the current poor health status of Aboriginal Victorian people. This would have wider learning experiences for society because:

*It is clear that the stability and continuity of traditional Aboriginal life permit more holistic and self-contained cultural forms, and provide a situation that is not only sympathetic to the development of affective values but also encourages... their location in the landscape* (Strang, 1999, p. 217).
Chapter 4

We engage with places through the medium of our bodies. We become a part of a place by giving up the outsider’s high vantage point so that we can participate with the ‘more-than-human-world’... Now, together, people and landscape become the phenomenon that is a place

(Wattchow, 2013, p. 90).
Chapter 4: Methodology and methods

This section outlines why qualitative methodology was adopted for this PhD and provides the rationale for choosing particular approaches like ethnography and reflexivity. It highlights the ethical guidelines adopted, briefly reviews the methods applied, provides an overview of the sample population, publications and data collection process and outlines limitations of the PhD. Study design, methods, participant information and data analysis are incorporated into each research chapter, so to reduce duplication some information has been omitted from this chapter.

4.1 Overall approach

Qualitative research methods are formed to help researchers to understand human beings and their social and cultural living beds (Toloie-Eshlaghy et al., 2011, p. 106).

The overarching methodology adopted in this thesis was qualitative as such an approach offered the opportunity to gain an in-depth understanding of how three Traditional Custodian groups in Victoria perceive their Country (Berglund, 2001; Ward & Holman, 2001). This approach provided the basis for the development of an exploratory framework focused on Aboriginal Victorian peoples’ connection to Country that was subsequently critiqued by Oceania EcoHealth Chapter members. Qualitative research emphasises words rather than the quantifiable collection of data and consequently focuses more on understanding, perceptions and experiences (Minichiello et al., 2004). Denzin and Lincoln (2000) noted that qualitative researchers attempt to answer questions that delve into social experiences to give meaning to events and topics.

Qualitative methodology was viewed as ideal for this research focused on Aboriginal Victorian people’s relationship with Country because it allowed the researcher to dig beneath the superficial surface layers to gain greater knowledge of this complex topic (Fossey et al., 2002; Klopper, 2008). Britten (2011, p. 385) noted that “qualitative research is appropriate when the subject matter to be investigated is ill defined or not well understood; complex; sensitive; … requires an understanding of detail; or
requires new ideas and creativity”. Qualitative methodology is about gaining meaningful and insightful understanding of perceptions through language and symbols (Harris et al., 2009). Fossey and colleagues (2002) explained that qualitative research allows better understanding of meanings, actions and the context of research participants.

The value of open communication afforded by qualitative methods cannot be overstated. This is especially the case where a major component of this research focused on the health of Aboriginal Victorians by a non-Indigenous researcher. A reason for applying qualitative methods is the centrality of storytelling in Aboriginal and Torres Strait Islander communities, being a cultural mode of communication, with many communities having specific terms to explain conversation (often termed ‘yarning’: Laycock et al., 2011). Further, qualitative indicators (such as individual and community narratives and perspectives) are more easily communicated and understood by the public than statistical data (Stefanovic, 2000). A qualitative approach allowed for a more robust discussion, in the ecohealth context, around the development of the exploratory framework to extend understanding of this topic. Therefore, qualitative methods were deemed the most appropriate approach for this research project.

4.1.1 Methodological frameworks

Any research involving humans is affected by the researcher’s biases, life experiences, theoretical frameworks applied and existing social norms. Some commentators believe it is impossible to provide totally independent insight and understanding of a research topic (Hester, 2003; Carless & Douglas, 2010). The Australian Anthropology Society (2012, p. 8) highlighted that researchers “can never be entirely objective – the selection of topic may reflect a bias in favour of certain cultural or personal values”. Indeed, Strathern (1993) notes that ‘objectivity’ is neither achievable nor desirable:

To understand another society... we have... to understand ourselves and our culture first... the idea of the observer coolly looking down the microscope, emotionally uninvolved... and doing so in a value-free fashion... is profoundly untrue of the process of social enquiry... In practice one goes into any enquiry with ideas and prejudices and comes out similarly laden (p. 28).
To counter this bias, the Association of Social Anthropology of the UK and the Commonwealth (1999) recommends maintaining professional integrity and transparency. I attempted to meet all ethical, moral and legal guidelines (American Anthropology Association, 2012) and frameworks in Australia that the Lowitja Institute refer to as the Indigenous Research Reforms Agenda (Laycock et al., 2011). Thus, I endeavoured to gain an impartial understanding of Yorta Yorta, Boonwurrung and Bangerang Traditional Custodians’ connection to Country and also Indigenous government employees and ecohealth participants perspectives to identify how this influences health and wellbeing.

Phenomenology is the study of how people make sense of the world around them, their emotions, attitudes and how life experiences may affect these perceptions, values and the meanings behind them (Harris et al., 2009; Flood, 2010; Pratama & Firman, 2010). While a phenomenological approach initially guided the researcher to better conceptualise the structures of human consciousness of this research (Creswell, 1998: Publication 3), on the advice of the Confirmation of Candidature expert panel ethnography was adopted as the main approach with a reflective piece requested exploring this methodology (Publication 2).

Ethnography was employed in this research to better understand the emotions the participants felt when describing their experiences of the human-environment relationship (Bryman, 2004; Lambert et al., 2011). Ethnography is research focused on being holistic through observing social systems, beliefs, behaviour and immersion in cultural groups (Harris et al., 2009; Roberts, 2009; Pratama & Firman, 2010). It is the study of people’s experiences of the world around them to make sense of their actions, which is done by the researcher submerging themselves within the study population (Roberts, 2009). In undertaking ethnography, the researcher must ‘enter the field’, needing to move away from viewing isolated data by joining the ‘observation zone’ (Lambert et al., 2011). Strang (2006a) explained this knowledge acquisition as:

*inevitably integrated and synthesized into the subsequent analysis and therefore emerge in the new understandings that are products of the research... the outcome of*
the research, which feeds into the shared and continually evolving theoretical frameworks of discipline, is not in fact merely a product of European “science” but a synthesis... of knowledge and the forms of explanation, the theories and concepts, absorbed during her or his engagement with a particular cultural context (p. 985).

There is benefit in longer and deeper periods of ethnographic fieldwork in Indigenous communities to better understand cultural worldviews, however, ethnographers come to research with their own cultural lenses and assertions (Stewart & Strathern, 2005). Therefore, ethnography is a test “of the possibility of interpreting one culture by means of the ideas produced by another” (Strathern, 1993, p. 88). Layton (1997) explained that complete understanding is impossible in ethnography because our worldviews make us choose what we deem as significant within the social and environmental context and period of time. Therefore, ethnographic data is not a fixed framework but rather a fluid practice that provides a snapshot of a period. As Laycock and colleagues (2011) reiterated, knowledge production continues to evolve as does the research approaches. Ingold (1996b) acknowledged this evolution:

The ethnographic present is dead, but we do not know with what to replace it... For the ethnographer there is life after fieldwork, and for the people, too, life goes on after the ethnographer’s departure, just as it did before... The ethnographer encounter is, after all, but a moment in the historical unfolding... to represent the people as existing forever within that moment, caught - as it were - in suspended animation, is to consign their lives to a time that... has already been left far behind (p. 201).

Some ethnographers believe that with thicker ethnographic descriptions, they can provide accurate reflections of the local context. Myers (1986) provides another proposition to Ingold’s, noting:

what is learned in fieldwork at a particular time and place has meaning that transcends the immediate moment... The difficulty ethnographers face is in deciding how to apply this intuition... For better or worse, the current situation in Aboriginal Australia makes this impossible. The moment of observation cannot be simply generalized into a description of a set of social arrangements enduring through time (p. 12).

Ethnographic data in Aboriginal and Torres Strait Islander communities has political ramifications because it can identify social problems occurring where negative portrayals permeate Australian society (Strang, 2003). These problems can be
complex, in part, because of sensitivity within the Aboriginal community but also due to negative portrayal strengthening xenophobia and racist views in the Australian public. Strang (2003), however, noted if these social difficulties are to be remedied in-depth inquiry and analysis is required. Myers (1986) recommends that researchers should fully embrace Aboriginal cultures to understand it. Ingold (1996) acknowledged that in-depth social inquiry is more complex than research by a natural scientist that have little dialogue with their study population.

Despite the ‘well worn’ debate that it has, as a discipline, been linked to colonial times, anthropology has contributed to the ethnographic dialogue and understanding of Aboriginal and Torres Strait Islander cultural knowledge (Strang, 2006a). Maybe this is because “Anthropologists have always had to make delicate judgments… between striving for as much scientific ‘impartiality’ as can be achieved (recognising that all scientific activity contains value choices), and taking up more partisan role as direct advocates for people with whom they work” (Strang, 2009b, p. 10). Throughout my research, I attempted to balance my views, understandings and judgements through regular journal reflections to ensure academic rigor and balance.

No matter if you’re an ‘outsider’ or ‘insider’ when working in Aboriginal communities, you will face difficulties in social inquiries (Strang, 2003). Therefore, clear guidelines need to be adhered to in order to ensure different perspectives are incorporated appropriately. This is important for non-Indigenous people where their categories may differ – evident in the reprinted 1950s essay by Stanner (2009) that still resonates:

*In our modern understanding, we tend to see ‘mind’ and ‘body’, ‘body’ and ‘spirit’, ‘spirit’ and ‘personality’, ‘personality’ and ‘name’ as in the same sense separate, even opposed, entities though we manage to connect them up in some fashion... The blackfellow does not seem to think this way* (p. 58-59).

Therefore, collecting data is an ethical matter; especially in Aboriginal Australian settings where, in the past, many scholars have noted that researchers have poorly managed the research knowledge generated and provided the study population with little role to play in the governance of this information (Holcombe, 2010; Lambert et al., 2011). Roberts (2009) and Lambert and colleagues (2011) recommended that to
overcome this honesty, trust and sensitivity are required by the researcher. This requires using multiple techniques of collecting data and engaging in ‘reflexivity’ (Strang, 2003). For Aboriginal communities in Australia emphasis should be placed on relationship building so that data is co-created (Holcombe, 2010). Holcombe (2010) supports more robust approaches noting:

*The coupling of this increased interest in Indigenous knowledge with the fact that knowledge generated from all research is part of the ‘knowledge market’ has, I believe, created a significant shift in our responsibilities as researchers to Indigenous research participants* (p. 22).

To ensure that co-creation of this knowledge occurred, it was critical to take into account the epistemological differences between the researcher and the participants (Feyerabend, 2004; Bryman, 2004; Maynard, 2004; Harris et al., 2009). Hedican (2006) noted the difficulty of such a process as an ethnographer in Aboriginal communities, due to the value researchers place on certain events over others, cultural differences and the engagement in self-reflection on what actually happened. Hedican noted the difficulty associated with looking at participants’ experiences and epistemological knowledge without recognising that the researchers themselves bring emotional attachment to these events.

To ensure that this knowledge and understandings were incorporated into this research, reflexivity was required. It was important to build trust with culturally diverse Aboriginal Victorian communities, thus bridging this gap of interpretation and increasing participation and collaborative knowledge generation in this research. Reflexivity is the concept of understanding perceived ‘truths’ through analysis of data in the ‘eyes’ of the researcher (Gouldner, 2004; Clifford, 2004). Williams and Morrow (2009, p. 579) stated that reflexivity is “an awareness of self”. After research in an Aboriginal community, Hedican (2006, p. 2) acknowledged that fieldwork “is capable of facilitating an understanding of who we are as people and, in a wider sense, the cultural milieu in which the ethnographer works and lives”. Clifford (2004) reiterated that ethnographers should be reflexive because ethnography requires decoding and recoding of cultures and events to gain meaning.
4.1.2 Publication 2

Citation

A Melbournian ethnographer's journey to better understand Aboriginal peoples' connections to land

(By Yotti Kingsley)

I feel my life is a jigsaw, finally completed in compiling a PhD focused on how humans connect to nature and how this impacts their health. For ninety-nine percent of human existence we have been hunter-gatherers in tune with the environment (Wilson, 1993) with one percent of time spent moving towards urban and sedentary lifestyles. I feel, at times, I grew up in the wrong one percent of human history.

As a child, I used to run around our family garden naked, no matter the weather. Back in the 1980’s there was not the same public health awareness revolving around skin cancer and I was a determined child who always wanted to be outdoors. Although, growing up in the city, I always felt connected to the natural environment.

This connection was augmented by having sheep dogs who were my companions and fostered a mutual relationship with humans, animals, and the natural landscape. It is not surprising that research confirms the health benefits of having contact with animals (Maller et al., 2008). Indigenous people worldwide place a significant emphasis on this connection with animals, passed down through ancestry. Vitebsky (2005: 27, 261) describes Indigenous Siberian reindeer peoples’ deep relationship with these creatures:

The relationship set up at the beginning of time between the Eveny and their animals is different from the relationship in Genesis, where God gives Adam ‘dominion’ over every kind of creature. For the Eveny, animals are … psychologically more complex… each relate[ing] to humans in their own distinctive way

During my adolescence, the place where I escaped my frustrations and built
close relationships was an urban park. This safe environment provided a deep and powerful sense of harmony for me. Having this space allowed me to appreciate natural environments and move beyond the urban landscape. Pretty (2007, VII) maintains that humans are slowly losing this connection to nature which he believes is wrongly viewed by modern society as uncivilised or a romantic notion stating:

there will for the first time be more people worldwide living in urban than rural areas... We lose nature ... we forget the animals ... We eat anonymized food that have no place-based stories, and put the fat of land on ourselves... we seem to buy into a comforting idea that all we do contributes to inevitable economic progress ... We can no longer conceive of Indigenous people living in old... ways ... and so seek to convert them all to the benefit of modern life... Perhaps we are too frightened to think that they might have something useful to tell us...

Since my early twenties I have been privileged to be able to work in Aboriginal communities across Australia where I observed this rather useful, historically significant and complex culture. One such example of this occurred when I met Tim Nelson\(^\text{13}\) in 2006, a Gija Traditional Custodian, whom I assisted in setting up school holiday programs in his remote community in Western Australia.

I transferred skills to Tim and other community leaders that led to young people from his community dancing at the Melbourne Cricket Ground, as part of the Australian Football League’s Dreamtime at the G\(^\text{14}\) game in 2007 in front of 70,000 people. Tim was a special person and we instantly became friends. We spent many days after work, hunting and walking his land that meant so much to his health and that of his people. I reciprocally shared my culture when he came to Melbourne - staying with and sharing festivals with my family.

When I met Tim he had just recovered from a car accident caused by excessive alcohol intake. He had been in a coma for 3 months and facial scars were a constant reminder of this period. We spoke about the accident and he wanted to change past habits, not getting involved in the grog\(^\text{15}\) and making sure the youth in his community got a better chance to learn about their culture. For him culture revolved around living sustainably within nature and protecting and maintaining his Country.

I gave him a vehicle, through the holiday program, to take kids from his community and teach them the skills that his Elders had taught him about Country. This contributed to him being elected as a representative on his community’s leadership committee. He was the youngest on this board, but

\(^{13}\) I will be referring to an Aboriginal person (who has passed away) so to protect this individual for cultural reason I will use pseudonyms in place of their real name

\(^{14}\) Dreamtime at the G is the annual Australian Rules Football match highlighting the Indigenous Round and is a celebration of Indigenous culture (AFL, 2011)

\(^{15}\) Australian slang for alcohol
his knowledge of the land and how it interlinked with the health and wellbeing of his community was extensive. Tim had come from a tough background and yet achieved so much. This stimulated me to work rigorously on my postgraduate research project focused on the health benefits of Country to Victorian Aboriginal people.

In 2008 Tim died in a motorcar accident. This distressed me but strengthened my resolve to work with Aboriginal communities to improve poor health outcomes and convey his message of how important traditional land is. After nearly a decade of experience in this field I believe there is a mindset that needs to change. The only way that health outcomes will improve is through Aboriginal people taking control of every aspect of their lives. Years after Tim died I felt guilty for not being able to do more but the reality is that there were factors out of my control.

Tim getting involved in the grog was only the tip of the iceberg – a number of factors in his community needed to be remedied. For example, destruction of the natural environment, loss of traditional land management practices, lack of job opportunities and so on. I have come to realise that holistic and reciprocal approaches are required to gain tangible health and environmental outcomes. Listening, hearing and then providing assistance is critical, with communities meeting in the middle, to ensure that all parties control the initiative.

Throughout my career I have immersed myself in Aboriginal communities realising there was a great deal that could be learnt from their deep connection to land and health. I have done this because I believe Aboriginal concepts and models of health and the environment will assist all humanity in the future. Therefore, I would classify myself as an ethnographer meaning to:

*immerses [myself] … in a social setting for an extended period of time, observing behaviour, listening to what is said in conversation both between others and with the fieldworker, and asking questions* (Bryman, 2004; 539)

As a non-Indigenous researcher working in this field I cannot speak from an Indigenous perspective. However, because of my approach I can better gauge and adapt to a number of determinants affecting communities. There are a number of complex issues affecting Australian Aboriginal communities, which varies from place to place, with every group having their own unique needs and programs that will work within them.

For myself, understanding Aboriginal peoples’ connection to land required the ability to respect the values of local communities – this takes time and trust building – not bulldozing personal views and perceptions. I chose ethnography as the way of understanding complex issues by immersing myself in the field, with the aim of learning and then acting. In my opinion this method can greatly improve health and environmental policies not only in Aboriginal and Torres Strait communities but most populations. Therefore, my life is like a jigsaw finally completed by understanding human–nature links better and providing alternatives to reduce health inequalities between
Indigenous and non-Indigenous Australians.

Reference:


4.2 Research Methods

A multi-strategy research approach was applied during a Masters project in 2005 to 2007, including semi-structured interviews, focus groups and the establishment of Reference Committees, to gain an understanding Aboriginal Victorian peoples’ connection to Country. A multi-strategy research approach combines multiple techniques of collecting data has been recommended in ethnographic studies (Lambert et al., 2011). Therefore, triangulation was inherent within this component of this research project. Triangulation refers to the use of a multiple method approach to allow for findings to be cross-checked, thus increasing reliability/validity and providing contextual and holistic interpretation of the data (Bryman, 2004; Casey & Murphy, 2009). Triangulation does not necessarily reduce bias in research but it does tend to provide insight into the research problem to overcome factors found in singular method research (Casey & Murphy, 2009).

Publication 3 is included in this section to outline the initial data collection process. This article, reviewing the qualitative methodological approach applied, was published in the *Qualitative Research Journal*. Ethical and methodological complexities of using qualitative methods to collect data in relation to Aboriginal Victorian peoples’ connection to Country are explored. The article provides initial recommendations for non-Indigenous people who want to undertake research with Aboriginal Victorian communities – research that is trustworthy, reliable and builds partnerships. Emphasis is placed on community control and acceptance of the project from the beginning, with a focus on collaboration and building trust. The article also is a reflection of how the researcher felt undertaking the research, compared with a participant.

The guidelines set out in the article offer an important contribution which can improve research processes within the Aboriginal Victorian population. Initially, I believed this was a blueprint for action when working in Aboriginal and Torres Strait Islander communities but now I recognise it is a contribution that builds on the ethical guidelines explored in section 4.3. This was part of the iterative process that occurred as I moved from my Masters to PhD research. Further, because I am non-Indigenous I
spent five years prior to beginning this PhD, directly working in Aboriginal
community controlled organisations and the Aboriginal health sector, developing an
understanding of Aboriginal cultural practices and knowledge to enable me to
appropriately collect and interpret data (see Chapter 5 to 7 for detail on methods).
4.2.1 Publication 3

Citation

Using a Qualitative Approach to Research to Build Trust Between a Non-Aboriginal Researcher and Aboriginal Participants (Australia)

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ABSTRACT

This article focuses on the qualitative methodologies employed in a research project developed in collaboration with Aboriginal advisors and gaining an in-depth understanding of Aboriginal Victorian peoples’ connection to their ancestral lands. It outlines why qualitative methodologies were used and highlights the ethical dimensions of working with Aboriginal Victorian communities. A research partnership was developed between Aboriginal Victorian communities and the non-Aboriginal researcher and this process was emphasised because in the past Australian Indigenous people have been grossly exploited in health research. The methods of semi-structured interviews and focus groups were used to gain a better understanding of this topic. The novel point of this article is that it provides an honest reflection of the benefits and limitations of this qualitative research process from the perspectives of a non-Aboriginal researcher and an Aboriginal participant, when emphasis is placed on a collaborative approach. The paper outlines what a successful qualitative research project looks like in Victorian Aboriginal communities. This can be used as a blueprint not only for working with Aboriginal Victorian communities, who have been marginalised within Australian society, but may also be relevant to other culturally diverse communities throughout the world.

Keywords: Aboriginal Victorian people, Aboriginal and Torres Strait Islander ethical guidelines, semi-structured interviews, focus groups.

The Healthy Country, Healthy People project was started in 2005 during a Masters project at The University of Melbourne to better understand the connection between Country and Victorian Aboriginal peoples’ health. The research was necessary as the life expectancy of Victorian Aboriginal people is 17 years less than the non-Aboriginal population (Australian Bureau of Statistics, 2006; Oxfam, 2007). The relationship Aboriginal people have with their land, creatures and plants, is central to health, emotional and social wellbeing (Burgess & Morrison, 2007; Garnett & Sithole, 2007). Therefore the link between Aboriginal people and the land was seen to be a vital component in reducing health inequalities.

After the Masters project was complete the research evolved further. A DVD documentary was developed to communicate the importance of the research, as an educational tool funded...
by Parks Victoria (a Victorian State Government Department). In this documentary, Aboriginal land management employees from around Victoria were interviewed to provide their perspective of the land, its history and their connection to it. A partnership was built between the researcher and some participants which involved co-presenting and co-authoring conference presentations (Kingsley, 2006; Kingsley & Phillips, 2007; Kingsley & Phillips, 2008) and peer review publications (Kingsley, 2008; Kingsley et al., 2008; Kingsley et al., 2009a; Kingsley et al., 2009b). This article explains the ethical guidelines and methodological considerations that were integral parts of the Master’s research project. The article goes on to explain how these guidelines affect both the researcher and participant in different ways through a personal reflection section.

METHODOLOGICAL BACKGROUND

Unlike data can be turned into stories that can be understood by all, they are not effective in any process of change, either political or administrative. (Dahl & Hansske, 1988, p. 23)

For this project, qualitative methodology was used to collect data because it offered a greater insight into an individual’s understanding, meaning and experiences, and thus provided for the building of a story around the studied topic (Berglund, 2001; Ward & Holman, 2001). Qualitative research provides a platform for ‘discovering novel or unanticipated findings’ (Bryman, 1984, pp. 77–78). Such findings allow for ‘information rich cases’ to gain a better understanding of the research area (Rice & Ezzy, 1999).

While it must be noted that in research it is difficult to disconnect from an individual’s experience, ‘theoretical framework[s] used in any study become lenses through which a researcher sees the world that s/he is studying’ (Hester, 2003, p. 6). The project explored the structures of consciousness in human experience and shows how individuals make sense of the world around them. In this case such perceptions refer to people who have traditional knowledge and a strong relationship with the Australian landscape. Therefore the researcher has adapted a phenomenological perspective (Creswell, 1998), which refers to research that focuses on human experiences, consciousness, and the meaning of how humans view the world. The researcher aimed to understand concepts from an Aboriginal perspective through constant communication and consultation with individual Aboriginal Victorians. Therefore, an epistemological position was taken for this research that involved the interpretation and examination of data through the Aboriginal informants’ eyes of the world (Bryman, 2004).

The method of triangulation, involving a number of qualitative methods (semi-structured interviews and focus groups) and consultative initiatives (establishment of a reference committee) was developed and employed in this research so the findings could be double checked, and for the Aboriginal participants to have increased involvement (Australian Institute of Aboriginal and Torres Strait Island Studies, 2006; Bryman, 2004). Trust is essential to the success and ethical outcomes of research in Aboriginal communities (National Health and Medical Research Council, 2003). These multiple qualitative methods, including consultation, allowed for a stronger relationship to be built between the participants and researcher. Henry et al., (2004, p. 11) highlighted that methodologies should be selected ‘that have the potential that research with Aboriginal people can be more respectful, ethical, sympathetic and useful’. Although it also has been shown that Aboriginal people prefer qualitative methods such as ethnography, oral history/narratives and collaborative inquiry (Henry et al., 2004), there is
a danger of invalid results due to inaccurate assumptions and interpretation of data from a non-Aboriginal viewpoint.

ETHICAL ISSUES

It is essential that Indigenous people be participants in any research projects that concern them, sharing an understanding of the aims and methods of the research, and sharing the results of this work... founded on respect for Indigenous peoples' inherent right to self determination, and to control and maintain their culture and heritage. (AIATSIS, 2000, p. 2)

Research where Aboriginal and Torres Strait Islander people participate involves guidelines to ensure that ethical frameworks are achieved between the researcher and Aboriginal peoples (AIATSIS, 2000; Henderson et al., 2002). McFallay, Griew and Anderson (2002, p. 9) noted that these guidelines tend to cover... consultation, community involvement, cultural appropriateness... data and information ownership... collaboration, consent, involvement and feedback.' These guidelines have been enforced (in this research project by an Aboriginal reference group and The University of Melbourne’s Ethics Committee) because of the ‘negative experiences’ Aboriginal Australian communities have generally had towards research with a lack of community control, benefits and influence on the interpretation of data (Henderson et al., 2002; Henry et al., 2004). This inadequacy has led to the ‘gross exploitation of Indigenous peoples being involved in an invasive and disrespectful “experimentation”, the theft of beliefs and knowledge, and the portrayal of their societies and cultures in a way that merely reflects the values, prejudice and preoccupation of the vague entity that has come to be known as “the West”’ (Humphery, 2000, p. 5). Thus this research, although undertaken and reported by a non-Aboriginal person, aimed to reduce bias by maintaining neutrality. This was done when the researcher first sought approval from the selected Elders and Traditional Custodians (who were identified as key members within their community during the initial design phase and consultation of this project) through the establishment of a Reference Group. Personal contact also increased the validity of this project and developed an ongoing partnership, relationship and feedback with these communities. This position has been acknowledged because:

Clearly, there have been shifts in the way non-Indigenous researchers and academics have positioned themselves and their work in relation to the people for whom the research still counts. It is also clear, however, that there are powerful groups of researchers who resent Indigenous people asking questions about their research and whose research paradigm consistently permit them to exploit Indigenous people and their knowledge. (Tahiti Smith, 1999, p. 17 cited in Henry et al., 2004).

To ensure this did not occur, the researcher attempted to involve the local Aboriginal communities and Aboriginal policy makers, park rangers, academics and workers from related fields in the three selected Traditional Custodian groups (the Yorta Yorta Nation, the Bangerang clan, and the Boonwurrung clan) and research fields from the start of the project so that information was jointly understood and trust could be established (Henderson et al., 2002). This is not just an Aboriginal and Torres Strait Islander phenomenon; literature has identified that the most disadvantaged communities around the world need to be involved in the co-production of research affecting them and, if left out, could experience a potential lethal hazard (Corburn, 2007). The researcher tried to uphold and enforce all basic guidelines in completing the project which involved: negotiation/agreement, mutual understanding,
respect, recognition, involvement, shared ownership, orientation towards community action, reciprocity, skills development and methodological flexibility (AIATSIS, 2000; NHMRC, 2003; Henry et al., 2004; Humphery, 2004). However, the three most important ingredients the researcher maintained were to keep giving participants feedback, allowing Aboriginal people the opportunity to assist in the work, such as co-authoring academic journal articles with an Aboriginal staff member from Parks Victoria, and developing a Reference Committee, to ensure that all contributors and Traditional Custodians were acknowledged appropriately (McAulay, Griew, & Anderson, 2002). This also involved the researcher accepting and recognising that there may be cultural differences between him and the Aboriginal participants, and between the Aboriginal participants from the different groups, which would in turn impact on the research. As the National Health and Medical Research Council (2003, p. 3) observes, ‘failing to understand differences in values and culture is a reckless act that jeopardises ethics and quality of research’. However, the researcher recognised that the success of the project was more dependent on the relationship he formed with the relevant Aboriginal participants than on adhering to any particular set of guidelines: ‘The responsibility for maintaining trust and ethical standards cannot depend solely on rules and regulations. Trustworthiness…is the product of engagement between people’ (NHMRC, 2003, p. 4).

**QUALITATIVE INTERVIEW AND FOCUS GROUP METHODOLOGY USED IN THE RESEARCH PROJECT**

The first phase of the research project involved a semi-structured interview schedule being designed and used to guide the collection of data in interviews. Semi-structured interviews involved talking with key informants and asking open-ended questions in conversation with minor divergence to elicit descriptive responses thick in qualitative data that would assist in answering some of the research questions (Creswell, 1998; Minichiello et al., 1999). The interview schedule was developed in response to the literature search and research aims in order to obtain the appropriate information (Mason, 1996; Bryman, 2004; Minichiello et al. 2004). Ten ‘essential’ and one ‘extra’ ‘throw away’ question were developed with ‘probing’ used throughout the interview process. Minichiello et al. (1999) noted that such questions could be classified as either ‘essential’, ‘extra’, ‘throw away’ or ‘probing’. The purpose of the ‘throw away’ questions was to build rapport and consolidate responses as well as provide a ‘cool off’ stage in the interview (Minichiello et al., 1999, p. 402). The draft interview guide was then tested initially on a non-Aboriginal and then Aboriginal colleague and subsequently modified for the occasion. The major themes addressed in the interview guide were:

- Identify health and wellbeing benefits associated with contact with ‘Country’ and land management projects that involve caring for ‘Country’ for Aboriginal people;
- Factors (cultural, political and social) that would need to be taken into consideration when focusing on developing Aboriginal land management projects;
- Strategies allowing land management projects to be established in Aboriginal communities;
- Aspiration of the specific group in association to caring for ‘Country’.
Probing questions were used throughout the interviews to develop the discussion. The interviews were not constrained by the interview guide, rather the researcher tried to allow the informants to lead the way, and flexibility in questions was used to explore other issues. The time length of the interviews varied from one to four hours.

The focus group method is a qualitative tool that delves into perceptions, interpretation, and beliefs of a selected population (in this case the Aboriginal policy makers and government employees) to gain an understanding of a particular issue from the perspective of a group of participants (Khan & Manderson, 1992 cited in Rice & Ezyy, 1999). The focus group involved the same processes as the interviews with a schedule/guide of questions developed. However, the difference was that the focus group discussion did not allow for flexibility to move onto other topics because of the time restrictions and the need to keep the group focused. Also not all questions could be answered because of the time constraints but the key questions within the ten 'essential' questions were all covered. The focus group lasted two and a half hours.

Data was transcribed verbatim promptly after the interviews and focus group meeting. All informants were sent a copy of their transcript with a request to make any amendments or delete any sections. It was agreed that the researcher would make available the Masters thesis to all participants as well as placing reserve copies in The University of Melbourne library, the Koorie Heritage Trust and providing copies to government and the not-for-profit groups who were involved in the project and requested it.

In order to ensure the subjects' anonymity and privacy, all identifying information was removed. These ethical issues are even more compounding because of the issues surrounding intellectual authorship rights. Therefore, throughout this project, the researcher ensured (through the Reference Group) that all information was accurate and allowed to be used.

DATA ANALYSIS

Immediately after the interviews and focus group were conducted, a summary form was completed by the researcher. This included practical details (for example the geographical location, body language, tone of voice and facial expressions), emerging themes and details about the content of the conversation that assisted in the analysis of the data (Dawson, 2002). Thematic analysis was used to identify themes that stood alone in the data (Browne, 2004). Content analysis was also used which focused on the contextual meaning of the data and text (Flick, 2002).

Once the researcher had completed the transcripts, mind maps were drawn to gather the major themes from the interviews and focus group meeting on large pieces of paper. Mind maps are visual displays of the themes and similarities within the data set (Ryan & Barnard, 2000). The researcher read the transcripts a number of times to immerse himself in the data and drew out common themes and perceptions expressed by the participants to ensure replication, reliability and validity could be upheld (Bryman, 2004; Strauss & Corbin, 2004; Hsieh & Shannon, 2005). In this case, both open coding and axial coding were applied to improve the quality of the study. These terms refer to categorising topics into properties (Creswell, 1998). Open coding involved thinking about words, sentences, paragraphs and all the details of interviews and trying to interpret the answers to the topic (Minichiello et al., 1999). Axial coding 'assembles the data in new ways after open coding' (Creswell, 1998, p. 57).
A code page was developed and interviews were coded accordingly, with each code being given a description. The coding was done to categorise the different themes emerging from the data. Coding was achieved using different coloured highlighters to identify recurring themes within the interviews. These themes were then broken down into sub-themes whereby codes were placed on the side of the written text. This involved ‘synthesising’ the data by ‘merging several stories, experiences… to describe the typical patterns or behaviors or responses of the group… becoming aware of certain points of juncture, or critical factors, as significant and then [being] able to explain variation in the data’ (Morse, 1994, p. 30-31). The coding was then double checked by one of the lead researchers’ family members and by a qualified colleague of the researcher who undertook a quality control test to confirm the codes were accurate using the test called the Confusion Matrix (Robson, 1993).

LIMITATIONS
There are a number of limitations which may have affected the quality of this study. Firstly, the limited skills of the researcher in working with Aboriginal Victorian people may have led to gaps in knowledge. Being a non-Aboriginal researcher may have led to some bias in the interpretation of findings through not clearly understanding culturally appropriate methods. Ideally, there is a need for people who are non-Indigenous researchers to be supervised to ensure their actions are culturally appropriate’ (Henderson et al., 2002, p. 5). However, such supervision was only available to a limited extent as the formal supervisors were non-Aboriginal themselves. In addition, with constraints in both time and resources in the Masters program, not all key informants could be interviewed and reliability checks followed up with face-to-face interviews could not be done in all circumstances.

A BRIEF RETROSPECT FROM THE RESEARCHER: THE AUTHOR’S PERSONAL EXPERIENCES OF COMPLETING THIS RESEARCH
As a non-Aboriginal researcher this study was at times hard to undertake and involved me developing and improving my qualitative research skills. It took time so gain confidence in my ability to attain understanding in this area. This was due to my only previous experience of working in Indigenous health being with Aboriginal groups in north-western Australia for six months prior to commencing the study. This steep learning curve highlighted my restricted knowledge of Aboriginal communities in Victoria. My supervisors helped me through these challenges however, since both were non-Aboriginal. I found I often had to look outside of my research team for answers to cultural questions. This proved to be a positive opportunity for me as a researcher and person to learn more about the Traditional Custodians in my home state and to build long lasting relationships.

As a researcher I had carefully planned my project to obtain as much relevant data as possible and to ensure the ethical guidelines were appropriately met. At times, I felt a great degree of personal limitation while dealing with some cultural differences that impeded research which I overcame through working hard to improve my cultural knowledge of Victorian Indigenous communities. An issue confronted and overcame was a lack of trust of my work by Aboriginal people and Aboriginal politics, where certain individuals would not participate in the research. My personal position was to be highly inclusive, by including as many Aboriginal peoples’ perspectives as possible on this topic. In the long run this approach
was respected by my participants who trusted me and I reaped many personal benefits by increasing my knowledge in this field.

Some of the cultural differences were compounded by the limited timeframe of the Masters project that did not allow, at times, for proper relationships to be established. With only fifteen months to complete data collection and write the thesis, there was little time left to build the clear trust and reciprocity required to go beyond research data/narratives in ways that could assist Aboriginal Victorian communities and to actually develop a sustainable project that could adequately reduce inequalities. Although there were a number of personal barriers, I felt that this research became a positive journey for me. I have learnt so much more about the local traditional cultures of the country I have grown up in. This in turn has also enabled the building of many strong friendships with Aboriginal individuals whilst improving my research skills.

**A BRIEF RETROSPECT FROM A RESEARCH PARTICIPANT**

As one of the early participants of Jonathan’s ('Yotti'’s) research, I guess I was intrigued, partly doubtful of his success and a bit guarded. After hearing Yotti’s story and realising his interests were well intended, I felt personally obliged to give him guidance and warning as to what he was walking into. The groups he had selected to interview for his research had been surrounded by a lot of Aboriginal politics I felt I should make him aware of. I stepped back and found to my surprise that he still proceeded to carry on with the research. After the first couple of meetings I realised there was a commitment in trying to understand Victorian Aboriginal peoples and it was genuine with no prior judgment. As time went on, Yotti became increasingly aware of Aboriginal perspectives and protocols. His patience, flexibility and transparency became a comfort and it became possible to share knowledge with him, especially as he reassured us that it was going to be kept confidential and that he would get our approval for anything he writes about us. This was something of a turning point to building trust and working together. When a non-Aboriginal person puts so much time into understanding your culture and sets out to educate others on the impacts of colonisation, you develop a healthy respect for their efforts in trying to right some of the wrongs done in the past. The dedication and drive Yotti has shown towards the challenges facing him has proven to be one of the keystone in the success of his research. In addition to that, he has made sure that this information is held in partnership and remains within our communities too. It has been an amazing learning journey for me too and an inspiration to know what can be achieved with the right kind of approach. Five years ago I never would have thought that there would be a hardcover book in libraries, or co-authored articles in national and international journals and especially not a DVD promoting Healthy Country, Healthy People. One thing I have learnt is that to do something that is culturally sensitive and respectful, you must have the right people to do it, with the right approach. As we used to say, Yotti will guide academia, I’ll guide the cultural protocols, and we make a ‘deadly’ team.

**CONCLUSION**

The Healthy Country, Healthy People Masters project was a journey not only for the researcher but also for the participants involved in the project. Ethical guidelines ensured that this was the case and that the community and researcher reciprocally benefited during the Masters research period. This is not to say there were not plenty of limitations that the re-
searcher and participants encountered during this period. The non-Aboriginal researcher felt at times out of his depth with not being able to build trust in the short period of time, while dealing with highly complex political issues. The participants were at points rightly sceptical of the non-Aboriginal researcher's intentions, due to past negative experiences. But looking back to 2005 and thinking about what has been achieved since this time, it is quite amazing. There is growing interest in this research field and until this public health research was undertaken, there was nothing like this project occurring in Victoria, compared to other places in Australia. This would not have happened without trust being built between the researcher and participants of this study.

The Healthy Country, Healthy People project should be used as a model for other researchers to develop qualitative research projects in this field. Emphasis should be placed on local Aboriginal researchers working with their communities to show how their Country improves the health and wellbeing of the community. Such projects would lead to a better understanding of what Aboriginal communities want out of projects on their traditional land and should improve the trust between the researcher and the researched. Non-Aboriginal researchers can use this article as an introductory reading to improve their understanding of the complexity of such a study and as a guide throughout their studies.

What made this project unique was that it placed emphasis on community control and working in partnerships where strong relationships are built. Still today, research projects struggle to meet these simple requirements and there are a lot of ethical problems with data being collected appropriately to meet the needs of Aboriginal Victorian communities when non-Indigenous people undertake research. This article can provide a blueprint for improving qualitative research that involves Aboriginal and Torres Strait Islander communities throughout Australia and other disadvantaged communities throughout the world. This paper highlights the need, timeliness and opportunity for deeper thinking and greater clarity in a highly complex area of qualitative research, where greater inroads are needed to reduce health inequalities and to truly 'Close the Gap'.

NOTES
1 Throughout this paper, Aboriginal Victorian people or Aboriginal person refers to a member or descendant of the Aboriginal race, who identifies as an Aboriginal person and is accepted by the Aboriginal community as an Aboriginal person in the region of Victoria (Human Rights and Equal Opportunity Commission, 2007).
2 Encapsulated seasonal lands described as clan estates and group gathering places during pre-colonisation. After colonisation this evolved to included missions where Aboriginal peoples families were impounded for generations and removed from their traditional lands like Cammerarwinya (Bromley, 2005). Urban spaces have also evolved into the identity and 'Country' of Aboriginal people; examples include Fitzroy in Melbourne and Redfern in Sydney.
3 A person(s) or group who by right of tradition have inherited a custodial role of caring for Country though bloodline connections (Kingsley et al., 2009). It refers to stewardship or custodial roles, which have become relevant and politically motivated after Native Title legislation was enforced in Australia.

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4.3 Conducting research: Ethics overview

_Ethical research is about ensuring responsible conduct in research_ (Davis, 2010, p. 12).

Research ethics focuses on raising concerns to keep in check any potential problems in research (British Sociological Association & Council for American Survey Research Organizations, 2004). As Duncan and colleagues (2009) highlighted, ethical issues are unavoidable in research, but with more protocols and checks in place fewer issues will occur. Important ethical considerations include the right to confidentiality, informed consent, impartiality, integrity, transparency, knowledge exchange and accountability in an attempt to ‘do no harm’ (Davis, 2010; Laycock et al., 2011; Australian Anthropological Society, 2012). A priority of this PhD was to build trust and incorporate capacity building into the research processes when working with the selected Aboriginal Victorian study population, because reciprocity and respectful relations is critical to ethical adherence (Association of Social Anthropologists of the UK and the Commonwealth, 1999; Biruk & Prince, 2008; Laycock et al., 2011; American Anthropological Association, 2012). This comes down to the simple question of how will research benefit the study population and how does it produce new information (Strang, 2009b; Laycock et al., 2011). I attempted to answer these questions by applying ethical research guidelines and following the process outlined below (Strang, 2006a):

> Whatever… the form of fieldwork being conducted, or the aim of the research… provide an in-depth and holistic representation of particular cultural… perspectives… Prior to conducting research, they make extensive studies of related ethnographic accounts. They then spend as much time as possible in the field, developing ongoing social relationships with host communities… engage[ing] in a detailed and rigorous effort to comprehend and describe the dynamics of a particular cultural space and time… commitment to in-depth methodologies means that fieldwork often entails intense experiences of immersion (p. 984).

In Aboriginal communities there has often been a negative connotation associated with research because researchers have not always maintained their commitment to working with participants, instead adopting dominant power relationships (Cochran et al., 2008; de la Barra et al., 2009; Davis, 2010; Dudgeon et al., 2010; Maar et al., 2011; Swijghuisen Reigersberg, 2011). This makes it difficult to achieve equal
relationships and therefore it is not surprising that many ethnographers “are haunted by fears that their attempts to communicate with other cultures merely oppresses them” (cited by Strang, 2006a, p. 982). This may be due to Aboriginal and Torres Strait Islander research never being ‘value free’, attuned to benefiting the target population and tied to a history of colonisation no matter the researchers’ intentions (Laycock et al., 2011). This is evident when research is published, flowing into public discourse where the information is not only critiqued by groups disputing Aboriginal self-determination but by Aboriginal leaders themselves, highlighting the importance of maintaining ethical guidelines throughout research (Strang, 2003). Laycock and colleagues (2011) explain that the process of bringing Aboriginal and Western knowledge, values and beliefs together can be described as a ‘contested space’ in academia.

Cochran and colleagues (2008, p. 22) reiterated “researchers have a responsibility to cause no harm, but even well-intentioned research has been a source of distress for indigenous people because of its… lack of responsiveness to the community of its concern”. It is recommended that negotiation be a central tenet to ensure that research is understood and valued by all parties (Holcombe & Gould, 2010). Aboriginal health research remains far from universally beneficial to the people it aims to help, despite the guidelines put in place by academic and government institutes (Cochran et al., 2008; de la Barra et al., 2009; Davis, 2010). Such guidelines, “while providing a framework in which to consider ethical research behaviour, need to be applied less as a ‘tick-the-box’ approach to ethics research and more as tools for reflexive approaches to research” (Raven, 2010, p. 35). Raven noted that these guidelines serve as a starting point to reconcile past ‘exploitation’ in the research space. Nonetheless, any research in Aboriginal and Torres Strait Islander communities will influence the way this population is perceived, not only outside of the community but will also shape the way that populations perceive themselves (Laycock et al., 2011).

Dudgeon et al. (2010) identified key guidelines for working in Aboriginal and Torres Strait Islander communities, which included emphasis on committing to being collaborative, adopting long timeframes and being patient with the research process. Other approaches involve joint, flexible and negotiated research and dissemination of
findings to a wider audience (Maar et al., 2011). To ensure collaboration, negotiation and engagement was adhered to in this PhD, a specialist Reference Committee was formed, consisting of Traditional Custodians, Aboriginal government employees and academics. The Reference Committee was engaged throughout the research process. This reflected the need to ensure strong consultative approaches that gained community participation and acknowledged Indigenous worldviews (Cochran et al., 2008). This aimed to counter the issue Laycock and colleagues (2011) reiterated:

*Western research has its own language, culture and convention... the language of research is specialised; people who do not speak the language, or those who are not used to working within the academic research culture, can feel like outsiders* (p. 12).

### 4.3.1 The Ethics Process

The data that underpins this thesis was collected over a period of 9 years, and formed the basis of both a Masters and PhD research project. The Masters research ethics approval was granted from the University of Melbourne Human Research Ethics Committee in 2005 (Project code: HREC no. 050816 A&E 3.445). Ethics approval was granted (in 2010) to undertake this PhD by publication thesis by the Deakin University Human Research Ethics Committee. Annual ethics reports and reviews were undertaken at Deakin University to ensure the ethical standards set out by the university were upheld. In 2013 ethics was approved by Deakin Human Research Ethics Committee (project number: H96_2013) to collect further data.

It must be noted that all research involving humans may give rise to ethical issues (Sim & Wright, 2000). To limit this possibility participants were treated sensitively during data collection, minimising any chance of psychological distress that might arise when examining their perceptions and attitudes. All participants were informed that they were free to withdraw from the investigation at any time. Given these measures, there was minimal interruption to the daily activities of participants. On the contrary, participants seemed comfortable voicing their opinions and maintaining contact with the researcher beyond the data collection period.

To maintain the anonymity of participants, identifying information was removed and no participant can be identified in the following chapters. Initial data was securely stored within the University of Melbourne in 2007 and more recent data will be held...
in Deakin from 2014, for a minimum of six years. The Association of Social
Anthropologists of the UK and the Commonwealth (1999), in reference to such
confidentiality, made the observation that withholding data from community can be
detrimental as the importance of data may take time to surface. The Reference
Committee guided me on this issue and participants signed consent providing
permission for this data to be stored. Throughout the research process I often felt in a
‘contested space’ (as a non-Indigenous person) having to make such judgements with
the Reference Committee guiding me through the process. Further, I had to ask some
major questions of myself during such negotiations beyond general process, because:

non-Indigenous scholars need to examine the concept of whiteness/power and
decolonisation, as well as the more common understanding of discrimination, the
contribution of research to Indigenous disadvantage, strategies to re-position and
support Indigenous initiated and led research, and how they may contribute to
Aboriginal and Torres Strait Islander self-determination (Dudgeon et al., 2010, p.
88).

Ethical frameworks and ways of tackling this in Aboriginal communities was a
priority in this PhD with strict national guidelines adhered to.

4.3.2 Aboriginal and Torres Strait Islander ethical guidelines

Ethical guidelines in Aboriginal and Torres Strait Islander health research continue to
evolve. A milestone in this evolution occurred in 1986 at the Research Priorities to
Improve Aboriginal Health conference where Indigenous delegates protested at
research practices being controlled by non-Indigenous priorities (Laycock et al.,
2011). This led to NHMRC interim guidelines being developed (1991) and
subsequently replaced by Values and Ethics: Guidelines for Ethical Conduct in
Aboriginal and Torres Strait Islander Health Research (2003). This has been
superseded by Keeping Research on Track: A Guide for Aboriginal and Torres Strait
Islander Peoples About Health Research Ethics (NHMRC, 2005) which is a
community guide to ethical health research, and Road Map II: A Strategic framework
for improving the health of Aboriginal and Torres Strait Islander people through
research (NHMRC, 2010), which outlines priorities and principles of research. Other
guidelines are explored in Publication 3.
Principles of ethical guidelines in Aboriginal and Torres Strait Islander health research highlight the need for shared values between the researcher and participant, acknowledging involvement in development, continued communication and strength-based approaches (NHMRC, 2010; Laycock et al., 2011). Connection to Country was explored because it has the capacity to focus on the strengths of Aboriginal culture and knowledge (Sweet et al., 2014). These priorities are acknowledged by the NHMRC (2010), in the National Aboriginal and Torres Strait Islander Health Plan (2013) and previous literature highlighting the importance of Indigenous models of health and connection to Country. I attempted to undertake this research upholding the core values of: reciprocity, respect, quality, integrity and protection (NHMRC, 2010; Laycock et al., 2011). Laycock and colleagues (2011) identified the knowledge sharing term called Ganma which is reminiscent of the process I tried to develop throughout the research:

Many Yulŋu people... in the Northern Territory use Ganma to describe genuine two-way knowledge sharing, and relates it to what happens when two different kinds of water meet and mix together to create something new... When two different waters meet to create Ganma, they diffuse into each other, but they do not forget who they are, or where they came from... Using this metaphor, people from differing cultures and backgrounds can share deeply, without losing their history or integrity (p. 49-50).

The ethical framework that guided this research process is closely aligned to the Lowitja Institute’s *Researching Indigenous Health: A practical guide for researchers* (Laycock et al., 2011). This document provides ethical guidelines for health research pertaining to Aboriginal and Torres Strait Islander people, highlighting the need across disciplines for Aboriginal people to control the research agenda. This involves community development and knowledge exchange attached to the research process to gain the best outcomes. These ethical guidelines note that knowledge holders (often Elders) need to be recognised because of their contribution to the research process, with researchers aware that some of this knowledge may not be made publicly available. As Laycock and colleagues (2011, p. 13) mentioned “Western research has a convention of validating researchers’ work through academic critique, questioning, argument and debate: public and published criticism can be... uncomfortable and humiliating for Indigenous researchers because it can challenge the boundaries of cultural safety”. Laycock et al. (2011, p. 99) developed a partnership model (figure 3) to ensure research does not cross these boundaries intentionally.
4.3.3 Other ethical guidelines

Guidelines outlined by the Lowitja Institute are not unique. For example, Canada Institutes of Health Research developed the *CIHR Guidelines for Health Research Involving Aboriginal People* (2007) and disciplines like anthropology have their own research principles which overlap with such frameworks. Anthropology, has a long relationship with Aboriginal and Torres Strait Islander populations with research based on community control and reciprocity (Strang, 2003). The Australian Anthropology Society developed a code of ethics in an attempt to benefit research participants and anticipate ethical and moral research problems. The document outlined principles around confidentiality, privacy, informed consent, data translation, minimising intrusion and equality throughout the research process. The Association of Social Anthropologists of the UK and the Commonwealth (1999) notes good ethical
research standards involve agreed on consent and sharing of research materials in an ethical manner. The American Anthropological Association (2012) highlighted the importance of collaboration and that appropriate representation of data is established from the outset. A key point being that any research attempting to improve people’s wellbeing as “determinations regarding what is in the best interest of others or what kinds of efforts are appropriate to increase well-being are value laden and should reflect sustained discussion” (American Anthropology Association, 2012, p. 4).

Similar recommendations permeate across disciplines with a systemic review of knowledge exchange theories and process finding comparable concepts applied in sociology, psychology, economics, political science, epidemiology, ecology etc. (Greenhalgh et al., 2004). Mitton et al. (2007) and others mention that effective ethical research is based a multi-disciplinary approaches rather than each discipline applying their own guidelines in silos (P. Zardo, personal communication, June 13, 2014). Knowledge transfer and exchange offers a good example of this because of its importance in Aboriginal health research referring to the process of transference of expertise and information from the researcher to researched (Mitton et al., 2007). These processes recently “emerged as a result of growing evidence that the successful uptake of knowledge requires more than one-way communication” (Mitton et al., 2007, p. 730). However, Mitton and colleagues acknowledged competing demands (like time and resources) in the research process often cause this framework to fail. Recommendations to overcome this align with ethical guidelines noting capacity building, transparency, flexibility, trust building, collaboration across disciplines and research populations is fundamental to research translation (Mitton et al., 2007).
4.4 Stages of data collection

Table 6 provides the location of each publication in this thesis, the period the data was collected/analysed and the PhD research question addressed.

Table 6: Publication outline of data collection process

<table>
<thead>
<tr>
<th>Publication (Chapter location in thesis)</th>
<th>Data collection period</th>
<th>Publication analysis period</th>
<th>Questions addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chapter 3:</strong> Kingsley, J., Aldous, D., Townsend, M., &amp; Phillips, R. (2008). Building collaborative partnerships: A key to increasing Indigenous Victorian peoples’ access to Country. <em>Just Policy</em>, 58, 32–41</td>
<td>2006</td>
<td>2007-2008</td>
<td>2. What do the findings of this research suggest are the opportunities for using contact with Country as a preventive upstream health measure?</td>
</tr>
</tbody>
</table>
2. What do the findings of this research suggest are the opportunities for using contact with Country as a preventive upstream health measure? |
<table>
<thead>
<tr>
<th>Publication (Chapter location in thesis)</th>
<th>Data collection period</th>
<th>Publication analysis period</th>
<th>Questions addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chapter 6:</strong> Kingsley, J., Townsend, M., &amp; Henderson-Wilson, C. (2013a). Exploring Aboriginal people’s connection to Country to strengthen human–nature theoretical perspectives. In M.K. Gislason (Ed.), <em>Ecological Health: Society, Ecology and Health</em> (pp. 45-64). United Kingdom: Emerald Group Publishing Limited</td>
<td>2009-2013</td>
<td>2010-2013</td>
<td>2. What do the findings of this research suggest are the opportunities for using contact with Country as a preventive upstream health measure?</td>
</tr>
<tr>
<td><strong>Chapter 7:</strong> Unpublished Research</td>
<td>2013</td>
<td>2014</td>
<td>4. Can this framework be applied globally to promote ecohealth, health related policy and the human-environment relationship?</td>
</tr>
</tbody>
</table>
4.5 Participants’ Demographics

Table 7 summarises the demographics of research participants that are non-identifiable and blinded.

Table 7: Snapshot of participants and data collection

<table>
<thead>
<tr>
<th>Study</th>
<th>Participants’ demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-structured interviews Masters</td>
<td>♦ 13 participants of Aboriginal background&lt;br&gt;♦ 8 female, 5 male&lt;br&gt;♦ 7 Traditional Custodians (3 Boonwurrung, 2 Bangerang, 2 Yorta Yorta), 6 Aboriginal Victorian land managers or environmental government employees working in the region</td>
</tr>
<tr>
<td>PhD</td>
<td>♦ 10 participants attending the Oceania EcoHealth Symposium&lt;br&gt;♦ 4 Indigenous, 6 non-Indigenous&lt;br&gt;♦ 5 females/males&lt;br&gt;♦ 6 full time academics, 1 medical practitioner with academic background, 1 self-employed, 1 farmer with academic background, 1 conservation worker&lt;br&gt;♦ 6 Australian (2 NSW/Victoria, 1 ACT/WA), 1 Canada, 1 Fiji; New Zealand/Hawaii; Canada/New Zealand</td>
</tr>
<tr>
<td>Focus group</td>
<td>Masters&lt;br&gt;♦ 6 participants of Aboriginal Victorian background&lt;br&gt;♦ 3 females, 3 males&lt;br&gt;♦ 3 PV; 2 DSE; 1 University of Melbourne employees</td>
</tr>
</tbody>
</table>
### Study Participants’ demographics

<table>
<thead>
<tr>
<th>Study</th>
<th>Participants unable to attend focus group (contribution to study via interviews asking the same questions used in the focus group)</th>
<th>Reference committee</th>
<th>Literature Review Process</th>
</tr>
</thead>
</table>
|                                        | Masters  
- 2 Aboriginal PV staff members contributed by providing feedback through semi-structured interviews  
- 1 Aboriginal DSE staff member contributed by providing an extensive email response to the focus group questions | Masters till 2008  
- 5 Reference Committee members  
- 2 Yorta Yorta, 2 Bangerang, 1 Boonwurrung ‘Elders’ | Masters  
- Initial literature review occurring at The University of Melbourne in 2006-2007 |
|                                        | PhD  
- Regular communications with each member | PhD  
- New literature collected in 2009 at The University of Cambridge  
- 2011-2014 extensive literature reviews undertaken annually |                          |
4.6 Methods applied

Table 8 reviews the methods applied within this thesis associated with my research, with the first column identifying the specific chapter and the succeeding columns reviewing the method/s.

Table 8: Methods applied

<table>
<thead>
<tr>
<th>Study</th>
<th>Semi-structured interviews</th>
<th>Focus group</th>
<th>Reference committee</th>
<th>Extensive literature review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 3</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Chapter 5</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Chapter 6</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Chapter 7</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.7 Strengths and limitations

This thesis has a number of strengths including:

a) **Abiding by ethical standards:** As identified in section 4.3 and Publication 3 ethical guidelines for Aboriginal and Torres Strait Islander health research have attempted to be met with mechanisms in place to assist this process;

b) **A long-term iterative research process:** This research was refined and improved over a 9 year period;

c) **Involving Aboriginal Victorian people in this research process:** Aboriginal Victorian community members significantly contributed to this PhD. This involvement included co-authorship in publications, joint presentations, acknowledgment of community involvement, development of a community requested documentary and individuals gaining credit points at university for being involved in this research;

d) **Tackling a research gap:** This research project attempted to tackle the gap in public health literature on the health and wellbeing impacts of Country for Victorian Aboriginal people; and

e) **Attempting to make this research a collaborative process:** Throughout this research my main aim was to build trust and collaborate with appropriate community members to gain more robust and trustworthy data.

It is also worth acknowledging some overall limitations of the PhD research.

4.7.1 Research bias

Researchers in any field must be aware that “bias enters the picture as soon as a research question is asked in a particular way, in a particular setting, by a particular person, for a particular reason” (Williams & Morrow, 2009, p. 529). To counter this potential for bias, I applied a reflexive approach to heighten awareness of my attitudes within the research process, by keeping a regular journal of the research journey. Further, I aimed to overcome potential biases by involving myself in Aboriginal Victorian community activities, working in the Aboriginal health sector and having constant communication with the research populations. On reflection, at the start of the research project in 2005, I needed to break my own stereotypical views (based mainly on how the media typecast this population and societal norms) of what being
an Aboriginal Victorian person means and how complex and diverse such an exploration such as I was attempting would truly be.

4.7.2 Semi-structured interviews

The Reference Committee played a gatekeeper role within the Masters research project to find participants for the semi-structured interviews. This was seen as a strength of the study and viewed within the literature as an important mechanism for gaining a relatively accurate view of the perspectives of community members (Raven, 2010). Gatekeepers in research settings have, at times, been identified as representing self-interests and being reluctant to involve participants who may not have the same views (Raven, 2010). I recognise that the Reference Committee did facilitate participation of interviews with people they knew, possibly increasing bias.

4.7.3 Focus groups

Focus groups require a skilled moderator who can create an environment that will enable all participants to articulate their views. If this role is not performed well, it will lead to poor data collection. Further, group size is critical in terms of gaining rich data; if the group is too small (two to four people) or too large (over twelve people) it can lead to insufficient interaction (Plummer-D’Amato, 2008). The group size in this project was six, and I spent extensive time prior preparing for conducting the focus group. However, that does not mean the process was perfect as sometimes there were individuals who attempted to dominate conversation in the focus group. Pryor (2009) identified that focus groups are vulnerable to participants influencing each other’s responses. In retrospect, this could have occurred as the focus groups was undertaken during my Masters research and I may have lacked the confidence to stop individuals dominating conversation.

4.7.4 Data collection

Within the context of an ethnographic study, it is hard to establish firm boundaries with participants when collecting data because immersion in a community may blur a researcher’s ability to be totally neutral with information (Lambert et al., 2011). I monitored this using my journal.
4.7.5 Other limitations

Once research knowledge is collected, it usually enters a less negotiated space (Holcombe, 2010). Holcombe (2010, p. 23) states that making data available (for example through publications) ‘gains a different potency that tends to favour the transcribe’. The Reference Committee guided and participants agreed to the research process, so it is hoped that the risks associated with data collection, analysis and presentation have been mitigated. Because of the nature of a Thesis by Publication this may have inadvertently occurred.

Finally, many events occurred during and since the data collection process, which may have impacted on participants’ responses (going back to Ingold’s notion of ethnography never being fixed). Such events include the Australian Government’s Apology to Australia’s Indigenous Peoples, the ‘Close the Gap’ campaign to reduce health inequalities between Aboriginal and non-Indigenous Australians gaining political and public traction, and successful Native Title claims in Victoria like that of the Gunditjmara peoples. Such events and others (not necessarily known to the researcher) may have influenced the way participants responded to some questions within this thesis.
4.8 Conclusion

There is no room for naivety in this changed knowledge landscape and it seems to me that researchers (Indigenous and non-Indigenous) need to play an active role in the governance of research knowledge (Holcombe, 2010, p. 23).

This PhD thesis has the potential to bridge gaps between non-Indigenous and Aboriginal understanding of human-environment relationship. The following research chapters will provide an exploration of the methodological approach, study design, methods and study population in each research project as well as communicating the results and implications that flow from them. The study aims to build a better picture of the connection Aboriginal Victorian people have to their Country, providing mechanisms for increasing and engaging the population in this process and attempt to harness this knowledge in a global space. It aims to communicate this in the following chapters because “if you cannot clearly communicate what you have found and why it matters, we suggest that your study is not considerably trustworthy” (Williams & Morrow, 2009, p. 580).
Chapter 5

Sense of place is not possessed by everyone in a similar manner... When places are actively sensed, the physical landscape becomes wedded to the landscape of mind, to the roving imagination, and where the mind may lead is anybody’s guess

(Basso, 1996a,b, pp. 144, 55).
Chapter 5: Aboriginal Victorian peoples’ connection to Country and its relationship to health and wellbeing

5.1 Importance and summary
The following chapter documents the relationship between Country and health for three Aboriginal Victorian Traditional Custodian groups. This research was undertaken to explore whether contact with and ability to manage Country could improve the current poor health status of Aboriginal Victorian people (with a focus on Yorta Yorta Nation, Boonwurrung and Bangerang Tribes). The chapter highlights the potential of Aboriginal Victorian caring for Country projects as an upstream preventative health strategy and focuses on the associated barriers and facilitators of developing such initiatives.

The two peer-reviewed articles explored in this section were published in Health & Place and Australasian Journal of Environmental Management (AJEM). The Health & Place article received international interest; the International Program of Psychosocial Health Research developed a podcast and Healthy Parks, Healthy People Central published a feature article on this research. The AJEM article was the runner up in the Eric Anderson Award in 2009. The success of this research led to the development of a documentary titled Healthy Country, Healthy People (funded by Parks Victoria) in which Aboriginal park rangers across Victorian were interviewed about their connection to Country.

Data was gathered for these publications by applying qualitative semi-structured interview questions with 13 Aboriginal participants. These explored individuals’ perceptions of the health and wellbeing benefits associated with caring for and contact with Country. The data highlighted the connection Aboriginal Victorian people hold to their Country, with participants stating that engagement with it increased self-esteem, identity, and helped maintain cultural connection. Participants described this

16 An annual award given by the Environment Institute of Australia and New Zealand for best journal article.
as benefiting the whole community. Bangerang, Boonwurrung and Yorta Yorta participants mentioned a number of distinct factors that need to be considered when developing caring for Country projects. Participants noted that involvement in these projects would only occur with increased community consultation, respect, training, consistency, resources and employment opportunities.

Such a study adds another layer of understanding of Aboriginal Victorian peoples’ connection to Country, which mainstream society, in most cases, still fails to comprehend. The research demonstrated that caring for Country offers great potential to improve Aboriginal community health, providing an outlet to reduce stress from daily pressures as well as maintaining pride and connection back to ancestry. Research into what communities themselves want from caring for Country projects would enhance these outcomes, as developing such projects from the ground up could serve as a positive health strategy.

5.2 Study population

Aboriginal Traditional Custodian groups involved in this research project were selected based on community, university and government consultations prior to a proposal being developed for the research Reference Committee. These consultations involved formal and informal meetings with eleven individuals lasting between 30 minutes to two hours. These meetings served, as a guide to gauge which communities would be willing and most suitable to participate in this research project. The study population consisted of two rural Victorian groups: the Yorta Yorta and the Bangerang peoples located along the northern Murray Goulburn region; and the Boonwurrung Traditional Custodian located in metropolitan and urban Melbourne and the surrounding bay and south coast area. Aboriginal government employees who undertook land management projects and environmental policy in these regions were included in the sample.

5.3 Methodology/methods

Qualitative methodology was selected to gain an understanding of Aboriginal Victorian peoples’ perception of Country. This method was not only identified by the researcher as the most effect methodology, but was supported by the Reference
Committee and through initial community consultations. This last element was critical, as Corburn (2007) identified that scientists often view local community members as not having the knowledge needed to influence environmental and health policy and therefore believe they need to be educated on how to view the world. This can be detrimental to the validity and integrity of the research, as when local people develop interests in these topics, they are looking at ‘fundamental questions’ pertaining to how these problems affect their life (Corburn, 2007).

The Traditional Custodian groups chosen were identified as having a wealth of knowledge on, and connection to, their Country. Initially the population of the Yorta Yorta Nation and the Boonwurrung Tribe were selected as populations of interest due to their different locations. To obtain approval from both communities, the researcher developed an initial idea for the research and then spoke to community members to inform them about the project. Subsequently a Reference Committee was established, members of which were invited through a formal letter (Appendix 7). The Reference Committee met three times during the initial project – prior to the submission of the ethics proposal, half way through the project and again after the final submission.

Initial acceptance of the project by the University of Melbourne Human Research Ethics Committee (while undertaking a Masters project) was dependent on community approval via the Reference Committee. Through the Reference Committee, it was identified that the Yorta Yorta and Bangerang Traditional Custodians shared similar cultural practices and traditional boundaries, and therefore the Bangerang peoples’ was included. Two Bangerang Traditional Custodians subsequently joined the Reference Committee.17

Semi-structured interviews were applied because as Adams (2010) explains this method is important where there is a gap in understanding of topics, particularly when the issues at hand are sensitive. This was seen as ideal when talking to Aboriginal Victorian people about their Country, due to the association it has with topics like removal from or lack of recognition of Country and the lack of public health literature on this topic.

17 The Yorta Yorta and Bangerang consist of similar family groups who claim intersecting Country.
Participants in the semi-structured interview phase were invited directly via e-mail or phone to contribute to this study. The Reference Committee acted as a ‘gatekeeper’ for this process and snowball sampling was then employed, beginning with one person and spreading, in an attempt to gather robust data and identify key people to contribute to the research (Rice & Ezzy, 1999; Minichiello et al., 2004; Harris et al., 2009). In ethnography, the interview inclusion criteria relates to participants membership of the ‘subculture under investigation’ (Higginbottom, 2004).

5.3.1 Description of sample
Of the 13 participants, three identified as Boonwurrung, two as Bangerang and two as Yorta Yorta; the remaining six were Aboriginal government workers in the environmental sector who were employed within these Traditional Custodian boundaries. Participants were active in the paid workforce, causing a possible bias in the results, as the level of workforce participation of these individuals was greater than the average level for the Aboriginal Victorian population. These interviews took between two and four hours to undertake and sometimes occurred over a few days. The researcher met individually with each participant prior to the interview (on separate occasions) to get to know the person, introduce himself, build trust, prepare for the interview and determine whether the interviewee had questions.

5.3.2 Instruments
An interview schedule was developed after a literature review and consideration of methodological approaches. The interview schedule had ten questions, with ‘throw away’ and ‘probing’ questions developed (Publication 3). The topics covered by the questions are outlined in Table 9. These questions were developed after reviewing guidelines on best practice qualitative approaches, which recommended being non-judgmental, attempting to cause no harm, allowing for silence from the interviewer (to provide opportunities for reflection), permitting the participant/s to guide discussions and providing a level of cooperation between the researcher and participants (Fossey et al., 2002; Whiting, 2008; Adams, 2010).
Table 9: Summary of topics addressed in the interviews

<table>
<thead>
<tr>
<th>Key topics of interview</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify health and wellbeing benefits associated with contact with Country and caring for Country for Aboriginal people</td>
<td></td>
</tr>
<tr>
<td>Factors (cultural, political and social) that would need to be taken into consideration when focusing on developing Aboriginal caring for Country projects</td>
<td></td>
</tr>
<tr>
<td>Strategies that allow establishment of caring for Country projects in Aboriginal communities</td>
<td></td>
</tr>
<tr>
<td>Aspiration of the specific group in association with caring for Country</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Publication 4

5.3.3 Administration

Subject to consent, interviews were conducted face-to-face and audio-tape recorded, to which all participants agreed. Interviews were conducted in a comfortable, convenient and local environment, with some participants choosing locations such as the Barmah State Forest (Yorta Yorta/Bangerang Country and, as of 2010, a National Park) or their workplaces. Prior to data collection, each participant read a Plain Language Statement (Appendix 8) and signed a Consent Form (Appendix 9).

Data was then directly transcribed using a transcribing machine with a foot pedal. All informants were sent a copy of the transcription of their interview via email within two weeks of the interviews taking place, and were given the opportunity to make amendments or withdraw information. This was then compiled into a minor thesis made available to participants/organisations involved in this research with copies placed in the University of Melbourne and Koorie Heritage Trust libraries.

5.3.4 Data analysis

A summary form of what occurred in the interview was completed promptly after interviews. Mind mapping, axial and open coding, thematic and content analysis were employed to analyse the research data once several interviews had taken place (Creswell, 1998; Minichiello et al., 1999; Browne, 2004; Harris et al., 2009). Once the researcher had completed the transcript, he read each of these documents a number of times to immerse himself in the data and draw out common themes. At this point a coding page (Appendix 6) was developed with every section and
subsection being given a different description. This was double-checked using a ‘Confusion Matrix’ (Robson, 1993, Appendix 10). A ‘Confusion Matrix’ is a table matrix that represents themes/categorised visually to ensure data is drawn out appropriately into a common thread of ideas.

5.3.5 Treatment of data and participants

To protect participants’ privacy, pseudonyms have been used and all identifying information removed. Participants were asked to voluntarily sign a Consent Form, which allowed the interview to proceed with both parties accepting confidentiality and respectful treatment of data. Participants understood that they were permitted to end the interview at any point and ask for information to be disregarded if they felt uncomfortable with the content or the researcher’s treatment of them. However, the aforementioned scenario did not occur.
5.4 Publication 4

Citation

"If the land is healthy ... it makes the people healthy": The relationship between caring for Country and health for the Yorta Yorta Nation, Boonwurrung and Bangerang Tribes

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ABSTRACT

This article reports on research undertaken with members of three Indigenous groups in Victoria, Australia, to explore the health and wellbeing implications of caring for Country (defined as having knowledge, sense of responsibility and inherent right to be involved in the management of traditional lands). The research findings provide a better understanding of this key determinant of the health and wellbeing of Indigenous people in the context of public health where there are few existing published studies assessing this relationship. Thirteen traditional custodians and local Indigenous environmental workers were interviewed. This qualitative study involving semi-structured interviews identified that caring for Country offers great benefits, including building self-esteem, fostering self-identity, maintaining cultural connection and enabling relaxation and enjoyment through contact with the natural environment. Results generated indicate that caring for Country may offer a means of improving the current poor health status of Indigenous Australian peoples.

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Introduction

The health status of Australia’s Indigenous people is comparable to that of citizens of a third world country, with life expectancy 17 years less than for the non-Indigenous population (Brown, 2001; Roxbee and Wallace, 2003; Armstrong, 2004; Oxfam Australia, 2007). Health commentators have described this as a public health disgrace, with other developed countries reducing the health gap between Indigenous and non-Indigenous populations (O’Donoghue, 1999; King and Elston, 1999; Oxfam Australia, 2007).

The Indigenous concept of health is holistic, involving physical, social, emotional, cultural and environmental wellbeing (Committee on Indigenous Health, 2002; Lutschini, 2005) and is a “whole of life view incorporating the cyclical concept of life-death-life and the relationship to the land” (National Aboriginal Health Strategy (NAHS), 1996, p. 1). The term Country (traditional land) refers to a place that gives and receives life (North Central Catchment Management Authority, 2006). Indigenous people talk about Country in the same way that they would talk about a person: they speak to Country, visit Country, worry about Country, feel sorry for Country and long for Country (Australian Heritage Committee, 2007). Land and Country are interchangeably used in Indigenous communities, being described as “a resource, which behaves as a living being, and a life support system for humans” (Barrera-Bassols and Zinck, 2003, p. 232; Atkinson, 2005).

The research on which this article is based had as its key aim an exploration of the health and wellbeing benefits of caring for Country for Victorinan Indigenous people. Caring for Country is defined as having knowledge of, a sense of responsibility for and an inherent right to be involved in the management of their traditional lands that has provided the basis for ecological sustainability of the Australian landscape (SAMUV, 2003; Yalmambirra, 2005). It was anticipated that the findings of the research would provide an improved understanding of the potential for a reduction in existing health inequalities as a result of engagement with cultural heritage and the natural environment through caring for Country.

Using a qualitative approach based on semi-structured interviews, the project was guided by a reference group, which
included Indigenous representatives from within the government sector, academia and traditional custodians of the land. It focused on three Indigenous groups located in Victoria: Bangerang and Yorta Yorta, traditionally located in northern Victoria and Boonwurrung, traditionally located in southern and south-western Victoria.

**Background**

Vickery et al. (2005) use the analogy of a 'wheel' to describe the Indigenous model of health in which all factors, including nutrition, reduction of stress, contact with the land (especially traditional lands), culture and identity, if connected and strong, contribute to health that is balanced. However, if the 'wheel wobbles' and these elements do not connect then ill health ensues. In this model, the past, present and future intertwine to impact on Indigenous people's health and the focus is on the health of the whole community rather than just the individual (NAHS, 1996; Boulton-Lewis et al., 2002; Committee on Indigenous Health, 2002).

Since the 1980s, the western concept of health has evolved also from a largely medical construct, recently shifting to a more holistic approach that recognises environmental and social influences (Chu and Simpson, 1994; Catford, 2004; Grieh, 2004). However, Australian research indicates that both mainstream and Indigenous health services still rely heavily on the biomedical approach, with few programs reflecting these models (Davis et al., 2004; Pellekaan and Clague, 2006).

The term 'wellbeing' is often used in conjunction with or in place of health. There is a striking similarity between western and Indigenous understandings of wellbeing. According to the Australian Bureau of Statistics (ABS, 2001, p. 6), the components in the western concept of wellbeing include "the natural environment ... the human made environment ... social arrangements ... and human consciousness. Wellbeing depends on all the factors that interact within this culture and can be seen as a state of health or sufficiency in all aspects of life". Put another way, wellbeing is said to be dependent on satisfactorily human relationships, meaningful occupation, opportunities for contact with nature, creative expression and making a positive contribution to human society (Furnass et al., 1986).

Wellbeing, as part of the Indigenous health model involves lifestyle, healthcare, biological, psychological and social environments both past and present (Brown, 2001). Anderson (1996, p. 68) noted that Aboriginal ideas of wellbeing "imply that the bodies can be conceived as transforming products of the relationship between our internal experience and our connections with other people". The connection of Aboriginal people to their Country, sense of community and kin is integral to the experience of wellbeing (Maher, 1999; Lutschin, 2005; Tse et al., 2005).

Worldwide Indigenous people hold a wealth of knowledge and connection to the local environments, which goes beyond that of western concepts, although it is often ignored within the non-Indigenous concept of land ownership (Verran, 1995; Young, 1999). For Indigenous Australian people, they cannot view land as empty spaces needing to be 'gained' (Hudson-Rodd, 1988; Wilson and Ellender, 2002). Understanding Indigenous environmental knowledge is of importance, not only to their own population but because "local knowledge contained in environmental narratives should be treated as a legitimate information source alongside scientific information" (Roberson et al., 2000, p. 119). Over thousands of years, caring for Country has underpinned the ecological sustainability of the Australian landscape (SAMLIV, 2003; Yalmambirra, 2003). Yet in the context of 21st Century Australia, even while maintaining these traditional processes, Indigenous people are facing similar challenges to other land managers, such as weeds and feral animals (Natural Heritage Trust, 2007).

A significant body of research has focused on the psychological, physiological and economic benefits of contact with the natural environment (e.g., Ulrich, 1986; Kaplan and Talbot, 1988; Kaplan and Kaplan, 1988; Kuo, 2001; Pretty and Ward, 2001; Maller et al., 2002, 2006; Framkin, 2003). Despite this, Parlee et al. (2005, p. 128) noted, although land is of great importance to the health of Indigenous people "relatively little consideration has been given to the relationship in academic literature". Research on health benefits of Indigenous natural resource management has been from Australian states outside Victoria. The most comprehensive Australian academic critique has come from Northern Territory which identified physical, nutritional, emotional, cultural and social capital benefits from Indigenous natural resource management (Burgess et al., 2010).

International literature similarly identifies the centrality that land plays in Indigenous identity, having physical, spiritual, cultural and emotional bonds (Hudson-Rodd, 1998; Kirmayer et al., 2000; Brown, 2001; Scogall, 2002; Richmond et al., 2005). However, in Australia, as Flick (1998, p. 16) highlighted, "I need to convince people when we talk of our Country as being central to our existence we are not engaging in a flowery word; we really are talking of life and death". Yalmambirra (2005) noted that Indigenous people's duty to care for Country was and to this day is spiritually motivated bringing individuals back to their ancestry.

Preservation of Indigenous land management knowledge is based on safeguarding significant ancestral sites and biodiversity that are fundamental to local economics, social structures and political autonomy (Langton et al., 2005).

The links between caring for Country and Indigenous health were highlighted in an Australian study which indicated that Indigenous people living on their traditional land, rather than in urban areas, had lower rates of diabetes, cardiovascular disease, mortality and morbidity rates (McDermott et al., 1998). Even when Indigenous peoples have been displaced from their homelands, a strong bond to their land continues to be felt (Vickery et al., 2004). The concept of Biophilia, which highlights that humans are innate connected and attracted to the natural environment, may be the reason for this deep-spiritual connection (Wilson, 1984; Collune, 2000; Framkin, 2001). According to theorists exploring the Biophilia hypothesis (e.g., Wilson, 1984; Collune, 2000; Kelbert, 1997), associating with nature and the natural environment offers meaning and purpose to human life and results in improved health and wellbeing. There is no reason to believe that Indigenous Victorian populations have any less of a strong spiritual connection to their Country than Indigenous populations. Arguably, therefore, the opportunity for Indigenous Victorian populations to care for Country is likely to promote and enhance their health.

**Indigenous Australia connection to Country**

Within Australia prior to 1788, 600 different Indigenous Nations existed each with their distinct dialect, culture and customs (Singh et al., 2001). These Nations were complex and moved from place to place within their boundaries to secure food, with cultural activities such as hunting and gathering used as important tools to educate the mind, body and spirit being enjoyable, comical and humorous (Heitzel, 2000; Yalmambirra, 2005).

Stories that shaped Indigenous people of Australia tell of the creation of Country and its animals (Yunupingu and O'Donoghue, 2003) and provided communication between 'ancestors' and the
'natural world' through forms including sacred names, dreaming stories, art and dance (Isaacs, 2005; Vickery et al., 2005). Creation stories of the 'Country' relate to the totems (plants and animals) of each Nation/Tribe and are seen as interrelated and married to that society (Indigenous Law Research, 2007). A definition of Indigenous Australian society, peoples and Nations (Cobo, 1987, p. 48) reflects those feelings of connection and duty to 'Country'.

Having a historical continuity with pre-invasion and post-colonial society that developed their territories ... They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and ethnic identity, as the basis of their continued existence as peoples ...

There is debate on what being Indigenous means, some definitions focusing on political subordination, history and socio-cultural characteristics (Brass, 2000; Anderson et al., 2006). However, most distinctions are based on stereotypical notions of Aboriginality with little emphasis placed on the "differences between Indigenous cultures in different parts of Australia today, just as they were before the invasion" (Atkinson, 2005, p. 3). Such stereotypes have grown out of a gap in knowledge between Indigenous peoples' and western views of the world. Even after the 1967 constitutional referendum where Indigenous people were recognised as citizens of their own Country to this day, the truth of their history has been limited in the wider community (Behrendt, 2003; Nettheim, 2005). This has been further identified in relation to perceptions of environmental management and the denial of Indigenous peoples' relationship and history of the Australian landscape (Wilson and Ellender, 2002). This is evident in Victoria where Indigenous communities until recently have been denied such relationship between culture and land (SAMLW, 2003).

Study population

The south-eastern state of Victoria has been inhabited, managed and moulded by Indigenous peoples for over 50,000 years (Lourandos, 1987; Prestland, 1988; Isaacs, 2005). Since 1788, changes have occurred in the Victorian cultural landscape. Currently, Victorian Indigenous people's main option to connect back with Country is through National and State Parks, which are in some cases the only places still remaining of the traditional land (Phillips, 2008). This project focuses on three Indigenous groups located in Victoria: Bangerang, Boonwurrung and Yorta Yorta. One of the most current maps used to define traditional locations in this region is shown in Fig. 1, based on the reconstruction of Indigenous language areas.

This map indicates that Boonwurrung traditional boundaries are located around the Melbourne metropolitan area, the bay and south coast, whereas the Yorta Yorta and Bangerang peoples come from the Murray-Goulburn region. The landscape of these groups is different, with the Boonwurrung living along the coast and Yorta Yorta Nation and Bangerang Tribe located inland, based around the Murray River. Therefore, these groups practiced different land management techniques and experienced different lifestyles.

The Boonwurrung Tribe is one of the coastal traditional custodians of the Kulin people, which they believe was created by the "all powerful Bunjil [who] took the form of the eagle and created ... their language, laws and land" (Parks Victoria et al., 2005, p. 1). The Boonwurrung people are the traditional custodians of the East Kulin area that includes parts of the Melbourne metropolitan area, the bay and south coast (Clark, 2005). Some Tasmanian Palawa (Indigenous) people have links to Boonwurrung ancestry but were disconnected by the rising seas that separated these two regions (Presland, 1998). The Boonwurrung tribe was known for its conciliatory relationship with the early settlers, with Derrimut (a Yaluk-Willum Elders) in 1835 warning them of an impending attack by the Wotawarrung - Wurrundjeri (Tudhope, 1863).

European intervention had a devastating effect on the Yorta Yorta who was once a sustainable Nation and traditional culture (Broome, 2005). Yorta Yorta land management practices involved 'manipulating' the environment to develop a 'sustainable return' (Atkinson, 2005). The Friends of the Earth (2005) noted that the Yorta Yorta Nation have selected representatives descending from the 16 family groups from the region. This group was formed to make decisions in regards to land and water in the Murray-Goulburn region with an aim to advance sovereignty, self-determination and preservation. Since 1994, the Yorta Yorta nation has been trying to lodge for their land rights but their claims have been rejected on all occasions, having a devastating impact on the community (Alford, 1995; Muir and Morgan, 2002).

Bangerang traditionally means 'tall tree' and refers to the large river Red Gums once abundant in the region (Bangerang Cultural Centre, 2006). The Bangerang Tribe consisted of 10 clans (Carr, 1886) who cared for the Country within their specific tribal boundaries but became united when war threatened from surrounding tribes (Bangerang Cultural Centre, 2006). Yorta Yorta and Bangerang people descend from the same blood lines and are descendants of the original ancestors who occupied the Barmah-Millewa Forest and surrounding Murray-Goulburn region, sharing similar creation stories, traditional natural resource management knowledge and practices (Atkinson, 2005; VACL, 2008). European records have blurred and confused the recorded history and boundaries of the Murray-Goulburn region (Carr, 1886; Tindale, 1974; Clark, 2005). VACL (2008) has gone further and stated that Tindale split the two groups in this region, misleading many researchers. This has caused the two groups to form different alliances that are disputing the land and traditional name of the custodian.

The current study uses qualitative methodology to identify the health and wellbeing benefits of caring for Country to these three Victorian Indigenous groups. Qualitative data was used to describe the connection and perceptions that Indigenous Victorians have to care for Country to get a better understanding in a field that is lacking published work.

Method

The study populations were selected after consultation with Indigenous individuals and government organisations. From the possible 32 Victorian Indigenous groups (Parks Victoria et al., 2005), two were chosen to be part of the study, comprising the Yorta Yorta Nation and the Boonwurrung Tribe. These groups were interesting as one was located in rural Victoria (Yorta Yorta) and the other in metropolitan/urban Victoria (Boonwurrung) allowing for a range of perspectives. These groups were also selected because they could accommodate such research. To obtain approval, the researcher developed a proposal and then spoke to Elders and community leaders (for example, speaking to representatives of Murray Darling Basin Indigenous Elders committee) to inform them about the project. This enabled the researcher to familiarise himself with key community leaders and organisations (AAHSS, 2002; NHMRC, 2003). The Bangerang Tribe was included in the study when the link was identified with the Yorta Yorta Nation.
The research design focused on the needs of the community because of past inadequacies of Aboriginal and Torres Strait research (Mathews, 1998; Henry et al., 2004; Stewart and Pyett, 2005). This relates to the negative experiences Indigenous communities have generally had towards research due to lack of community control, benefits and influence on the interpretation of the data (Henderson et al., 2002; Henry et al., 2004). Building trust with the Indigenous community is fundamental and therefore a qualitative methodology was considered the appropriate approach, because it has the potential to build relationships, dialogue and partnerships with the participants (Henderson et al., 2002). Qualitative methodology also offers greater insight into an individual's understanding, meaning and experiences, providing a clearer picture of the topic (Rice and Ezzy, 1999; Berglund, 2001; Ward and Holman, 2001; Altschuler et al., 2004).

To ensure no negative experience occurred, the researcher attempted to involve the communities from the start of the project so that information was jointly understood and trust could be established (Henderson et al., 2002). The researcher has tried to uphold all basic Indigenous ethical guidelines in completing this 2 year project which involved negotiation, consistent feedback, mutual understanding, recognition, involvement (such as co-authoring academic journal articles), shared ownership, skills development and methodological flexibility (AIATSIS, 2000; NHMRC, 2003; Henry et al., 2004; Humphery, 2000). The most important ingredient was developing a reference committee (governments, academics and traditional custodians), to ensure that all contributors were acknowledged appropriately (McAulay et al., 2002).

The reference committee guided the non-Indigenous researcher in understanding what these communities expected. It acted as a 'gatekeeper', identifying those who would like to participate in the study. A semi-structured interview schedule was used to collect data; this process took 2-4h (sample questions—Appendix 1). These interviews covered the health and wellbeing benefits associated with caring for Country and perceptions that Indigenous people felt when they were on their Country. Interviews were conducted in comfortable, convenient and local environments. The interviews were in-depth, open-ended and yielded 'thick' descriptions on the health benefits to Indigenous people associated with Country.

Thirteen informants took part in this research; eight were female and five male, with seven traditional custodians of the focused areas (three Boonwurrung, two Rangergang and two Yorta Yorta) who were regarded as respected members of the community by the reference group and six regional land management workers and environmental policy officers who worked within government organisations. All informants were of Victorian Indigenous descent. Participants involved in this process were invited to contribute to ongoing development of this project after it had been completed (some co-authoring or acknowledged in this paper) and copies of this unpublished masters research have been donated to Indigenous cultural centres around Australia.

Thematic analysis was used to identify themes that stood alone from these data (Browne, 2004). In this case, both open coding and axial coding was applied to improve the quality of the study which involved categorising topics into properties (Creswell, 1988; Minichiello et al., 1998). Findings from this study provide a limited picture of this complex topic because of the study's qualitative nature, sample size and the fact that data were gathered from single interviews. The data only provide a snap shot representation of the selected traditional custodian groups experiences and perceptions of caring for Country rather than longitudinal study. Nevertheless, the data obtained do provide understanding of a topic limited in the academic world. The researcher tried to capture benefits of 'Country' in story and therefore does not distinguish between emotional, physical and...
spiritual factors allowing the reader to understand health from a holistic and Indigenous perspective.

Results

Individuals explained Country as a place to escape, allowing connection back to their ancestors in a stress-free environment. This spiritual and cultural relationship to land increased identity, pride and self-esteem. A Bangerang traditional custodian clearly highlighted this spiritual feeling of Country describing it as a sanctuary for her wellbeing:

"You get that peaceful feeling thinking about going home ... you think about the sun shining down ... that beautiful silence, you almost forget what it sounds like ..."

Different informants described the natural settings in various psychosocial ways using words like ‘energising’, ‘relaxing’, ‘de-stressing’, ‘comforting’ and ‘homely’. A Yorta Yorta woman emphasised that any natural environment ‘does not have the same feeling as going to your own Country’. Other participants described being on Country as ‘enriching’ and ‘enjoyable’, giving them time to ‘chill out and take it all in’. This was highlighted by a Yorta Yorta male explaining: ‘I can go out into bush tired and sit there and fall asleep with the quietness, serenity and peacefulness of finding my own little niche along the river’. A female environmental worker in the Boonerwun region emphatically stated:

"If I smell pretty land my heart feels better my head feels better ... in cultural Australia we didn’t always take food or medicine orally some of it was sitting in amongst these plants and smelling the aromas and letting it soak through ... you’re in a spiritual place—calm and centered ..."

Informants described being out bush (Australian slang for the natural landscape in the outback) as an escape, because it is ‘quiet’, gives you ‘time to be grounded’, ‘reflect’ and ‘hear’. A male land manager in the Boonerwun region said this quietness shows you down and ‘speaks to you ... allowing you to look within yourself and realise you are not divorced from the land’. A female Bangerang traditional custodian described city life as “too many people, too much traffic, too much air pollution ... when I think about the bush it feels like all the stress falls off my shoulders”. Two statements highlight this feeling of sense of place received from Country, with a Boonerwun and Yorta Yorta traditional custodian explaining, respectively:

Two weeks ago things were not sitting well ... I needed to see the ocean and I was pushed to it ... I take my shoes off and dig my feet into the sand and close my eyes and collect myself and when I go to Wilson’s Prom I find the highest peak and do the same ... it all release [there] because it is in its natural form ...

and

I have been through a relationship breakdown ... I met up with my friend ... the Murray River has a strong connection and I said let’s go for a swim ... so I go down to the river and was thinking I am never going to get out of this ... I put my head in and then got myself back up and it was like everything washed away ...

Participants acknowledged the natural landscape’s ability to increase ‘knowledge’ on Indigenous culture and natural resource management. A male Indigenous environmental educator who worked in the Boonerwun region noted “I went through life, at a young age not knowing where I fitted into society; land management let me know”. Another female land manager who worked in the region confirmed this, stating “it empowers you to make sense of your life” and “it’s a special connection ... this is where your ancestors were ... that’s a sense of belonging”. A Boonerwun traditional custodian talked about regaining this connection only once she “was standing at a middlen site” as big as a building. You hear this 60,000 year stuff but until you’re there you won’t appreciate it. It allowed me to get in touch with my spirituality ... it’s what makes me Aboriginal”. This connection came naturally to a Yorta Yorta male who stated:

"You can say you’re not born with culture, you have to be taught it but you are born with instincts ... There is something in me that enjoys ‘caring for Country’ ... I have seen the light ... it’s matured me ..."

Informants noted that one commonality Indigenous people have is a strong connection to Country. Themes emerged when interviewing participants on this connection, referring to emotional feelings, culture and spirituality. Emotional feelings related to positive and negative feelings expressed in terms of the natural settings having the ability to ‘get answers from nature’. Participants described positive feelings at their significant sites where they felt a ‘sense of welcome’. A Yorta Yorta female traditional custodian highlighted this, stating: “I was taken off my mother through the assimilation policy ... at the river I felt a connection like a belonging before I knew where I was from ... an affinity towards the land”. Negative feelings were referred to by participants as a ‘warning not to be there’ or ‘sadness’. These experiences often referred to burial sites, damaged sacred places and men’s and women’s sites. One Boonerwun female senior traditional custodians reflected on a personal story:

In Palm Islands [I went to a] gathering ... At the end of the night [I was] walking home ... suddenly a force was in front of me ... it was like me pushing through glass ... I couldn’t move through ... I saw my [Indigenous] friend and she said that’s good no one goes walking on the island at night because of evil spirits ... people go missing ...

Spiritual connection to nature often referred to reconnecting to an individual’s ancestry, meaning they were pulled to land and this gave them a sense of belonging. This relates back to humans’ innate connection back to nature that gives a sense of identity and pride which empowers and promotes individuals’ health. A Bangerang female informant acknowledged “you can put your trust in the land because it is your ancestors; you know it’s going to guide you in the right direction and protect you”. Country allows individuals to heal from discrimination; one land manager who worked in the Murray – Goulburn Region recognised “growing up you’re Aboriginal but that’s something you denied ... when I acknowledged that, healing was automatic”. A Boonerwun senior traditional custodian identified “you’re a fundamental part of everything ... once you start to believe that the land can help heal you”. Therefore, preserving and protecting land...
is fundamental because:

If the land's healthy, the animals are healthy, it makes the people healthy ... but if the animals don't have habitat then that means the land and people are sick ...

Participants saw caring for Country as their inherent obligation connecting them to their culture. Creation stories are based on information being passed on, as a senior female Boonerwurung traditional custodian explained: "traditionally they have a connection to land as soon as they're born through plants and toomys ... which connect identity to the land". A government employee working in the Boonerwurung region explained "we brought people together that have never done art before and we settled them up with canvases ... people didn't know why they were doing these paintings ... it was a high influence on tracks on the ground and seemed to all have a connection to the landscape". Therefore, it's not surprising that a senior Boonerwurung informant acknowledged: "Land is intrinsic to our identity ... Words don't have any meaning, it goes beyond explanation". Such connections to Country can be viewed as innate and instinctive of the culture highlighted by a Yorta Yorta woman who was part of the stolen generation, stating:

Identity from the land remained within me and when I did my art it's symbolic and [the] Elders have picked up the old scenes. I think there's something printed on our DNA which has ancestral memory.

Therefore, Country reflects the past, present and future. Individuals acknowledging being 'here for thousands of years' and expressed the belief that they deserved recognition for being the traditional custodians. A Bangerang female stated that Indigenous people should have "links with culture and feel pride. But you first have to change the views of the wider population who have to accept there were Indigenous people here before". Protection and preservation of Country is imperative as a government employee noted: it is an 'interpretive tool to educate people of the history of the land'. A male land manager who worked in that Boonerwurung region stated:

We are heading in the right direction ... in the past Aboriginal people have not been taken seriously or involved and they see it as their inherited right to be involved but it takes more than 6 years to fix ...

Informants stated, when talking about being involved in land management and interpretation of environment, that they felt 'required', 'needed', 'a great sense of pride', 'self-worth', 'responsibility' and 'achievement' by 'contributing to the management and wellbeing of parks'. A Bangerang traditional custodian said that caring for Country "raises people's ability to feel good about themselves ... giving them ownership, as before they were unhappy and disenfranchised". Others believed that, without their involvement, 'cultural heritage wouldn't have been preserved' (Land manager, Boonerwurung region). This land manager noted it "puts us in the next best thing besides traditional owner status". An environmental worker in the Murray - Goulburn Region noted "the more involvement I have, the more comfortable and strong I have felt as an Aboriginal person".

Caring for Country was a part of the participants' identity, some Indigenous land managers stating it "reinforces my persona", it "gave me a belonging" and "it's yearning in my heart". An environmental worker who worked in the Boonerwurung region highlighted "I don't think anybody [Indigenous] does work to preserve our culture heritage half heartedly ... everyone preserving our history does it because there is that special connection".

A Yorta Yorta traditional custodian noted "people who don't have this strong identity to land are less than what they can be, leading them to drugs, alcohol, or domestic violence because they can't find it within themselves". A Boonerwurung senior traditional custodian acknowledged that to preserve and protect Indigenous lands "we need to look back at the processes ... [to] make it relevant in the reality we are living in".

Benefits of contact with nature go far beyond the individual level, with participants noting that 'spin offs' included increased education and employment opportunities to the Indigenous communities. These employment opportunities include land management, environmental work for government, tourism, Indigenous education and interpretation roles. A male who worked in the Boonerwurung region noted that working on Country "allowed people to see they were assisting in the development of a healthy park system ... realising there is stuff they can do not in isolation". A female working in the same region stated: "there are priorities with health, education, incarceration but if you get them into land management their self-esteem increases; they're no longer bored".

Positions involving working on Country also offered youth who were 'numb from the city', 'dislocated from society', 'in violent situations' a reason 'why they exist', something 'to empower them' and 'nurture young leaders' in a 'communal environment'. A Boonerwurung senior traditional custodian underlined this, saying "kids see mum or dad going to work on a regular basis, meaning the kids understand there is employment ... you start to break down the barriers that have been put in place ... where children see mum and dad sitting at home doing nothing". But ultimately, as a female Yorta Yorta Tradition Custodian noted, "it gives us a chance to respect ourselves because, when you go out on Country, it's about knowing your culture, nothing else matters". Experiences such as those described allow for health promoting and enhancing environments that can assist disenfranchised Indigenous people.

Discussion

Country has been described as homely and comforting to individuals in this study where they could physically escape the stresses of everyday life in a calm, comfortable and peaceful environment. Preservation and protection of traditional boundaries was an instinct that was culturally and spiritually motivated, hence it healed, strengthened and increased the self-esteem of informants. The fact that caring for Country allows individuals to feel proud and builds identity validates early research which shows the clear health and wellbeing benefits of Indigenous natural resource management and living on their traditional lands (McDermott et al., 1998; Burgess et al., 2005). Participants identified that even when Indigenous people had been displaced, they still maintained a connection to a specific geographical location.

Such results substantiate the notion that Indigenous people have a unique relationship with traditional land that involves a spiritual, cultural, physical and emotional bond (Hudson-Rodd, 1998; Scougall, 2002; Richmond et al., 2005). There is also a communal and social element that allowed individuals and communities to reconnect with their culture, upholding the Indigenous definition of health which focuses on the 'wellbeing of the whole community' (NAHS, 1996). Participants also gained answers to important personal issues from nature. They described caring for Country as their inherent obligation that had been
passed on for generations and was intrinsic to Aboriginal identity. One individual emphasized that this strong connection to traditional boundaries was part of Indigenous ‘DNA’. This corroborates the biophili theory that acknowledges humans’ innate and inherent connection to the natural environment (Wilson, 1984; Gullone, 2000; Frumkin, 2001). Such connections described in this paper correlate with previous research, as they go beyond the perceptions of nature commonly explained in western culture, with connection to nature (via caring for Country) acknowledged as fundamental to Victorian Indigenous peoples and crucial to that society (Verran, 1995; Flick, 1998; Young, 1999; Indigenous Law Research, 2007).

Participants also demonstrated a spiritual connection with nature, often referring to their ancestors as drawing them to a particular place and allowing them to heal. This reinforces Yalumambirra’s (2005) sentiment which identified Indigenous people’s duty of care for Country as being spiritually motivated and individuals being tied to a place because of spiritual beings. Key informants noted that recognition of their traditional custodian role was fundamental and that, by being involved in the protection of cultural heritage, they felt proud and were reinforcing their identity. This link is described in literature as an inherent right to care for Country that has provided the basis for ecological sustainability of the Australian landscape (SAMLV, 2003; Yalumambirra, 2005). As Langton et al. (2005) mentioned, preservation of traditional lands and contact with nature create social roles within communities, a view which is upheld in this study.

The fact that the Indigenous Australian population is currently suffering health burdens equivalent to a third world country means this research is timely and relevant. This study adds another layer of understanding of the Indigenous people’s connection to this country which mainstream society, in most cases, still fails to comprehend. Most research in this field to date has been anecdotal, with this paper adding additional evidence showing the centrality of land to the health and wellbeing of south-eastern Australian Indigenous peoples. This research demonstrates that caring for Country and contact with the natural environment offers great potential to improve Indigenous individuals’ and community health and social and emotional wellbeing. Traditional lands offer an outlet to reduce stress from daily pressures, being described somewhat like a utopian sanctuary.

Caring for ‘Country’ may be a key way of improving Indigenous population health in Australia, and therefore policy makers should be focusing on such initiatives as facilitators of health. Further research into what communities specifically want from their Indigenous nature-based projects would only enhance this idea and government agencies and not-for-profit organisations should look laterally at developing such projects from the ground up, as a positive health strategy. The main aim with these projects is to empower the people they target, so initiatives need to be understood by all parties involved. Therefore, rigorous research is required to test the validity of the findings of this qualitative study, and if these findings are confirmed, governments should set up strategies that provide the opportunity for Indigenous Victorians to have contact with their traditional Country. These strategies will need to be creative and innovative, involving educational opportunities which give a sense of pride, employment, involving youth to empower them and giving access to traditional lands so that improvements can be made to the current Indigenous health status. Early strategies would involve Indigenous researchers being trained to complete research in this field and collate data from an Indigenous viewpoint for all Victorian groups, with degrees or certificate programs to be offered at the successful conclusion of such research.

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Appendix 1. Example of semi-structured questions

1. How does being in nature make you feel?
2. What do you think are the health benefits of being on Country?
3. What are the wellbeing benefits of being ‘on Country’?
4. Could you explain to me what you think are the health and wellbeing benefits of setting up land management projects ‘on Country’ for Indigenous groups?
5. What are the factors that must be taken into consideration when designing land management projects that will impact on health and wellbeing specific to East Kulin or Yorta Yorta people in your region?

References


5.5 Publication 5

Citation

Investigating health, economic and socio-political factors that need consideration when establishing Victorian Aboriginal land management projects


This article focuses on three Victorian Aboriginal groups (Bangerang, Boonwurrung and Yorta Yorta) to explore elements that provide or discourage development of land management projects. Results from this small qualitative study show that a number of distinct health, socio-political and economic factors need to be considered when developing Aboriginal land management projects. This study indicates that a greater involvement in Aboriginal land management projects - critical to Aboriginal peoples' health, economic and social structures - will only occur through increased community consultation, respect, training, consistency between all stakeholders involved, resources and the provision of employment opportunities. Further research is required to strengthen this evidence, allowing policy-makers to be progressive when developing land management projects for Aboriginal Victorian people as a health promoting tool.

Keywords: Aboriginal Victorian people, land management, social determinants of health, government policy

The relationship Aboriginal people have to Country 2 is central to their health, economic and socio-political structures (Flick 1998; Wilson & Ellender 2002; Richmond et al. 2005; Russell 2005). This paper reports on research that aimed to understand Aboriginal Victorian people's experiences on their Country because 'ecological restoration [can] be enhanced through the use of local environmental narratives' (Robertson et al. 2000, p. 119). The Yorta Yorta, Boonwurrung and Bangerang communities are the focus of the research project because of their strong relationship with land and the limited academic research carried out in these communities on this topic (Parlee et al. 2005). This investigation focuses on health, economic and socio-political factors that need consideration when establishing Victorian Aboriginal land management projects. The following literature review underlines health, economic and socio-political factors that affect Aboriginal and Torres Strait Islander people on a day-to-day basis. Although brief, this section underlines some health and social inequalities impacting on some of the Traditional Custodians of Victoria and Australia.

Health factors

Aboriginal and Torres Strait Islander people suffer greater health burdens compared to the non-Aboriginal population (Ring & Firman 1998; Roxbee & Wallace 2003). Durie (1999) explained that the poor health status of Aboriginal peoples is due to economic disadvantage, resource alienation and political oppression. Contemporary and historical contributing factors in Victoria include a lack of a sense of identity, which resulted from the creation of missions that grouped people from different tribes together (Broome 2005); the absence of a legally binding treaty between the Aboriginal population and government (Langton 2001-2005); limited primary health care services in urban and rural settings (SCHRGP 2007); and the lack of a skilled Aboriginal workforce (VACCHO 2008).

Psycho-social factors, such as employment, education and upbringing, can influence health and have been referred to as 'social determinants of health' (Reidpath 2004). Marmot (1999) identified ten social determinants of health in society, including stress, social exclusion, unemployment and addiction. Aboriginal scholars Vickery et al. (2004) noted that, although Marmot's ten social determinants of health are relevant, they are not

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1 An Aboriginal person is one who belongs to an Indigenous population through self-identification (group consciousness) and is recognised and accepted by the population as a member (United Nations 2004, p. 7).

2 'Country' is a term used by Aboriginal and Torres Strait Islander people. It denotes a place (traditional land) that gives and receives life and consists of 'people, animals, plants, dreaming, underground, earth, soil, minerals, water, surface water, and air' (SAMLIV Project Team 2003; North Central Catchment Management Authority 2006).
framed with an 'Indigenous viewpoint'. Social determinants that are relevant to Indigenous Australians include reconciliation, land, cultural survival, poverty, education and racism (Devitt, 2001; Anderson et al. 2004; Vickery et al. 2004; Carson 2007).

**Economic factors**

Income and education impact on an individual’s ability to ‘engage’ and ‘influence’ society (Wallace & Wallace 1997). Indigenous Australians are known to have the lowest economic status of all Australians (Altman 2000). Poor socio-economic, education and employment levels have links to financial hardship, poverty, debt, homelessness, family breakdown, social isolation and crime (Wallace & Wallace 1997). Indigenous Australians suffer disproportionately high levels of domestic violence and over-representation in the justice system (Borelland & Hunter 2000; Gentle & Taylor 2002). Sagers and Gray (2001, p. 23) acknowledged that Indigenous people’s high levels of substance abuse can lead to ‘social consequences [including] violence, disruption of family relationships, school absenteeism... unemployment, food shortages and neglect’. Such consequences are under-reported in local, state and national data because of shame and fear of experiencing racism, police response and reprisal (Stanley et al. 2003).

**Socio-political factors**

Aboriginal and Torres Strait Islander people experience extreme levels of racism in Australia (Paradies 2005). This is typified historically by their exclusion from elite and mainstream power structures, as highlighted by Indigenous people not being recognised as Australian citizens until 1967 (Hetzel 2000; Hunter 2004; Karvelas 2006). Nugent (2003) noted that Aboriginal Australians grow up learning two kinds of histories: memories preserved by family, and a humiliating textbook history taught in schools that does not recognise the depth of Indigenous culture. Behrendt (2003) noted that reconciliation can only occur when sovereignty is acknowledged through the recognition of past injustices, property rights and cultural practices.

Davis et al. (2004) noted that cultural practices, such as Aboriginal land management, serve as tools to integrate spiritual, emotional and physical aspects of health and wellbeing. Protecting Country is the inherited right and responsibility that Aboriginal people feel (DSE 2004). The management of Country involves the manipulation of the environment to enable an increase in sustainable natural resources (Horstman & Wightman 2001; Atkinson 2005). Not all Aboriginal ecological knowledge is sustainable, increasing the need for collaboration between western and traditional land management practices (Dixon 2005). Victorian Aboriginal people’s priority is to promote opportunities for agriculture and aquaculture businesses, as well as horticultural enterprises that develop skills in these fields (SAMLIV Project Team 2003). Aboriginal park rangers have proven to be effective in engaging cultural relationships with Country without separating spiritual, ecological and social aspects (Burgess et al. 2005).

Victorian Government policies have attempted to engage Aboriginal communities in the decision-making process by developing co-management programs (Kingsley et al. 2008). Howitt (2001) highlighted the difficulties in this, stating that ignorance and misunderstanding continue to characterise inter-cultural relations. Langton et al. (2005, p. 29) acknowledged that ‘rather than recognising their traditional rights to land... governments tend to develop measures for the protection of traditional and Indigenous biodiversity related knowledge... for the primary purpose of commercialising and commodifying particular aspects’. Kaschula et al. (2005) identified that, when focusing on Aboriginal knowledge, there are hidden political agendas of groups seeking custodianship of the land.

The *Native Title Act* 1993, overturning the concept of Terra Nullius,[3] gave hope to the Indigenous custodians that common law could remedy past wrongs and recognise Indigenous sovereignty (Neate 2004). However, Tehran (2003) and Hemming (2002) noted that this Act has been ineffective. The lack of success, especially in Victoria, is based on a political manoeuvre of advocates ‘scaring’ the public into believing that Native Title could steal people’s ‘backyards’; an approach considered by Behrendt (2002) as ‘psychological Terra Nullius’.

Taken together, these factors undermine both the opportunity and capacity of Aboriginal people in Victoria to engage in the management of their traditional lands in ways that are beneficial to their individual and community health and wellbeing, and the sustainability of the land (Kingsley et al. 2009).

**Methodology**

Research focused on Indigenous people involves strict guidelines to ensure that ethical frameworks are

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[3] Terra Nullius: the English colonial powers described land that was unclaimed according to English property law as not belonging to anyone. This was to have devastating effects on Indigenous populations (Welsh 2005).
negotiated between the researcher (non-Indigenous in this case) and Indigenous people (ALATSIS 2000; Henderson et al. 2002; NHMRC 2003; Henry et al. 2004). Throughout this study, these guidelines were enforced by an Aboriginal reference group and the ethics committee of The University of Melbourne. The reference group formed at the start of the project from representatives of Aboriginal organisations and Traditional Custodians of the Boonwurrung, Bangerang and Yorta Yorta communities.

The Country of these three Traditional Custodian groups within Victoria is identified in Figure 1. The map indicates that Boonwurrung language boundaries are located around the Melbourne metropolitan area, Port Phillip Bay and the south coast, whereas the Yorta Yorta and Bangerang peoples come from the Murray-Goulburn region. The three Traditional Custodian groups were selected for this study after consultation with local Victorian Aboriginal people and organisations.

This project explored the structures of consciousness in human experiences to show how Aboriginal people make sense of Country. Qualitative methodology was used to gain a greater insight (Bergland 2001; Ward & Holman 2001; Altschuler et al. 2004). The study involved qualitative, semi-structured interviews (Denzin & Lincoln 2000). Of the 13 participants who chose to participate in the study, eight were female and five male; seven were Traditional Custodians and six were Aboriginal land managers. Traditional Custodians represented the local people of the region, whereas the Aboriginal land managers were generally not local to the area but protected and managed the land.

Interviews were conducted using open-ended questions. Questions explored factors affecting land management projects, as well as ways of improving contact with Country. An example question was, ‘how can we improve our understanding of the factors that facilitate or inhibit these land management projects within these three Indigenous groups’ boundaries?’ Immediately after interviews were conducted, a summary was completed by the researcher to gather emerging themes and details about the conversation; this process assisted in the data analysis (Dawson 2002). Thematic analysis was used to identify themes that stood alone in the data (Browne 2004). It also focussed on the contextual meaning of the data (Flick 2002). If more information was required or the participant wanted to be re-interviewed, another interview was conducted. Participants involved in this research were invited to contribute to ongoing

*Traditional Custodian: a person(s) or group who, by right of tradition, have inherited a custodial role of caring for Country through bloodline connections.*
development of the project and, although they declined, to co-author this paper.

A limitation of this study was that the methodology was applied with only three of the 32 Victorian Aboriginal communities (Parks Victoria et al. 2005). As such, these data cannot be generalised across all Victorian Aboriginal groups. In addition, because of time and resource constraints, not all key participants could be interviewed, and reliability checks followed up with face-to-face interviews could not be conducted in all circumstances.

Results

Participants described nine factors that impact on their ability to develop land management projects in Victoria. These factors were political barriers; access, development and recognition of land; health issues; cultural loss; racism and lack of recognition of culture; socio-economic; colonisation; destruction of the natural environment; and Native Title because the law seemed not to be working in Victoria.

Participants reflected on land management projects established to involve Aboriginal peoples in Victoria. Others identified the cultural differences between Aboriginal and ‘Western’ knowledge and how it has impacted on projects ‘getting off the ground’. Participants wanted a ‘doorway’ that would allow greater involvement with traditional lands, incorporating increased community consultation, respect, training, resources and employment opportunities, and consistency between all stakeholders involved.

Boundaries, government tokenism and understanding of Indigenous culture

The saddest thing is we are fighting over boundaries when we are never going to get Native Title... before we were united just fighting for recognition (Boonwurrung Traditional Custodian).

Participants acknowledged that boundary issues cause disharmony. For example, a Bangerang Traditional Custodian stated,

I would like to talk to my kids and tell them who we are but there is (sic) conflicting stories from two groups I respect. There hasn’t been enough thought put into the next generation.

Yorta Yorta and Bangerang participants mentioned that internal politics were due to both groups giving little acknowledgment of Traditional Custodian status to each other. A Yorta Yorta participant mentioned that this caused ‘Families to be against families, brother against brother and Elders versus Elders, making people feel caught in the middle’. Boonwurrung participants mentioned that the cultural heritage legislation caused animosity with a neighbouring tribe because it ‘Only recognised groups who were incorporated entities; as a consequence we were initially left off the map’.

This disharmony was due to economic factors and power because there is ‘money to be made’ by controlling land. A land manager (Boonwurrung area) stated, ‘Government administrated boundaries create problems; it’s up to communities to show strength and intelligence... [and] unite’. Another land manager (Boonwurrung area) said, ‘We have to go back and see where it went wrong, we have to understand the roots of inter-clan politics... we need to discuss it’. A Boonwurrung Traditional Custodian emphasised that ‘Government would, rather than sort out boundary issues, find it easier to have us fighting because then they don’t have to service our needs’. This may be a reason why one Aboriginal land manager (Murray-Goulburn region) mentioned that people are hesitant to work for government; there is still a stigma attached... they took the land away and still stop us from participating on it. But people have to move on... [and] learn to work together.

Government employees were perceived as having different sets of values compared to Aboriginal communities. A sentiment that angered many was that ‘The government believe that we are no longer here... [because we] are not black and not living traditional like the mob up north’. Participants acknowledged that the government could not ‘differentiate who were Traditional Owners and who were not’, and they do not understand the importance of significant sites.

One participant, a land manager (Boonwurrung region), mentioned that, ‘There are people around saying they’re all pro-Aboriginal but I have seen under opposition governments they were not’. Participants showed anger towards non-Aboriginal people that act like they care about Aboriginal people’s welfare when it benefits themselves. An Aboriginal land manager in the Boonwurrung region said, ‘We want to contribute but we want respect for our knowledge; and consultants come in, get paid all this money and take their information and run’.

Most participants mentioned that there had been an increased involvement in political autonomy but ‘not to the extent that government word the[r] rhetoric’. This statement refers to politicians stating that they have managed to fully include Aboriginal people in the management of Victoria national parks when this is not the case. The underlining theme was that government
programs need to be ‘planned with the health and respect of the people they target’.

**Access, development and recognition of Indigenous land**

Participants commented that most land in Victoria is held in private ownership. A Yorta Yorta Traditional Custodian noted that, because of this, ‘[You] will not see a giving back of national parks but you will see co-management strategies where local Indigenous people are consulted more... it’s not ownership but it’s recognition’. An Aboriginal land manager (Boonwurrung region) mentioned that, ‘When Aboriginal people start to feel a sense that they have been recognised, things will improve... you never get over past injustices but you work towards softening the blow’. A Bangergang respondent said, ‘We don’t have land but our aspiration is for all Indigenous groups to have some connection to land management’. Due to recent developments in urban regions, Aboriginal people have had to adapt to the concrete on their ground and ‘to the mass capitalism’ that has little respect for the environment. A land manager (Boonwurrung region) acknowledged that historical and contemporary issues occurring in Aboriginal communities and on their traditional land meant that there are not many cases where handing back a place would be best for Indigenous people; a lot don’t know how to manage land these days - cats, foxes, weeds. Traditional land management would not know how to deal with that... we need equal parts Indigenous and non-Indigenous to catch up.

**Health issues**

In the past, people were dying in their 50s and you go ‘that’s young... now people in their 20s are having heart attacks (Yorta Yorta Traditional Custodian).

The current poor health of Aboriginal Victorians means that Elders, who had the greatest wealth of knowledge, are dying without passing on their knowledge. This is causing disharmony in communities, as the Yorta Yorta Traditional Custodian above expressed. A Boonwurrung Elder noted, ‘Everyone says where are the Elders? Well we are bloody busy, if we are still alive... we have to fight for our own survival to keep telling the stories’. An Aboriginal land manager working in the Boonwurrung region mentioned that this occurred because of the dislocation of culture where, for example, ‘Families [have] become fragmented and domestic violence and alcohol abuse become ingrained’. A Boonwurrung Traditional Custodian said, ‘People who live on land and speak their language... are still killing themselves because it is the drunkenness, the violence and the imposed culture’.

**Cultural loss impacting on identity**

Because Victorian Aboriginal people were isolated from land and cultural activities for over 200 years, traditional information was lost, causing individuals to feel dispossessed. A participant mentioned that, because of this, in her early life, ‘I didn’t see the benefits of what culture had to offer me... all I got taught was the negative stereotypes’. A Bangergang Traditional Custodian mentioned that, ‘I can be anywhere and send my roots into the ground and find my identity. Many Aboriginal people are dislocated from this’. A Boonwurrung Traditional Custodian stated, ‘The young ones, they’re going to be the next journey... you have to interact, give them a reason why they are worth living... they are hurting’. A Yorta Yorta Traditional Custodian mentioned that environmental destruction (for example, logging of trees and extinction of native flora and fauna) caused people to feel like their ‘culture was gone from [the] place... and these places tell the stories of our people’.

**Racism and lack of cultural recognition**

I saw educated people talking about the environment who didn’t mention Indigenous people... it was hard looking up to people with wonderful knowledge and they do everything politically correctly yet they could easily separate Indigenous people from their land.

Participants collectively considered that there ‘is not enough recognition’ of their being the Traditional Custodians of the land in Victoria, as emphasised in the quote above from a Bangergang member. An Aboriginal land manager (Murray-Goulburn region) mentioned that, ‘Land management is high on the agenda but recognition of being the original custodians is higher’. Another Aboriginal land manager (Boonwurrung region) said, ‘There’s got to be appreciation and respect of our cultural protocols’. Most participants mentioned that interpretation signs acknowledging Traditional Custodians and providing information about cultural protocols, history and practices would be a positive step.

Participants said people only ‘want the exotocness of Aboriginal culture’. They noted that Aboriginal culture in Victoria was displayed as a form of entertainment rather than valued as an educational, political, cultural and historical part of the state. For example, a Bangergang Traditional Custodian noted, ‘There are cows in and around Barmah forest stomping on our burial sites; if we did that in Melbourne General Cemetery, all hell would break loose’. Therefore, participants acknowledged that, ‘We have to make sure we are valued'; it is about ‘establishing relevance in a capitalist society’; and ‘The
history of this country needs to be taught to all the young ones (Aboriginal and non-Aboriginal) so they grow up with an understanding'. In the past, an Aboriginal land manager (Murray-Goulburn region) mentioned, ‘Elders would be asked to do smoking ceremonies and go [using] their own petrol, get tea... and they would say thank you so much... now, it’s 300 bucks and people understand’. Participants acknowledged that it was still a slow process and most people in Victoria forget to acknowledge the Aboriginal people of this land.

Participants identified that racism was ‘ingrained in society’. One Bangergang participant noted, ‘They [racist people] are all around us but they are quiet... setting] seeds of ugliness into someone else’s mind and letting] them cause the argument’. As a Boonwurrung Traditional Custodian put it, this may be because

They see us as a threat... Think we stop progress because they have to get surveys done whenever they want to put in new infrastructure... we understand it has to happen but why do we have to lose our sites?

Participants gave many examples of racism occurring; however, one stood out:

A woman [told] me... Aboriginal people got land given back to them and all they had to do was maintain the access road... it would have to be done by bulldozers and graders but they didn’t get given any training or finances and this woman complains that they never maintained the access road... It was set up to fail. This lady and her non-Indigenous community will say ‘see we told you so’ (Yorta Yorta Traditional Custodian).

Another theme that emerged was the perception that the wider Victorian population knew everything about Aboriginal people. Participants believe that non-Indigenous people think that there are no Aboriginal people in the state or viewed them in a negative light. Some participants mentioned that people ‘stereotyped them wrongly’, believing Indigenous people are always ‘drunk’ and ‘We are not black... it’s that mentality, you don’t fit into the mould – it’s alienation’.

**Socio-economic determinants**

Problems like education level, drugs - this is associated with being bored and unemployed... people struggle to get a ranger job without a degree... we need to provide opportunities for training (Aboriginal land manager - Boonwurrung region).

Participants noted that the ‘criteria in schools was (sic) not suitable for Indigenous people’ but recognised that ‘Land management is nothing if you are uneducated’. One Aboriginal land manager (Yoiwurrung region) said,

You are going to walk into a community with limited skills and there is going to have to be a succession of training...

[So] people can manage land. Indigenous people have had a bad experience with education - so forget it so it is enjoyable.

These negative educational experiences often relate to ‘Children being taken from schools [stolen generation]... parents saw that happening so they are wary of the place’. Another issue mentioned by all participants was that, ‘There is a lack of Indigenous teachers... Indigenous knowledge is taught by white fellows... it’s important to have Indigenous perspectives’.

Employment was talked about but only in relation to low level jobs. A Boonwurrung Elder was angered that, ‘We are getting burnt out... why can’t we do the normal 9 to 5 jobs’. This Elder felt that she was pushed by government, non-government and community to be involved in everything and was getting burnt out. Others noted the effect of employment barriers like criminal records because ‘It’s not secret Aboriginal people have higher incarceration rates’.

Participants mentioned that Aboriginal communities were under-resourced. A Yorta Yorta Traditional Custodian mentioned, ‘Families in crisis situations... poverty having a lot to do with it’. Aboriginal people in these situations ‘Can’t deal with the baggage and the pain because we have to create our own economies - to pay the rent’. This is a very important issue because industries based around Indigenous peoples in Australia are worth billions.

**Colonisation**

English interventions had a devastating effect on Aboriginal culture in Victoria. A Boonwurrung Elder noted that culture became ‘Fragmented and the missions burnt everything... it’s hard to regain’. Because of the missions, ‘Most Victorian black fellows are connected... we have all been so moved around’. A Bangergang Traditional Custodian stated, ‘Indigenous people are lacking how to express themselves... it was never an issue before... our community is spread everywhere... from everyone else’s decisions on what is best for us’. A Yorta Yorta Traditional Custodian acknowledged being part of the stolen generation. She reflected,

I was taken off my mother through the assimilation policy. I was one of the lucky ones because I was adopted by two wonderful parents. I ended back in my homeland... When I went back to my family I questioned why my other cousins didn’t ask more questions. But they’ve grown up within it. I’d missed out, there was a gap in my life.

**Destruction of the natural environment**

Participants noted, ‘You now have to look a lot deeper’ to reconnect with nature and, ‘In some cases you have to
re-introduce people to the land’. A Bangerang Traditional Custodian mentioned that, in respect to destruction of the environment (like cattle being able to graze in Barmah State Forest), ‘There are emotions Indigenous people feel they don’t know how to deal with... when things go wrong on my Country I am furious’. One Yorta Yorta Traditional Custodian sadly reflected,

My smiles... told me that they could look into the Murray River and see the crayfish and now it’s a ditch, the water is pushed through so fast the banks have eroded and fallen in the river...

All participants acknowledged that the only way to improve local land management was to have people working in national parks who have a local relationship with the area and have worked there for a number of years. They felt that, by the government employing contractors who had no affinity towards the land, it was not getting managed correctly. A Bangerang Traditional Custodian stated, ‘We didn’t have problems until we had to share this country... 400 native species in 150 years have become extinct... Aboriginal people have had to sit back and watch it happen to their land’. A Yorta Yorta Traditional Custodian reflected on making a possum skin cloak for the opening ceremony of the 2006 Commonwealth Games saying,

I made the first possum cloak that has been made along the river for 150 years... I thought it would be a special experience... tying me right back to my family because we collected ochre from that same line going back thousand years... It felt awful, the forest was a mess...

Native Title for Victorian Aboriginal people

All participants noted that Native Title in Victoria ‘pitted groups against each other’, ‘divided communities’, only giving ‘more money to lawyers’. This may be because it ‘Got people’s hopes up, so it’s set back the trust... I don’t think it is going to give land justice... the evidence is set too high’. The evidence standard required to gain Native Title has been set so high that it ‘Has created a situation where you are involved with anthropologists that delve deeper into people’s backgrounds, being invasive’. One land manager (Boonwurrung region) mentioned, ‘We don’t have capacity for Native Title in Victoria because you can’t prove that connection to Country; but because I don’t live on Country I am no less a Traditional Owner’. Participants felt that the current Native Title legislation did not reflect Victorian Aboriginal people’s connection to their traditional land.

One Bangerang participant believed that the Native Title Act was developed ‘To make sure Aboriginal people couldn’t land grab people’s property and to create animosity’. Local people spoke about the Yorta Yorta claims, saying

They have lost faith in the legislation... Yorta Yorta people didn’t maintain control with an area because they were forcefully removed - Native Title does not allow for spiritual connection and therefore does not understand Aboriginal people.

This lack of understanding caused ‘Yorta Yorta to nearly destroy each other... you have to take what’s in your mind and memory to validate who you are’. One positive aspect from the Yorta Yorta claims was noted by a land manager in the region stating,

Water in the claim made everyone jump up... if it did nothing for the Indigenous community in a legal sense, it certainly made the non-Indigenous land owners sit up... it gave non-Indigenous people who were ignorant to what was going on, [reason to] learn and understand where the Indigenous person was coming from.

Current projects to involve Aboriginal Victorian people in land management

There has been increased consultation occurring between Aboriginal Traditional Custodians and the wider community in terms of what happens on Country. An Aboriginal land manager (Boonwurrung region) stated, ‘Indigenous communities used to be like another interest group; now they are a stakeholder group with legislation enforcing this’. This showed a shift in government policy toward Traditional Owner groups; a positive step. Another Aboriginal land manager from the Boonwurrung region said, ‘Aboriginal people need to take the initiative... getting over their own mission mentality to sit back and wait for people to come to them... consultative groups create a vehicle for that process’. Participants understood that, if they did not show initiative and a proactive approach, they would see no improvements.

Many spoke about recent Aboriginal land management projects. Park rangers were ‘Successful to a certain degree to keep Indigenous people in parks but it didn’t translate to the community’ (Aboriginal land manager, Boonwurrung region). Participants mentioned that they were learning new skills, with one Boonwurrung participant saying, ‘I know how to use white man’s technology... I am trying to map out the Country so we can tell the stories’. However, an Aboriginal land manager from the Boonwurrung region mentioned that, while ‘Aboriginal people in Victoria are being involved in land management... it’s still the early stages and people are still coming to terms with being spoken to and some are a bit overwhelmed’. For Aboriginal people who have usually been excluded from this process, it was a learning opportunity for the people to be involved.
Western science versus Aboriginal knowledge

Currently in society, Aboriginal ‘people live in two worlds’ where they are ‘conditioned in a framework’ of western science. As a result, individuals ‘Did not have time to practise culture because they had to put the bread and butter on the table’ (Bangerang Traditional Custodian). Focusing on education, it was noted that people ‘Need basic tertiary qualification; that’s the way park management is headed… certainly things can be done traditionally but with both you are there’ (Aboriginal land manager, Boonwurrung region).

However, he went further and mentioned the education system commonly ‘Has non-Indigenous people talking about Indigenous issues to Indigenous people… it can be tense and uncomfortable… it’s obvious the lack of communication skills we have between Indigenous and non-Indigenous’. Therefore, participants mentioned that there has to be an increased understanding between these cultures. As one Yorta Yorta participant succinctly stated, ‘To improve relationships with Indigenous communities you need consistency, honesty and trust’.

Factors to be considered in Indigenous land management

Participants recognised that, ‘We can set up 6000 projects… but unless the people are interested themselves they are going to fail’. Projects can be successful with levels of trust built that ‘filter through to the community’, because if ‘Aboriginal people feel that they are out of this they will close down’ and not see relevance in participating. Participants mentioned that for success to occur there needs to be respect given to Elders. Also, ‘Indigenous people would prefer to be spoken to rather than fill out things’.

For success, different stakeholders in the Aboriginal and environmental sectors need to come together. A land manager (Boonwurrung region) said that there needs to be an ‘increase in involvement of the whole community, not just Indigenous people’. Aboriginal people need to be involved ‘From the word go; don’t [just] leave them till you need to tick the boxes’. This involvement needs to be sustainable and needs to be consistent. For example, ‘People tend to stay in Indigenous jobs; there should be pathways out of this position and into the mainstream’. Therefore, if consultants are to be involved, ‘it should be part of their tender that they have to [train Aboriginal individuals]… because if they are forced from the start to involve Aboriginal people as part of the process… you would get more trust’.

This training should involve cultural heritage, conservation and re-vegetation. An Aboriginal land manager stated that, ‘People haven’t got the skills that they need to re-vegetate; then we are going to go back to land that is degraded and needs rehabilitation’. When doing this training, you must consider that ‘not everyone reads’ and ‘there needs to be support networks’. With Indigenous groups, ‘You need patient teachers who are flexible’. A Yorta Yorta Traditional Custodian noted that, ‘Government training never has a component that could be put towards a certificate… so people can take that and continue study’. Another said, ‘You need champions within the system that facilitate change but with the view that they are looking to put people above them… you can’t put blackfellas in the position uneducated’.

For this to occur, there needs to be an increase in funding to manage land and gain training to do it; but ‘Handling over money is not right; you have to look long-term, as long as they have a sense of ownership and the money is tightly controlled’. To make this effective, ‘You need to have Indigenous presence, like Indigenous role models’. However, one participant stated, ‘About the proportional employment, I would rather the ones that want to work do - I don’t want to force people to work but sometimes we need to give people a kick’. The biggest consideration when developing these projects is to understand that Aboriginal ‘communities across the state have their own views’. Nevertheless, no matter which Aboriginal group in Victoria is involved, it was recognised that there is ‘This spiritual connection to work on their land… it’s a culture not a career’.

Discussion

The themes presented in the results section show that there is a diverse range of factors that impede the development of Aboriginal land management projects in Victoria. Federal and state government administered traditional boundaries cause confusion, conflict and power struggles. Participants in this study highlighted that this caused groups to be pitted against each other and therefore there was a need to be aware of the power struggles between different groups who seek custodianship (Kaschula et al. 2005). Participants acknowledged that the Victorian Government did not understand Aboriginal cultural protocols. Ryan et al. (2006) highlighted, as did the participants of this study, that this undermines the current government policies of mutual relationships with Aboriginal communities; a view similar to that of Howitt (2001), who identified that ignorance and misunderstanding still characterise such relationships.

There was recognition by the participants of this study that the lack of access, together with the development on traditional lands in Victoria, causes disharmony between
some Aboriginal Victorian people and the government. This may be because the social roles of preserving and protecting Country have been derailed, with little acknowledgement of the Traditional Custodians of the land (DSE 2004). Accordingly, the participants reinforced the need for Aboriginal Victorian groups to have some connection to land management.

Participants identified that the losses in cultural knowledge inadvertently cause youth to feel disenfranchised, living in two worlds (the Western and Aboriginal). This corroborates earlier research by Nugent (2003). Participants felt that they did not receive appropriate recognition for being the original custodians. They linked this to racism. Paradis (2005) highlighted that racism gravely impacts on Aboriginal communities. Participants commented that Aboriginal Victorian peoples suffer low economic status which affects their ability to develop land management projects. This supports research identifying that Aboriginal people suffer high unemployment levels, low income and job insecurity (Altman 2000). Participants asserted that this is because of colonial practices such as the stolen generations, missions and the destruction of the environment eroding social status and causing individuals to be bored and disenfranchised. This corroborates research identifying that colonisation and Aboriginal land management have clear links with the health status of Aboriginal people (DSE 2004; Vickers et al. 2004).

A key finding was the reaction towards the Native Title Act. Participants acknowledged that the Native Title Act has reduced trust between Aboriginal groups and the wider community. Participants mentioned that there was an increase in consultation; however, Aboriginal people felt overwhelmed with this new responsibility. Communicating the importance of Aboriginal involvement in land management needs to be logical so that the relevance of land management projects can be established, with respect for Aboriginal people being established with the whole community.

This research demonstrated the complexity of trying to implement strategies to achieve greater Aboriginal involvement in land management. Greater involvement will only occur through increased community consultation, respect, training, resources and employment opportunities, and consistency between all stakeholders involved. There is a need for consultation and trust within Aboriginal communities, and between Aboriginal communities, government and the broader community. Increased funds are also needed for Aboriginal communities to sustainably manage and train successive managers on the land. Also, non-Aboriginal people need to understand that, Aboriginal ‘Communities across the state have their own views’. The development of land management projects may be a way of improving public health for Victorian Aboriginal peoples and therefore policy makers should focus attention on the potential benefits of such initiatives.

Conclusion

With the Aboriginal Australian population suffering dramatic health inequalities, this research is timely. This study adds another layer of understanding of Aboriginal people’s connection to this country, which is poorly understood in mainstream society. As this article highlights, the development of Victorian Aboriginal land management projects is complex and a number of political, economic, social and cultural determinants inhibit programs from progressing. Strategies and programs that target increased participation in land management must consider building capacity, relationships, partnerships, consultation, consistency between all stakeholders, education, training and collaboration between the Victorian Aboriginal and non-Aboriginal populations. Aboriginal land management projects may be a key way of improving Aboriginal population health in Australia, and therefore policymakers should be focusing on such initiatives as facilitators of health. Further research into what communities specifically want from their Aboriginal land management projects would enhance this idea, and government agencies and not-for-profit organisations should look laterally at developing such projects as a positive health strategy.

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5.6 Discussion

By focusing on Aboriginal Victorian peoples’ connection to Country, this chapter provides insight into how the human–environment relationship affects health and wellbeing. This chapter provides a possible mechanism with which to facilitate caring for Country programs through the published results. As emphasised in the two publications, this is critical when Aboriginal Victorian people face considerable health inequalities compared with the general Australian population.

This data attempted to illuminate the perceived health and wellbeing impacts of Country and what factors facilitate or inhibit caring for Country projects in the Aboriginal Victorian population as a preventative upstream health measure. Such understanding might provide a way of potentially improving the health of Aboriginal Victorian peoples through comprehending the aspirations of caring for Country projects that these communities have. Simultaneously, this work increases the published evidence-base in a field that is under-researched in Victoria and within the public health sector, responding to the expected outcomes of question 1 and 2 (p. 15).

The *Health & Place* article highlighted that Aboriginal Victorian people perceive that there are health and wellbeing benefits of contact with Country. This supports the growing body of public health literature outside of Victoria, which highlights the importance of caring for Country. This research also emphasises the holistic connection Aboriginal people hold with their Country and the perceived relationship this has with health and wellbeing. Such sentiment upholds the development of an exploratory framework that is holistic in reference to Aboriginal Victorian peoples’ connection to Country and its impact on wellbeing.

The AJEM article highlights that Yorta Yorta, Bangerang and Boonwurrung people are impacted by a number of determinants when developing Aboriginal land management programs. This supports literature in Chapter 3 (e.g. Marmot, 1999; Dixon & Welch, 2000; Wilkinson & Marmot, 2003; Catford, 2004; Grbich, 2004; Reidpath, 2004; Vickery et al., 2004; WHO, 2005; Anderson et al., 2007; Carson et al., 2007; MacDonald, 2010; Zubrick et al., 2010; Marmot, 2011; Park et al., 2011;
Shepherd et al., 2012) emphasising the criticalness of social and cultural determinants of health. To facilitate increased opportunity for Aboriginal land management programs, barriers to participation need to be identified and tackled simultaneously. This comes back to an important finding of Publication 1; the need for collaboration across disciplines for Aboriginal land management projects to be effective.

Human–environment relationship concepts like the biophilia, solastalgia and sense of place were evident in the *Health & Place* article. Biophilic connection was strong for Aboriginal Victorian people, highlighted through this relationship to Country, connecting individuals back to their ancestry. Although not mentioned, there are links to other theories and disciplines (for example Ngurra and environmental Anthropology) which identify these connection to Country for Aboriginal and Torres Strait Islander people. Psychological stress and sadness was also evident where Aboriginal Victorian people were removed from Country, or due to environment destruction, linking to the concept of solastalgia and Read’s (1996) work on loss of place. However, it was highlighted that a strong sense of place and attachment to Country remained, even if Aboriginal Victorian people were not living within their Traditional lands. Such a relationship with Country requires further research in order to better incorporate this knowledge into mainstream discourse.

There are a number of implications and recommendations that flow from this research. Firstly, there is a need for further research into Aboriginal Victorian peoples’ views of caring for Country projects (both existing and those that communities want to develop) across Victoria. Research initiatives with comparable objectives and methods could empower individuals, generate more accurate knowledge, create a better understanding of the needs of these communities and lead to quantification of data. The evidence from this research identifies that a holistic and collaborative approach is needed if caring for Country programs are to be applied in Aboriginal Victorian communities. The development of an exploratory framework and theoretical critique of the human–environment relationship could facilitate this. This is because developing a clear framework, outlining the health outcomes of Country, might cultivated improved public health projects for community.
The benefits of such projects would be enhanced by the engagement of Aboriginal people in the data collection process and recognition of participation as part of a TAFE (Technical and Further Education) certificate course or university degree. If this opportunity were available, it could empower and transfer skills to Aboriginal community members. The information generated could provide greater knowledge of, access to, and engagement in caring for Country projects for Aboriginal communities in Victoria, thereby improving population health. Providing opportunities for such findings to be accessible to the public could foster reciprocity and reconciliation via the enhancement of understanding of Aboriginal peoples’ perspectives among the non-Indigenous population.
5.7 Implications and recommendations

The findings in this chapter suggest that:

♦ Caring for Country could be a mechanism for improving the health and wellbeing of Aboriginal Victorian people;

♦ Further research on the health and wellbeing benefits of caring for Country would strengthen the ability to run successful programs in Aboriginal Victorian communities;

♦ There are a number of social, political, health and economic factors that need to be considered when setting up Aboriginal Victorian caring for Country projects; and

♦ Collaboration is fundamental to the success of these projects.

5.7.1 Research recommendations

Three recommendations, which may strengthen the research, include:

♦ Further research could be undertaken into Aboriginal Victorian peoples’ links to their lands, leading ultimately to the generation of knowledge about qualitative understandings, quantifiable public health benefits associated with and development of strategies to promote caring for Country projects;

♦ Studies could be undertaken comparing different Aboriginal Victorian groups’ perceptions of health and wellbeing benefits as a result of being on Country, to gain a better understanding of this for various Traditional Custodian groups; and

♦ Throughout research that is focused on Aboriginal Victorian peoples’ connection to Country, local Aboriginal people should be trained and employed to gather data.

5.7.2 Policy development recommendations

Four mechanisms to increase Aboriginal participation in caring for Country projects in Victoria have been suggested below:

♦ Aboriginal Victorian people could be trained to complete research studies, with credits towards degree or certificate programs offered. In reference to policy
development this would involve funding opportunities/scholarships to undertake such research;

- Government policies could be established that support the implementation of strategies that enhance Aboriginal Victorian peoples’ ability to care for Country, as a means for promoting health. Foremost, this will require increased employment and educational opportunities;

- When developing caring for Country projects, focus should be given to building community capacity, fostering positive relationships, ensuring adequate consultation, providing appropriate resources, encouraging transparency, enabling education/training opportunities and developing partnerships; and

- Government legislation could tackle the identified barriers in this research. These barriers include racism, poor health outcomes, recognition of the history of Australia, lack of consultation and lack of educational/employment opportunity.
To accept a local spirit-of-place means that we believe a location has inherent meaning in its animals, rocks, trees and waters. In this view places are already brim full of meaning independent of the new set of cultural projections that settlers... thrust upon them... an irreconcilable gulf between ‘the existential space of a culture like that of the Aborigines and most technological and industrial cultures – the former is “sacred” and symbolic, while the latter are “geographical” and significant mainly for functional and utilitarian purposes.’ It is just such a gulf that... settler Australians must cross if they are to have any hope of reconciliation with both indigenous Australians and the land itself

(Wattchow, 2013, p. 91).
Chapter 6: Developing a framework and examining the human-environment relationship in respect to Aboriginal peoples’ wellbeing

6.1 Introduction

Whilst undertaking a Visiting Scholar position at the University of Cambridge (2009) and networking with academics in Europe I attempted to develop a model to conceptualise the human–environment relationship and its link to wellbeing. Initially, the model incorporated qualitative and quantitative research I had developed on the health and wellbeing benefits of community gardens (Kingsley & Townsend, 2006; Kingsley et al., 2009c), marine science (Koss & Kingsley, 2010) and Aboriginal caring for Country. I aimed to identify theoretically if and why humans connect to certain places. It was my belief, in 2009, that human preference towards nature was based on the biophilia hypothesis (Wilson, 1984; Kahn, 1997; Kahn, 1999; Gullone, 2000).

Between 2009 and 2010 I undertook an extensive literature review to critique the meaning of wellbeing, explore theoretical constructs and narratives relating to the human-environment relationship. The process assisted in the development of a one-page visual framework that aimed to explain the human-environment relationship and its link to wellbeing (see Appendix 11 for original version of the framework). The framework attempted to demonstrate, to a range of stakeholders, the importance of nature to human wellbeing, which could potentially assist them to advocate for the protection of the environment.

Over the period of 2011 to 2012 this publication went through a considerable period of refinement and evolution into two publications. These publications maintained a focus on the human–environment relationship whilst emphasising Aboriginal peoples’ connection to Country. As I progressed with these papers I came to the understanding that the ‘human–nature’ relationship was more complex than the

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18 This was previously known as ‘human-nature’ relationship in the following publications – for explanations please see Chapter 1.
biophilia hypothesis alone. Consequently, both publications drew on a number of different human–environment theories and holistic concepts of wellbeing in relation to Aboriginal people. Even after the articles were published (both in 2013) my understanding evolved through reviewing new literature.

6.2 Importance and summary

The two publications included in this chapter were published in the *International Journal of Environmental Research and Public Health (IJERPH)* and *Ecological Health: Society, Ecology and Health*. These publications draw on data reported in Chapters 5 and a literature review on human–environment relationship theories, ecological frameworks, and concepts including wellbeing and Country. The reasons for focusing on Aboriginal understandings of this topic with a spotlight on the Victorian context are:

1) That Aboriginal Victorian peoples’ connection to Country and understandings of wellbeing have often been marginalised from discourse within public health academia; and

2) Aboriginal peoples’ have 70,000 years of experience of managing their Country and this offers valuable knowledge in tackling ecological and health problems in Victoria.

These publications aim to provide a critique and exploratory framework to understand how Aboriginal knowledge can be better applied into public health literature, research, practice and policy.

The first article published in *IJERPH* focused on tackling health inequalities between Aboriginal and non-Indigenous Australians by reviewing concepts like wellbeing and Country and how the two intersect. The article then draws on previously collected qualitative data and ecological frameworks to develop an exploratory framework. This framework visually depicts the positive and negative determinants impacting on Aboriginal Victorian peoples’ wellbeing, identifying the centrality of connection to Country. This article provides a starting point for advocating the link between the human-environment relationship and wellbeing not only for Aboriginal Victorian peoples but more generally for the improvement of population health.
The second publication is a book chapter in *Ecological Health: Society, Ecology and Health*, exploring Aboriginal peoples’ connection to the Country to review if academic human–environment theoretical constructs have incorporated these understandings appropriately. The biophilia hypothesis is used as the catalyst for critiquing other concepts like solastalgia, topophilia and place attachment and to review whether they have incorporated Aboriginal understandings and knowledge.

### 6.3 Methodology

A literature review was undertaken continuously from 2009 to 2013 to ensure literature was up-to-date when re-drafting these papers. Minichiello et al. (2004) and Bryman (2004) set out principles for completing a literature review that included: searching for relevant references continuously; critically reviewing literature; identifying gaps; and developing a coherent debate. The literature review should be a synthesis but a means of extending research questions. Because of the iterative process explained in section 6.1 the literature search was refocused. Throughout this processes, I discussed, consulted and debated this paper with academic colleagues, government employees and community members. For example, I presented this research 25 times in the UK and Australia both in an academic and government setting and drafted this piece with 7 colleagues (4 of whom were co-authors). By immersing myself in the literature, participating in debate and critiquing research to gain a much broader understanding of the topic, I was able to address research questions of this thesis. This was first achieved by developing a framework representing Aboriginal Victorian peoples’ connection to Country and its associated health determinants. Subsequently, the book chapter enabled a deeper discussion around the human-environment relationship.

#### 6.3.1 Administration

The literature review focused on peer-reviewed journals, books and reports. Articles were retrieved from academic databases like Informit, EbscoHost, Elsiever, ScienceDirect, Web of Science and Springer. Themes included human–nature relationship, concepts of wellbeing and evidence linking contact with nature to human
wellbeing with a focus on Aboriginal connections to Country. Between 2009 and 2013, 263 peer-reviewed journal articles, 84 academic books/book chapters and 41 academic reports were reviewed. The method employed to review this literature was the ‘Systemic Review Checklist’ as part of the ‘Critical Appraisal system Programme’ (CASP, 2013), which outlines a number of questions required to critically review these pieces. Several government, non-government and community reports were also reviewed.

19 Terms included nature, environment, human-nature relationship, Aboriginal, health and wellbeing.
6.4 Publication 6

Citation

Developing an Exploratory Framework Linking Australian Aboriginal Peoples’ Connection to Country and Concepts of Wellbeing

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Abstract: Aboriginal people across Australia suffer significant health inequalities compared with the non-Indigenous population. Evidence indicates that inroads can be made to reduce these inequalities by better understanding social and cultural determinants of health, applying holistic notions of health and developing less rigid definitions of wellbeing. The following article draws on qualitative research on Victorian Aboriginal peoples’ relationship to their traditional land (known as Country) and its link to wellbeing, in an attempt to tackle this. Concepts of wellbeing, Country and nature have also been reviewed to gain an understanding of this relationship. An exploratory framework has been developed to understand this phenomenon focusing on positive (e.g., ancestry and partnerships) and negative (e.g., destruction of Country and racism) factors contributing to Aboriginal peoples’ health. The outcome is an explanation of how Country is a fundamental component of Aboriginal Victorian peoples’ wellbeing and the framework articulates the forces that impact positively and negatively on this duality. This review is critical to improving not only Aboriginal peoples’ health but also the capacity of all humanity to deal with environmental issues like disconnection from nature and urbanisation.

Keywords: wellbeing; Aboriginal; health; Country; nature
1. Introduction

In the following paper “Aboriginal” refers to Aboriginal and Torres Strait Islander people as “Aboriginal Victorian” represents Aboriginal people from the state of Victoria. “Indigenous” will refer to Traditional Custodians’ international with “non-Indigenous” describing people who do not identify as the above. The reasons such terminology was chosen include that the National Aboriginal Community Controlled Health Organisation, the peak body for Aboriginal Community Controlled Health Services in Australia recommends this language [1] and in recognition and honor capitals will be applied [2]. Holmes and colleagues [3], who uses Aboriginal in research noted “the terms ‘Aboriginal’ and ‘indigenous’ are problematic because they refer to first nation’s people who have in common the experience of colonisation, but whose experiences are also very different”.

Aboriginal people of Australia suffer great health inequalities in comparison to their non-Indigenous counterparts [4–7]. Life expectancy data estimates between a 9.7/11.5 (for females and males respectively) to 17 year gap between Aboriginal and non-Indigenous Australians [5,8–10]. It is damning that successive governments have allowed the oldest living culture to suffer such health, social, economic and political inequalities. Aboriginal Victorian people experience the same fate as those in other states, suffering similar health inequalities [11,12].

Aboriginal Australians suffer more pervasive social disadvantages and potentially worse health problems than any other Indigenous population in the developed world, with health outcomes comparable to Third World countries [6,7,13]. Evidence indicates that such inequalities can be understood by focusing on factors including colonisation, intergenerational trauma, social and cultural determinants of health and considering holistic notions of wellbeing [4,10,11]. Holistic, throughout this paper, refers to the “interconnection” of determinants impacting physical, social, environmental, emotional, spiritual, psychological and cultural wellbeing of the individual and community [14,15]. Recently, there has been attention placed on social and emotional wellbeing, empowerment and intergenerational trauma measures [5,7,10,16] to capture holistic views of Aboriginal health, but greater understanding and more robust evidence is required.

Government measures addressing social and emotional wellbeing are still relatively rigid, focusing on extreme cases like psychological distress, happiness, anger, life stresses, social gradient and poverty [6,7,16,17]. The literature suggests that Aboriginal Australians suffer from higher levels of psychological stress, discrimination, distress and trauma compared with other Australians [10,16,17]. Aboriginal health statistics, however, cannot be used effectively without a clearer understanding of these inequalities and what underpins them [7,10]. This paper highlights the need to gather more robust understandings of Aboriginal social determinants of health and wellbeing in order to “Close the Gap” [18–20] in health outcomes between Victorian Aboriginal and non-Indigenous people.

The following article provides a starting point for “Closing the Gap” [21,22] by focusing on Aboriginal definitions of wellbeing. Academics and governments struggle to describe Aboriginal views of wellbeing, reducing it to a matrix of standard socio-economic indicators and bio-medical measures rather than complex Aboriginal concepts which include issues like kinship, connection to Country and the like [5,7,23–26]. They tend to omit holistic determinants of health, potentially causing suspicion among Aboriginal people of data collection practices and the way health is measured [5,7,24].
Taylor [25] and Panelli and Tipa [27] outlined Aboriginal and Indigenous wellbeing as revolving around cultural factors including social relationships, connection to Country, kinship, traditional knowledge, reciprocity, identity, accountability and physical, social, spiritual and emotional wellbeing. It must be recognized that no “one size fits all” definition of wellbeing will work, because each Aboriginal community is unique and such concepts are not static or frozen but are influenced by a combination of past and present factors [5,10,28]. Taylor [25] highlighted that it is critical not to simplify and obscure Indigenous worldviews in order to reduce the complexity of the Aboriginal concept of wellbeing into measurable indicators. Through the development of a framework, this article aims to explicate this holistic concept of wellbeing. The framework draws on literature exploring Aboriginal peoples’ connection to Country and its link to wellbeing, as well as primary qualitative research focused on Aboriginal Victorian peoples’ understanding of this topic by the lead author, under the supervision of the co-authors.

Such a framework accords with the emerging field of ecohealth which acknowledges that “contemporary ecological, health and social sciences have much to learn from the holistic philosophy of Indigenous peoples and their traditional expertise derived from centuries of refining knowledge about the links between ecosystems and health” [29]. Ecohealth is transdisciplinary, linking human health and wellbeing to ecology and ecosystem approaches, identifying the interconnectedness of environmental, socio-cultural and economic factors by applying ecology and public health approaches [30–32]. Parkes [33] acknowledged that “ecohealth approaches that address health more holistically, and encourage integration and exchange among multiple forms of knowledge, suggest a new terrain of research and practice that can greatly benefit from, and potentially be highly complementary to, holistic approaches to Aboriginal... health”.

The framework presented in this paper brings a number of different disciplines together to illuminate an understanding of the significance of contact with the natural world, not only for Aboriginal Victorian communities but more widely, by using a population group still connected with the natural environment. The framework is not about measurement; rather it attempts to move beyond Western models to provide a holistic understanding of Aboriginal Victorian views of connection to Country and to consider the implications of this for wellbeing.

1.1. Understanding Human Wellbeing

Wellbeing is a complex and hard to measure concept [15,34,35]. Wellbeing is often used in place of terms like health, quality of life [34,36] and spiritual and emotional sentiment [37,38]. To understand the underpinnings of wellbeing, one needs to consider each lived experience across the lifespan and the potential for it to affect individuals and communities [38–40]. Stewart [15] notes that wellbeing encompasses different “dimensions, including physical, psychological, social, mental and spiritual health”.

Social and emotional wellbeing, trauma and unhealed loss indicators highlight terrible trends occurring in Aboriginal communities [10]. Preliminary indicators assume that postnatal depression is more frequent for Aboriginal compared with non-Aboriginal women due to this trauma, colonisation and socio-economic inequalities [26]. Aboriginal people reported that 77% of close friends/family had experienced at least one “life stressor” in the last twelve months [17]. Further, 27% of Aboriginal
Australians reported high to very high levels of psychological stress [16]. Aboriginal Victorian peoples' had a one in four chance of high to very high psychological distress levels, almost twice that of non-Indigenous Victorians [41]. This data indicates that Aboriginal Victorian peoples' are at high risk of suffering from anxiety and depression, with 35% percent diagnosed with these disorders compared to 20% of non-Indigenous Victorians [41].

By better understanding the underpinnings of wellbeing, we can aim to reduce these rates of ill-health in Aboriginal populations. Furnass [39] and Trewin [40] perceived wellbeing as a critical measure of improve health and noted that contributing factors include the interaction of satisfactory human relationships, meaningful occupation, income, contact with nature, creative expression and social arrangements. Research indicates that the effects of income and socio-economic status on individuals' wellbeing is substantial [42], while Diener and Seligman [43] and Shields and Wheatley Price [44], noted that although economics is central other areas like social environment, positive and negative emotions, and “social contingent aspects of psychological wellbeing are statistically important”. Research highlights that social status and environmental conditions also play a key role in human wellbeing [45–51].

A positive development in this field relates to subjective well-being (SWB) because it assesses multiple measures [52–56]. SWB is a way of measuring wellbeing by assessing individuals' life experiences, considering both affect and cognition, sense of happiness and evaluation of life based on feelings, moods and emotions [43,47,55,57,58]. Diener and Chan [56] highlighted high levels of SWB (associated with variables like life satisfaction, happiness and optimism) may improve health outcomes. Literature clearly identifies “that family, friendship, trust... security, meaningful work, and a sense of purpose are all important correlations of subjective wellbeing” [59]. Diener et al. [58] mentioned SWB research is required in the exploration of cross-cultural approaches and environmental factors. Initial research has found that there are differences in how cultures perceive SWB variables but there is “some universal causes of well-being and ill-being” [60].

Indigenous concepts of wellbeing are viewed as “more holistic” than most Western constructs, adopting a whole-of-life view that “align[s] spiritual, social, and cultural elements in intimate connection with biophysical bases” [28]. Dockery [23] and Prout [24] identified elements of wellbeing included cultural health like kinship, social networks, and reciprocal relationships with Country. Distinctions and disconnection from Country cause major distress for Aboriginal people [61]. The gap in understanding of the Indigenous view of wellbeing is demonstrated in most definitions, especially by governments who compartmentalize elements into separate areas of measurement [25]. Taylor [25] noted “Indigenous peoples’ perceptions and understanding of well-being extend beyond, and sometimes conflict with, many of the indicators currently adopted by global reporting frameworks”. The understanding of wellbeing in this paper draws on a number of determinants that impact on the individual throughout the whole-of-life using Country as a central theme.

1.2. Understanding Country (and Western Notions of Nature)

“In Western society, we rest comfortably on our inherent truths about the nature of nature. Our burgeoning environmental literature... contains a nearly endless variety of statements about the absence of mind of nature. The environment is numb to a human presence...
We may be elevated by the beauty of nature, cling to it, crave to protect it; but we cleave to the coldness of stone, the storm that carries us away without knowing, the waters that kill without reason. We live alone in an uncaring world of our creation” [62].

It seems fitting that Aboriginal communities refer to their traditional lands and territories through more enmeshed language like “Country” or “homelands”. Country refers to everything including the land, air, water and stories of “Dreaming”, being dynamic and multilayered, forming the rules, norms and beliefs of existence between species and humans through connecting Aboriginal peoples’ back to ancestral beings from the time of creation [63,64]. This is evident in birthing practices linking Aboriginal women to their kinship and Country [14,26]. Weir [65] highlighted that “in country humans and nature, and nature and culture, are not regarded as separate, but are entangled together in all types of relationships”. Aboriginal people have little room to separate themselves from Country as they are embedded within it. Such a spiritual connection has been built over thousands of generations of responsibilities and knowledge attached to its management [66]. McKnight [67] acknowledges that Country:

“Constitutes identity, and loss of land is tantamount to loss of one’s self... To have one’s own Country is to have a place where one can withdraw in times of trouble and where one can easily find sustenance... it bestows a degree of independence that cannot otherwise be obtained.”

In contrast, Western concepts of nature, like wellbeing, are broad and at times contradictory terms [68–71]. Soper [69] defined nature as everything that is not human or “artificially worked or produced”, but debated this statement, saying that “humanity is a component of nature” in which the two cannot be separated. Western definitions commonly refer to nature as being marginalized from society and needing to be controlled, often viewed as female in respect of dominant power relations, or as a constructed structure, over time, becoming part of nature [70]. Strang [72] noted that “nature is imagined as “the other”, there is a perceptual separation between social and environmental sustainability... this separation leads to a crucial distancing... of nature and—inevitably—to unsustainable environmental relationships.” Weir [65] reiterated that “the influence of separating humans from nature has also contributed to a rationalist and utilitarian approach to country”.

However, researchers should not over romanticize Aboriginal peoples’ connection to land, which has changed over time, is complex and not rooted in the past [27,72]. It should be acknowledged that “Indigenous and non-Indigenous views about country are not mutually exclusive... However, there is a marked differences in Indigenous peoples’ spiritual connection to place. This connection, created through extremely long relationships... is expressed through belief systems and knowledge of country” [66]. This Aboriginal knowledge has occurred through extensive experience, passed down through storytelling, songs, and mythology explaining ancestral paths [64]. Taking into account these themes, a working definition of Country and nature will be: viewing and/or actively interacting with features of the biophysical environment that provides spiritual, cultural, historical or emotional meaning.

1.3. Country and Wellbeing

Indigenous peoples hold a deep connection to their ancestral landscapes being central to their wellness [29,73–78]. Connection to Country is central to Aboriginal peoples’ existence [26,79] and reflects the notion of an innate connection to land [62]. Disconnection from this land “compromises
cultural connections” and causes extreme distress and powerlessness commonly felt by many Indigenous groups worldwide [61,78,80]. Just as lack of control, stress and social gradient have been shown to effect peoples’ health outcomes across all population groups [81] this disconnect from Country may contribute an extra layer to this distress and inequality. There is extensive evidence acknowledging the health and wellbeing benefits of Aboriginal land management programs which is viewed as a method of addressing health inequalities [75,82]. Kingsley and colleagues [83] have highlighted the links between Victorian Aboriginal peoples’ connection to Country and their existence, articulated by a participant saying:

“you can put your trust in the land because it is your ancestors; you know it’s going to guide you in the right direction and protect you…”

John Clarke [84], a Victorian Aboriginal park ranger, pointed out that no matter if you are Aboriginal or not, all people have a role to play in the management of Country and feel this deep spiritual connection. Environmental narratives exploring these connections play a fundamental role in people’s everyday wellbeing, however, they are still often overlooked in scientific arenas [85,86]. Kingsley and colleagues [83] suggested that local Aboriginal environmental narratives and knowledge should be accorded similar standing to scientific information.

Indeed, scientific information provides us with a similar picture, highlighting the wellbeing benefits of contact with nature, with disconnection from nature impacting detrimentally on human happiness and ecology [87–90]. Evidence identifies the psychological benefits of horticulture and gardening, indicating that such activities have a protective role by improving human wellbeing [71,91–93]. Purely being in the outdoors can be effective in strengthening wellbeing for vulnerable populations [94–96]. Research by Frumkin [97,98] and Guite et al. [99] looked at environments which promote people’s health and wellbeing and identified green open spaces playing a key role in this process.

Wellbeing has been a catch phrase in ecology since the UN Millennium Ecosystem Assessment (2001) identified nature as a critical pathway to enhancing quality of life [100]. Destruction of natural environments has long been considered of detriment to individuals’ wellbeing acknowledged in the Ottawa Charter of Health Promotion (1986), especially for Aboriginal communities [101–106] whereas environmental management in local neighborhoods has contributed to increased wellbeing [87,107–109]. Studies have made the link between improved subjective wellbeing and contact with nature [89]. Put simply by Mayer and colleagues [87]:

“For 350,000 generations humans have lived close to land as hunter gathers… it would be surprising if the modern life of being divorced from nature did not have some negative consequences associated with it and that being in nature had positive benefits.”

Lockwood’s [110] examination of intrinsic values of the environment identifies that humans’ view nature “above” themselves when they engage in the natural world. People who engage in the natural environment are known to have a greater appreciation for protecting what they perceive as biodiversity and stronger attitudes towards ecological activism [90,111–115]. Due to urbanisation, people’s main form of connecting back to nature is through parks, gardens, pets and public nature reserves. Humans’ inherent connections to nature have been disconnected and dislocated [116]. Therefore, there does seem to be a great deal to learn from the connection Aboriginal people have to Country, if we are to improve wellbeing for all humanity.
2. A Review of Models

A number of theories, narratives and models explaining humans' connection to nature have been produced, with little unity between them. However, researchers are beginning to develop more comprehensive holistic frameworks and explanations of human-nature relationships [117–119]. Walmer-Toews [118] highlighted the fact that "theoretical development provides the basis for the generalization of sustainable action... the specifics of what forms that may take, especially for health practitioners, have yet to be brought together in a coherent way". He explains that the best way to collect "good scholarly inquiry" on ecohealth theories is to gather qualitative information and stories to develop comprehensive frameworks and tools [118]. This approach was applied in this paper by reviewing qualitative data linking Aboriginal Victorian peoples' wellbeing to connection to Country, in order to develop a new framework.

In presenting this framework, it is critical to highlight some models used in the past to explain such links. Health practitioners have started to move away from a purely individual responsibility for health, common in mainstream biomedicine, and are looking toward an ecological model of health that focuses more on the wellbeing experienced associated with where one lives. This view was popularized after the holistic "Mandala of Health" model was developed (Figure 1).

**Figure 1.** The Mandala of Health [120].

![Mandala of Health](source: Hancock and Perkins, Health Education, Summer 1985, pgs-10)

The four major factors affecting populations in this model are human biology, personal behavior, psychosocial environment and the physical environment, with this model emphasizing the intertwining of natural science, medical science and social science in influencing the health of individuals and communities [120–122].
Aboriginal Community Controlled Health Organizations (ACCHOs) have been at the forefront of incorporating holistic and culturally appropriate models into practice in primary health care settings in Australia [10,123]. The following model was developed by Rumbalara Aboriginal Cooperative [124], an ACCHO in Victoria. This model focuses on the interrelated nature of wellbeing and the environment (Figure 2). It explores broad elements that affect Aboriginal peoples’ wellbeing, such as connectedness, sense of control, and history, and visually shows how these factors interrelate. An important element of this model is the background, with the top showing Barmah Forest, the Country that Rumbalara Aboriginal Cooperative members identify with and, down the bottom, Melbourne city. This symbolizes the conflict Aboriginal Victorian people find themselves in, being urbanized but wanting to still connect to their Country [125].

Figure 2. “Our Wellbeing” A holistic model of Indigenous Wellbeing [124].

Another holistic model which influenced the lead author’s development of the new framework was VanLeuwen and colleagues’ [117] “Butterfly Model of Health for an Ecosystem Context” (Figure 3) which focused on internal and external “Socio Economic Environments” and “Biophysical Environments” factors surrounding “Biological and Behavioural Filters”. This model identifies determinants which impact on one’s life. Although this model has clear links to wellbeing, it omits language identifying this term.
3. Discussion

The following framework (Figure 4) is based on eight years of research conducted by the lead author exploring connections between Aboriginal peoples’ wellbeing and connection to Country and on a review of the literature. The exploratory framework is aimed to provide a better visual understanding of Aboriginal peoples’ connection to interaction with Country. Such interaction is not in isolation from, but rather involves, a number of interrelated factors, which will be referred to as forces. These forces influence Aboriginal Victorian peoples’ wellbeing positively and negatively. The information from which this framework was derived was from qualitative semi-structured interviews with three Traditional Custodian groups and Aboriginal land managers in Victoria, so provides only a snapshot of the story, even though including an extensive literature review.

This framework depicts multiple forces affecting wellbeing. The framework thus aims to reflect the holistic nature of wellbeing, including physical, social, emotional, political, cultural and environmental influences [126–128]. In Figure 4, the tree, referred to as “Aboriginal Forces Impacting on Wellbeing”, reflecting social, cultural, environmental and economic determinants of health, which positively impact on the Aboriginal Victorian population. The roots represent the fundamental components of wellbeing and the branches build on these roots, reflected in the linking color. “Western/Downward Forces” reflect elements that impede Aboriginal Victorian peoples’ ability to improve their wellbeing, which are pushing down on this symbolic tree. What the framework tries to depict is that these forces are competing and not complementary, causing an imbalance in wellbeing.
3.1. Aboriginal Forces Impacting on Wellbeing

Research [83] identified the role of Country in strengthening Aboriginal Victorian peoples’ self-esteem, self-worth and pride, fostering self-identity and belonging, cultural and spiritual connection, enabling positive states of wellbeing and acting like a sanctuary to escape pressures. As one informant emphasized, caring for Country and knowledge around it ensures wellbeing:

“If the land’s healthy, the animals are healthy, it makes the people healthy … but if the animals don’t have habitat than that means the land and people are sick” [83].

“Learnt experiences” refer to how such knowledge and practices of caring for Country are passed down. This knowledge base has been passed down over thousands of generations to Aboriginal Victorian people and therefore is tested, credible and a reliable source of information on environmental management [129,130]. This learnt knowledge builds on Van Leeuwen and colleagues [117]
“Butterfly Model of Health for an Ecosystem Context” “Socio-Economic Environments” section components, such as “Early Childhood Development” and “Personal Empowerment”. However, this knowledge is more complex and spiritual, being passed down through creation stories, narratives, sacred names, ceremonies, art and dance.

“Biology” is also evident in the “Human Biology” component in the Mandala of Health, which refers to one’s genetics [120]. In contrast, biology for Aboriginal Victorians loosely refers to passing down of ancestry through connection to Country. This is the basis of the biophilia hypothesis, which acknowledges humans have been connected to the land for thousands of generations, causing the brain to be hardwired innately to such bonds [89,131,132]. This study [83] reiterated that this ancestral connection back to Country was automatic and allowed Aboriginal Victorians to feel a sense of belonging, obligation and spiritual connectedness to care for their territories. The clearest biophilic connection in the study came from a Traditional Custodian, part of the stolen generation, who commented:

“Identity from the land remained within me and when I did my art it’s symbolic and [the] Elders have picked up on the old scenes. I think there’s something printed in our DNA which has ancestral memory” [83].

Often scholars will associate the built environment with urban places [116,133] but for this paper, this term has to be put in the Aboriginal Victorian context. Since colonisation, Aboriginal Victorian people were placed in missions with many sacred sites becoming desecrated, urbanised and tamed; but over time these spaces have “evolved into the [positive] identity… of Aboriginal people”, symbolising the resilience and strength of the culture [134]. Missions are considered symbolic of this resilience today; however, historically, missions have had negative connotations associated with discriminatory government policies. This is reflected in the “Western/Downward Forces” section of the framework.

The overturning of this negative history would not be possible without “Partnerships”, collaboration and trust built over time between the Aboriginal and non-Indigenous population. Building strong relationships, consultation processes, education and training pathways, reciprocity and respect, and employment opportunities were identified as key to these collaborative partnerships working. It was noted that if they (the relationships and opportunities available to Aboriginal Victorians) are not involved in caring for Country programs, they are destined to fail [125,136,137]. This is supported in the literature, which identifies collaboration, funding, education, cultural exchange, capacity building, trust and respect are fundamental in fostering Aboriginal land management projects [138–140].

3.2. Western/Downward Forces

Aboriginal Victorian people live in “two worlds”—one recognizing their rich culture, and the other (defined in the proposed framework as “Western downward forces”) denying it [11,125]. Kingsley and colleague [125] and Barra and colleagues [141] noted that government employees were viewed as having different values and a lack of understanding of Aboriginal community members. Aboriginal government employees in Victoria identified that bureaucracy was “flawed, and not in touch with Aboriginal communities” [136] as they excluded communities, were too focused on reporting and poorly coordinated between government departments. This meant Aboriginal Victorian communities would speak to numerous government departments about similar issues. The lack of understanding of Aboriginal culture has blurred power structures, causing communities and families, at times, to be
pitted against each other [125,136]. This is referred to as “Politics” in the figure. Such “Politics” is evident with a Traditional Custodian acknowledging:

“The saddest thing is we are fighting over boundaries when we are never going to get Native Title… before we were united just fighting for recognition” [125].

“Native Title” was seen as divisive in Victoria because it pitted groups against each other and disappointed communities not successful in gaining land. Native Title aims to recognise Aboriginal sovereignty of their continued relationship with Country through Australian Law [125] Although there have been inroads with this policy recently (for example the Native Title successes in 2007 of the Gunditjmara people and in 2010 of the Gunai/Kurnai people) there is a long process of healing in Victoria that will need to happen for Aboriginal communities to be recognized as Traditional Custodians. Lack of recognition and access to Country is considered an injustice for Aboriginal people and has been found to cause health issues [125,137]. The poor health outcomes (referred to as “Health Issues”) evident in Aboriginal populations was identified by some researchers [125,136] as causing cultural knowledge of Country to be lost because information was not being passed on to community members through observation, training and practice, as it once was, thus causing fragmentation. This has led to “Loss of Traditional Cultural Knowledge”.

“Racism” has also caused much distress in Aboriginal Victorian communities, leading to negative stereotypes. Aboriginal Victorian people often mentioned feeling excluded and not valued, with racism “ingrained into society” [125,136–137]. Aboriginal Victorian people interviewed wanted recognition of their Traditional Custodian status and knowledge, rather than having non-Indigenous people believing they knew everything about Aboriginal culture and, as a consequence, making them feel marginalised. In part this is due to the cycle that has been occurring since “Colonisation”, which had a devastating impact on the Aboriginal culture in Victoria due to politicians and bureaucrats making decisions for the community [125]. All these factors have affected Aboriginal peoples’ ability to be effectively involved in the workforce, land management and education system. Coupled with the destruction of the natural environment over the last 200 years, this means Aboriginal Victorian peoples today need to work harder to reconnect to Country with all these forces at play. This is symbolized in the figure as “Destruction & Recognition of Country”.

4. Conclusions

This article aimed to provide insight of how Aboriginal Victorian peoples connect to Country, providing a framework for exploring this connection. This framework aimed to move beyond conventional wellbeing models which are often rigid. This is of importance in the field of ecohilth as, by having an understanding of this holistic approach to contact with Country, we can apply it with other populations to improve collaborative understandings of forces which impact on wellbeing.

Kingsley and colleagues [83] noted that Aboriginal peoples may have a more realistic view to explain their connection to their natural world than Western concepts. Aboriginal Victorian people identified that this connection goes beyond words and is steeped in spiritual orientation to that locality. Therefore, the rationale for designing a framework was to give greater recognition to this connection so that it can cut across different research fields more effectively. The process of reviewing wellbeing
literature and its link to the human-nature relationship was fundamental in gaining an understanding of this meaning.

The framework, its surrounding evidence base and applied model, could be a starting point for future application and debate. At a time where humanity is facing fundamental issues such as dangerous climate change, increased urbanisation and disconnection from the natural environment, the development of such a framework is timely. To effectively tackle such issues, academics, policy makers and communities as a whole must unite around common understandings of these concepts and ideas.

What this process aimed to achieve is to bring together years of research and apply it to develop a framework in order to tackle future environmental and health issues. This allows the moving away from often complex theoretical constructs or static guidelines into a space where this concept can be understood by a wider audience. Specialists working in the public health or environmental fields could apply this framework to advocate why being connected to the local natural environment is critical to people’s wellbeing. It is the authors’ opinion that by greater interaction in the natural environment, there will be greater momentum to protect such areas and therefore improve population health and ecology.

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6.5 Publication 720

Citation


6.6 Discussion

The investigation of human–environment relationship theories and the development of an exploratory framework linking Aboriginal people to Country, provide a visual and analytical mechanism to understand the research included in Chapters 5. The publications in this chapter highlight the deep connection Aboriginal people have to their Country. These articles provide a framework that may be applicable and adapted in other communities to understand the public health gains of caring for Country. Information collected and included in this chapter was gathered by tackling questions explored in Table 10.

Table 10: Questions tackled and how they relate to PhD research questions

<table>
<thead>
<tr>
<th>Publication 6: International Journal of Environmental Research and Public Health</th>
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</table>
| **Publication question:** Can an analysis a framework be used to indicate how contact with Country can improve wellbeing? Can a framework be developed identifying the human–environment relationship and its link to wellbeing?  
**PhD research question:** Question 1: How do Aboriginal Victorian people perceive the impacts of contact with and caring for Country on their health and wellbeing? Question 2: What do the findings of this research suggest are the opportunities for using contact with Country as a preventative upstream health measure? Question 3: Can the data from these studies be accommodated within a single interpretative framework? |

<table>
<thead>
<tr>
<th>Publication 7: Ecological Health: Society, Ecology and Health</th>
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</thead>
</table>
| **Publication question:** Can an analysis of theoretical arguments be used to indicate how contact with Country can improve wellbeing?  
**PhD research question:** Question 1: How do Aboriginal Victorian people perceive contact with and caring for Country as impacting on their health and wellbeing? Question 2: What do the findings of this research suggest are the opportunities for using contact with Country as a preventative upstream health measure? |

This chapter responded to Question 1 by providing a better understanding of Aboriginal Victorian peoples’ perceptions of Country and how this impacts on health and wellbeing. Through the exploratory framework (Publication 6) and the review of
human–environment relationship theory (Publication 7) comparing and contrasting Western and Aboriginal concepts, these papers identified the centrality of connection to Country to wellbeing. Therefore, there may be opportunities to use caring for Country projects as a preventative health measure (Question 2). Publication 6 offers a visual framework to provide better understanding of how Aboriginal Victorian people perceive Country (Question 3). Further, Publication 6 attempts to provide useful insights in health practice and policy (Question 4). The use of the tree in the framework to explain this human-environment relationship for Aboriginal people and the connection to health and wellbeing was carefully selected to incorporate the environment. However, Ingold (2000) warned:

One of the most potent images in the intellectual history of the Western World has been the tree... We use tree diagrams to represent hierarchy... and above all, chains of genealogical connection... [the] opposition, between people of and on the land, continues to inform public awareness, in the West, of the difference between indigenous people and colonists. The former are seen as embody, in their present way of life, the ancestral condition of those who were 'there first', at the point where history began. Concern for the heritage of indigenous peoples is thus tempered by a perception that they, in turn, represent an essential part of the heritage of global humanity. Their place is understood to lie at the foot of the tree of human culture. As culture rises from the land, branching out into its many lines, so history rises up from the ground of nature. The history, however, is conceived as one of colonisation... to erase the image of the tree as a living, growing entity, branching out along its many boughs and shoots, and to replace it with an abstract, dendritic geometry of points and lines, in which every point represents a person, and every line a genealogical connection (p. 134-135).

A recommendation of Chapter 6 is better incorporation of Aboriginal understandings of the human-environment relationship. This will require academic, government and community sectors coming together to build this knowledge and foster its connection into mainstream society. A tool to promote this could be the exploratory framework, which may act as a catalyst for understanding the human–environmental relationship as a preventative upstream health measure. The discipline of ecohealth provides a pathway for promoting this framework and exploring the human-environment relationship in a transdisciplinary manner. The articles in this chapter attempts to tackle the 2 initial research objective of this PhD:

To document the perceived health and wellbeing benefits of caring for Country for the Boonwurrung, Bangerang and Yorta Yorta peoples’
To develop an exploratory framework to represent the health and wellbeing effects of Aboriginal Victorian peoples’ human-environment relationship, focusing on connection to and caring for Country

I recognise that not all theoretical understandings of the human-environment relationship were reviewed and therefore this chapter only provides a snapshot of this topic. This, however, offers a platform for tackling the final PhD research objective in the forthcoming chapter:

To explore whether this framework can be refined and applied at a global scale
6.7 Implications and recommendations

Implication emerging from these two publications include:

- That Aboriginal understanding of Country and wellbeing maybe a tool for improving public health research; and
- That the exploratory framework could stimulate discussion around the human-environment relationship.

6.7.1 Research recommendations

Two recommendations from these publications include:

- Establish an ecohealth working group (including relevant academic, government, business and community members) to increase research collaboration around the human-environment relationship. This group could review the exploratory framework to strengthen understanding around the human–environment relationship; and
- Research focused on human–environment relationship should attempt to integrate Aboriginal worldviews, where appropriate.

6.7.2 Policy development recommendations

Policy recommendations flowing from this research could be applied as a practical approach to promoting caring for Country projects, for example:

- The framework developed could be promoted to the wider public as a tool with which to conceptualise the human-environment relationship and its links to wellbeing; and
- The exploratory framework could be utilised by the Victorian state government as an upstream preventative health measure to improve Aboriginal health.
When place-names are used... the landscape is appropriated in pointedly social terms and the authoritative word of Apache tribal tradition is brought squarely to bear on matters of social concern... that ancestral knowledge is a powerful ally in times of adversity, and that reflecting upon it, as generations of Apaches have learned, can produce expanded awareness, feelings of relief, and a fortified ability to cope.

(Basso, 1996a, p. 102)
Chapter 7: Shifting public health: Integrating diversity, ecosystems and Indigenous knowledge

7.1 Introduction

Chapter 7 is based on data collected at the Oceania EcoHealth Symposium (9th to 11th December, 2013) to understand attendees views of exploratory framework (Chapter 6) and how best to incorporate Indigenous ecosystem and health knowledge. The objective of asking such questions was to critique the human-environment relationship from the perspectives of ecohealth experts. The findings of this research will be developed into a publication after the submission of this thesis.

In 2012, The Oceania EcoHealth Chapter was formed at the 4th Biennial EcoHealth Conference in Kunming (China) as members felt they needed local responses to tackle ecosystem approaches to health and to increase engagement in the region. In 2013, 150 delegates converged on The University of Melbourne for the inaugural Oceania EcoHealth Symposium. The symposium was hosted by one of the founding members of these discussions in Kunming, Professor Kerry Arabena (Chair of Indigenous Health, The University of Melbourne).

The symposium brought leading academics, farmers, Indigenous people and likeminded individuals in the ecohealth space together to:

- Sign the inaugural MOU between the Oceania EcoHealth Chapter and the International Association of Ecology & Health (EcoHealth)\(^{21}\);
- Discuss collective learning and apply it in the Oceania context by showcasing Professor Valerie Brown’s work;
- Workshop how the Oceania EcoHealth Chapter could develop;
- Increase dialogue on how diverse Indigenous knowledge of the ecosystem and health could be incorporated into the Oceania EcoHealth Chapter;

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\(^{21}\) The roles of the Oceania EcoHealth Chapter outlined in the MOU included to:
- Consult and reflect the interests and cultural perspectives of members;
- Convey the latest development in EcoHealth in a regional relevant way;
- Stimulate discussions and lead consultation with chapter members;
- Engage regional members; and
- Organise itself to best represent local perspectives.
- Present on practices that support the relationships between peoples, landscape and social health; and
- Develop a framework for working in public and ecosystem health in Oceania.

This unpublished research builds on previous chapter by:
1. Critiquing the exploratory framework linking Aboriginal Victorian peoples’ connection to Country and wellbeing;
2. Reviewing public health approaches to incorporating Indigenous ecological and health knowledge; and
3. Understanding the human-environment relationship and its link to health and wellbeing in the ecohealth context.
The primary aim of undertaking this process was to strengthen a framework within public health that could incorporate Aboriginal Victorian peoples’ connection to Country. Through this I was able to review the exploratory framework to understand if it was applicable to promote the human-environment relationship globally.

7.2 Background

7.2.1 Human dependency on ecosystems

There is substantial evidence that ecosystem impairments (such as environmental degradation and reduced biodiversity) negatively impact on human health (Patrick et al., 2011; Clark et al., 2014). For instance, global climate changes manifesting as extreme weather events compromise access to adequate food, water, shelter and increases the burden of disease (IPCC, 2013). In Oceania, climate change exacerbates existing health inequities and disproportionately affects vulnerable populations such as Indigenous communities, Pacific island countries and people on low incomes. Paradoxically, it is escalating human pressures on the global environment (such as industrial agriculture) that detrimentally impact the planet that humans are infinitely dependent upon (Haines et al. 2006; Friel et al. 2008).

Humans seem to be ignoring the evidence that the loss of species and ecosystems represents an unparalleled set of global public health challenges (Chivian, 2001). Arabena (2009, p. 26) believes the “bottom line is that we need to conceive of ourselves as an integral part of the eco-community on this planet or we are to perish”. Consideration should be paid to the degradation of lands and resources by integrating ourselves into ecological systems, from wetland ecosystems (Horwitz & Finlayson, 2011) to urban sprails (Frumkin, 2002) because it will directly and indirectly impact on health (Clark et al., 2014). Parkes (2010, p. 1) argues that discourse needs to shift because “ecosystems tend to receive little attention, despite providing a non-negotiable basis for the food, water, livelihoods and living systems on which we depend”. Horwitz & Finlayson (2011) stated visions must stress the relationship humans have to ecosystems, going beyond ‘traditional health approaches’ by incorporating ecological and social science systems.
Models exist that tackle public health holistically: such as the Ottawa Charter (1986), which identifies ‘sustainable resources’ and ‘stable ecosystem’ as prerequisites for health. There are numerous sustainability frameworks supporting this understanding, like the Rio Declaration (1992) which notes “sustainable development can only be achieved in the absence of high prevalence of… diseases and where populations can reach a state of physical, mental and social wellbeing” and an awareness that “human health and well-being are dependent upon ecosystems and effective management of which needs holistic and collaborative approaches and an understanding of complex relationship among humans and other biodiversity”. These definitions come some way to prioritising ecological problems but a new vision requires public health practitioners and researchers to accept that all living and non-living systems are central to wellbeing (Ramsar Bucharest, 2012). Horwitz and Finlayson (2011) explain this by:

“describing the condition of an entire… ecosystem… [It] might be applied in a series of tiers: The health of an individual, the health of a population, the health of an ecosystem, each nested within the next tier” (p. 679)

### 7.2.2 Vision: (re)construction of health

*Our patterns of overconsumption are unsustainable and will ultimately cause the collapse of our civilization... The gains made in health and wellbeing over recent centuries, including through public health actions, are not irreversible; they can easily be lost, a lesson we have failed to learn from previous civilisations* (Horton & colleagues, 2014, p. 847)

There are calls to increase people’s understanding, clarity and ability to tackle environmental concerns (Lovell et al., 2014). Arabena (2009) urged a reconstruction of our understanding of the Planet more in line with Indigenous values, aiding an understanding of “the interconnectedness, interdependencies, and reciprocal relationship that exists between people and their environment” (Horwitz & Finlayson, 2011, p. 679). This requires moving beyond current understandings of public health that separate economic, physical, cultural, social, economic and ecosystem determinants into measurable silos to more ecosystem approaches to health or ecohealth (Webb et al, 2010). Parkes (2010) believes innovative ecohealth research and practice, which emphasises interaction among determinants of health rather than disease risk factors should be the focus.
Recently, the Lancet developed a manifesto with a goal to shift public health clinicians to planetary health specialists (Horton et al., 2014). This ongoing effort to merge health and ecological systems needs to reflect the reciprocal nature of humans, non-humans and ecosystems to ensure that diverse voices and cultures are heard (Parkes, 2012). Horwitz & Finlayson (2011, p. 681) explains:

*humans are an intrinsic part of ecosystems; of course, humans are implicated in activities that degrade ecosystems, but they can also be agents for their maintenance, construction, or restoration. The health of humans is in some way a reflection of the health of the ecosystem in which they live.... This reciprocity contradicts any psychological discontinuity between humans and their environment*

Webb (2010) and Parkes (2012, p. 1) explained values around systemic analysis, diverse inquiry and community engagement result in “ecohealth being described as a rich ‘tapestry’ of approaches”. Perhaps this is because ecohealth offers a collaborative space to increase interconnecting and collective views. Parkes (2012, p. 2) emphasised the role ecohealth plays in “navigating transdisciplinarity and integration” and noted the challenge of cross-disciplinary divides to new terrains of “collective learning and action” providing a mechanism for respect, integration and engagement with our ecosystem. Lovell et al. (2014) identified that disciplines that support ecosystem approaches to health should build a stronger case at local and global levels.

### 7.2.3 Incorporating Indigenous understandings

An important consideration in understanding ecosystem approaches to health is the incorporation of Indigenous diverse knowledge systems (Parkes, 2010). Arabena (2009) noted that by integrating Indigenous philosophies and ecological ethics, we can develop more reciprocal, nourishing and Earth centered values. Ecohealth approaches are known to offer a mechanism for translating Aboriginal community knowledge (Parkes, 2010). Parkes explained that Indigenous knowledge systems are ‘(re)gaining profile’ with increased platforms for self-determination like the DRIP (2007) and the Millennium Ecosystem Assessment (2005). Clark et al. (2014) noted that although there has been an increased robustness in ecosystem approaches to health research, there are limited studies reviewing cultural flows around ecosystems.
and health from non-Western voices. Arabena (2014) calls for us all to be indigenous (with a lower case) adopting holistic understanding of health, wellbeing and ecosystems.

Indigenous populations in Oceania are diverse but it is recognized that Indigenous cultures shaped and molded the region, with migration and trade occurring over tens of thousands of years (Kaysar, 2010). These ancient knowledge systems are critical in understanding ecosystem approaches to health evident throughout Oceania were different words are used to represent Indigenous peoples’ connection with their lands. For example, Parkes (2010, p. 6) lists:

healthy land and ‘country’ in Australia... and explicit use of Maori values, praxis and language to name and define Maori-led projects in New Zealand. Each of these approaches exemplify the innovation possible when ecosystems are viewed as ‘settings’ for health and sustainability... while also interfacing between traditional ecological knowledge, Indigenous knowledge, and western knowledge

7.3 Methods

Semi-structured interviews were used to collect data. Semi-structured interviews require the interviewer to: have knowledge of the topic; select information-rich and suitable participants; be empathetic and non-judgmental; listen carefully; use a checklist of questions; and pick an appropriate setting (Whiting, 2008; Adams, 2010). Prior to collecting this data I received approval from the Deakin Human Research Ethics committee. As this research was about exploring perspectives from members of the newly established Oceania EcoHealth Chapter, qualitative methodology was deemed suitable as it allowed for robust discourse with participants. The semi-structured interviews focused on three themes:

1. The role of public health practitioners in tackling environmental issues;
2. How can the Oceania EcoHealth Chapter incorporate Indigenous concepts of the environment and health into its ethos; and
3. Critiquing if the exploratory framework appropriately incorporated ideas of Country and wellbeing.

A Plain Language Statement was prepared and all participants signed a Consent Forms prior to the interviews beginning. All semi-structured interviews occurred
face-to-face and were audio recorded using a dictation machine. Promptly after the interviews, the recordings were uploaded onto a computer and sent to a transcribing service that prepared transcripts within a week. Participants were selected to gain a range of different experiences, stages of career and various cultural backgrounds. This recruitment provided diverse perspectives on the human-environmental relationship. Participants were selected through volunteer sampling, which is purposive and involved participants agreeing to be interviewed during the symposium (Jupp, 2006). Saturation of data was reached after undertaking 10 semi-structured interviews. Saturation refers to no new categories emerging from further data collection (Bryman, 2004). The demographics of participants included:

- 5 males/females;
- 6 full time academics, 1 medical practitioner, 1 self-employed nature therapist, 1 farmer, 1 conservationist;
- 6 from Australia (2 NSW/Victoria, 1 ACT/WA), 1 from Canada, 1 from Canada/New Zealand, 1 from Fiji, 1 from New Zealand/Hawaii;

Interviews lasted between 30 minutes to 1 hour. The analysis applied was thematic in much the same way as described in Chapter 5 with mind mapping on A1 butcher’s paper and then coding of interview transcripts. Initial data analysis occurred during February to May and codes were refined and tested with colleagues in April (2014).

7.4 Results

The results section revolves around the relationship between ecosystems and human health, the incorporation of Indigenous knowledge systems and analyses of the exploratory framework.

7.4.1 Public health and ecological sustainability

All participants acknowledged the central role public health could play in tackling environmental issues. Participants 2 noted: “sustainability and wellbeing are integrally linked… they’re the same conversation”. Participants identified that these concepts cannot be separated from being “wrapped up in the public health agenda” (Participant 6), and that they are “intricately linked and co-dependent. It’s not
possible… to address health of people, place, planet, without consideration of these intersections” (Participant 3). A participant highlighted that this is not purely a health and ecological sustainability issue but a holistic approach to our Planet, which involves identifying determinants that impact on “physical… emotional, psychological, spiritual health” (Participant 4).

Participants viewed the role of public health practitioners in ecological sustainability is to “interact with the environmental actors, to inform them of the public health consequences of environmental change” (Participant 1). Participants highlighted that once public health and sustainability workers are convinced of this relationship, then they need to act as advocates. This may take effort, as Participant 8 said “many public health workers haven’t got a clue about the impact of… healthy landscapes”. Most participants noted this is because public health is still conceived in silos, which separate ideas of environment and health. This is evident in the following passage:

public health has tended to become dominated by discourse around social determinates of health… I’m interested in the interface between the environment and social dynamics… it’s a fundamental but neglected element of public health… If you look at the Commission for Social Determinates of Health, the relationship with the environment… was mostly in relation to the built environment, there was… little in relation to any of the relationships between the way in which environment… provide a foundation for socioeconomic factors… it made this big deal about climate change… [but] framing it… in a distanced way… [At the] same time… [the Millennium Ecosystem Assessment was released] and these two documents don’t even cross-reference each other… [This] epitomises this completely false dichotomy between social dynamics and their influence on health and ecosystem dynamics (participant 5)

Participant 9 linked ecosystems and public health to Aboriginal and Torres Strait Islander peoples’ connection to Country, explaining:

in Cape York… you have a very different kind of connection to Country than… deserts because water’s plentiful… you know which part of the geography people come from because of height and stature… when you go through their Country with them, they just talk with such reverence… [with] a very close relationship between food, access, spirituality, Country… People map themselves into that Country differently. Out in Central Australia… people map themselves into their own Country through sunlight and where the shadows fall. In the Torres Strait, it’s navigational through stars… living on a small island communities, you were… aware of territories and boundaries because a multitude of people had to live together in close proximity with finite resources. So you couldn’t over-utilise them… when you start to think about that being the point of replication for societies across the whole of the world… how can billions of people all adopt a care for Country principle? When so many of us now are living in stressful situations… the impacts on wildlife and people’s lived experiences in different countries is so enormous. It’s going to be hard… to put that
care for Country principle from within my own experience, into practice across the world, because we had a clear understanding... about how you live in Country. You can only live in what the ecosystem supports... At the moment, what we're doing is living outside of the bounds of our ecosystems... That is going to be the major public health issue going forward

7.4.2 Incorporating Indigenous knowledge

Some participants, although acknowledging the importance of Indigenous knowledge, identified barriers to incorporating these worldviews. Participant 1 stated he gets “rapt on the knuckles” for romanticising Indigenous knowledge while devaluing Western systems of knowing. He noted this is inappropriate because there are “practices that were developed thousands years ago in conditions that were completely different”. Participant 2 felt excluded from the conversation because “the way I naturally operate, seems to fit with what goes on out there in indigenous types of pedagogy... to name something as an indigenous way almost undermines where people are actually at”. Another participant raised that Indigenous knowledge cannot be included as “a tick box response… while the issues can be included in the agendas... it’s not necessary... Just because it’s included... [doesn’t] mean that it’s genuine engagement... we have to be... conscious of being sincere”. Participant 7 acknowledged, when incorporating Indigenous knowledge, that it requires us to examine each Traditional Custodian group differently so as to ensure we don’t fall into the trap of homogenising their histories and practices. As Participant 5 stated:

[The] challenge as ecohealth researchers [is] to figure out how to engage with Indigenous knowledges... What could help over time [is to] equip researchers who are stumbling... over some of this stuff to figure out the different ways that you might choose to identify with... Indigeneity, obviously there are multiple ways to do that... there’s been a lot of conversation about the small-i Indigeneity and it is a big challenge for people figuring out how to engage with these issues... without falling into the traps of tokenistic... or non-equal research relationships... If there’s not actually a flow-back to the communities that are generating the knowledge and experience themselves and that requires a different type of research design, it requires researchers to give up control, it involves a... process of listening and learning... the Ecohealth Chapter can really encourage learning... sharing and explicit reflection

The difference between ‘Indigenous’ with a lower and upper case was emphasised at the symposium. Participant 9 articulated that Indigenous with a capital refers to “people who’ve been in a particular place for millennia… small ‘i’ indigenous… means that we’re all human. It’s the only context that gives us life”. Participant 7
reiterated “there’s no human being that isn’t a product of the environment... the first peoples who’ve spent... countless generations... establishing the ongoing relationship with their environment, will be different from those who arrived more recently... there... [are] those two aspects... [Both] crucial in shaping the environment, which is the foundation of health”. It is interesting reviewing the difference in understanding of this concept from an Indigenous and non-Indigenous scholar respectively:

[the] challenge about issuing and including everyone in an Indigenous classification. We’re all Indigenous. That was a really courageous, challenging statement... it’s one that I strongly agree with, but I have colleagues that would really raise challenge and disagree... stating such a thing also comes with a lot of obligation... duties and privileges... anyone that holds that statement, or holds that understanding has to acknowledge that those duties... and their attachment to values and principles... how do you practice that, within an urban setting like this? If you are Indigenous, then how do you behave as a result?

And

I’ve been influenced by the notion that we’re all Indigenous... that we are grounded in biophysical and the biophysical profoundly affects our lives... Talking about health and wellbeing, without talking about... the psychological... physical and the social connection to the land seems ridiculous... that idea that we are all Indigenous... is... desirable... That becomes problematic when we shelter... isolate... and we abstract ourselves from those biophysical relationships... What I find so instructive is much of the groundedness and the literacies that are expressed by Indigenous peoples... I mean if you alienate yourself from your surroundings you’re effectively saying that you’re not part of those surroundings

Participants provided approaches to overcoming these challenges. For example, Participant 9 recommends incorporating Indigenous Research Reforms Agenda to ensure perspectives are incorporated appropriately. This requires research and practitioners not just engaging in this process “through direct participation with Indigenous voices and the stories being captured... but... in exploring and engaging in what is indigeneity... not taking the off-the-shelf options... from a binary of Indigenous versus non-Indigenous... but learning from it... moving into mature ways of engaging beyond it” (Participant 3). As Participant 6 recognised, we need to acknowledge Traditional Custodians because “we haven’t given that worldview the recognition... but also the healing that’s required for us to recognise that we are part of one rather than part of the separation” (Participant 6).

Participants constantly recognised the importance of engaging in Indigenous culture. Participant 4 mentioned we need to incorporate this through strength based
approaches “acknowledging that the culture has knowledge…one thing I appreciated… was this was human knowledge and contextualised in the Oceanic setting… the knowledge is reflective of that diversity… With that it’s going to require a broad and open space for knowledge and contribution”. Participant 5 provided a reflection of embracing Indigenous cultural knowledge:

I strongly believe that Indigenous perspectives and leadership are essential to... progress and innovation... the one area of collaboration that I have continued... has been this ongoing conversation with... Maori-informed research that is saying to researchers... we want to focus on what it is that makes us well... the relationship between our peoples and the land... the beautiful language that Maori have... wanting to see innovations that are going to make their communities healthier and foster wellness... they haven’t necessarily had inundations of funding because... [funders want] a thing that’s to be solved... or improvement of some quantitative dynamic whereas this work... [has] got a whole lot of multiple positive objectives... not necessarily attributable to one particular disease outcome... They work with communities to... [undertake] innovative restoration projects, that are looking at... fish harvesting, they look at habitats... they’re changing their cultural characteristics to reflect the sensitivities of some of these species. They’re working together as a community in terms of all of these potential positive social determinates of health... fostering relationships of trust and wellbeing around giving people a sense that they have some... influence and control over their lives rather than just being passive recipients... there’s just this bubbling opportunity and the Oceania Ecohealth Chapter... it’s going to determine in its own way but it’s an example of a way that these different elements could talk to each other

As Participant 10 eloquently stated:

Indigenous issues and health have been both politicised as a post-colonial issue and reduced to a set of reductionist issues... when in fact it is a complex whole requiring attention not so much to individual issues as to cultural wholeness, to conversations based on mutual respect within and across communities.

7.4.3 Reviewing the Framework

Participants saw value in the exploratory framework but thought it required re-analysis. Participants mentioned that they liked the concept of a tree because it provided a notion of “groundedness (sic) and growth” but missed elements like soil: “but the soil alone isn’t enough… we can move creatively… constructively and perhaps controversially well beyond where this is… I’m a great one for sort of seeing models as a[n] ever changing sketch… but the lessons from the previous sketches are never removed… the key is understanding that this has got dimensionality. There’s always a problem with trying to represent this on a page” (Participant 3). Participant 8
liked the notion of a tree but noted the framework struggles to represent “the interlinking of the cosmological, spiritual, Dreaming and totems… how you capture all that in a diagram I don’t know… My feeling is the tree branches need expansion”.

Participant 6 commented ‘the point that the diagram seems to be making is reasonable… The metaphor of a tree… it’s an interesting technique… I can’t see the roll of water, soil, earth, air, wind, rain… if this is to say – the metaphor is the… “tree of Aboriginal life”… and that it’s rooted in this notion of Country there’s something missing”. Nonetheless, Participant 5 acknowledged:

*I find frameworks useful… I tend to consider most frameworks… begin conversations and to start people thinking about interconnections… I find increasing… tension between frameworks that are conceptually orientated versus frameworks that are action-oriented… my observation about something like this is that it has some real merit as a point of reference for exchange and learning… if it was presented to me as an expression of truth then I might find it a little more problematic*

Participants identified that the framework pitted Indigenous against non-Indigenous perspectives. Participant 3 acknowledged the problem with the framework was that it was “starting from that place of separation, as opposed from starting from a place of engagement”. Participant 5 reiterated that “one of the things that I find problematic about this diagram is that the notion of western forces are all bad… our job is to figure that out together… we’re all responsible for navigating these new spaces… [what about] people like me… I don’t know where I fit in this picture”. Participant 5 extended this, stating:

*one of the tricky things with this diagram is that we tend to… always look for false dichotomies and we tend to use nature-based metaphors… I always kind of like the messiness we get when we figure out something in between… I’m always also looking for any diagram I ever see that only has one way arrows, I have a reaction to it because I would like to see some indication of feedback… you could imagine some action around this tree that’s listening, observing, noting what’s happening with the tree, being concerned if it’s not actually growing… Asking questions of these downward forces*

Participant 2 said this framework does not acknowledge diversity noting “to have one model that represents all Aboriginal people… it does lump them together”. Another participant mentioned the framework is “missing culture… language and linguistics… language embodies a… rich detailed culture… to call it a traditional – that seems to miss a mechanism. What are the cultural mechanisms for these things… in as much as the fact that a tree is a system… maybe it’s mediated through the stem of… culture,
language, and so on… to show that the ‘embeddedness’ of Aboriginality in Country is somehow part of a complex highly adapted and responsive set of cultures, and I can’t quite see that systemic view… in fact I’m a little bit puzzled by ‘learnt’ here… there seems little about economy… Aboriginality had its own economy… it’s the sense that we’re dealing with a cultural system that’s embedded in the landscape, embedded in Country” (Participant 6). According to participant 9 the shortfalls of the framework is:

there are lots of philosophic positions that would say once you’ve set up an opposition, then you have already, just by virtue of establishing one, created the other… [the] notion of flow would come through more strongly rather than force. Because no matter how much these downward forces are looking to infiltrate, this still all flows anyway. Whether people are living it, whether they dream it, whether they aspire it, whether they imagine it… It doesn’t allow for an interaction… no matter what we think about western or downward forces… you can take the best of western literature… philosophy… thought and practice… there are different layers… When you look down at something, all you can see is this flat, two dimensional thing. That’s… very important because even a sheet of paper is representative of a particular worldview… Whereas if you had an indigenous idea… This could also be a vessel that’s made important by the space that it contains… it will always be problematic trying to get what is in your mind… onto a two dimensional piece of paper. Because what you’re trying to describe is a system. It’s a system that has power and different kinds of resources and physical… and spiritual realms, and histories as influential as future… a flat piece of paper doesn’t allow you to fully describe the system that you know exists… I’m sad that we have to try and force our brilliant thinking of systems into a flat piece of paper, because it can’t represent it.

7.4.4 The Oceania EcoHealth Chapter a mechanism for integrating Indigenous knowledge

Participants saw the Oceania EcoHealth Chapter as a platform for incorporating diverse knowledge. Some Participants recognised that the Oceania offers “a microcosm of what’s the larger of the symptoms… and challenges that are facing the global world… Indigenous people have always been innovating and developing their culture in response to these physical challenges”. Participants reiterated Indigenous ecosystem knowledge and practices have been developed and refined over thousands of years in Oceania. Participant 8 noted, “in Australia… until we come to terms with dispossession of Aboriginal land… we're a bit like a person that hasn’t resolved deep internal conflicts”. Participant 9 offered an approach to reconciliation:

*We are a culturally, linguistically diverse population... We have different ways... of looking at and respecting how people live within their communities and on Country... it doesn’t matter how much built environment is on it, it’s still Aboriginal land... one
of the roles… of Oceania is to have a look at that cultural, linguistic, geographic ecosystem diversity and then kind of redefine… how people might promote healthy landscapes in which to live.

Participant 2 saw the mechanism of the Chapter as acting “as interpreters between Aboriginal beliefs… values and culture”. Many participants mentioned incorporating Indigenous values into the Chapter. As participant 8 noted, “EcoHealth could be a leader in pulling through and involving Indigenous people - it's a great vehicle”.

Participant 9 provided a vision for the Oceania EcoHealth Chapter:

*What we need is transformation... We’ve come together because we understand that things need to be different. We need to draw on the core of our humanity to make that change. That’s why I think this Oceania EcoHealth Chapter will be a vehicle of radical hope.*

### 7.5 Discussion

The findings support literature suggest public health clinicians integrate ecosystem approaches to health that understand that determinants are dynamic, fundamental to human health and assisted by incorporating Indigenous knowledge (e.g. Arabena, 2009; Parkes, 2010; Webb et al., 2010;). These ideas validated calls for public health to go beyond disciplinary siloes when applying ecosystem approaches to health. However, it was acknowledged by participants that when incorporating Indigenous knowledge it should not be romanticised as this can reduce cultural diversity. Rather, participants urged public health and environmental clinicians to incorporate the best of Indigenous and Western knowledge.

Engagement was identified as a challenge because incorporating diverse knowledge systems can cause (without intent) exclusion. Participants noted some action of engagement with Indigenous knowledge holders can be seen as token, thus enhancing this divide. Participants recommended the Oceania EcoHealth Chapter could provide tools for appropriate engagement with diverse communities that apply strength-based approaches.

Discussions around the exploratory framework showcased the difficulties with applying this diversity. Participants recognised there were a number of themes not appropriately applied in the framework. For example, the framework needed to better
rethink the incorporation of notions of Country and its different elements like soil, water, cosmology, spirituality and the Dreaming. Participants noted that the framework needed to represent respectfully the diversity of culture, language and economics but ensure non-Indigenous and Indigenous people are not separated. Therefore, participants recommended frameworks need to be evolving, fluid and flexible. Perhaps the learning is to move away from single page frameworks to approaches that engage and influence diversity.

The findings suggest a reshaping of public health that better understands human-environment relationships, reflecting the connection evidenced by Aboriginal Victorian peoples’ and diverse Indigenous community across Oceania. These findings address the final research question:

- Can this framework be applied globally to promote ecohealth, health related policy and the human-environment relationship?

Although participants explained the exploratory framework did not adequately articulate the human-environment relationship the findings provide a framework through the Oceania EcoHealth Chapter itself of advocating this concept. Hence, this responds to the final objective of the PhD:

| To explore whether this framework can be refined and applied at a global scale |

I believe this framework can be explored globally to discuss Indigenous peoples connections to land. In a research sense, this requires transdisciplinary action, holistic approaches that consider a range of determinants and where appropriate, provide ethically sound research with Indigenous communities. Policy recommendations revolve around incorporating the best of Indigenous and Western understandings of ecosystems and health that encourage a diversity of perspectives.
7.6 Implications and recommendations

Data collected from the symposium provided a number of implications, including:

- To urge public health clinicians to become aware of the complex dynamics of determinants moving beyond siloed approaches;
- To represent diverse understandings of the ecosystem and integrate holistic frameworks across disciplinary divides;
- To create systems to bring people together to collectively engage diverse understandings of health, ecosystems and social wellbeing; and
- To incorporate Indigenous knowledge systems into ecosystem approaches to health.

7.6.1 Research recommendations

Researchers in the ecohealth field (including those who belong to the Oceania EcoHealth Chapter) can play a role in the implementation of these implications by assisting in research recommendations:

- To ensure research practices apply transdisciplinary approaches; and
- To provide engagement mechanisms for Indigenous knowledge and ecosystem approaches to health being incorporated appropriately into research.

7.6.2 Policy development recommendations

The findings suggest that policy makers can:

- Incorporate diverse knowledge systems into their policy making processes; and
- Apply frameworks allowing for diversity and increased collaboration between different populations.
Chapter 8

The productive quality of human relationship with country, is often imagined as a metamorphosis of body into place... Further, the transformations of ancestors’ bodies into places do not simply involve “their bodies in some generalized sense, but [are] situated in particular stances or states such as lying down, sitting, dancing, standing and looking at something... all forms conveying some momentary action or participation in events at a given location

Merlan (2005, p. 116)
Chapter 8: Conclusion

8.1 Summary of findings

This PhD has three main purposes:

1. To provide evidence that caring for Country can enable improved health and wellbeing outcomes for Aboriginal Victorian people;
2. To develop an exploratory framework to represent these benefits and characterise this in the context of human-environment relationship theory; and
3. To explore if such a framework and exploration can be applied globally.

These aims were addressed by understanding the meaning of Country to Aboriginal Victorian peoples through an iterative process lasting 9 years. This involved the review of literature and theory and collection, analysis and publication of a sample of Aboriginal Victorian people perspectives. Such actions led to the development of an exploratory framework, personal reflection and examination of ecohealth perspectives. This qualitative research project included 37 participants, seven peer-reviewed publications and unpublished data. Methods employed in this thesis included semi-structured interviews, focus groups and the formation of a Reference Committee.

The research chapters in this thesis highlighted:

**Chapter 5:** that there are health and wellbeing benefits associated with Aboriginal Victorian people having contact with and caring for Country. However, there are a number of factors that facilitate or impeded projects occurring on Country.

**Chapter 6:** an exploratory framework reviewing the human-environmental relationship in the context of Aboriginal Victorian peoples’ wellbeing was developed. Literature outlined that human-environmental relationship theory could be strengthened by integrating Aboriginal and Torres Strait Islander notions of Country.

**Chapter 7:** the importance of ecosystem approaches to health, transdisciplinary research and Indigenous knowledge in public health was identified. Ecohealth experts critiqued the exploratory framework.
Based on the outcomes of this research process this PhD thesis provides a number of multifaceted research and policy recommendations. The PhD research implications, initially, revolve around empowering Aboriginal Victorian communities to better quantify and articulate the health benefits of caring for Country. This may be enacted by training community members to undertake similar research to gain valuable qualifications and skills. More broadly it was recommended that research revolving around the human-environment relationship should attempt to incorporate Aboriginal and Torres Strait Islander views of Country and diverse local voices where possible. In Chapter 6 it was recommended that a localised ecohealth group should be established but this organically occurred through the Oceania EcoHealth Chapter. Members of this newly established group recommended the need for the incorporation of Indigenous understandings of the human-environment relationship into public health research.

At a policy level effort is required to assist more Aboriginal Victorian people to participate in caring for Country projects. Employment and training opportunities are critical to build the capacity of individuals but also the whole community. This involves building trust, transparency and clear communication between all stakeholders. Resourcing will be needed to tackle systemic problems including racism, poor understanding of Aboriginal ecological knowledge, socioeconomic determinants and destruction of the environment. In Chapter 6 policy recommendations highlighted that the exploratory framework could be used as a model to highlight the importance of Country to Aboriginal Victorian people in an academic, policy and practice setting. Chapter 7s policy recommendations revolved around incorporating Indigenous and Western knowledge through a framework that could crossover disciplines, cultures and continents. Aboriginal Victorian peoples’ connection to Country was the focus of this thesis because of the gap in public health research. A snapshot of each research chapter has been summarised in Table 11.
### Table 11: Summary of key findings

<table>
<thead>
<tr>
<th>Research/aim</th>
<th>Research objectives</th>
<th>Primary research method</th>
<th>Key findings</th>
</tr>
</thead>
</table>
| To document the health and wellbeing benefits of connection to Country for three Traditional Custodian groups and the determinants that facilitate or impede participation in caring for Country projects (Chapter 4) | To examine the health and wellbeing benefits of Country for Aboriginal Victorian peoples:  
  a) to gain an understanding of three Traditional Custodian groups perceptions of this topic  
  b) to gain an understanding of Aboriginal land managers being involved in caring for Country  
  c) to build an evidence base in public health around this topic in Victoria  
To explore how an Aboriginal caring for Country program can be set up in Victoria:  
  a) to review determinants that facilitate and inhibit such projects occurring for these Traditional Custodian groups  
  b) to identify future aspirations of these communities in the context of improving wellbeing | ♦ Review of literature  
♦ Qualitative semi-structured interviews | ♦ Health and wellbeing benefits of contact with and caring for Country for Aboriginal Victorian people collected  
♦ These health and wellbeing benefits articulated through qualitative research to provide an understanding of this topic in the public health field  
♦ Explored the perceptions and experience of three Traditional Custodian groups to understand this topic  
♦ Strategies provided on how to improve Aboriginal Victorian caring for Country projects  
♦ Factors that inhibit and facilitate Aboriginal land management projects from occurring in Victoria described  
♦ Descriptions of the social, cultural, political and economic determinants outlined in the context of Aboriginal Victorian peoples when developing caring for Country projects  
♦ Results disseminated in two publications |
| To develop an exploratory framework representing the human-environment relationship in the Aboriginal Victorian context. To explore Aboriginal notions of Country in the context | To apply previous research findings and literature reviewing the association of Country with wellbeing:  
  a) to better understand Aboriginal concepts of wellbeing and Country  
  b) to develop an exploratory framework to explore the human-environment relationship and factors that facilitate and inhibit such a relationship | ♦ Literature review  
♦ Reanalysis of previously collected data  
♦ Development of an exploratory framework | ♦ A body of literature critiqued providing substantive evidence on the holistic nature of Aboriginal wellbeing  
♦ A body of empirical, theoretical and evidence-base data reviewed identifying the human-environment relationship to wellbeing generally and with a focus on Aboriginal populations  
♦ Developed an exploratory framework representing Aboriginal Victorian peoples’ relationship to Country |
<table>
<thead>
<tr>
<th>Research/aim</th>
<th>Research objectives</th>
<th>Primary research method</th>
<th>Key findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>of human-environment relationship theory (Chapter 6)</td>
<td>connection for Aboriginal Victorian people</td>
<td>and wellbeing</td>
<td>♦ Identified and reviewed human-environment theories in the context of Aboriginal peoples</td>
</tr>
<tr>
<td></td>
<td>To explore human-environment relationship theories:</td>
<td></td>
<td>♦ Results disseminated in two publications</td>
</tr>
<tr>
<td></td>
<td>a) to compare and contrast these concept in the context of Aboriginal peoples connection to Country</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To identify if the exploratory framework can be applied globally to promote health related policy and the human-environment relationship (Chapter 7)</td>
<td>To understand the perspectives of Oceania EcoHealth Chapter symposium attendees:</td>
<td>♦ Review of literature ♦ Qualitative semi-structured interviews</td>
<td>♦ Highlighted the importance of ecosystem approaches to health</td>
</tr>
<tr>
<td></td>
<td>a) to identify the roles of public health clinicians to tackle environment issues</td>
<td></td>
<td>♦ Identified the benefits of incorporating Indigenous knowledge within ecosystem approaches to health</td>
</tr>
<tr>
<td></td>
<td>c) to incorporate more Indigenous ecological and health knowledge within the Chapter</td>
<td></td>
<td>♦ Recognised the need to move away from siloed approaches to diverse understanding of health and ecosystems</td>
</tr>
<tr>
<td></td>
<td>d) to critically analyse the exploratory framework to determine its applicability at a global level</td>
<td></td>
<td>♦ Determined that the exploratory framework requires further work</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>♦ Ascertained that transdisciplinary actions was important to Oceania EcoHealth Chapter members</td>
</tr>
</tbody>
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8.2 Discussion

In a society that seems bent on destroying the environment at an increased rate with dangerous climate change, sedentary lifestyles and modernity’s obsession with separating nature from society, this PhD offers a possible alternative way of looking at such issues. Firstly, the thesis reviewed Aboriginal Victorian peoples’ connection to Country to gain understanding of how this cultural group maintains their practices, knowledge and beliefs revolving around Country and how these understandings could start to be embedded more appropriately in Victoria. This PhD also attempts to provided a global pathway for applying Indigenous ecosystem and health knowledge.

This PhD gained an understanding of Aboriginal Victorians’ connections to Country, aspirations of what Traditional Custodians require on their lands and how to implement this on the ground. Connection and caring for Country was seen as a mechanism for improving Aboriginal Victorian peoples’ health and wellbeing with participants from the study perceiving great physical, social and emotional benefits from this relationship. However, what this thesis found was developing Aboriginal caring for Country projects are not simple with a number of determinants believed to impact such initiatives occurring. One reason for developing an exploratory framework was to visually explain the importance of Country and how complex these determinants are for Aboriginal Victorian people.

The exploratory framework was viewed as a starting point for discussions around the human-environment relationship. These ideas were also tackled by looking at academic human–environment relationships theory and how they have integrated or marginalised Aboriginal and Torres Strait Islander worldviews surrounding connection to Country. Debate and critique is what occurred through an iterative process of reanalysing this concept throughout my thesis. This was evident when Oceania EcoHealth Chapter members saw value in the exploratory framework but believed it needed further iterations.

What the Oceania EcoHealth Chapter provides is a platform for integrating this diversity of knowledge and disciplinary perspectives within a common group to improve understandings around the human-environment relationship. Interviewing a
selection of Oceania EcoHealth members provided a process to identify how this PhD can offer valuable lessons in a local, regional and global context. In doing so, it recognises there are gaps in understandings of this research that will need to be considered beyond this PhD - identified in the recommendations in each research chapter.
8.3 Addressing the overarching research objectives and questions of the PhD

The three overarching research objectives of this PhD (below) are addressed within the research finding chapters. The documentation of perceived health and wellbeing benefits of caring for Country for three identified Victorian Traditional Custodian groups has been achieved through 4 peer-reviewed publications (Chapter 5, 6 and Appendix 2). The exploratory framework presented in Chapter 6 goes some way to addressing the overarching objective 2, however, there was recognition that more work was required. Chapter 7 indicates that this framework may not necessarily need to be captured in a single page framework but has global relevance, which addresses objective 3.

**Overarching objectives**

1. To document the perceived health and wellbeing benefits of caring for Country for the Boonwurrung, Bangerang and Yorta Yorta peoples
2. To develop an exploratory framework to represent the health and wellbeing effects of Aboriginal Victorian peoples’ human-environment relationship, focusing on connection to, and caring for, Country
3. To explore whether this framework can be refined and applied at a global scale

The thesis research questions (next page), which provided the basis for developing the exploratory framework and conducting the qualitative research, have been tackled throughout the PhD. For example, the health and wellbeing benefits of Country and the preventative upstream health benefits of caring for Country for Aboriginal Victorian peoples have been explored (Chapter 5 and 6). With development of the exploratory framework, a single interpretative model was provided (Chapter 6). It was hoped that such a framework, combined with the PhD’s implications and recommendations sections, could provide policy and research suggestions to assist in reducing Aboriginal health inequalities in Victoria (Chapter 5 and 6) and incorporate more Indigenous understandings of ecosystems and health appropriately (Chapter 7).
It must be noted that to appropriately tackle health inequalities for Aboriginal Victorian people it will require more action than research projects or initiatives solely focused on caring for Country. To undertake such a shift, collaborative processes are required across all disciplines. This is exactly the information that was considered in Chapter 7, when critiquing the framework and moving this discussion into a global context. Chapter 7 indicates to effectively undertake change, public health itself should incorporate human-environment relationship concepts into its ethos through transdisciplinary action that incorporates a diversity of ideas.

**Overarching questions**

1. How do Aboriginal Victorian people perceive contact with and caring for Country as impacting on their health and wellbeing?

2. What do the findings of this research suggest are the opportunities for using contact with Country as a preventative upstream health measure?

3. Can the data from these studies be accommodated within a single interpretative framework?

4. Can this framework be applied globally to promote ecohealth, health related policy and the human-environment relationship?
8.4 Implications

With the evidence base highlighting the importance of the human-environment relationship for Aboriginal Victorian peoples and the request to shift public health to more holistic models that understand diverse perspectives, the overall implication flowing from this research are two-fold:

**Implication 1:** There is an urgent need for increased investment in academic research, policy development and program strategies designed to facilitate Aboriginal Victorian peoples’ contact with and ability to care for Country.

**Implication 2:** Public health should attempt to move away from siloed approaches to incorporate holistic and Indigenous understandings of ecosystem approaches to health.

The framework developed could be utilised to stimulate discussions about caring for Country projects and research occurring in Victoria. Aboriginal Victorian communities hold a deep connection to their Country, but irrespective of background, all people have a part to play in the protection of plants, animals and ecosystems. Findings of this thesis could be used to promote collaboration between Aboriginal and Torres Strait Islander communities, government and non-government organisations to explain the health and wellbeing benefits of the human-environment relationship. As Oceania EcoHealth Chapter members recognised applying ‘ecosystem approaches to health’ is about combining the best of Western and Indigenous ecological and health knowledge.

By increasing the evidence-base around Aboriginal Victorian peoples’ connection to Country it is possible that this research may have broader public health implications. This incorporation could be facilitated by such groups as the Oceania EcoHealth Chapter that offer a pathway to better incorporation of diverse knowledge systems. A outcome of this PhD thesis is that it allows for a bridging mechanism for mainstream society to better understand Aboriginal Victorian communities. Flow on benefits from this may include:
Building a better understanding of Aboriginal Victorian peoples connection to Country and its impact on health and wellbeing;

Allowing for increased opportunities for Aboriginal Victorian people to work in the environment, health and policy sector; and

Proving the opportunity to not only engage Aboriginal Victorian communities in caring for Country but to educate the wider public about the importance of Country.

In reference to the benefits of including ecosystem approaches to health, as highlighted in Chapter 7, three equally important benefits may include:

Providing an approach that reduces disciplinary and cultural divides;

Strengthening public health outcomes by incorporation of ecosystem approaches to health; and

Integrating Indigenous ecological and health knowledge appropriately with Western understandings.

Although there may be a number of benefits generated from this PhD, on the flip side there may be future challenges that flow from this research. The future challenges that may flow from this research can be divided into four categories: theory; policy; practice and evaluation barriers.

8.4.1 Theory

A key challenge flowing from this research is the need for development and evolution of theories about the human-environment relationship. These theories need to take into account the diversity of human experience, including the wide range of circumstances and lifestyles not only of Aboriginal Victorian people but humanity more broadly. This can also be said for the large disciplinary and cultural divides in understandings of the human-environment relationship beyond this binary. This will necessitate collaborative thinking across a range of disciplines to provide a common language for articulating the human-environment relationship.
8.4.2 Policy
The policy implications and recommendations suggested in this thesis will face fundamental challenges when competing against other health policies that are vying for similar governmental funding. Aboriginal and ecosystem approaches to health need to stay on the radar when competing against other political issues. Climate change is a good example of this in Australia because without public support and government’s willingness to make change, these issues will be lost.

8.4.3 Practice
In terms of practice, three fundamental challenges need to be recognised and resolved:

♦ Aboriginal Victorian peoples’ connections to their Country must not be romanticised. Since colonisation, the Australian environment has changed and this will require Aboriginal people to be trained in some forms of land management techniques.

♦ On the flip side, Aboriginal Victorian communities should be respected for their diverse knowledge of Country that they have managed for thousands of generations.

♦ The public health sector needs to move beyond siloed approaches to tackling health using more holistic and transdisciplinary approaches.

8.4.4 Evaluation and monitoring
There are a number of challenges that may arise throughout the development of Aboriginal caring for Country and ecohealth projects. For example, what is measured requires clear and long timeframes that are negotiated between stakeholders from the beginning of projects. For example, these projects may require Aboriginal community control of the data, which will be a challenge for governments and other stakeholders who are interested in making them work before the community is ready.
8.5 Methodological Challenges

There were numerous methodological challenges I faced over this nine-year research project (explored in Chapter 4). This required clear objectives but nonetheless this still led to complexity because of the diversity of academic disciplines applying different approaches to this research field. I have included three significant challenges I faced when undertaking this research:

1. **The complexity of language.** When working with Aboriginal Victorian communities I recognise that language can be contestable influencing the research process. This was evident when applying terms like Traditional Custodian compared with Traditional Owner, or terms of recognition like Indigenous, Nation, Clan, Tribe or Elder. This sometimes left me, as a non-Indigenous PhD candidate, second-guessing myself in the research process that was made more confronting with various disciplines applying terms in this field differently. Even wording to explore the human-environment relationship was multifaceted when reviewing terms like nature, environment, landscape and wilderness. Through my exploration of this literature, it became evident that silos and fragmentation of different disciplines are evident - I believe this inadvertently would have impacted on my methodology. Specifically, how I perceived the world (epistemology) was always challenged over this period. I attempted to rectify this, in Chapter 1, by defining these terms and the complexity surrounding them from the outset.

2. **The structure of a Thesis by Publication.** This challenge was two-fold:
   a. I explained in Chapter 4 that once research is published it moves to a less negotiated space with the researcher holding more power. The Reference Committee attempted to assist me in this process but obviously by undertaking a Thesis by Publication my research may have been affected.
   b. Often discussion around methodology was brief in my publications due to the publisher’s requirement. This may have led to a less rigorous methodological exploration compared to a traditional thesis. I acknowledge that this may have limited the explanation of the
methodological depth of this research but recognise a Thesis by Publication has other benefits.

3. **Being non-Indigenous.** There were positives and negatives of being non-Indigenous when undertaking this research. I recognise I may hold certain bias when undertaking this research but on the other hand I am impartial to certain issues. I attempted to counter these issue through guidance from the Reference Committee and a cultural mentor. But even the Reference Committee may hold biases such as selecting certain participants for this study. I attempted to tackle this by writing a reflective journal to monitor how my epistemology may have shifted over this period. In Publication 3 I provide a reflection on how I overcome this early in my research.
8.6 Conclusion

Over the last nine years this iterative and reflective research project has come some way to exploring the health and wellbeing benefits of contact with and caring for Country for Aboriginal Victorian peoples. The jigsaw has come together through the completion of seven peer-reviewed publications, unpublished research, a blog piece and a thesis. The focus of this thesis by publication has been on: 1) Aboriginal Victorian peoples’ connection to Country to gain a better understanding of a collective group who has had a strong connection to their environment and 2) developing a mechanism to share this information globally. However, all humans have a stake in understanding the importance and protection of the environment and therefore a new approach is urged through mediums like the Oceania EcoHealth Chapter.

The fact that the Aboriginal and Torres Strait Islander people are suffering considerable health inequalities means this research is relevant. In Victoria, Aboriginal people have had to weather the storm of colonisation for a long period of time and still suffer discrimination due to their histories being unrecognised. Further, environmental issues like climate change and depletion of natural resources mean that all humans are living in a fragile environment where such insights are required.

This PhD has the potential to contribute broadly to public health and offers a mechanism to develop policy and research directions in Victoria. To ensure this occurs, this thesis reiterates the need for a greater collaborative process in policy, research and program development, in order to enhance the health of Aboriginal people. A fundamental message of this PhD is that as humans, we must start to understand better the human-environmental relationship. If we have no connection to our environment, we will no longer expect and demand the protection and attachment to it, which will have catastrophic health, wellbeing and ecological impact. What ecosystem approaches to health allow for is the public health sector to move in this direction to improve health and wellbeing outcomes within the local, regional and global context. Therefore, the thesis hopefully moves us a step closer to the realisation that “If the land is healthy… it makes the people healthy”.
Indian leaders object to environmentalists seeing the struggle of First Nations as a sort of surrogate wish-fulfilment of the new environmental age... the First Nations accuse environmentalists of being ‘shamanistic’ in the wrong sense of that term.

(Harries-Jones, 1995, p. 49)
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22 All published articles in thesis have their own reference lists. This reference list includes literature
within the thesis body, Appendix 2 and 5.


Arabena, K., & Kingsley, J. (In Press). Climate change: Impact on Country and Aboriginal and Torres Strait Islander culture. In R. Walker (Ed.), Climate change adaptation for health and human services. Canberra: CSIRO.


Cunningham, C. (2003). Indigenous by definition, experience, or world view links
between people, their land, and culture need to be acknowledged. *British Medical Journal*, 327, 403–404.


de la Barra, S.L., Redman, S., & Eades, S. (2009). Health research policy: A case study of policy change in Aboriginal and Torres Strait Islander health research. *Australia & New Zealand Health Policy, 6*(2). Retrieved from [http://www.anzhealthpolicy.com/content/6/1/2](http://www.anzhealthpolicy.com/content/6/1/2)


Morphy (Eds.), *Aboriginal religions in Australia* (p. 113). Hunts: Ashgate Publishing Limited.


Heinamaki, L. (2009). Rethinking the status of Indigenous peoples in international


Lane.


scale for the measurement of ecological attitudes and knowledge. *American Psychologist, 30,* 787–790.


Murphy, B. (2004). In search of the fourth dimension of health promotion: Guiding


NHMRC. (2003). *Values and ethics: Guidelines for ethical conduct in Aboriginal and Torres Strait Islander health research*. Canberra: Author.


NHMRC. (2010). *The NHMRC Road Map II: A strategic framework for improving the health of Aboriginal and Torres Strait Islander people through research*. Canberra: Author.


Sustaining plants and people: Traditional Q’eqchi’ Maya botanical knowledge and interactive spatial modeling in prioritizing conservation of medicinal plants for culturally relative holistic health promotion. *EcoHealth, 6*, 79–90.


(Eds.), *Understanding health: A determinants approach* (pp. 9–23). Melbourne: Oxford University Press.


Strang, V. (2003). An appropriate question?: The propriety of anthropological


Turner, N.J., & Clifton, H. (2009). “It’s so different today”: Climate change and


VicHealth. (2011). *Life is health is life: Taking action to close the gap: Victorian


Aboriginal identity comes, primarily, from the land: every person, at birth, becomes a member of a land-owning group – a clan – linked to particular country through ancestral connections: s/he has an individual spiritual ‘home’ (usually within or near to that clan country), and ties to other tracts of land through kin relationships... The attachment of specific groups to specific place is an immensely powerful basis for identity, because it is both immortal and unique, based on reproducing an ancestral past.

(Strang, 1997, p. 159).
## Appendix 1: Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2005-2007</strong></td>
<td>Masters by Research, University of Melbourne</td>
</tr>
<tr>
<td></td>
<td>♦ May, 2005: Masters scholarship offered</td>
</tr>
<tr>
<td></td>
<td>♦ July, 2005: Commenced Masters of Horticulture</td>
</tr>
<tr>
<td></td>
<td>♦ October, 2005: First Masters Reference Committee meeting</td>
</tr>
<tr>
<td></td>
<td>♦ October, 2005: Ethics submitted to the University of Melbourne Human Ethics Committee</td>
</tr>
<tr>
<td></td>
<td>♦ November, 2005: Research project approved by the Arts and Education Human Ethics Committee (Project code: HREC no. 050816 A&amp;E 3.445)</td>
</tr>
<tr>
<td></td>
<td>♦ December, 2005 – January, 2007: Data collection</td>
</tr>
<tr>
<td></td>
<td>♦ April, 2007: Submitted Masters by Research</td>
</tr>
<tr>
<td></td>
<td>♦ August, 2007: Received H1 for Masters by Research</td>
</tr>
<tr>
<td></td>
<td>♦ Published two peer-reviewed publications based on Masters Research in:</td>
</tr>
<tr>
<td></td>
<td>• Just Policy (2008)</td>
</tr>
<tr>
<td></td>
<td>• International Federation of Parks and Recreation Administration World Bulletin (2008)</td>
</tr>
<tr>
<td>2009 - current</td>
<td>PhD Thesis by Publication, Deakin University:</td>
</tr>
<tr>
<td></td>
<td>♦ December, 2008: Initially discussed undertaking a Thesis by Publication with principle supervisor (A/Prof Mardie Townsend)</td>
</tr>
<tr>
<td></td>
<td>♦ January, 2009: Submitted applications to Deakin University to undertake PhD</td>
</tr>
<tr>
<td></td>
<td>♦ March-December, 2009: PhD candidate went to the University of Cambridge as a Visiting Scholar to reanalyse data from Masters, develop a conceptual framework and extend understanding of the human-environment relationship</td>
</tr>
<tr>
<td></td>
<td>♦ May, 2009: Accepted into PhD program at Deakin University</td>
</tr>
<tr>
<td></td>
<td>♦ Published two peer-reviewed publications based on Masters research in:</td>
</tr>
<tr>
<td></td>
<td>• Australasian Journal of Environmental Management (2009)</td>
</tr>
<tr>
<td></td>
<td>• Health &amp; Place (2009)</td>
</tr>
<tr>
<td></td>
<td>♦ 2010: Ethics for Thesis by Publication supported by Deakin University Human Research Ethics Committee</td>
</tr>
<tr>
<td></td>
<td>♦ Published one peer-reviewed publications in:</td>
</tr>
<tr>
<td></td>
<td>• Qualitative Research Journal (2010)</td>
</tr>
<tr>
<td></td>
<td>♦ 2010, 2011 &amp; 2012: Regular progress reports submitted to Research Services outlining PhD progress to the examination services and school. In this period regular ethics reports and reviews were undertaken at Deakin University</td>
</tr>
<tr>
<td></td>
<td>♦ March, 2012: PhD confirmation report and presentation successful</td>
</tr>
<tr>
<td></td>
<td>• Published blog on the EcoHealth Student Section website (2012)</td>
</tr>
<tr>
<td></td>
<td>♦ November, 2013: Ethics submitted to Deakin Human Research Ethics Committee to collect further data</td>
</tr>
<tr>
<td></td>
<td>♦ December, 2013: Deakin Human Research Ethics Committee approves research (project number: H96_2013)</td>
</tr>
<tr>
<td></td>
<td>♦ December, 2013: Data collected at the Oceania EcoHealth Chapter Symposium</td>
</tr>
<tr>
<td></td>
<td>♦ Published one article and one book chapter in:</td>
</tr>
<tr>
<td></td>
<td>• International Journal of Environmental Research and Public Health (2013)</td>
</tr>
<tr>
<td></td>
<td>• Ecological Health: Society, Ecology and Health (2013)</td>
</tr>
<tr>
<td></td>
<td>♦ 2014: Submission of PhD by Publication thesis</td>
</tr>
</tbody>
</table>
Appendix 2: Publication 8

Citation

When appreciating the timeless nature of the Australian landscape, it is often forgotten that for over 50,000 years before any ‘bodies of the cattle’ lay, this ‘land of plenty’ was inhabited, managed and moulded by the Indigenous peoples of this country (Lourandos, 1997; Prestland, 1998; City of Monash, 2003). The stories that shaped the Indigenous people of Australia tell of the creation of the land, nature and its animals (Madjulla, 2004) and provided communication between ‘ancestors’ and the ‘natural world’ through forms including sacred names, dreaming stories, songs, dance and art (Vickery, et al., 2005). Isaacs (2005: 11) noted that although such ‘Aboriginal oral traditions which describe the origins of Australia from ancient times are frequently dramatic, involving great beings and amazing events, they do contain the essence of the truth’.

The relationship that the Indigenous peoples of Australia hold to Country is central to their existence and belonging (Sinatra and Murphy, 1999; Vickery et al., 2004; Yalmambirra, 2005). When reflecting on the landscape of Australia, the Indigenous narratives of the land have been shown to have equal or greater significance to the identity of this country than the words of famous poets, such as Banjo Paterson because of their close and long historical relationship with it. This hunter-gatherer society changed dramatically after 1788 with the arrival of the first European settlement and with it the catastrophic colonial actions which included dispossession, oppression, disease, massacres and cultural genocide practices such as the forced removal of Aboriginal children and the prohibition of practicing language and ceremonies (Mekendrick, 2000; Tickner, 2001; Reynolds, 2003; Trudgen, 2003; Alford and Mui, 2004; Russell, 2005). Brown (2001: 35) acknowledged that the ‘Aboriginal peoples’ life journey has been fraught with many crises such as loss of identity, of culture, of land, of social structure, of hunting grounds, of citizenship and of language’.

The colonial concept which has had the greatest impact on the Indigenous Australian population was that of Terra Nullius - a land belonging to no one (Reynolds, 2003). This loss of land and dispossession broke the spirits of many Indigenous people whose connection to land was fundamental to survival (Hetzel, 2000; Russell, 2005). Although in the past century the health status of Australia’s population has improved, many researchers describe the health of its Indigenous population as disgraceful (Brown, 2001; Casse, 2003; Roxbee and Wallace, 2003; Burgers, et al., 2005). It is embarrassing that past and current governments and the public health sector have let poverty and disadvantage run rampant in Aboriginal communities. Efforts must be made to understand the oldest culture of Australia and its connections to land to bridge this gap.

This project, thus, explored the health benefits of Country and contact with nature for three Victorian Indigenous groups (one urban and two rural) to study if the negative impressions created by earlier colonial actions and current policies can be improved through land management programs. Although research indicates that land is central to the identity and, therefore, contributes significantly to the health and wellbeing of Indigenous people in Victoria (Kaplan, 1983; Ulrich, 1986; Frankish, 2003), it is not clear to what extent actual involvement in land management would benefit the health and wellbeing of Indigenous Victorian communities and decrease the health disparities that exist within society (Vickery et al., 2004). As a result, this study was undertaken to better understand the health and wellbeing benefits of culturally appropriate Indigenous land management.

Methodology
Qualitative methodology was used to collect data because it offered a greater insight into an individual’s understanding, meaning, and experiences, thus providing for the building of a story around the studied topic (Berglund, 2001; Wird and Holman, 2001; Alschuler et al., 2004). No matter the methodology, Indigenous research involves strict guidelines to ensure that ethical frameworks are achieved between the researcher and Aboriginal peoples (AIATSIS, 2000; Henderson et al., 2002). These guidelines have been enforced because of the ‘negative experiences’ Indigenous Australian communities have generally had towards research in the past, (Henderson et al., 2002; Henry et al., 2004). Thus, this research, although written from a non-Indigenous point of view, aims to reduce bias by maintaining neutrality and so provide a better understanding of this topic.
The Indigenous groups chosen for this study were selected after consultation with Indigenous individuals and government organizations. From the possible thirty two Indigenous Traditional Owner groups around Victoria, three were initially selected. The reference group comprised representatives of Indigenous government bodies and Traditional Owners of these communities. This group guided the researcher to understand Indigenous communities' expectations and to build positive partnerships which would benefit the community while ensuring that cultural and social needs were respected (NHRMC, 2003). The reference meetings were held prior to the submission of the ethics proposal, half way through the project (on an individual face - to - face basis), and after the final submission to give appropriate community feedback, build relationships and to promote trust and respect.

Thirteen informants participated in the first phase of the study that involved semi - structured interviews. The second phase involved a focus group with six Indigenous government employees from Parks Victoria and the Department of Sustainability and Environment. The questions asked in the interviews and focus group revolved around the project aims which were to provide a better understanding of the health and spiritual benefits of land and land management projects to Victorian Indigenous people in a field where currently few existing studies have assessed this relationship. The intention was to identify the social determinants of health, and the political, economic and cultural factors that impede or facilitate the development of land management projects in the three Victorian Indigenous groups being studied. It was also intended that the study would contribute to the development of recommendations that would enhance health and environmental policy, particularly in regard to Indigenous people and their future aspirations.

Summary of Findings

This study identified that contact with Country ultimately improved the health and social, emotional and spiritual wellbeing of the Indigenous Victorian people. Informants highlighted that contact with nature and access to traditional land increased self - esteem and self - identity through maintaining cultural connection and knowledge of the landscape in an enjoyable and comfortable environment. Other participants noted that having the ability to care for Country and practice culture on their traditional lands had positive spin - off effects for the community as a whole.

Informants mentioned a number of distinct political, social, socio - economic and cultural factors that need to be considered when developing land management projects. Participants specifically described nine factors impacting on the ability to establish land management projects in Victoria.

These were:
1. Political barriers (Indigenous and non - Indigenous);
2. Access, development and recognition of land;
3. Health issues;
4. Cultural loss;
5. Racism and lack of recognition of culture;
6. Socio - economic determinants;
7. Colonialism;
8. Destruction of the natural environment; and
9. Native Title.

Participants highlighted that a greater involvement in these projects would occur through increased community consultation, respect, training, consistency, resources and employment opportunities. These benefits could only occur if there was an understanding that all Indigenous groups are different, and, therefore, there should not be projects for the whole state but rather projects tailored to the needs of individual Traditional Custodian groups.

Indigenous government employees and policy makers identified a number of examples that show the dilemma when trying to develop caring for Country and land management projects. Factors that would facilitate nature - based projects are community capacity, relationships, consultation, transparency, consistency, education and training between Indigenous communities, government and the general public. Government agencies need to work towards developing strategies where partnership and collaboration are effective with Indigenous communities. They also need to resolve issues about duplication of information and set up a consultation process between themselves so they work together to improve Indigenous health and wellbeing. There is a need to reduce the burden on Aboriginal communities being asked the same questions by different agencies.

Discussion

The fact that the Indigenous Australian population is currently suffering health burdens equivalent to a third world country means this research is timely, relevant and important. This study adds another layer of understanding of the Indigenous people's connection to this country which mainstream society, in most cases, still fails to comprehend.

This research demonstrated that caring for Country and contact with the natural environment offers great potential to improve Indigenous individuals' and community health, including social and emotional wellbeing. Country offers an outlet to reduce stress from daily pressures, being described somewhat like a utopian sanctuary, where relaxation, pride, identity and an innate connection back to culture and ancestry can be met. However, developing land management projects are complex and a number of political, economic, social and cultural determinants inhibit programs from progressing. Strategies and programs that target increased participation in land management projects must consider building capacity, relationships, partnerships, consultation, consistency, education, training and collaboration between the Indigenous and non - Indigenous population.

Caring for Country may be a key way of improving the Indigenous population's health in Australia, and, therefore, policy makers should be focusing on such initiatives as facilitators of health. Further research into what communities specifically want from their Indigenous nature - based projects would only enhance this idea, and government agencies and not - for - profit organizations should look laterally at developing such projects from the ground up as a positive health strategy. As the main aim with these projects is to empower the people they target, the initiatives need to be understood by all parties involved.

A number of implications flow from this research. Firstly, there is a need for further research into Victorian Indigenous peoples' views of nature and caring for 'Country' projects that communities want to develop. Such research would be enhanced by Indigenous researchers (preferably young Indigenous people who are Traditional Custodians of that place) being trained to gather relevant, community controlled-owned and culturally appropriate information. Research initiatives with comparable aims and methods would empower individuals and communities, gain more accurate knowledge and create a better understanding of the needs of the communities. A research project using a similar or exact model would be significantly enhanced if it were recognized as part of a certificate, course, or university degree for those individuals who choose to participate in gathering data, thus increasing their knowledge, academic skills and qualifications. The information generated would allow for greater access and participation in land management projects for Indigenous communities in Victoria, thereby improving the health of their population. And finally, providing opportunities for such projects to be opened to the general public would enable reciprocity and reconciliation via the enhancement of education of non - Indigenous people.

References can be sourced from the Editors.
## Appendix 3: Journal, book and website details

<table>
<thead>
<tr>
<th>Journal, book or website title</th>
<th>Information</th>
</tr>
</thead>
</table>
| **Australasian Journal of Environmental Management**               | ♦ This is the publishing wing of the Environment Institute of Australia and New Zealand, where articles focus on natural resource and environmental management topics. The journal aims to improve environmental practice.  
♦ Taylor & Francis Group publishes this peer-reviewed journal.  
♦ www.tandf.co.uk/journals/TJEM                                                                                                                                                                                                                                                                 |
| **EcoHealth Student Section**                                     | ♦ This is the student wing of the International Association for Ecology and Health (also known as the EcoHealth Association). The Association also has a quarterly peer-reviewed journal and biennial conference to promote collaboration.  
♦ The blog piece aimed to spark conversation prior to the EcoHealth2012 conference in China.  
♦ http://ecohealthstudentsection.weebly.com/                                                                                                                                                                                                                                      |
| **Health & Place**                                                 | ♦ This an ‘interdisciplinary journal dedicated to the study of all aspects of health and health care in which place or location matters’, bringing researchers together from the fields of geography, sociology, social policy and public health.  
♦ Elsevier publishes this peer-reviewed journal.  
♦ www.journals.elsevier.com/health-and-place/                       |
| **International Federation of Parks and Recreation Administration World Bulletin** | ♦ This bulletin represents the publishing side of a peak international parks, recreation, amenity and leisure organisation. The organisation represents over 50 countries in a nonpartisan manner.  
♦ www.ifpra.org/                                                                                                                                                                                                                                                                                          |
| **International Journal of Environmental Research and Public Health** | ♦ This peer-reviewed open access journal is in the interdisciplinary and broad area of public health and environmental research.  
♦ www.mdpi.com/journal/ijerph                                                                                                                                                                                                                                                                         |
| **Just Policy**                                                    | ♦ This social policy journal was part of the publishing wing of the Victorian Council of Social Services, but ceased publication in 2009. *Just Policy* was published for over 15 years prior to this.  
| **Qualitative Research Journal**                                  | ♦ This journal is ‘devoted to the communication of the theory and practice of qualitative research in the human sciences’. This journal is in its thirteenth year under RMIT Publishing.  
♦ www.aqr.org.au/journals.html                                                                                                                                                                                                                                                                          |
| **Ecological health: Society, ecology and health**                | ♦ This book is Volume 15 of the *Advances in Medical Sociology Series*. Volume 15 focuses on sociological analysis of the links between society, earth systems and health in the area of social science.  
♦ www.emeraldinsight.com/products/books/series.htm?id=1057-6290                                                                                                                        |
Appendix 4: Signed authors contributions

The following appendix includes the declaration of contribution by authors of the eight publications in this thesis. Articles have been placed in order of date.
Declaration for author contributions

Paper Number: 1


Declaration by candidate

In the case of paper 1 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the first author I developed the study design, collected, transcribed and analysed the data, conducted a literature reviews, and developed implications flowing from this research as part of a minor thesis. I was the main contact person and editor of the first and final submission of this article as the corresponding author with the journal (providing major contributor in addressing reviewers comments).</td>
<td>85%</td>
</tr>
</tbody>
</table>

The following co-authors contributed to the work and the nature of their contribution is as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/Professor David Aldous</td>
<td>The main supervisor of the minor thesis contributed feedback on study and design of article, providing editorial advice on reviewers feedback</td>
<td>7.5%</td>
</tr>
<tr>
<td>A/Professor Mardie Townsend</td>
<td>The co-supervisor of this minor thesis project and provided editorial advice</td>
<td>5%</td>
</tr>
<tr>
<td>Rebecca Phillips</td>
<td>Provided assistance in terms of cultural awareness of Aboriginal Victorian issues</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Candidate’s Signature

Date: 03/06/13

Signature Redacted by Library
**Declaration by co-authors**

The undersigned hereby certify that:

1. the above declaration correctly reflects that nature and extent of the candidate’s contribution to this work, and the nature of the contribution of the co-authors;

2. they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

3. they take public responsibility for their part of the publication, except for the responsible authors who accepts overall responsibility for the publication;

4. there are no other authors of the publication according to these criteria;

5. potential conflicts of interest have been disclosed to (a) grant bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit.

<table>
<thead>
<tr>
<th>Co-authors</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Signature Redacted by Library</td>
<td>04/06/13</td>
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<tr>
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<td>Signature Redacted by Library</td>
<td>03/06/13</td>
</tr>
<tr>
<td></td>
<td>Signature Redacted by Library</td>
<td>07/10/14</td>
</tr>
</tbody>
</table>
Declaration for author contributions

Paper Number: 2


Declaration by candidate

In the case of paper 2 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was the sole author of this piece that was an overview of a minor thesis.</td>
<td>95%</td>
</tr>
</tbody>
</table>

Although the candidate is the sole author of this paper this piece developed from a minor thesis and therefore 5% of the contribution has come from the main Supervisor of this project A/Professor David Aldous who also edited this piece.

Candidate’s Signature

Signature Redacted by Library

Date: 03/06/13
Declaration for author contributions

Paper Number: 3


Declaration by candidate

In the case of paper 3 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the main author I critiqued the literature, collected the data and analysed it providing the structure and conclusion of this article; I was the main editor of all three drafts of this piece and the corresponding author with the journal.</td>
<td>80.5%</td>
</tr>
</tbody>
</table>

The following co-authors contributed to the work and the nature of their contribution is as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/Professor David Aldous</td>
<td>As the second author David provided support, advice and feedback on the journal piece its design and subsequent feedback</td>
<td>10%</td>
</tr>
<tr>
<td>A/Professor Mardie Townsend</td>
<td>As the third author Mardie provided a critical academic eye to this issue on drafting and study design</td>
<td>5%</td>
</tr>
<tr>
<td>Rebecca Phillips</td>
<td>As the fourth author Rebecca provided cultural insight into this topic</td>
<td>2.5%</td>
</tr>
<tr>
<td>Dr Claire Henderson-Wilson</td>
<td>Provided advice and drafted the article</td>
<td>2%</td>
</tr>
</tbody>
</table>
### Declaration by co-authors

The undersigned hereby certify that:

1. the above declaration correctly reflects that nature and extent of the candidate’s contribution to this work, and the nature of the contribution of the co-authors;

2. they meet the criteria for authorship in that they have the participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

3. they take public responsibility for their part of the publication, except for the responsible authors who accepts overall responsibility for the publication;

4. there are no other authors of the publication according to these criteria;

5. potential conflicts of interest have been disclosed to (a) grant bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit.

<table>
<thead>
<tr>
<th>Co-authors</th>
<th>Signature</th>
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<tr>
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<td>03/06/13</td>
</tr>
</tbody>
</table>
Declaration for author contributions

Paper Number: 4


Declaration by candidate

In the case of paper 4 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the lead author I lead the research project including collection of data and literature, analysis of results and interpretation and dissemination of results; I was the main contributor to the 4 reviews of this piece as the corresponding author.</td>
<td>82.5%</td>
</tr>
</tbody>
</table>

The following co-authors contributed to the work and the nature of their contribution is as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/Professor Mardie Townsend</td>
<td>As a specialist in health and nature issues Mardie provided great insight into the re-drafting and formulation of this study throughout this paper’s development</td>
<td>10%</td>
</tr>
<tr>
<td>A/Professor David Aldous</td>
<td>David provide support and critical editorial advice throughout the development of this paper</td>
<td>5%</td>
</tr>
<tr>
<td>Rebecca Phillips</td>
<td>Rebecca provided advice on cultural issues in this paper on the first and final draft</td>
<td>2.5%</td>
</tr>
</tbody>
</table>
Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects that nature and extent of the candidate’s contribution to this work, and the nature of the contribution of the co-authors;

(2) they meet the criteria for authorship in that they have the participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible authors who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) grant bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit.
Declaration for author contributions

Paper Number: 5


Declaration by candidate

In the case of paper 5 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
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<tbody>
<tr>
<td>This was an excerpt from my minor thesis methods section and also included a personal</td>
<td>80%</td>
</tr>
<tr>
<td>reflection from myself; I was the corresponding author to the journal and major editor</td>
<td></td>
</tr>
<tr>
<td>of reviews feedback.</td>
<td></td>
</tr>
</tbody>
</table>

The following co-authors contributed to the work and the nature of their contribution is as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebecca Phillips</td>
<td>Rebecca contributed heavily to the editing of this section and provided a reflection</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>on the research process</td>
<td></td>
</tr>
<tr>
<td>A/Professor Mardie</td>
<td>Mardie provided feedback on the 2 reviews of this paper</td>
<td>5%</td>
</tr>
<tr>
<td>Townsend</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr Claire Henderson-Wilson</td>
<td>Claire provided editorial assistance and support on how to publish this article on</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>2 reviews</td>
<td></td>
</tr>
</tbody>
</table>

Candidate’s Signature

Date: 03/06/13

Signature Redacted by Library
Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects that nature and extent of the candidate’s contribution to this work, and the nature of the contribution of the co-authors;

(2) they meet the criteria for authorship in that they have the participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible authors who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) grant bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit.

<table>
<thead>
<tr>
<th>Co-authors</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>[Redacted]</td>
<td>07/10/14</td>
</tr>
<tr>
<td>Signature</td>
<td>[Redacted]</td>
<td>03/06/13</td>
</tr>
<tr>
<td>Signature</td>
<td>[Redacted]</td>
<td>03/06/13</td>
</tr>
</tbody>
</table>
Declaration for author contributions

Paper Number: 6


Declaration by candidate

In the case of paper 6 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As this was a personal story on my journey of working in Aboriginal health as an ethnographer I was the sole author and as I was the corresponding author there was no other authors include</td>
<td>95%</td>
</tr>
</tbody>
</table>

Although the candidate is the sole author of this piece it was also edited and conceptually supported by Dr Claire Henderson-Wilson and A/Professor Mardie Townsend.

Candidate’s Signature

Date: 03/06/13

Signature Redacted by Library
School of Health and Social Development, Deakin University
Thesis by Publication

Declaration for author contributions

Paper Number: 7

Declaration by candidate

In the case of paper 7 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the first author I collected all the literature and the case study which was based on my research findings from previous articles, I was the corresponding author with the journal and made most of the editorial changes</td>
<td>82.5%</td>
</tr>
</tbody>
</table>

The following co-authors contributed to the work and the nature of their contribution is as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/Professor Mardie Townsend</td>
<td>Over three years Mardie offered advice on how to strengthen this piece, editing the article twice and providing feedback</td>
<td>7.5%</td>
</tr>
<tr>
<td>Dr Claire Henderson-Wilson</td>
<td>Over the same period Claire edited the article a number of times and contributed editorial advice.</td>
<td>7.5%</td>
</tr>
<tr>
<td>Dr Bruce Bolam</td>
<td>Considerably assisted in the conceptualisation of the model and structure of this article and reviewed revisions</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Candidate’s Signature

Date: 03/06/13
**Declaration by co-authors**

The undersigned hereby certify that:

1. the above declaration correctly reflects that nature and extent of the candidate’s contribution to this work, and the nature of the contribution of the co-authors;
2. they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
3. they take public responsibility for their part of the publication, except for the responsible authors who accepts overall responsibility for the publication;
4. there are no other authors of the publication according to these criteria;
5. potential conflicts of interest have been disclosed to (a) grant bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit.

<table>
<thead>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Co-authors</th>
<th>Signature</th>
<th>Date: 03/06/13</th>
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<tbody>
<tr>
<td>Signature</td>
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</table>

<table>
<thead>
<tr>
<th>Co-authors</th>
<th>Signature</th>
<th>Date: 06/06/13</th>
</tr>
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<tbody>
<tr>
<td>Signature</td>
<td>Redacted</td>
<td></td>
</tr>
</tbody>
</table>
Declaration for author contributions

Paper Number: 8


Declaration by candidate

In the case of paper 8 the nature and extent of my contribution to the work was the following:

<table>
<thead>
<tr>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected the literature in which this article is based, developed structure of article and was the corresponding author with the reviewer providing a lead in the editing period</td>
<td>85%</td>
</tr>
</tbody>
</table>

The following co-authors contributed to the work and the nature of their contribution is as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of Contribution</th>
<th>Extent of contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/Professor Mardie Townsend</td>
<td>Over the three reviews and prior to this provided theoretical understanding of input into these piece</td>
<td>7.5%</td>
</tr>
<tr>
<td>Dr Claire Henderson-Wilson</td>
<td>Over the three years of developing this piece Claire provided feedback and edited this piece a number of times</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

Candidate’s Signature

Signature Redacted by Library

Date: 03/06/13

Declaration by co-authors

The undersigned hereby certify that:
(1) the above declaration correctly reflects that nature and extent of the
candidate’s contribution to this work, and the nature of the contribution of the
co-authors;

(2) they meet the criteria for authorship in that they have the participated in the
conception, execution, or interpretation, of at least that part of the publication
in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the
responsible authors who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) grant bodies, (b) the
editor or publisher of journals or other publications, and (c) the head of the
responsible academic unit.

<table>
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</tr>
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<tr>
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</table>

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<tr>
<th>Co-Authors</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Signature Redacted by Library</td>
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</tbody>
</table>
Appendix 5: Recent evidence supporting human-environment theories

This table provides a snapshot of new human-environment relationship theory literature available from evidence-based, empirical and theoretical perspectives based on the theories explored in Chapter 2.

<table>
<thead>
<tr>
<th>Nature-based theory</th>
<th>Health and wellbeing benefits of contact with nature based on anecdotal (A), theoretical (T) and empirical (E) evidence</th>
<th>Type of evidence</th>
</tr>
</thead>
</table>
| Biophilia           | ♦ Children’s physical and psychological development is enhanced through contact with nature because of its intrinsic value (Kahn et al., 2009).  
♦ Due to the historical roots in healing, water has clear health and wellbeing benefits to humans (Volker & Kistemann, 2011).  
♦ Humans may not be able to adapt quickly enough from our biophilic connection with nature to urbanisation, causing increased morbidity and mortality rates (Nisbet et al., 2011).  
♦ People experience a deep emotional attachment and sense of physical appeal in relation to trees that is connected to biophilia (Delavari-Edalat & Abdi, 2009; Donovan et al., 2011).  
♦ Some researchers have challenged the belief that biophilia is innate, suggesting that the connection to nature is a learnt characteristic (Simaika & Samways, 2010). | A    | T    | E    |
| Solastalgia         | ♦ Aboriginal women acknowledged that the impacts of climate change on Country leads to sadness, fear and distress (McNamara & Westoby, 2011).  
♦ Increased dryland salinity and environmental degradation has been associated with increased risks of a number co-morbidities and psychological disorders for rural Australian communities (Speldewinde et al., 2009; 2011).  
♦ Chronic environmental adversity causes psychological distress in rural and remote Australian communities (Stain et al., 2011).  
♦ Environmental damage in the Australian desert due to climate change will cause health problems, incidence of disease/infection and psychosocial problems for Aboriginal and other people living in | A    | T    |     |
## Nature-based theory

<table>
<thead>
<tr>
<th>Health and wellbeing benefits of contact with nature based on anecdotal (A), theoretical (T) and empirical (E) evidence</th>
<th>Type of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>this region (Campbell et al., 2008).</td>
<td></td>
</tr>
<tr>
<td><strong>Sense of place/place attachment</strong></td>
<td>A T E</td>
</tr>
<tr>
<td>♦ Prior experience in a specific natural locality increases place identity and concerns/sensitivity about its management (White et al., 2008).</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>♦ Natural places have the ability to be restorative and health promoting as well as increasing pro-environmental behaviour, but there are a number of barriers in accessing such spaces (Hansen-Ketchum et al., 2011).</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>♦ The natural aesthetics of a place influence place meaning and why people choose to undertake recreational activity and engage nature as a sanctuary (Spartz &amp; Shaw, 2011).</td>
<td>✓ ✓</td>
</tr>
<tr>
<td><strong>Topophilia</strong></td>
<td>A T E</td>
</tr>
<tr>
<td>♦ There is a strong association between ecological diversity and the love of a place, with preference given to natural places over built environments (Ogunseitan, 2005).</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td><strong>Ngurra</strong></td>
<td>A T E</td>
</tr>
<tr>
<td>♦ Ngurra-Kurlu strengthens community-based land management projects and explains the complexity of Aboriginal social-ecological systems (Homles &amp; Jampijinpa, 2013)</td>
<td>✓ ✓ ✓</td>
</tr>
</tbody>
</table>
## Appendix 6: Coding page

<table>
<thead>
<tr>
<th>Theme</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health and wellbeing benefits of contact with nature</strong></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Emotional feelings</td>
<td>A:1</td>
<td>Participants feelings when in nature (e.g. relaxation, de-stressing)</td>
</tr>
</tbody>
</table>
| Biophilia hypothesis                            | A:2  | (a) Stories linking Indigenous background with natural connection to land and spiritual forces.  
(b) Description of culture and connection with land |
<p>| Spirituality and healing                        | A:3  | Spiritual and healing effects of being in nature, land and on ‘Country’    |
| Nutrition and medicine                          | A:4  | Knowledge of bush foods, traditional diet, medicinal plants                |
| Pride/ sovereignty/identity                      | A:5  | A pride to be Indigenous and caring for ‘Country’ as the Custodial Owners. |
| Improving Indigenous health status               | A:6  | The perceived way Indigenous people feel when they are out in the bush and projects on ‘Country’ |
| Negative health and wellbeing impacts           | A:7  | Negative impacts of destruction of environment/ Native Title and boundary issues/ dispossession of land to Indigenous people in Victoria |
| <strong>Social factors and barriers in setting up nature based projects</strong> | B    |                                                                             |
| Politics                                        | B:1  | (a) Indigenous politics                                                   |
|                                                |      | (b) Non-Indigenous politics (i.e. government)                              |
| Land                                           | B:2  | Access to traditional land and nature based project on ‘Country’           |
| Health problems/loss of culture                 | B:3  | Because of the health issues there is a loss in cultural knowledge.         |
| Cultural Identity                               | B:4  | Sometimes not strong and youth disenfranchised                             |
| Recognition of culture/racism                   | B:5  | The real history of this country being taught and racism occurring          |
| Colonisation                                    | B:7  | The histories effects on setting up projects on ‘Country’                  |
| Destruction of Environment                      | B:8  | How Western Development has affected Indigenous Victorian communities       |
| Native Title                                    | B:9  | The effect Native Title has had on Indigenous Victorian communities        |
| <strong>Indigenous perception of how nature based</strong>    | C    |                                                                             |</p>
<table>
<thead>
<tr>
<th>projects should be run</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects</td>
<td>C:1</td>
<td>Projects already set up (in national parks and rangers)</td>
</tr>
<tr>
<td>Cultural difference</td>
<td>C:2</td>
<td>What are the cultural differences and how can they be improved plus difference between Indigenous and Western science- conflict.</td>
</tr>
<tr>
<td>Factors</td>
<td>C:3</td>
<td>Factors that need to be taken into consideration when doing projects: resources, training and support.</td>
</tr>
<tr>
<td>Project vision</td>
<td>C:4</td>
<td>Where Indigenous people want to see projects going?</td>
</tr>
<tr>
<td>Future aspirations</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Recognition</td>
<td>D:1</td>
<td>Cultural recognition</td>
</tr>
<tr>
<td>Youth</td>
<td>D:2</td>
<td>Improving the current situation for the youth</td>
</tr>
<tr>
<td>Environment</td>
<td>D:3</td>
<td>The way Indigenous people want to see the environment</td>
</tr>
</tbody>
</table>
Appendix 7: Letter to reference committee

My name is Jonathan ‘Yotti’ Kingsley and I am currently completing a Masters in Horticulture degree in the School of Resource Management at The University of Melbourne-Burnley. The aim of this study focuses on designing a culturally appropriate tool to measure the health and wellbeing benefits associated with land management to Koori people in Victoria and to put an economic value on these benefits. The attached paper provides further details of the project.

This research will be guided by;
1. Assoc. Prof. David Aldous, School of Resource Management, Institute of Land and Food Resources, The University of Melbourne,
2. Dr Mardie Townsend, Senior Lecturer, School of Health and Social Development, Deakin University, and
3. John Belling, Koori Liaison Officer, Institute of Land and Food Resources, The University of Melbourne.

I would like to invite you and your community or organisation to participate in this study by agreeing to be personally part of a Koori reference team. The team will be the guides in my research to understand where the Koori community wants this project to go and build a strong and positive partnership. The reason I am organising this team is to develop a relationship, which will benefit the Koori community to ensure that their cultural and social needs are recognised. The meetings planned will run for approximately one and a half hours and will occur three times. The first meeting needs to be run prior to the submission of our proposal to an ethics committee in October 2005, half way through the project (July–August, 2006) and after the final submission (March, 2007) to give the community feedback.
The information that will be gathered for my research will be used in developing my thesis, which maybe published later. I would be happy for you to receive a summary of my findings and should you so require, a copy of my thesis.

Please be advised that the participation on this reference group is completely voluntary. Should you wish to withdraw at any stage, or to withdraw any unprocessed data you have supplied you are free to do so without prejudice. Should you wish to participate please contact myself at The University of Melbourne University on (03) 9250 6874 or through email j.kingsley2@pgrad.unimelb.edu.au by the 3rd of October 2005.

Should you require any further information, or have any concerns please do not hesitate to contact Assoc. Prof. David Aldous on 9250 6800.

Thank you for your time and I hope to hear from you soon,

Jonathan ‘Yotti’ Kingsley
Masters candidate
Appendix 8: Plain language statement

Designing a Culturally Appropriate Tool to Measure Health and Wellbeing Benefits of Land Management for East Kulin and Yorta Yorta People in Victoria

Dear

My name is Jonathan ‘Yotti’ Kingsley and I am currently completing a Masters in Horticulture degree in the School of Resource Management at The University of Melbourne-Burnley. The aim of this study focuses on designing a culturally appropriate tool to measure the health and wellbeing benefits associated with land management to Indigenous people in Victoria and to put an economic value on these benefits.

This research will be guided by:

1. Assoc. Prof. David Aldous, School of Resource Management, Faculty of Land and Food Resources, The University of Melbourne,
2. Dr Mardie Townsend, Senior Lecturer, School of Health and Social Development, Deakin University, and
3. John Belling, Koori Liaison Officer, Faculty of Land and Food Resources, The University of Melbourne.

I would like to invite you to participate in this study by agreeing to be personally interviewed by me. The interview will take approximately 60 minutes of your time and will be conducted at a convenient location for you. The interview is unlikely to bring up any personal issues that put you at risk of emotional harm. I wish to audio tape the interview, with your consent, if you do not wish this I will hand write all interview information. Interview questions will focus on the health and wellbeing benefits of land management, how to improve land management projects, how to measure the health and wellbeing benefits of land management and what factors need to be taken into account when working with the Indigenous communities in focus.
You will have the opportunity to review the transcript and request information that may identify you be altered.

Information that will be gathered from these interviews will be kept confidential and will be securely stored for a period of 6 years at The University of Melbourne from the date of publication. Your name will not be identifiable in the write up of this paper and your answers will be stored separately from your name with only my supervisors and I having access to this information. The information that will be gathered for my research will be used in developing my thesis, which maybe published later. I would be happy for you to receive a summary of my findings and should you so require, a copy of my thesis.

Please be advised that the participation on this interview is completely voluntary. Should you wish to withdraw at any stage, or to withdraw any unprocessed data you have supplied you are free to do so without prejudice. Should you wish to participate please contact myself at The University of Melbourne on (03) 9250 6874 or through email j.kingsley2@pgrad.unimelb.edu.au by the 3rd of October 2005. Should you require any further information, or have any concerns please do not hesitate to contact Assoc. Prof. David Aldous on 9250 6800 or daldous@unimelb.edu.au or Dr Mardie Townsend on 9251 7278 or mardie.townsend@deakin.edu.au

Thank you for your time,

Jonathan ‘Yotti’ Kingsley
Masters candidate

HREC Project number ____________________
Date and version of the Plain Language statement ____________________

If you are concerned about the conduct of this research project you can contact the Executive Officer, Human Research Ethics, The University of Melbourne, ph: 8344 2073; Fax 9347 6739.
Appendix 9: Consent form

CONSENT FORM

Designing a Cultural Appropriate Tool to Measure Health and Wellbeing Benefits of Land Management for East Kulin and Yorta Yorta People in Victoria

I hereby consent to be a subject of a human research to be undertaken by Jonathan "Yoti" Kingsley where I understand that the purpose of the research is to study the health and wellbeing benefits associated with a Land Management project for Indigenous People in Victoria.

I acknowledge that:

1. The aims, methods, anticipated benefits and possible hazards of the research study have been explained to me.

2. I voluntarily and freely give my consent to participation in such a research study.

3. I have read the Plain Language Statement and agree to what is outlined within the statement.

4. Individual results will not released to any person except at my request and on my authorisation.

5. I am free to withdraw my consent at any time during the study, in which event my participation in the research study will immediately cease and any information obtained from me will not be used.

6. I understand that the interview I am undertaking may be audio-taped.

7. I am satisfied that the confidentiality of the information provided will be safeguarded subject to any legal limitations.

8. Once signed and returned the form will be retained by the researcher.

Signature: ................................. Date: ................................

NOTE: In the event of the consent of a minor or person under legal liability, please complete the Consent On behalf of a Minor or Dependent Person Form.
Appendix 10: ‘Confusion’ matrix

Quality control in qualitative data analysis – measuring inter-rater agreement

‘Confusion’ matrix (source: Robson C 1993, Real world research, Blackwell, Oxford)

1. Coder 1 provides a list of codes with inclusion and exclusion criteria.
2. Coder 1 blocks the text that contains one or more responses for coding (indicate the number of responses in the block of text for coding BUT NOT the coding category) – you will need 2 copies of the blocked text.
3. Coders 1 and 2 independently code the marked sections of text.
4. Use pooled results and the matrix below (modified if necessary for the number of coding categories) to calculate the proportion of agreement.
5. Proportion of agreement = (no. of agreements)/(total number of coded items)
6. Proportion of agreement: 0.40 – 0.60: Fair; 0.60 – 0.75: Good; Above 0.75: Excellent

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
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</tbody>
</table>

Total no. of coded items =
Appendix 11: Old framework